INFLUENCE OF WORKPLACE TECHNOLOGY ON SELECTED WORK VARIABLES IN NESTLE SOCIETE ANONYME AND NIGERIA BREWERY PLC., LAGOS, NIGERIA

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Dedication

This thesis is dedicated to God Almighty; my wife: Olufunmilayo ADENIYIand my son: OlasubomiADENIYI.

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Abstract

Globally, workplace technology, the utilisation of equipment in organisations to execute tasks to increase productivity and efficiency, has led to exponential revolution in work processes and has tremendously enhanced organisational productivity. In Nigeria, particularly in food and beverage industry, technology has brought innovations with implications for work variables. Previous studies on workplace technology have focused on organisational productivity. However, scanty attention has been paid to the influence of workplace technology, especially on job satisfaction and commitment. This study investigated the levels of technology across workplace units and their influence on job skill, alienation, satisfaction and commitment in Nestle Societe Anonyme (S.A.) and Nigeria Brewery (NB) Plc., Lagos, Nigeria.

Labour Process and Alienation theories provided a framework. A cross-sectional survey design was employed and data were collected using quantitative and qualitative approaches. Nestle S.A. and NB Plc., Lagos were purposively selected being the largest food and beverage conglomerates in Nigeria. Stratified sampling was used to select permanent staff across all cadres of both firms. A total of 447 respondents were drawn using Yamane's (1967) sample size determination formula. Simple random sampling was used to proportionately administer questionnaire on 305 permanent staff in Nestle and 142 in NB. Thirty-eight (38) in-depth interviews were conducted with Units' Heads: Nestle (18) NB (20). Burawoy's (1985) model of classification of technological levels into low, medium and high was adopted. Quantitative data were analysed using descriptive statistics and One-way ANOVA at $p \le 0.05$, while qualitative data were contentanalysed.

The respondents' mean age was 32.41 ± 1.0 years, 58.2% were males, 75.0% attained tertiary education in both organisations. Low technological level units: Nestle (3.2%) while NB (19.1%); medium technological level units: Nestle (71.7%) while NB (63.8%) and high technological level units: Nestle (25.0%) while NB (12.1%). Workplace technology differently influenced job skill across the three technological level units (low: 66.75, medium: 67.81 and high: 60.30) and was statistically significant in Nestle S.A.Workplace technology differently influenced job alienation across the three technological level units (low: 33.86, medium: 35.82 and high: 37.35) and was statistically insignificant in NB Plc. Workplace technology differently influenced job satisfaction across the three technological level units (low: 45.42, medium: 43.34 and high: 41.38) and was statistically significant in Nestle S.A. Workplace technology differently influenced job science job commitment across the three technological level units (low: 45.42, medium: 43.34 and high: 41.38) and was statistically significant in Nestle S.A. Workplace technology differently influenced job commitment across the three technological level units (low: 18.58, medium: 18.65 and high: 16.37) and was statistically significant in Nestle S.A.Technological transition decreased job skill. Departure from low-speed line to high-speed line and Information and Technology-support equipment decreased job alienation. Evolution of food and beverage analysers from manual to semi-automation and full-automation decreased job satisfaction and job commitment.

Workplace technology decreased job skill, satisfaction and commitment in Nestle and Nigeria Brewery but alienation was not established in both organisations. Therefore, workers' adaptation to the emerging challenges from workplace technology should be facilitated through capacitybuilding programmes.

Keywords: Workplace technology, job alienation, food and beverage industry

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Acronyms

AI	Artificial Intelligence
ANOVA	Analysis of Variance
ATM	Automated Teller Machine
ATCON	Association of Communications Companies of Nigeria
AMCON	Asset Management Corporation of Nigeria
ASUU	Academic Staff of Union of Universities
BVN	Bank Verification Number
CAC	Corporate Affairs Commission
CBN	Central Bank of Nigeria
CCTV	Closed Circuit Television
CIPM	Chartered Institute of Personnel Management
CIS	Collective Investment Scheme
CNC	Computerised Numerically Controlled
DOT	Dictionary of Occupational Titles
EMEA	Europe, the Middle East, and Africa
ERGP	Economic Recovery and Growth Plan
FAAN	Federal Airport Authority of Nigeria
FEC	Federal Government Council
FMDQ	Financial Markets Dealers Quotations
GDP	Gross Domestic Product
GPS	Global Positioning System
HR	Human Resources
HRM	Human Resource Management
HSD	Honest Statistical Difference
IBTC	Investment Banking and Trust Company Limited
ICT	Information and Communications Technology
IDI	In-Depth Interview
ILO	International Labour Organisation
IPPIS	Integrated Personnel and Payroll Information System
ISO	International Standard Organisation

IT	Information and Technology
LCCI	Lagos Chamber of Commerce and Industry
LMS	Learning Management System
MAN	Manufacturers Association of Nigeria
NFI	Nestle Finance International
NB	Nigeria Brewery
NBA	Nigerian Bar Association
NCDC	Nigeria Centre for Disease Control
NCM	Numerical Control Machine
NCC	Nigerian Communications Commission
NITDA	National Information Technology Agency
NSA	Nestle Societe Anonyme
NSE	Nigerian Stock Exchange
NUC	National Universities Commission
NYSC	National Youth Service Corps
PLC	Public Liability Company
POS	Point of Service
PPP	Public-Private Partnership
PWC	Price Waterhouse Coopers
SA	Societe Anonyme
SEC	Security and Exchange Commission
SEIU	Service Employees International Union
SMEs	Small and Medium Enterprises
SON	Standard Organisation of Nigeria
SPSS	Statistical Package for the Social Sciences
UN	United Nations
UTAS	University Transparency and Accountability Solution
UPS	Uninterrupted Power Supply
VAR	Video-Assisted Referee
WEF	World Economic Forum
W.H.O	World Health Organisation

CHAPTER ONE INTRODUCTION

1.1 Background to the Study

Globally, workplace technology, the utilisation of technological innovations in organisations to carry-out job functions to optimise productivity and efficiency, has massively transformed work processes and has enormously bolstered organisational productivity. In Nigeria, particularly in food and beverage industry, technology has brought innovations with implications for work variables. Necessity is the mother of invention which precipitated the spring of technological innovations (Forster, Hergeth, Naujoks, Krems and Keinath, 2020). The most crucial factors that give a firm a distinctive character are its technology and workforce (Blauner, 1964). Technology is a catalyst which drives the economic growth and development of a given nation (Hao, Umar, Khan and Ali, 2021). However, though technology remains a means to an end and a tool devised to carry-out job functions, it is never an end in itself. As the world evolves, technology advances to enable humans to proffer solutions to the emerging challenges occasioned by population explosion.

Technology advances enormously cater for the emerging needs of the global population growth which is about 7.6 billion whereas lack of innovations stifles the economic growth of a given nation (Allam, Jones and Thondoo, 2019). In digital technology, if individuals fail to synchronise their skills with technological pace, it implies that they are moving backward (Hetzel, 2021). Nonetheless, Marxian conceptualisation of advanced technology resulting in increased alienation is central to the investigation of influence of technological advancement on work (Oriola, 2017). The modes of production of the capitalistsusuallybreak down the multifarious work procedures into slighter, easier and ever-unskilled labour being automated (Braverman, 1974).

Technology is critical to organisational growth given that it is the vehicle that enables individuals to actively partake in a rapidly changing world where technologyhas become essential to lives (Suomela, Kuusela and Halme, 2014). There is an unprecedented development in Information and Communication Technology (ICT) given that it has been valuated to contribute about 14.7 percent to Nigeria's Gross Domestic Product (GDP) in the first quarter of 2020 which is in sharp contrast with the 9 percent contributed to the total real GDP by the oil sector (National Bureau of Statistics, 2020). The telecommunications sector has overtaken the Oil Sector's contribution to GDP (FBNQuest, 2021).In work settings, algorithms and computers are intended to produce 133 million new employments (Iyatse and Adepatan, 2020). By 2022, these will result in 75 million employments becoming visible. Technology industry is the richest sector in the universe and it is altering the way people conduct their lives (McGregor-Kerr, 2018). By 2030, Nigeria hopes to earn just \$10 billion from blockchain technology (Onyedika-Ugoeze, 2020).

In the craft and guild epoch which can be best described as the pre-Fordist epoch, artisans, craft man, foremen, journeymen, serfs and peasants creatively invented the products of their own hands (Braverman, 1974). Technological advances have implications for the essential landscape of task execution (Thompson, 1983). The captains of the army seamlessly win wars by recruiting more generals whereas the captains of the organisationscomfortably win wars by retrenching their generals (Marx, 1844). Automation was observed to drastically lessen the request for skilled craftsmen across the globe, thereby plummeting the number of jobs in the workplace (Bughin, 2020). Deskilling is construed as a situation whereby the capitalists control the work processes by reducing the levels of skill via division of labour and new technologies (Braverman, 1974).

There are two opposite perspectives regarding skills on the future of capitalist societies which are positive and destructive (Gallie, 1978, Vallas, 1988, and Heisig, 2017). Nevertheless, the two perspectives of the future of work are closely associated with a corresponding, but opposing, optimistic or deleterious picture of the past regarding skills. The protagonists of deskilling and work degradation, according to Heisig (2017), conceptualise that division of labour and mechanisation of work markedly destroy the skills of artisan, craft men, serfs, foremen and journeymen while the proponents of Enskilling School of thought conceive uneducated and unskilled rural workers as the genesis of skill

development under the capitalist modes of manufacturing. Heisig (2017) posits that both deskilling and upskilling perspectives are quite legitimate and can make credence to supportive evidence. According to Heisig (2017), irrespective of the stance which one holds, it cannot be denied. Nevertheless, literacy and the general educational level of the population of industrialised nations have exponentially risen and that the growing proportion of the population have become fully integrated into the realm of employment (Heisig 2017).Deskilling School of Thought (Occupational Downgrading Theory) isa Marxist School of Thought that is championed by Karl Marx, Harry Braverman, Edwards, Thompson, Wood, Burawoy and their adherents who unanimously discountenance the enskilling position by stressing that the advent of automation creates class structure between the management and the workers thereby resulting in skill decline.

The International Standard Organisation's Law 2005 (ISO 22000: 2005), which states that the food and beverage industry should migrate from low technology to semi-automated technology to full automation technology to reduce contamination caused by human intervention in the production process, is what spurs the transition of technology in this sector. The International Standard Organisation's Law is usually implemented in the food and beverage industry in collaboration with the Standard Organisation of Nigeria (SON). The ISO's Law catalyses the migration of the industry from low technology to medium technology and high technology. In the light of this, this study sought to investigate influence of workplace technology on job skill, job alienation, job satisfaction and job commitment in the food and beverage industry in Lagos, Nigeria.

1.2 Statement of the Problem

One of the chief aftermaths of the rise of industrial capitalism was the outright destruction of handicraft skills which was closely associated with the introduction of machinery and assembly-line process. In the pre-Fordist era, serfs, the craft men, peasants, foremen, artisans and journeymen enjoyed considerable efficiency, autonomy, expertise, dexterity, work challenges and work intrigues in planning, monitoring and wage determination of their jobs. Pre-Fordism ushered in Fordism, following the pitfalls of Taylorism, having failed to reckon with the human factor (Edgell and Granter, 2020). In the post-Fordist epoch, the scenario has changed drastically as technology does the bulk of the tasks meant to be executed by employees (Meyer, 1999). As tasks are increasingly automated in workplace, the mutual trust between employers and employees declines as workers do not know their next fate, particularly in the production process owing that work requires little inputs from workers as the bulk of the tasks is done by robots, Digital Platforms and Artificial Intelligence (Vallas, 1988). The cardinal factor which accounts for this scenario is basically due to the fact that automated technologies possess certain features which human beings equally possess.

Universally, the advent of virtual reality, drones, augmented reality, numerically controlled machinery (NCM), hybrid zoom, Skype, digital zoom, Facebook, Bluetooth, Xender, Play Store, Messenger, Instagram, Microsoft Team, Mixlx, robots, machine learning, Artificial Intelligence, electric cars, driverless trucks, flying cars, Bluetooth, Entheron, block chain, nanotechnology, new retail technology, are some technological innovations which define and dominate the current digital revolution. Given technological advances, 30% of workers usually work at machines whose rhythms and cycles shape and determine their specific tasks and work pace (Meyer, 1999). According to Blauner (1964), Bell (1973), Braverman (1974) Berg et al. (1987), Pen (1991), Adler (1991), Atiku et al.(2014), Tonk (2014), Wright and Schultz (2018), Bonde (2018), Amobi (2018), Lyon-Caen, (2021) Adepatan (2020), Ibidapo-Obe (2020), Ogunbodede (2020), Ogundipe (2020), Gentili 2020 and Semuels (2020), reforms in the nature of work are driven by technological advancements such that the work of the future and the future of work will be so sophisticated that it is only the technologically-savvy people who will be relevant in the scheme of work. Job security becomes increasingly illusory as 32% of current jobs, globally, would fall drastically and be in extinction by 2025.

In African continent, the food and beverage industry is an industry that has undergone an exponential transition from low technology to medium technology and high technology. The transition has not left the industry unaffected given that it has had an enormous impact on the nature of work. In the pre-Fordist epoch, the utilisation of low technology afforded workers autonomy which resulted in non-alienating work, job satisfaction and job commitment. In the Fordist epoch, workers lacked considerable autonomy as a result of

fragmentation, standardisation, routinisation, rationalisation and simplification of work which has resulted in skill decline, job alienation, job dissatisfaction and lack of job commitment. In the post-Fordist epoch which was heralded by neo-Fordism, the tasks meant to be executed by workers are automated. This development significantly reduces the workforce such that work belongs to the proportion of the workers who can operate, maintain, and maximise machines in the food and beverage industry. Owing that the work that was hitherto performed by twenty employees is currently carried-out by five employees who are saddled with the responsibility of superintending the efficient operation of machines.

In Nigeria, the post-Fordist epoch is dramatically transforming the nature of work for the prime reason that technology advances and work requirements change. As tasks are increasingly automated, jobs and skills are lost and unskilled workers become alienated, thereby becoming unfulfilled and disloyal to their jobs as a result of influence of technology. The more automated work becomes the less intriguing, less challenging, less-self-fulfilling and less self-actualising it becomes. In Nestle S.A. and Nigeria Brewery Plc. in Lagos, Nigeria, when tasks are done with the aid of a computer-integrated manufacturing system, programmable logical control, IT support equipment, automated food and beverage analysers, in comparison to when the execution of tasks was done with the aid of low-speed line, manual food analysers, and manual beverage analysers, workers in the food and beverage industry become subjected to the routine of pressing of buttons of technology. This tends to influence job skill, job alienation, job satisfaction and job commitment, particularly in the production process. This is because little inputs are required from workers since the bulk of tasks are done by technology-driven processes such as band dryer, extra tigatten, turbo bonal conveyor, Krone, domino and mojourner.

Previous studies carried out by Blauner (1964), Woodward (1965), Bell (1973), Edwards (1979), Groover (1980), Burawoy (1985), Vallas (1988), Zubuff (1988), Pen (1991), Adler (1992), Fasth, Stahre, Dencker, Karwowski, and Salvendy (2010), Atiku *et al* (2014), Murrali (2015), Daniels (2015), Wahl,(2019), Wright and Schultz (2018), Amoke (2018) and Lyon-Caen, (2021), have focused on influence of technological advances on work processes in printing, textile, automobile, auto-component, construction, banking, chemical,

oil-refining, agricultural and aviation sectors, particularly as the phenomenon influences job skill and job alienation. Nevertheless, there is a paucity of academic literature on influence of technological advances on work variables, particularly on job satisfaction and job commitment in the post-Fordist epoch, particularly in the food and beverage industry. This study therefore specifically sought to investigate influence of workplace technology on job skill, job alienation, job satisfaction and job commitment in Nestle S.A. and Nigeria Brewery Plc., Lagos, Nigeria, to marshal the dominant trend among the deskilling, enskilling and skill polarisation tendencies.

1.3 Research Questions

Based on the statement of the problem earlier established, the following research questions were raised:

- To what extent does technologyinfluence job skill in Nestle S.A and Nigeria Brewery Plc. in Lagos, Nigeria?
- 2. What is the extent of influence of technology on job alienation in the selected firms?
- 3. To what extent does technology influence job satisfaction in the selected firms?
- 4. What is the extent of influence of technology on job commitment in the selected firms?

1.4 Research Objectives

The broad objective of this study was to investigate influence of workplace technology on workvariablesin selected firms in the food and beverage industry in Lagos, Nigeria. To achieve this broad objective, this study specifically sought to:

- Examine the extent of influence of technology on job skill in Nestle S.A and Nigeria Brewery Plc., Lagos, Nigeria.
- (2) Investigate the extent to which technology influences job alienation in the selected firms.
- (3) Examine the extent of influence of technology on job satisfaction in the selected firms.
- (4) Investigate the extent to which technology influences job commitment in the selected firms.

1.5 Significance of the Study

- (1) This study is significant in that it has provided a wealth of exhilarating insights on influence of technology on selected work variables.
- (2) It would awaken the consciousness of employees towards the extent of influence of technology on work.
- (3) It serves as an African perspective on the ongoing debate on the extent to which technological advancement influences the nature of work.
- (4) This study has added satisfaction and commitment finesse to the Labour Process Debate.
- (5) It has revealed the nuances of three technological levels across the units of both firms with regards to job skill, job alienation, job satisfaction and job commitment.
- (6) The study has revealed the pervasiveness of automated technology as against human workers in terms of job functions.
- (7) It would stimulate policy makers in the world of work to formulate policies that are sensitive to workers' welfare.
- (8) It would propel enterprise owners to create enabling environments for workers to exert skills in the digital epoch.
- (9) It would propel organisations to put structures in place which would bolster job satisfaction that would metamorphose into optimal job commitment in workplace.
- (10) It would invigorate managements to intensify efforts on human capital development.
- (11) It would spur International Labour Organisation to legislate laws that are workeroriented.

1.6 Scope of the Study

- The study primarily focused on the permanent staff of Nestle S.A and Nigeria Brewery Plc.
- 2. The study investigated the phenomenon in perspective on the employees and units' heads across the units of the two firms, given their length of service.
- 3. The scope of the study covered job skill, job alienation, job satisfaction and job

commitment in the selected firms.

1.7 Definitions/Conceptualisation of Terms

Automation: Automation, as far as this study is concerned, is when work is done by a technology with or without human intervention.

Deskilling: It is the division of labour and automation of work in workplace which results in skill decline.

Enskilling: It is when skill of an employee is bolstered by the utilisation of technology in executing tasks in workplace.

Flexploitation: It is an indirect method of recruitment of workers in order to cut the costs of production.

Job Alienation: It describes a situation whereby a worker lacks freedom over his job given task automation.

Job Commitment: It is the loyalty which an employee exhibits towards his/her job in a firm given technology usage.

Job Satisfaction: It is the fulfilmentwhich an employee derives from the equipment used in carrying out job functions.

Labour: It is a class of workers being exploited for the benefits of the enterprise owners.

Mechanisation: It is the process of the replacement of human power with mechanical power.

Polarisation: It is when the spring of technology has both positive and negative influence on work.

Skill: It is the requirements of work in terms of expertise, dexterity and autonomy.

Technology: It is the tools adopted to carry-out job functions in the workplace.

Workplace Technology: It is the deployment of equipment to execute tasks in organisations to optimise productivity and efficiency.

Work Variables: They are the concepts that define work which include: job skill, job alienation, job satisfaction and job commitment.

CHAPTER TWO LITERATURE REVIEW

2.0 Chapter Overview

Literature review was carried out thematically in line with the objectives of the study under the following sub-headings: (1) Technology (2) Technology and job skill (3) Technology and deskilling (4) Technology and job alienation (5) Technology and job satisfaction (6) Technology and job commitment (7) Technology and Degradation of Work (8) Technology and Flexploitation (9) Technology and Division of Labour (10) Technology and Work Automation (11) Technology and Labour (12) Workplace Technology (13) Technologyand Labour Process Debate (14) Theoretical framework.

2.1 Technology

It is imperative to acknowledge that technology is as old as human history and that the topic of technology is still central to research on how workplace technology influences work variables. Technology continues to be the most important element that distinguishes a company (Blauner, 1964). James Watts' development of the steam engine in the 17th century is pretty pertinent and essential to the intellectual discussion about technology and work. Beginning in the Paleolithic era and lasting until the 18th century was the period of technological advancement (Bawalla and Daniel, 2021). The Neolithic era is crucial to understanding how technology developed during the Stone Age, when man was using stone to make fire.It is important to note that the James Watt steam engine, also known as the Bolton and Watt steam engine, was created in 1775. This early steam engine was one of the driving engines behind the 16th-century industrial revolution. It should be noted that the Industrial Revolution gave rise to the intellectual endeavour known as Sociology (Vyshnavi, Manasa, Hamsika and Shalini, 2020).

The first industrial revolution, mainly defines the historical antecedent of the industrial age. The development of electric generators and power plants in 1870 marked the start of the second industrial revolution (Bawalla and Daniel, 2021). As a result, Cincinnati and Chicago in the United States became home to the first modern moving assembly meat industry. In a similar vein, Henry Ford created the Belt Conveyor for the moving assembly in the vehicle industry in 1913 (Meyer, 1999). According to Baran (1965), this time period paved the ground for the mass production of Model-T automobiles and a sharp decline in automobile prices. The work organization in this scenario was as simple as possible. Parallel to this, there was a division between cerebral and physical labour, so management was forced to plan work while shop floor employees were forced to carry it out (Thompson, 1987). A hierarchical organizational structure was extensively introduced during this time period due to the specialisation of labour, which increased productivity and effectiveness at work (Onyenuoru, 2005). What is noteworthy to observe is that business owners used robots to carry out job functions in order to optimise efficiency and effectiveness in the workplace, in addition to the distinction between conception and execution of work (Edwards, 1979).

It becomes essential to note that it was a scenario which was occasioned by the industrial revolution that precipitated August Comte to coin the term 'Sociology' which principally connotes the scientific study of the society about man's behaviour. The invention of the weaving machine by William Lee in the 18th century is pretty central to the development of technology when Queen Elizabeth II denied him of the patent right, consequent upon the apprehension over the remittance of taxes to the English parliament in the 16th century. Against this backdrop, Meyer (1999) stresses that the first automated technology is the belt conveyor which was used in Ford Highland Plant in 1913 by D.S. Harder who happened to be the Manager of Ford highland Plant. Buchloh (2010) posits that technology results in deprofessionalisation of jobs; lower bargaining power regarded as deprofessionalisation; jobs automaton as opposed to being thoughtful; and undermining the community and lessening the quality of products.

With regards to technology, Woodward (1965) avows that it can be classified into three different categories which are: (1) small batch (2) large batch (3) continuous process. The history of technology is traditionally divided into four dictinctive epochs, which include

mechanised, electronic, jet; which is otherwise regarded as the information age and digital age (Belchler, 2014). He indicates that the digital era is the epoch which people are in at the present and which is viewed as the fourth industrial revolution where businesses are progressively characterised by digitisation as everything is technology-driven. He argues that each epoch has had implications for work structures. According to Cirillo *et. al.*, (2018), it has resulted in polarisation of skill between skilled and unskilled labour within the workplace.

It is crucial to state that scholars, over centuries, have conceptualised technology from different perspectives. While some scholars have viewed it from the techno-optimistic viewpoint, some have evaluated it from a techno-pessimistic point of view. Smith (1776) argues that when a worker concentrates on utilising a particular tool to carry out tasks, it brings about dexterity and proficiency which by extension, leads to high efficiency. He acknowledges the fact that it results in a dissatisfied and mundane workforce owing that it renders the work process monotonous. Central to technology, Woodward (1965) notes that technology can be conceptualised in terms of small-batch, large batch as well as continuous process. Small batch is viewed in terms of implementing tasks with hands. Large batch, according to Woodward (1965), is construed as a manual method of carrying out tasks based on demand whereas the continuous process is comparable to Blauner's (1964) oil refining industry.

Marx (1844) contends that technology creates a division between manual and white-collar workers which is known as a class structure between hand and brain. He argues further that given that technology reduces the costs of production, the business owners place a high premium on it. From his perspective, advanced technology leads to increased alienation of workers. Marx (1844), stresses that a worker is a cog to the machine which suggests that a worker is an interchangeable part of a machine and that salt is added to the injury of a worker because, aside from the fact that machine takes over his job, his salary is slashed as machines lower his bargaining power which is referred to by Buchloh (2010) as deprofessionalisation. According to Marx (1844), a captain of an army wins a war by enlisting more men, whereas a captain of an industry wins a war by firing his generals. This

can be interpreted to signify that technology monumentally reduces the workforce and the skill level of employees by advanced technology.

Against this backdrop, Blauner (1964), contests that Marx committed a fallacy of hasty generalisation. His justification for this is that technology varies considerably from one industry to other. In the light of this, he conducted attitudinal research on work dissatisfaction in four distinct industries, including printing, textile, automobile and chemical where he observed that technology in printing and textile industries was quite low as employees enjoyed considerable freedom which resulted in low turnover rate. In the assembly plant, the technological level was medium; it alienates workers such that employee turnover was high whereas in the chemical industry, technology was found to be high; this symbolises the peak of mechanisation that requires experts who enjoy considerable freedom.

Blauner (1964) conceptualises technology as the most crucial single factor that gives an industry a distinguishing character. Braverman (1974) conceptualises the evolution of technology from the perspective of the primitive form. According to Braverman (1974), equipment does not always enter the universe to serve all of humanity. Instead, technology is seen as a tool for those for whom the rise of wealth immediately facilitates equipment ownership. From the perspective of Braverman (1974), management has capitalized on humans' ability to control the labour process through machinery as a means of controlling manufacturing since the beginning of capitalism. This control is not always exercised by the direct producer, but rather by owners and representatives of capital (Burawoy, 1985).

Given the foregoing, Blauner (1964) views technology as a complex physical object and technical operations, that is, both manual and machine, adopted in manufacturing goods and services rendered by a particular industry. It is of paramount importance to state that Burawoy (1985) classifies technology into three low groups, medium, and high levels of technology. He conceives simple technology in terms of a simple tool which is manually operated. He construes medium-level technology in terms of the manual and mechanical mode of operation of such a technology. Lastly, high-level technology was conceptualised

in terms of the highly sophisticated machine being controlled digitally as well as electronically.

In Amber's middle level of technology which is level 3, we have a repeat-cycled, selfinitiated, and self-feeding machine (Hull, Friedman and Rogers, 1982.). What is unique about this middle level of automacity is that the machine removes the operator's discretional power over the timing of the production process because its repeat-cycle is always initiated by self-feeding. Hull et al. (1982) maintain that the removal of discretion is a key aspect in forcing the operator to follow the speed and rhythms of the machines. At this stage, activities are typically fragmented and the operator essentially becomes a tool of the machines.

Amber's high-level technology which is considered as level 4 is characterised by selfmeasuring, self-adjusting machines while level 5 is viewed as computer-controlled machinery used in the production system (Hull et al., 1982). Given his evaluation of Amber (1965), it was gathered that at high levels of automacity, which is Ambers' levels 4 and5, the machines are controlled by symbolic process such that human efforts in the manufacturing process are no longer immediate. This is because machinery is allocated by engineers, set in motion by programmers, and repaired by maintenance people, while operators are considered as monitors and are less prevalent in the factory labour force.

At the heart of technology, Onyeonoru (2005), states that the machine approaches being typified by scientific management predicated on the basic assumptions of the classical economists. Every individual acts in a way and manner that is calculated to secure his or her self-preservation and self-interest; every individual thinks logically and to the best of his or her ability, in the service of this aim. According to Onyeonoru (2005), some of the earliest attempts to implement scientific management in the same way as Frederick Taylor did were greatly affected by the perspective. He claims that Taylor's work was largely predicated on the notions that people are fundamentally self-centered, antagonistic to taking on responsibility, unambitious, unmotivated, and frequently opposed to the goals and objectives of organisations. To achieve predetermined goals and objectives at work, individuals must be compelled, directed, commanded, and controlled.

Technology industry at present is like the banking industry of the 1980s which is the richest sector in the entire globe and it is altering the way and manner people conduct their lives (McGregor-Kerr, 2018). Divine (2019), gathers that the current size of the global IT service market is about \$704bn. McGregor-Kerr (2018), avers that there was a time, not too long when one could expect to find the 10 most valuable technology companies in the globe all within the United States. However, over the years, the number of top 10 technology companies clustered in San Francisco Bay area steadily declined whereas Asia-based and Eastern companies are breaking their way into the top 10.

Sir Richard Branson's rocket company virgin orbit has succeeded in putting its first satellites in space (Omofaye, 2021). China's latest official figures confirmed it was the only economy to witness growth in 2020. The greatest challenge confronting the manufacturing sector in Nigeria is power. No sector can thrive without power (Ife, 2021). Infrastructure policy needs to be reviewed to surmount the challenge emanating from the erratic power supply. Investing massively in industry and linking it with the economy is very critical.

2.2 Technology and Job Skill

To demonstrate that the subject matter of skill is essentially pertinent to the investigation of influence of workplace technology on work variables, the more automated the workplace, the less-challenging, less-demanding, less-intriguing and less-autonomous work becomes (Vallas, 1988). Braverman (1974) conceives skill as workers' abilities to conceptualise and complete multidimensional tasks in a self-directed and autonomous manner. Edgell and Granter (2020) demonstrate that expertise is achieved when a particular worker focuses on doing a small part of the entire production process, they explain further that when such a worker concentrates on doing one part of the entire production process, specialisation of work is attained; this is conceived as skill. From Smith's (1776)viewpoint, dexterity is conceptualised in terms of the ability to execute job functions, getting the job done with or without any supervision is achieved by specialising in producing one thing. This is genuinely attained by concentrating on utilising certain equipment in carrying out job functions.

In the light of the foregoing template, Smith (1776) stresses that in spite of the efficiency which is achieved from utilising a tool in the course of discharging job functions; the utilisation of technology ultimately results in a dissatisfied workforce emanating from the mundane and routine work processes which engender boredom and monotony. Marx (1844) argues that skill is the basis for class structures between skilled workers and unskilled workers. From Marx's (1844) perspective, the division between hand and mental work brings about class division and decline in knowledge and intelligence. Marx's argument borders essentially on the fact that the pride of a worker lies solely in his ability to carry out work from the beginning to the end. Dividing the building of an aircraft into different sections engenders the loss of comprehensive and integrated knowledge about craftsmanship. He contends that the ability of a worker is reduced from the fragmentation of the labour process which essentially is about social relationships between the business owners and the workers.

It is worthy of averring that Marx asserts that skill serves as the basis of class distinction between the management and the workers (Thompson, 1983). The idea is that skill leads to the class structure in the capitalist system of economy. Following this scenario, Braverman wrote a watershed thesis where heforcefully contends that the elimination of handicraft talent occurs from the division of labour into smaller, simpler, and ever-less skilled workers (Baran and Bellamy, 2017). Braverman avers that the division of work processes and the mechanisation of tasks result in an immense loss of skills. He was particular about the bifurcation between conception and the execution of work.

The division between the planning and the execution of work limits the discretional power of the shop floor craft workers (Braverman, 1974). The vital point being established centres primarily on the fact that skill is concentrated in the hands of the few managers. Hence, by their wealth of knowledge, they are capable of being saddled with the planning of work, policy formulation, wage determination, job advertisement, job placements, recruitment, probation, promotion and job placements. Thompson (1983) attests that the dichotomy between the planning implementation of work engenders the loss of skill of the shop floor worker owing that skill is concentrated in the hand of a few managers being saddled with the planning of work which essentially mirrors Braverman's stance.

Marx committed a fallacy of hasty generalisation in that technology considerably differs across industries which equally differently affect the job skill (Blauner, 1964). According to him, an operator in low technology enjoys considerable autonomy in terms of exerting his skill in carrying out his job such that he does not migrate to another industry because he is satisfied with the freedom enjoyed more than his counterparts in medium-level technology. In the case of assembly-line technology which was considered as medium-level technology, an assembler lacks considerable autonomy because the assembly is highly fragmented, rationalised, routinised, and standardized; hence its assembler lacks the autonomy enjoyed by his counterparts in printing and chemical industries respectively.

The chemical industry is categorised as high-level technology whose operator enjoys considerable autonomy due to the capita investment, value-adding, and diversity of the chemical plant. The most intriguing factor regarding the oil refining industry is the fact that its operator earns huge wages that is relatively higher than what the entire workers of the assembly-line operators earn. In this wise, the oil-refining industry is considered as the peak of mechanisation of work which represents the future of work and the work of the future (Blauner 1964). Regardless, the view of Dandaura (2015) negates Blauner's categorisation of technology on the account that as tasks are increasingly mechanised, workers find themselves doing less of the tasks they carry out.

Braverman ran into a problem as he failed to acknowledge the essence of Taylorism as being central to ideological shift portraying a vital progression in the development of capitalism (Burawoy, 1985). He avers that Braverman did not take into cognizance the subjective aspect of work or super-structural aspect; rather, he focused principally on the planning of work as limiting the discretional power of the workers which Burawoy stresses that the scenario led him to the misleading formulation of the problem. As a result of Braverman's failure to reckon with Taylorism, he was found guilty of a similar problem as at the time which he was writing about the cause of change in the labour process of Taylorism in terms of the bifurcation between planning and doing of work and scientific evolution. It is pertinent to note that Braverman labels Taylorism a promoter of deskilling in that workers are being prevented from using their initiatives in the course of discharging job functions. To reinforce Braverman's view on the mechanisation of tasks which engenders skill losses, Rover (1980) conceptualises task automation as a situation whereby manual labour is eliminated via the use of technology which controls itself. In the light of job automation, Ritzer and Stillman (2003), contend that the mutual trust which used to exist between business owners and workers is increasingly elusive as technology poses threats to the existence of workers.

The industrial revolution of 18th-century brought another perspective on work owing that it ushered in machine inventions which precipitated people's movement from rural centres to urban centres (Onyeonoru, 2005). In the course of technological transition, workplace technology greatly impacted on skills of workers. Given this, Vallas (1988) indicates that the more automated the workplace, the less autonomous; less conceptually demanding; less challenging and less-intriguing work becomes. This is principally because automated technology possesses anthropomorphic and human-like characteristics. Wood (1987) contends that many technological processes produce unwanted by-products known as pollution; deplete the natural resources to the detriment of the environment and alienate people. With globalisation, technology has improved the global economy but globalisation pressure propels employers to resort to the cutting of production costs by opting for workplace technologies ahead of human labour.

Barely 51% of employers will require a few employees in the next 3years as a result of workplace technologies Wright and Schultz (2018), PWC (2017) posits that there will be less reliance on full-time employees but there will be greater reliance on contingent talents. Braverman (1974) reveals that the evolution of technology basically stands for agrowth in human power over his immediate surroundings caused by the capacity to extract a wider range and more precise reaction from industrial equipment. Woodward (1965) divided production into four categories: mass production, small batches, big batches, and the whole manufacturing of integral items in single units.

The current skill required to operate a technology at the moment would have become obsolete to man a technology which will be manufactured in the nearest future because old skill may not be apt to man a new technology (Lyon-Caen, 2021). In this wise, it has been recommended that workers should make frantic efforts to upgrade. Similarly, Cirillo *et al.*, (2018) indicate that technology has evolved through mechanised era, electronic era, information era; which is otherwise regarded as the jet age and finally, the digital age which is known as the fourth industrial revolution. He avers that each of these eras has resulted in polarisation of skill between skilled and unskilled labour.

Technology creates a division between skilled and unskilled labour in the context of the labour market (Asnell, 2005). In this era, the employees who possess the ability to manipulate and explore technology are viewed as skilled labour whereas the category of the workers who do not possess the expertise to explore technology can be viewed as unskilled labour. Gallie (1979) notes that the technicians have resigned to the destiny that they have reached the peak of work such that they do not need to learn any skill any longer, whereas, the intermediate workers who work in offices usually spend their weekends on acquiring skills. Gallie's view aptly reflects the situation of the current crop of technicians who cannot handle the repairs of the latest cars being invented due to lack of upgrading of skills. The subject matter of skill has evolved from e-mail to social media which signifies that workers need to look inwards to reposition themselves strategically to remain indispensable in the fourth industrial revolution (King, 2019).

There are inarguably two opposite perspectives when it comes to the future of capitalist societies which are: a constructive one and a damaging one (Heisig, 2017). Nevertheless, the two perspectives of the future are associated with a corresponding, but opposing, good or bad picture of the past regarding skills. The protagonists of deskilling and degraded future of work adduce that the advent of technology results in work degradation (Heisig 2017). The proponents of the upskilling thesis conceive uneducated and unskilled rural workers as the genesis of skill development under the capitalist modes of manufacturing. He posits that both deskilling and upskilling perspectives are quite legitimate and can make credence to supportive evidence. According to Heisig (2017), irrespective of the stance which one holds, it cannot be denied. Nevertheless, literacy and the general educational level of the

population of industrialised nations have exponentially risen and that the growing proportion of the population has become fully integrated into the realm of employment.

Digital revolution ushers in job and skill losses to the extent that work belongs to those who can optimise and discover technology owing that the fourth industrial revolution is characterised by Artificial Intelligence, Robots, Digital Platform, Virtual Reality, Augmented Reality, Battery-powered cars, driverless trucks, aerial torpedo, pilotless drones and autopilot (Wright, 2017 and Mobi, 2018). Adler (1991) equally lends credence to this trend by stating that the work of the future and the future of work will be so sophisticated that technology would precipitate work in a manner that it would not be meant for rank and file (Gentili 2020). In other words, work will be so sophisticated that whoever cannot explore technology would not be relevant in the scheme of work. Going by the trend of the argument advanced by these scholars, one can infer that it is high time that one became upgraded to remain relevant and indispensable in the scheme of work. This trend is in tandem with the stance of PWC (2014), which states that the Communications Sector has witnessed an enormous revolution in the late 90s when it ushered in wireless cable systems thereby rendering those workers who could not upgrade themselves redundant.

In the spring of modified seeds, farmers were not allowed to use their traditional skill to evaluate soil fertility rate, the seed maturity state, and the irrigation of the seeds because everything has been modified (Fitzgerald, 1993). It was stated that the advent of modified seeds results in the displacement of farmers owing that the farm work that initially required dozens of people currently requires a few workers due to the introduction of modified seeds. In similar a vein, (Salami and Oyewale2013) state that the work formerly prepared by twenty people is now carried-out by five people saddled with monitoring the smooth-running of machines. Resultantly, farmers exert a lesser amount of their skills in the course of farming activities owing that technology does the tasks meant for them.

The foregoing deskilling trend lends credence to the position of Braverman who asserts that profit maximisation is at the heart of capitalist modes of operation. To accomplish this, work is broken down so workers would know the minute portion of the work which is seen as the critical aspect of resisting managerial control. According to him, what emerges thereafter is extracting surplus values. The point being stressed is the fact that to enable a business to succeed in optimising profits, planning of work is concentrated in the hands of the management by splitting work into two different segments which are: planning and doing.

When educational psychologists and human capital theorists use the concept of skill, they have in mind the property of workers rather than of the job (Vallas, 1988). He stresses that researchers in such disciplines employ skill as an independent variable, when they predict variations in wage levels. Vallas (1988) stresses that Sociologists conceive the notion of skill in terms of autonomy, discretion and challenging nature of the job because priorities are usually placed on technology as it optimises profits. In other words, great emphasis is being placed on technology to fast-track production processes, most sociological research on skill centres on the requirements of jobs (Lee, 1981).

Sociologists conceive skill as a dependent variable (Vallas, 1988). This can be deduced to imply that it is when an attempt is made to explain variations in the levels of skill possessed by employees within occupations, firms, or economics over a period of time. According to Vallas (1988), the great majority of studies on skill have been concerned with the consequences of technological changes for the skill contents of work in respect of expertise, work challenges, dexterity autonomy andwork intrigues. Cradle School (2015) indicates that its students are encouraged to aspire for excellence, has made concerted efforts by installing values and equipping them with the skills needed to become professional young women who will be the leaders of tomorrow.

Division of labour and mechanisation of work in the capitalist system of economy ultimately results inoutright destruction of skill of the craftsmen (Braverman, 1974). Thompson (1983), contests that the dichotomy between planning and doing of work in the capitalist economy limits the discretion of workers and it gives undue monopoly to the management. Smith (1776) confirms that the concept of skill can be viewed as the dexterity that is required in carrying out certain tasks. According to Lee (1981), skill refers to either the requirements with regards to the job or the capabilities possessed by workers. Skill determines the fate of a particular group of workers (Lee 1981). In others words, the

development of class structure in the capitalist mode of production is determined by skill. Vallas (1988) contends that skill is a property of employees which is measured in terms of autonomy, challenge, discretion, responsibilities, hierarchy, conception anexecution of work, work intrigues, and so much more, and which determines their values in the capitalist system of economy.

The future of work is with the people already, it is principally defined by innovations (Amobi, 2018). By inference, the work of the future particularly belongs to the people who can explore as well as maximise modern technology to their advantage (Amobi, 2018 and Gentili, 2020). According to LinkedIn (2019), the tight labour market has prompted most firms to become increasingly open-minded in terms of recruiting candidates. This includes companies like Google, Apple, Twitter, IBM, and Bank of America; these do not necessarily require any loan applicants to have a university degree. Rather than placing a high premium on certain titles and experience, firms resorted to shifting towards concentrating on the skills which a prospective employee will bring to the table. A typical example of such is Facebook, this is particularly real. Against this background, skill is pertinent in that employees who are keen on picking a career in a firm such as Facebook are encouraged to concentrate on skills and apply even if the Curriculum Vitae does not precisely match the job description.

According to the Dictionary of Occupational Titles, occupational prestige varies considerably from one country to another. In the cases of the U.S.A and the UK, such professions as Medicine and nursing are regarded as the most prestigious professions whereas, in Canada and Russia, professions such as Information Communication Technology and Engineering are considered as the most prestigious professions (Wang *et al*, 2020). Vallas (1988) contends that Dictionary of Occupational Titles has its distinctive flaws, human capital development is at the heart of developing a nation in that when people are enlightened, they can discern what is right from what is wrong (Amadi, 2020 and Arowojolu, 2021). In view of this, development becomes accomplished.

2.3 Technology and Deskilling

Technonolgical advances had deskilled various working-class jobs (Thompson, 1983). One of the aftermaths of the rise of industrial capitalism was the destruction of skill which was ascribed to the adoption of machinery and assembly-line process (Foster, 2010). Braverman's thesis on deskilling has generated a labour process debate among scholars which ignited a protracted bout of Bravermaniacconstrualof work that work is broken down in the capitalist societies and mechanised which decreased workers' skill levels (Edgell and Granter, 2020). Workplace technology engenders skill decline as technological advancement has been discovered to change the necessary nature of work contents in workplaces (Thompson, 1983). It is fundamental and germane to note that the perspective that holds that the emergence of technology results in skill decline further creates a class structure which is known as prolitarianisation; this can be likened to occupational downgrading. Similarly, it is regarded as techno-pessimism which posits that the dichotomy between manual as well as mental tasks being mechanised ultimately brings about the destruction of handcraft skills. In the light of this, scholars have been grappling with how technology erodes the workers' skill level.

Academic literature has aptly established that the historical antecedent of influence of technology on workers can be credited to Marx in 1844. Marx describes the social relations that characterise the entrepreneurial system of the economy which swallow the knowledge and the intelligence of workers on account of breaking down the entire work into smaller, simpler tasks and mechanising such tasks, thus preventing the workers from imaginatively fabricating the products of their own hands. Marx particularly frowns at the division of mental and hand tasks which he describes as limiting the dexterity of the workers. Burawoy (1985) contends that social relations which exist in the capitalist modes of production can be clearly understood in terms of the interactions which exist between the business owners and the workers in the production process. Marx's prime contention is that as work becomes more and more broken down and mechanised, the knowledge and the intelligence of the workers diminish astronomically.

Braverman's deskilling thesis is described as the most famous account of deskilling owing to the comprehensiveness and commitment of his account (Edgell and Granter, 2020). Braverman, (1974), contends that the breaking down of work processes and the mechanisation of work under the capital economy results in outright work degradation in the 20th century. The focal point of his argument is that technology brings about division between manual and mental work. From his perception, technology results in the bifurcation between conception and execution of work which results in the limitation of skills of the workers. Consequently, knowledgeTechnol and intelligence drastically diminish.

The kind of system being practised in the capitalist societies is degrading owing that workers are not able to invent commodities of their own hands; the planning of the work is concentrated in the hands of the management. Meanwhile, the employees are saddled with the responsibility of executing the tasks which undermine the discretional power of the shop floor workers because it requires little or no inputs from them (Braverman, 1974). Braverman, (1974), reveals the antics and tactics of the business owners by bifurcating the production processes into smaller, simpler and ever-deskilled proletariat to expropriate the workers; skills to remove the critical aspect of resisting the managerial control. The aftermath of the expropriation of workers' skills is extraction of the surplus values (Thompson, 1983). His principal irritation is that absorption of the scheduling skills in the fingers of a few managements undermines the personal judgments of employees.

Deskilling remains the concept that aptly summarises the cardinal ideas of Braverman where he expressly maintains thatthework degradation exists in the 20th Century as a result of labour and monopoly capital (Scott and Marshall 2010). According to Scott and Marshall (2010), Braverman's thesis focuses on capital forms of production which monumentally reduce the costs of labour by fragmenting the complex work processes into smaller, simpler and unskilled tasks which produce unskilled proletariat in return. Caldari (2007) maintains that the breaking down of complex task processes replaces the skilled craft employee with unskilled labour which requires little training, so that jobs in the secondary sector of the labour market are changed for jobs in the primary sector.

It is interesting that Braverman's theory reflects the idea that alienation will rise as a result of sophisticated technology. Braverman is credited with coming up with the idea of deskilling in 1974. In this context, Salvendy et al. (2010) emphasize that work automation ultimately saps employees' efforts and energy. The manufacturing process is divided into planning and execution since the business owner's top priority is maximising profits while salaries continue to be the driving force behind employees looking for work.The management is responsible for conceptualising the work, while the shop floor employees are responsible for carrying it out. As a result, work is done in a hostile and resistant environment (Braverman, 1974). Beyond this, Ritzer and Stillman (2003) contend that the trust that once existed between business owners and employees significantly declines as a result of employees' lack of certainty about what lies ahead as job security increasingly becomes elusive. He claims that as a result of labour automation, both cognitive and physical efforts significantly deteriorate.

Technology's influence on work was established by Liker et al. (1999), to be ultimately contingent on some factors which include the rationale for its adoption, work organisation, the extent of shared agreement concerning technology, the labour-management contract, management philosophy, and the process of technology development and its implementation. From the historical viewpoint, Liker et al. (1999) contend that technology was treated as a deterministic causal force with predictable influence. According to Liker et al. (1999), there is recognition of the complexity of technology and its relationship to work that is both bi-directional and dependent on numerous contingent factors. They maintain that different technologies are adopted into different social settings for different purposes with opposite effects.

The way and manner technology takes over jobs from employees is a source of concern to governments and consequent upon this, frantic efforts are being made by governments to combat this quagmire to the barest minimum (Singh, R. 2018). Ritzer and Stillman (2003) argue that due to technological advancement, job security becomes exceedingly elusive so much that it undermines mutual trust between employer and employee in the workplace. As a matter of fact, the situation is so worrisome that the fear of technology is the beginning of wisdom in the workplace. According to baranand Sweezy (2017), deskilling is the

constualthat was invented consequent upon the obliteration of handiwork skills of the working population in the peak of the Fordist labour process in which Braverman contends that there is a destruction of skill where it exists which poses robust threats to artisanal tendency. By and large, Baran and Sweezy (2017) signify that it was not really Braverman who coined the notion of deskilling. According to him, it was Braverman's contemporary who ascribed it to him owing to his concern about the decline of skill. This standpoint is reinforced by Buchloh (2010), who posits that the emergence of technology amounts to deprofessionalisation.

To support the aforementioned, Braverman (1974) argues that the idea of deskilling is centered n the organisation and mechanisation of work. According to Braverman (1974), capitalist forms of production reduce complicated labour processes into simpler, unskilled labour, resulting in an ever-unskilled proletariat. It is important to note that Braverman's central thesis is that knowledge and intelligence plummet astronomically as jobs that were once performed by workers are increasingly automated and decentralised, as no longer can a worker claim to have started a task and completed it. According to him, a worker's pride comes from being able to do everything.

The scholarly articles on the effects of technology on job skills in the 70s were based on anecdote whereas the ones which were documented in the 80s were empirically based (Adler, 1990). In a similar vein, he discountenances Braverman's assumption of mechanisation on the account of population explosion whereby crude technology could no longer cater to the needs of the emerging population. The pride of employees hinghes solely on starting a work from the beginning and completing it (Braverman, 1974). Burawoy (2000) submits that in the Second World War, USA and France chose to form a coalition to relieve some soldiers of their jobs; having discovered that they lacked the financial resources to pay their wages. Having successfully retrenched some of their skilled soldier, they resorted to training the recruits. In the long run, they were able to triumph in the war. Braverman (1974) conceptualises deskilling as a scenario whereby skilled labour within a particular organisation is being eliminated given the introduction of technological innovations being manned by semi-skilled or skilled employees.

Deskilling is cost-saving owing to the lower investment in human capital. In the same vein, deskilling lowers the bargaining power of an employee (Buchloh, 2010). Hence, deskilling has been construed as the outright deterioration in the working conditions of employees via the equipment being introduced in order to split workers from the production process. Foster (2010) maintains that it was Braverman's contemporaries who credited deskilling to him on account of stressing the fact that breaking down of job functions as well as mechanising these tasks engenders destruction of handcraft skill of the working population.

The vast proportion of the workforce dwindles astronomically as a result of technology performing the tasks meant for the employees (Kalleberg and Berg 1987). Given this, Thompson (1983) contends that deskilling is a situation whereby the advancement in technology and the breaking down of work into different fragments result in a reduction in the scope of individual's tasks to one, a few, or specialised task in that the comprehensive knowledge skill and the integrated of work is entirely lost. According to Thompson (1983), there are two types of deskilling; these are occupational deskilling and technological deskilling. The former can be viewed as being peculiar to manufacturing settings whereby there is a bifurcation between planning and the execution of tasks which actually limits the judgments of the shop floor employees. The latter connotes what obtains in any formal setting where the division of labour is practised to accomplish optimal efficiency and high productivity. The subject matter of deskilling equally connotes when individual employees become less-proficient as time progresses on their jobs. A good illustration for this is the case of an immigrant who previously held a high-skilled job in his indigenous nation but ends up engaging in low-skilled work which he is over-qualified for. This can be attributed to a challenge emanating from securing foreign-issued professional certification and degrees being reckoned with in foreign land which could be as a result of discriminatory recruitment cultures which place a high premium on native-born employees.

Fragmentation of work in the twentieth century is degrading and dehumanising. Braverman's position on this is that workers lose autonomy, discretion and work intrigues when work is fragmented. According to Thompson (1983), deskilling is bifurcated into organisational deskilling and technological deskilling. Thompson (1983) confirms that organisational deskilling is common in factory settings to separate the conception and execution of work which epitomises the Scientific Management enunciated by Taylor (1911). Thompson (1983) avows that technical staff would deal with conceptual tasks such as planning and development of new protocols while shop floor workers are left with the less-challenging execution of the work which limits workers' discretion. In his view, this method does not only limit the discretion of the shop floor workers but ensures a monopoly over technical knowledge about work due to bifurcation between the planning of work that is concentrated in the hand of the managers and its doing that is concentrated in the hands of the shop floor workers.

Technological deskilling is peculiar to the industries which make use of automated processes. Thompson (1983) equally alludes to the fact that Taylorism is a promoter of deskilling which mirrors the position of Braverman. Amidst all these, Wood (1987) posits that techno-pessimists and other reactionary movements allude to the fact that technology pollutes the atmosphere thereby resulting in climate change which largely impacts humans as well as their immediate environments where they live in. Foster (2010) contends that Braverman exposed the antics and the tactics of the elites who were in charge of oligarchy back then which is the leadership by a few individual elites. Job security becomes increasingly illusory as 32% of current jobs globally would fall drastically and be in extinction by 2025 (Wright and Schultz 2018, and Amobi, 2018).

Looking at the subject matter of deskilling from the perspective of Burawoy (2000), in the Shipyard of San Francisco, numerous highly skilled workers were replaced by unskilled workers as a means of cutting costs of production (Venkataraman, 2015). Thereafter, such unskilled workers were trained and they were paid little amount of wages as against the robust wages the skilled workers were earning before the recruitment of the unskilled workers. Technology cannot come up with excuses such as the death of a loved one, sickness, childbirth, and so on. It is vital to affirm the inevitability of the fact that the machines would break down (Daniels, 2015). He maintains that when machines run into the passive mood, the operators are not always prepared to rescue the situations following overdependence on automated technology. In the light of this, he vehemently recommends that workers should develop themselves manually such that when the machines break down, the situation can easily be salvaged manually. To buttress this, it has been contended by a Greek

Philosopher, Aristotle (350 BB.C.E.), that excess of anything is viewed as a vice and inaction is also considered as a vice, whereas striking a balance between excess and inaction is referred to as a virtue. In this wise, balancing the automation of tasks together with manual skills is pretty pertinent.

Braverman's thesis has attracted a number of interests among academic social scientists, particularly in the Great Britain, and it has provided a framework of numerous case studies for research on work organisations and change in workplaces, especially in the declining manufacturing sector (Scott and Marshall, 2010). Thompson (1983) argues that the division between the planning of work and its execution engenders skill loss in any given manufacturing company. According to Scott and Marshall (2010), the study which was based on nationally representative statistics on workforce carried out by Spencer (2000) tends to substantiate Braverman's conclusion regarding this trend results in certain occupation skills thatdisappear while other occupation skillswitness upgrading thereby newer occupations such as computer programming and system analysis develop rapidly.

Due to over-reliance on automation and lack of skill usage, an aircraft ran into a passive mood on the Atlantic Ocean, the three pilots on board reacted wrongly because they had lost the touch of manual operation (Daniels, 2015). Unfortunately, about three hundred passengers in Aircraft 377 perished in the ocean. In view of this, he enjoins the Federal Airport Authority of Nigeria (FAAN) to equip the operators of aircraft with manual operation skills so they can rescue situations manually as the inevitability of breaking down of machine cannot be ruled out.

Deskilling is interchangeably conceived as deprofessionalisation of work as maintained by Buchloh (2010) and the whole notion of skill loss can be equally construed as deprofessionalisation in that technology undermines communities by rendering work automation rather than being thoughtful. He stresses that it is quite demeaning when machines are deployed to execute the tasks meant to be carried out by workers. He argues that technology undermines the bargaining power of a worker. This is evident in how technology enhances the productivity and efficiency of work. According to Buchloh (2010), work automation ultimately renders work somewhat automaton rather than being thoughtful as it limits the discretional powers of employees.

Deskilling reduces the quality of production; when products are mass-produced, the quality of the products cannot be compared to products that are manufactured based on demand. Buchloh (2010) contends that it reduces the quality of products being manufactured. Central to the phenomenon of deskilling, Olutayo (2018), contends that the jobs of clerical staff are really affected. This view can be contested in that if the clerical staff make genuine efforts to add value to themselves by getting upgraded, they would remain indispensable in the scheme of work.

Edwards (1979) notes that profit-making is the principal motive of the capitalists, little wonder the business owners resort to deploring stopwatches and speed-up to subject the employees to the boring machine pace routines and rhythms. Edwards (1979) further argues that capitalists always strive to divert the larger proportion of the profits to their sides. To buttress this, capitalists resort to adopting automated equipment to realize high productivity and profitability. Business owners always strive to strategise to boost the economic activities of their corporations.

Technology transforms factory life; it changes the production techniques and frees workers from back-breaking constraints. Bell (1973) argues that technological advances usher in post-industrial societies in which the proportion of the workforce declines astronomically. The use of Artificial Intelligence has come to stay in Nigeria. For instance, the United Bank of Africa has resorted to utilising Leo, a robot, to resolve issues bordering on customers' accounts. In Agriculture, the advent of combined tillers, combined ploughs, combined planters, combined harvesters, combined cleaners, combined drinkers and the Global Positioning System has drastically resulted in the loss of jobs for various farmers, though it has eased agricultural activities that initially required thousands of people.

Computer-controlled manufacturing system has entirely revolutionised the way and manner products are made (Jaffe and Gertler, 2005). According to them, modern factories are full of robots and AI where everything is being automated. In a modern-day factory, the only people whom one sees are a few engineers who are solely responsible for keeping the

robots, AI, digital platform, and other machinery running smoothly. From their perspective, this is quite different from the old tradition where everything was manually done by human workers. They contend that there is an enormous loss of control over the production process experienced by workers.

Machines have ultimately begun to threaten people in the auto-component industry as the machines increasingly make their presence felt (Murrali 2015). The fate of people ultimately becomes miserable if this scenario persists. Amobi (2018), notes that some of these technologies are already with us. Amobi (2018), maintains that there exist such technologies as drive through a mall in Saudi-Arabia, Uber Air Taxi, Pepper robot by Stanbic IBTC Bank, Alexa on Amazon that has over 3,500 skills and growing, battery-powered cars, Driverless Taxi, Robotic Waiters, IBTC Sami on Facebook that can help customers open accounts and a whole lot more. All these technologies take away jobs. If technology keeps gathering momentum, what will be the fate of the people?

Workers do not only lose the physical efforts but they lose cognitive skills (Vallas, 1988). Amobi (2018) discloses that by 2025, which is simply 5 years from the present time, a number of jobs would have been taken over by technology, going by the swift transformation being experienced the jobs for the past fifty years is six times more than what has been experienced in barely thousands of years of the entire world existence. What this indicates is that there is bound to be enormous job losses. Regardless, the intriguing news is that there would be a number of new jobs which would be created by technology for those who are really prepared for it.

If all business owners eventually cultivate the culture of automating tasks in the workplace, it portends enormous danger in the societies. In other words, there is a problem in the offing if all tasks which are meant to be done by employees are being done by automated machines. The prior analogies aptly capture the scenario of deskilling in human history. In this regard, Singh (2018) indicates that the way and manner in which technology takes over jobs from employees is particularly worrisome. According to this international institution, this scenario has been conceived as a source of concern for the government.

It is striking to note that it was the invention of the steam machine by James Watts in the 17th century that precipitated the enterprise of Sociology (Bawalla, 2021). Consequent upon this, the innovation of steam machine by James Watts resulted in the demographic movement from rural areas to urban centres to secure greener pastures. Upon the arrival of the people in the urban centres, people's time was regimented by the business owners which eventually resulted in a state of anomie owing that a number of people became frustrated thereby committing suicide.

Contrary to the technological trend in the pre-industrial epoch, in the fourth industrial revolution which implies that the world has previously had three previous revolutions which include the mechanised; otherwise known as the agricultural revolution, the electrical age, otherwise known as the mass production revolution, the internet age known as the jet age revolution and finally, the digital revolution which is the era which the world is in (Cirillo *et. al.*, 2018). The interesting thing about the evolution of the world in respect of technology is that each era has its peculiarities with work content. Given this, she suggests that one should elevate oneself by having more than, or a minimum of, ten skills owing that enterprise skills remain the work of the future where numerous jobs will be. Hence, this should guide the courses which individuals should take in the higher institutions; to avert being affected by technological advancement.

Advances in technology will robustly reduce human jobs (Smith and Anderson 2014). Smith and Anderson note that this trend is already underway and the logic of economy and technological advancement ultimately make its continuity inevitable. Smith and Anderson (2014) aver that Tesla's factory is a relatively new factory which is meant for small-scale production of battery-powered cars. They contend that a number of standardised service jobs become more easily addressed by scalable technology. To exemplify the significance of technological invention, Amata (2020), maintains that the utilisation of hand sanitizer is central to curtailing the spread of the Corona virus in Nigeria. Conversely, it was projected by Amobi (2018) that barely thirty-two percent of the jobs across the globe would fall drastically and go into extinction by the year 2020 which remained almost two years from then. She stresses that job losses will be occasioned by technological innovations resulting in massive disruption. Consequent upon this, it is either one innovates or perishes in the fourth industrial revolution. Ritzer or Stillman (2003)reveal that job security has become exceedingly elusive which vitiates mutual trust between employer and employees.

In relation to the deskilling trend, Cirillo *et. al.*, (2018), assert that two professions that are immune to technological advancement are teaching and administration. According to him, the teaching profession is immune to technological changes as parents install UPS, computers, routers, printers and photocopiers through which students get to do their homework, projects, dissertations as well as their thesis writing. This facilitates lecturer-student relationships.

Any organisation that has about 500 employees tends deskilling 30% of its workforce (Dandaura, 2015). Given this scenario, Cirillo *et al.*, (2018) contend that administrative jobs which centre primarily on planning, co-ordination, management and supervision are immune to technological changes because administrative teams are usually saddled with the responsibility of planning which apparently cannot be done by machine. Onyeonoru (2005), affirms that coordination, administration, planning, monitoring and supervision remain the cardinal responsibility of the management. Wright and Schultz (2018), note that automated technology possesses anthropomorphic attributes that aid the manufacturing of goods with or without human intervention. Timothy (2017) opines that the coming of GSP threatens the jobs of traffic control officials. According to him, work is done within the timeline as work is increasingly automated in the workplace following that automated technology opitimises profitability.

Murrali (2015) attests to the fact that if all the tasks which employees do are mechanised, their fate would become bleak and hunger would invade several households. This would result in social problems as it would render some people redundant. The foregoing exposition lent credence to the popular parlance which holds that an idle man is the devil's workshop. If those people who have been gainfully employed are rendered redundant, there is a huge likelihood that they may resort to heinous acts which include thuggery, burglary, hooliganism, theft, kidnapping and banditry. Maslow and Lewis (1987), state that work is self-actualising and self-fulfilling. If one loses one's job to an automated machine, one's pride is vitiated in the society. Dandaura (2015), contends that employees find themselves

doing less of what they used to do because the business owners deploy technology to execute tasks which are meant to be done by them.Organisations incur a lot of costs in procuring technology to carry out jobs, this requires coughing out a huge amount of money to compete comparatively (Atiku*et al.*, 2014). When small and medium-scaled businesses procure technological devices, they can compete favourably with big organisations (Asnell, 2005).

Central to influence of technological advancement on work, worldwide unemployment has been exacerbated by the spread of technology (Singh 2018). Technology has advanced intensely from manual method to semi-automated system and to full-automated technology (Vallas, 1988). Central to influence of technological advancement on work, worldwide unemployment has been exacerbated by the spread of technology (Singh 2018). Technology has advancedintensely from manual method to semi-automated system and to fullautomated technology (Vallas, 1988). Vallas (1988) contests that as technology deskills the jobs of customer-care service providers, bankers, traditional drivers, farmers, bankers, pilots, drummers, receptionists, journalists, clerical personnel, automobile assembly workers, front desk attendants, security personnel, drummers, traditional drivers and riders and a host of others, it by the same token enskills the jobs of hardware and software engineers, logisticians, Cyber Crime specialists, robotic engineers, Artificial Intelligence engineers, bloggers, phone accessory sellers.

Due to technological advances, workers find themselves with less of what used to be the work to do because it is done by robots and computer-assisted technology (Daudaura, 2014). Deskilling is divided into organizational and technological aspects by Thompson (1983). The former is prevalent in industrial settings when there is a division between planning and carrying out work. The technical team is primarily responsible for the conceptual planning and creation of new protocols, while shop floor employees must complete less difficult duties. Division of labour does not only limit the workers' ability to be creative but also permit an unjustified monopoly on their technical expertise (Braverman 1974). The latter happens in sectors where duties are mechanised.Braverman's notion of deskilling has resulted in cumulative critiques among scholars (Burawoy, 1985). This has led to two strands of arguments which are enskilling and deskilling. The former is championed by

Blauner whereas the latter is pioneered by Braverman (Thompson, 1983). Vallas (1988) posits that Blauner and his allied theorists embrace the technological determinist point-ofview which holds that the coming of workplace technology ushers in technical change from primitive to advanced knowledge which results in skill rise. Lee (1981) stresses that the enskilling school of thought posits that workplace technologies lead to fundamental changes in a class structure called professionalization while adherents of the deskilling perspective refute the technological deterministic position on the account that workplace technologies bring about expropriation of skill and exploitation of workers. This is said to lead to skill decline and, as a result, changes in a class structure known as prolitarianisation.

In the light of the debate over technology, work, deskilling, deprofessionalisation, enskilling, flexploitation, multiskilling, alienation, and skill polarisation, special attention has been dedicated to the food and beverage industry, a highly automated knowledge-inclined industry that is usually undergoing an exponential increase in competition, to see whether, in the context of these conditions, new technology paves way for deskillingtrend as Degradation Theorists posit or whether a different mild outcome will emerge or whether skill polarisation trend as submitted by Skill Divergence School of Thought will be discoverved in view of the introduction of new technology.

2.4 Technology and Enskilling

The principal relevance of the subject matter of enskilling to this study lies primarily in the notion that there are two sides of a coin to any phenomenon. The whole concept of enskilling came about in reaction to the Marxian conceptualisation of advanced technology resulting in losses of knowledge and intelligence. The idea of enskilling is otherwise known as occupational upgrading which is at the same time regarded as techno-optimism and which essentially connotes a scenario whereby the spring of technology results in skill rise that removes the drudgeries of work which by extension, results in a class structure known as professionalisation.

It is vital to note that Robert Blauner is regarded as the most prominent proponent of the concept of enskilling. Blauner carried out an empirical study in four different industries; these are printing, textile, automobile and chemical industries. It is worth stating that his

book essentially focuses on the attitudinal study of job dissatisfaction of employees. Blauner (1964) asserts that employees in printing and chemical industries enjoyed considerable autonomy by virtue of their skill exertion more than their counterparts in textile and automobile industries. He discloses that employees in printing and chemical industries did not migrate from one firm to another because they derived happiness from exerting their skills, whereby the management did not call the shots for them as it was really the case for their counterparts in assembly plants and textile industry.

At the heart of the notion of enskilling is the empirical study carried out by Pen (1985), avers that in the spring of computerisation in the 1980s, there was growing apprehension among managers and employees over whether the advent of technology would result in loss of skills and remove them from their jobs or not. In the long run, it turned out to enable them acquire knowledge about digital machines which they never knew (Pen, 1985). According to him, the coming of technology has both merits and demerits. Timothy (2017) contends that technology is a double-edged sword owing that it deskills as well as enskills depending on the side of a coin which one finds oneself.

To substantiate the foregoing, Alexander credited his certificate which assisted him to win a promotion and stated that he currently earns more than \$70,000 on annual basis by virtue of the technical knowledge which he has painstakingly acquired (Semuels, 2020). He explains further that the promotion has given him a sense of job security. He avers that there is a great necessity for all and sundry to learn something technical. From the perception of Semuels (2020), Alexander knows that technology may significantly change his job in the next decade, in the light of the situation, he was already planning his next line of action. Semuels (2020) posits that by 2021, Alexander wants to master the skill of testing computer systems to spot susceptibilities to hackers and obtain a certificate in that practice called penetration testing. On the strength of this, he affirms that it will guarantee him a job working alongside the technology which is changing the entire globe.

Enskilling can be conceptualised as a process whereby employees experience skill enhancement as a result of job automation (Penn and Scattergood, 1985). It entails influence of technological changes upon the occupational structures which upgrade employee skill levels. Vallas (1988) contends that the official statistics on the changing occupational structures of the communications industry, combined with the survey data on job content, indicate the existence of an upgrading influence between 1950 and 1980. What actually stimulated the writing of Vallas (1988) was basically to reconcile the two rival groups which are deskilling and enskilling schools of thoughts due to the debate which has been on since the period of Marx, which dated back to 1844.

Cardinal to the subject matter of enskilling, Gallie (1979), posits that modern technicians have resigned to destiny to the extent that they do not bother to upgrade their expertise, whereas those employees who ply their trades in white-collar jobs spend their weekends acquiring one skill or the other. Gallie's submission is evident in the crop of technicians who we have in modern-day Nigeria in that there is scarcely a technician who can trouble-shoot Tesla cars in the contemporary epoch. They believe that they have reached the pinnacle of their carriers owing that such vehicles are so sophisticated that they are usually clueless as to where to precisely start to diagnose faults from. Whereas, those employees who are into white-collar jobs usually take good advantage of their weekends to acquire one skill or the other as a Plan B.

New and emerging technologies can enable organisations to become exceedingly efficient and derive competitive advantage (Suomela, 2014).Suomela *et al.* (2014) assert that the increased complexity of information systems results in challenges. There are new approaches, needs, business imperatives as well as strategies which enterprises, public organisations and non-profits need to understand and apply. According toSuomela et al. (2014), there are trade-offs in resources needed; costs and benefits, priorities, risk levels and appetite; and the ability of the organisations to absorb change. He contests that it is incumbent upon the individuals to develop digital skills. He believes that the overall complexity is ultimately amplified when one appropriately includes cyber security and data privacy.

The foregoing signals to the alarm which Braverman raises as a result of the coming of technology which he contends will lead to the extinction of vocational dexterity emanating from the dichotomy between mental and manual work. In relation to medical lines, tele-

medicine has been described by Fayehun *et al.* (2020) as enhancing medical practice. Asides this, they contend that digital and mobile communication technology tends to enhance the management of diseases. It has been established that it is crucial when it comes to medical emergencies given that it has the potential to enhance access to healthcare, especially where resources are limited and the system remains under stress. Additionally, they allude to the fact that mConsulting is most likely to increase accessibility to healthcare in Nigeria. Meanwhile, it was introduced into Nigeria without a policy or a regulatory framework to guarantee quality.

The data was collected in the spring and summer of 1984 and analysed to develop a model of technical change and the division of labour that moves well beyond conventional positions in the field of billboard industry (Penn, 1985). He challenges Braverman's theory of deskilling empirically and theoretically. Pen (1985) eventually avers that a new theory called the Compensatory Theory of Skill should be formulated having not found any modicum of deskilling trend in his deskilling or enskilling investigation in England where he observes that despite the apprehension experienced by managers and employees that the coming of digital-controlled machines would eliminate them from the system, it, in the long run, turned out to enable them to acquire digital expertise without necessarily having to lose their existing handicraft skills.

Atiku *et al.* (2014), state that the advent of ATM, POS, Mobile App as well as online transactions has deskilled most bankers from their jobs. Oyebode (2019), contests that Nigeria is part of the world history which must contribute its own intellectual and professional quota to the development of innovations. Hence, it cannot afford to be relegated to the background in terms of innovations. According to Pen (1985), the most important findings centred on the rapid increase in maintenance skills in the three plants examined, namely: Tier 1, Tier 2 and Tier 3 of the printing companies during winter and summer in the UK. Pen's other significant results centred on the need for production workers to interpret computer-controlled dials or metres and then, respond using their traditional detailed understandings of the processes of paper manufacture.

Fayehun *et al.* (2020), reveal that human resources capacity peculiar to mConsulting poses a great concern in terms of the healthcare system in Nigeria. It was discovered that majority of service providers heavily depend on medical practitioners who usually share their time between regular and mobile consultations. Consequent upon the inadequate doctors in the healthcare sector, sharing the time of the hospital workforce alongside mConsulting engagement predisposes the medical practitioners to more pressure on existing human resources. From the foregoing, Fayehun *et al.* (2020), affirm the fact that most service providers equally opened their platforms to local and international clients thereby exacerbating supply and demand.

As far as enskilling tendency is concerned, Wright and Schultz (2018), contends that technology is a tool to achieve one's goal and objectives. In view of this, it is high time techno-pessimists began to explore and maximise technological advancement. Otherwise, those who are technologically savvy will explore and maximise the benefits and comfort typical in technological advancement. Obi (2020) contends that technology is pretty central to boosting small and medium enterprises (SMEs) in Nigeria. Similarly, he emphasises the need for the governments to create enabling environment for small and medium enterprises to thrive in Nigeria. According to Ojeniyi (2020), a lot of facilities must be put in place to enable businesses to flourish in Nigeria. SMEs contribute immensely to the GDP of the country owing that a pepper seller in a particular market buys land and builds houses and buys attires for events whereas another woman selling herbs succeeded in sending her children abroad for greener pasture (Adewale, 2021).

Wright's view lends credence to the submission of Suomela *et al.* (2014), who affirm that in the International Conference which was organised by Information, Communication and Technology specialists, it was asserted that information, communication and technology guarantees numerous benefits and convenience which one should avail oneself of to enjoy optimally. It was affirmed that those who are technologically savvy will explore the benefits and comfort fundamental in information technology which will elude those who lampoon the technology. This captures the view of Akanmu (2019), who contends that deployment of technology to get jobs done is cheaper than the manual way of getting jobs done in digital era.

Silicon Valley, according to Guma and Agbata (2018), welcomes entrepreneurs from over the globe including other parts of the United States. He opines that it is one place where entrepreneurs vehemently believe that they can leverage various types of resources to take their businesses to a new level. He stresses that the Silicon Valley model can as well work for a country like Nigeria. There are quite some lessons which Africans can learn (Guma and Agbata, 2018). Silicon Valley is a place where a number of the top global technology brands have come out of except new brands such as Microsoft and Amazon which started elsewhere. One reality which stares one in the face is the fact that Silicon Valley is such a huge and complex environment. Silicon Valley is the success it is partly because of a combination of factors such as the presence of entrepreneurs, universities, research institutions, angel investors, mentors, incubators, accelerators, and financial advisors as well as large corporations all supported by sound federal and state government policies.

The Fourth Industrial Revolution, or Industry 4.0, is just about intelligent production (Adepatan, 2020). Full automation of processes and production lines, intelligent control of cyber-physical systems, adoption of the internet of things (IoT), big data analytics, cloud computing, and machine learning are the technological pillars of industry 4.0. Our industry as a country must make use of these technologies for increased economic prosperity and profitability. The Chairman, Conferences and Exhibitions, NCS, Ayodeji Aderogun, emphasized the Fourth Industrial Revolution's significance to Nigeria's growth and urged the country to awaken from its sleep, emphasizing that it holds the path to greater economic independence.

Central to the subject matter of enskilling, Lyon-Caen, A. (2021), maintains that the work of the future and the future of work would be so advanced that it would not be meant for the rank and file. It was further submitted that the skill which an employee possesses at a material point in time might have been obsolete to operate a new technology owing that a lot of modifications would have taken place. This signifies the fact that upgrading one's intellect is at the heart of one's relevance in the scheme of work. In the light of this, Amobi (2018), contends that the fourth industrial revolution is characterised and by Hybrid Zoom, Skype, Hybrid Seeds, Digital Zoom, Facebook, Messenger, Microsoft Team, Mixlx, machine learning Bluetooth, Xender, Play Store, Artificial Intelligence, Aerial Torpedoes,

Instagram, Drones, Entheron, Augmented Reality, Virtual Reality, Digital Platform as well as Robots. Therefore, anybody who fails to explore and even maximise technology would miss the convenience and benefits associated with it, whereas those who are technologysavvy would take good advantage of the innovations.

What automatically becomes the fate of the techno-pessimists is the fact that they would irretrievably miss numerous opportunities core in technological innovations. This point is very much in conformity with the view of Adler (1992), that the wave of technology would be so heavy that whoever fails to upgrade would be blown away as work of the future would be quite competitive that it would be meant for a few technologically inclined people. Arising from this, Global Future of Work (2018) asserts that old skills would pave ways for new skills as technology advances owing that as life is changing, innovations are being invented to proffer solutions to the emerging challenges which people are confronted within their immediate environment.

It may not be quite easy to find the types of resources available in Silicon Valley in Nigeria. Nevertheless, the reality is that numerous places such as Yaba, Enugu, Onitsha and Aba already have the characteristics of Silicon Valley. All the same, it lacks government support (Guma and Agbata, 2018). Guma and Agbata 2018 (2018), state that a key message to all stakeholders in Nigeria is that everyone must join hands to ensure that governments at all levels truly support entrepreneurs across the entire country by providing cheaper access to capital or the very least, sound policies which will enable the industry to thrive. He argues that the irony is that experts believe that the Silicon Valley model is pretty much full of hype and that it should not be embraced simply because it fits only the American system. By and large, he posits that it is wrong to copy the Silicon Valley model without adapting it to the local environment. Africa, according to Guma and Agbata (2018), is a young continent with tonnes of talented people who are passionately taking on huge challenges and one of the goals is to help attract attention and support to them as much as possible.

Technology is a catalyst for the fundamental development of a given nation (Guma and Agbata, 2018). He affirms that technology is unimaginably changing the universe. It is crucial to note that Fayehun *et al.* (2020) maintain that mobile technology has the tendency

of greatly enhancing access to healthcare in Nigeria if and only if it is well-regulated. From their perspective, lack of adequate infrastructure is being considered as posing an enormous barrier to mobile healthcare in Nigeria Stefan. They gathered that from low and middle-income nations, digital and mobile communication technology has a great tendency to enhance the management of diseases in Nigeria. This position is very much in tandem with the submission of the United Nations (2018), in its empirical investigation on the lack of infrastructure to the economic growth of any given nation. It was observed by UN (2018) that the lack of infrastructural development stiffens the development of any given nation (Hetzel, 2021). It was stressed further that the availability of technological innovations eases vehicular movement and facilitates people's movement from rural areas to urban centres.

It was equally affirmed that technology creates employment opportunities for those who can take good advantage of technological innovations. According to Fayehun *et al.* (2020), mobile technology is quite key in terms of medical emergency as it increases access in healthcare where resources are limited and systems are closely under stress. Pertinent to this trend is the empirical study carried out by Omolawal (2018) and Wang *et al*, (2020), who contend that utilisation of information communication technology tremendously enhanced the practices of human resource management practitioners in Nigeria in terms of selection, recruitments as well as placements of employees. Nonetheless, he posits that the utilisation of information technology is extremely low as far as Nigeria is concerned.

Those who are technologically naïve will remain stagnant like a pond that does not flow (Abdullahi, 2020). He avers that technology guarantees business viability. It is expedient to state that Gates (2018) contends that human capital development is very critical to the exploration of technology in enhancing the growth and development of a given nation. At the heart of this, Adler (1992) contends that competitive organisations share a common trait in that such organisations create a viable match between their technology, the people, and the organisation and they establish well-meshed business, technology and human resources strategies. Nevertheless, a number of firms lack the match and consequent upon this, such firms come by a fraction of the potential of the new process technologies.

The firms that never invest adequately well or effectively in the pool of the workforce training are fondly antagonising workers and unions by sidetracking them from the planning and implementation process and as a result of this; they fail woefully when it comes to the preparation for the new technologies with long term strategic plan. In this light, Adler (1992) indicates that the pace of technological change enables these handicaps exceedingly delineated in an era of intensified world competition. Digitisation has been conceptualised to be extremely key to business success. To strengthen this, Deb and Claudio (2015), maintain that technology does determine how, when and what managers should manufacture in contemporary industrial settings. To this end, technology has become an integral part of organisational modus operandi.

By the year 2025, creativity skills would have been 260 percent demanded while presentation skills would have been 110 percent demanded. Lastly, 750 percent of digital literacy skills would have been demanded (Amobi, 2018). In this wise, one genuinely needs to acquire the knowledge of new things and make frantic efforts to learn what is regarded as foreign languages such as French or Portuguese, German, Spanish and Swiss aside from the English Language considering the fact that about seventy percent of the future of work would exclusively be enterprise skills. On the strength of this, Amobi (2018) submits that individuals should search for skills that would precipitate the business owners to continually need their services. Irrespective of this, such skills should not be the ones that every Tom, Dick and Harry is engrossed with such that such individuals should stand out from the crowd when it comes to the labour market hunting (Wright and Schultz, 2018)

Robotics would take charge of the administrative aspect of work, clearing, investment, financial analysis as well as paperwork. In respect of voice recognition, Artificial Intelligence would take charge of cyber security and Biometrics (Amobi, 2018). In this respect, machine learning has been credited with efficiently handling data science as well as productive analysis. In the case of data processing, the digital platform will be in charge of the fourth industrial revolution. To buttress the foregoing, Lima (2019), posits that with the recent wildfires and infrastructural deficit, the job of a firefighter is becoming more calamitous on yearly basis. Lima (2019), maintains that whether it is a fire in a particular dilapidated building or a dwelling place, more often than not, firefighters are going in

blindly in an attempt to salvage the people who are trapped inside. Most times, they know what they are walking into; whether it is crumbling walls or obstructed pathways of chemical leaks. Oftentimes, the fire is extreme so much that fire-fighters dare not move close enough to properly fight it. According to Lima (2019), in view of robots beginning to make their way into the law enforcement agency, it becomes natural that they are utilised in terms of fighting fire outbreaks.

Larry Page, one of the founders of Google, opines that Artificial Intelligence remains the future of the current Google Search engine which indicates that Google Search Engine would be taken over by Artificial Intelligence (Amobi, 2018). In tandem with Amobi's submission, Dandaura (2014) stresses that workers currently find themselves doing less of what they used to do as tasks because technology does the tasks which are meant to be executed by workers. To strengthen this, Daniels (2015) contends that when technology is heavily relied on but the skill is not in use, it ultimately results in deterioration of skill. Nevertheless, Akeredolu (2020) asserts that Nigeria's chocolate has been adjudged to be one of the best in the entire globe. Jacob (2020) indicates that banks' personnel expenses rise despite declining staff strength. Sobowale (2020) stresses that innovative development will enormously foster food sufficiency in Nigeria. Workers cannot rescue situations when technology fails or break down which will inevitably do (Daniels, 2015).

About seventeen percent of employers of labour currently deploy automated technology (Wright and Schultz, 2018). The European Association of Electrical Contractors further discloses that the employment impact of a move to e-vehicles is pretty imminent. It has been submitted that the major beneficiaries will be those who are working for small and medium-sized enterprises. Amobi (2018) discloses that most technologies are already with people. As a typical example, people have seen Drive-through malls deployed in Saudi Arabia. Similarly, the utilisation of Uber Air Taxi, Pepper Robots which is being adopted by Stanbic IBTC Bank, Alexa which is deployed by Amazon and has taken over barely three thousand and five hundred skills and still growing uninterrupted, Driverless Taxi, Robotic Waiters, IBTC Sami which is already on Facebook which can robustly assist one in terms of opening one's account without having to bat an eyelid as well as a whole lot more. King (2019) opines that the technology has not fully advanced in Nigeria which indicates that how many

people have developed themselves digitally in Nigeria given that people pretty need to get a world in the digital space.

Lima (2019), contests that robots are not meant to replace human firefighters. Rather, they are invented chiefly as equipment to fight fire and salvage lives and properties. Ogunjobi (2020) maintains that the erratic nature of the power supply in Nigeria has precipitated the liquidation of most companies due to the exertion of a huge amount of money on the running of generators and the purchase of diesel and petrol. Lima (2019), stresses that in an event of conflagration, or any other type of emergency, robots are quite apt in rescuing the situation. Consequent to this, Lima (2019), submits that workers recruited in Fire Service are never going to entirely get rid of disaster. All the same, robots as well as future robots can basically save lives and effectively deal with catastrophes which should be adequately invested in and researched. Globalisation, according to Amobi (2018), will be pretty diverse as people would witness an enormous rise in freelancing, outsourcing, E-commerce such as Zoom, Skype, Virtual Reality, and Augmented Reality. People would greatly experience an astronomical increase in demography as well as a massive change in work.

The fire-resistant Walk-Man, according to Lima (2019), stands firmly about six feet tall and it only weighs 220 pounds. He asserts that the robot is very mobile and has the tendency to carry very heavy objects long distances and has a battery that can last about two good consecutive hours. The onboard cameras, 3D laser scanner and microphone sensors enable it to maneuver and access the emergency. It has the potential to be equipped alongside chemical sensors if needed. Lima (2019), argues that the Walk-Man collects images and thereafter sends them back straight to a human team who can remotely guide the robot. This remote control is usually carried out exclusively by an operator manning a virtual interface that is censored suit, which affords them to relay actions to the avatar as Walk-Man does. Although it still in the development phase, the Walk-Man has passed all the tests. Technology has enabled man to traverse where he could not previously travel to (Wood 1987). Equally, it has created jobs where jobs were not initially available. All these provide insights into the importance of technology to mankind.

Several misconceptions must be put in proper perspective concerning the Silicon Valley (Agbata 2020). He contends that there are tens of thousands of start-ups in Silicon Valley and thousands more entrepreneurs from outside the region who visit it on yearly basis. Agbata (2020) maintains that in this fast-paced, dynamic environment full of competitors and deal flow, no one is sitting around waiting for one. He posits that if one ever dreams of visiting Silicon Valley in the quest for a gold pot, then it is intriguing simply because one will learn several things. In any case, he contests that no one is going to wait around for one. He submits that it is quite tough out there.

As young people, the youth must make concerted efforts to become somewhat ambidextrous (Amobi, 2018). According to her, people must be able to do more than one thing in the digital age for them to be indispensable in the scheme of work. Deductively, people pretty much need to be hungry for much in order to combat influence of technological innovations on jobs. Amobi (2018) contends that people should not conceive the notion of staying put with an obsolete proposition which goes thus: I am a medical practitioner; I am a legal practitioner; I am an engineer; I am a pharmacist; I am a banker;I am an Architect; I am a pilot; I am an Accountant; and I am a journalist and the natural question that comes to one's mind is: so, what?

Robots have been adopted for the free delivery of food to health workers during the Covid-19 pandemic in theUK (Swed and Burland, 2020). In a similar vein, the Ugandan government equally deployed robots to diagnose patients for Covid-19 during the Covid-19 pandemic. On the contrary, FCTA (2020) kicks against the utilisation of Drive-in for the conduct of a concert attempted by Naira Marley in the Federal Republic of Nigeria during the Covid-19 pandemic. The stance by FCTA stating that Drive in concerts were not allowed in FCT was geared towards social distancing to curtail the spread of Covid-19 in the country as social activities accounted for the second phase hike of coronavirus in Nigeria (Okechukwu, 2021).

As technology evolves, employers are usually compelled to embrace it to compete comparatively and broaden the scope of clientele (Wright and Schultz, 2018). Wright stresses further that employees must align their skills with the technological trend to remain

indispensable in the scheme of work in the fourth industrial revolution. Amobi (2018) reiterates the fact that one reality of the matter which is quite worrisome remains that about sixty percent of students are still being taught the courses which would radically be changed by automation latest by 2025. King (2019) contends that people who are not relevant on social media are relegated to the background in the fourth industrial revolution, he stresses that communication has shifted from e-mail to social mail. He discloses that Graphic International Airport has broken a record, having embraced digital innovations and he stresses further that if one puts the thirty-five airports in Nigeria together, they cannot be compared to the said airport.

Artificial intelligence has the tendency of providing baseline intelligence for Nigerians which should be embraced by all and sundry given that students do not need to go to class before they can learn (Amusan, 2020). He opines that humanity pretty needs to be fully involved in Artificial intelligence. Amidst all these, the U.S.A government incentivises companies to automate by giving tax breaks for purchasing machinery and software (Semuels, 2020). He argues that a particular business that pays an employee \$100 pays \$30 in taxes. Nevertheless, a business that spends \$100 on the procurement of equipment pays about \$3 in taxes. Semuels (2020) indicates that the 2017 TaxCuts and Jobs Act lowered taxes on purchases of equipment so much that business owners can realize money in the procurement of equipment.

By the year 2025, people would be working remotely but not necessarily from the office to avert hassles, wear and tear (Amobi, 2018). In an article written on technology with regards to *to*Curbing Food Crisis in Africa, Abdourhamane (2020) maintains the fact that several challenges confronting Africa's agriculture could be effectively resolved with the deployment of appropriate technologies. He affirms the fact that African countries pretty much need to enhance technologies that are capable of salvaging the food crisis which the continent currently encounters. He avers that the deployment of appropriate technologies is pretty pertinent to the creation of conducive environments and translation of political will into action, Africa would be able to comfortably feed itself and overcome all the challenges confronting it at the moment.

In the spring of computerisation, precisely during the late eighty's and early ninety's, enormous apprehension overwhelmed the managers as well as employees in the workplace over the coming of digital platforms thinking that the emergence of the innovation would eliminate them from their jobs (Penn and Scattergood, 1985). To their greatest amusement, it eventually turned out to enskill them, given that they were able to acquire knowledge bordering on the digital platform without having to lose their existing artisanal composition of skill. Logically, it can be affirmed that technology remains a tool through which one gets work done. Hence, as technology evolves, one is expected to upgrade oneself in order to adequately explore it. Nothing remains stagnant in life. New technology requires new skills to man it.

Ironically, the intermediate workers devote their weekends to learning one vocation or the other, whereas, technicians are of the view that they have reached the peak of their jobs such that they resign to destiny (Gallie, 1978). The crop of mechanics who usually repair vehicles have resigned to destiny that they have reached the zenith of their careers and so, they do not bother to develop themselves on the account that they have known it all. Consequently, they find it extremely difficult to diagnose faults of the new models of vehicles following their sophistication. To one's amazement, people who are into white-collar jobs utilise their weekends to acquire one skill or the other to have multiple streams of income. This trend simply aligns with the apprehension of Braverman who asserts that vocational skills are at the brink of going into extinction, given the dichotomy between manual and mental work. Marx (1844) argues that artisanal dexterity will be extinct given the fragmentation of work in the capitalist system of economy. Braverman (1974) asserts that knowledge and intelligence will fade away in view of the capitalist modes of production that divide and mechanise work processes.

An employee who possesses unique skills finds himself working with an organisation with high capital investment, diversity and value-added (Blauner, 1964). Consequent upon this, such an employee does not experience undue pressure emanating from being given one target or the other owing that such an organisation is financially buoyant. Amobi (2018) maintains that contingent skill would prevail from the year 2020 henceforth. Judging by this, one pretty needs to possess numerous skills to survive the threats posed by the fourth

industrial revolution. It is interesting to note that Orondaan (2020) asserts that virtual learning connects children in the community to learn easily which guarantees international best practices following the fact that it enables the children to learn very well and enables them to buy data.

As quoted by Agbo (2020), the former Vice-Chancellor of Obafemi Awolowo University, in person of Prof. Eyitope Ogunbodede, contended that low crop yield, reduced soil fertility rates, rapid environmental degradation, climate change, drought, invasive pests, aggressive weeds and diseases are the major challenges confronting conventional agriculture in Nigeria and all these factors precipitated food insecurity, hunger, malnutrition and abject penury. By and large, all the aforementioned challenges can be adequately combatted with the aid of appropriate technologies. He opines that Prof. Ogunbodede stressed that against the backdrop of the present population of barely two hundered million people in Nigeria and the need to guarantee food security in the country, conventional agricultural practices must pave way for modern equipment such as biotechnology to boost agricultural productivity in the country.

In an article written by Alaka (2019), who contests that traders pretty need to embrace an app for buying and selling of commodities that will simultaneously protect contemporary time's online buyers from scammers and hackers. Then, he discloses that BizShieldAfricaApp could simply be a sure bet for the traders. BizShield is exclusively designed with the peculiar African business terrain in mind, the app judging by its creator Temitope Akintunde, is a combination of social media platforms as well as having global e-commerce site which is better and easier to manipulate for all business transactions as well as services.

According to Adepatan and Ugoeze (2020), the digital age offers a vast variety of digital products, some of which are more secure than others. In light of this, when selecting a digital solution for virtual activities, one must consider both functionality for one's demands and security. They argue that virtual meeting planners should be aware of the risks involved and implement the appropriate cyber security measures. Whatever the case, it has been shown that the Federal Government does not always use Zoom but instead makes use of

Microsoft Teams, which has been deemed secure. According to reports, the National Information Technology Agency's (NITDA) Chief of Business Affairs and External Relations, Mrs. Adiza Umar, emphasized that the government had earlier Diversification remains the antidote to counteract the effects of the Corona Virus on jobs and businesses as upsetting of utility bills will not cease at household levels as people's stomachs will continue to demand for food (Marin, Wasserman, Cotoia, Singh, Tarnavska, Gershon, and Merritt, 2020). With technological gadgets, the academic session will not be disrupted such that they would be run uninterruptedly (Marin, et al., 2020). They illustrate with the American system of running education by sending iPad to the school children in their respective homes, and providing internet for Zoom through virtual classes. In the long run, both pupils and students were able to finish the academic calendars within timeline, despite the havocs wreaked by the Covid-19 pandemic. Marin asserts that this enables academics to curtail the effects of the Corona Virus on intellectual enterprise across the globe. Learning is made effective and efficient particularly when apt technologies are put in place as tools to animate learning. Hetzel (2021) discloses that the availability of basic infrastructure tremendously enhances vehicular and human movement in a given community. This according to Hetzel (2021), facilitates the conveying of farm produce of the farmers from rural areas to urban centres.

It is glaring that one needs to upgrade to combat the effects of technology on work content. Task automation affects remittance from one country to one's indigenous country (Wright and Schultz, 2018). Remittance contributes greatly to the economy of any given country such that it is greatly affected when job automation engulfs the tasks which are previously done by employees. Remittance is pretty central to nation-building but when tasks meant for employees are mechanised, nothing would be left to be remitted to one's indigenous country. Remittance is pretty central to nation-building but when tasks meant for employees are mechanised, nothing would be left to one's indigenous country of origin.

In juxtaposing deskilling with enskilling, deskilling jobs create new jobs for those who are technology savvy (Dandaura, 2015). According to him, it decelerates, having compared deskilled jobs with enskilled jobs which is sixty percent enskilling rate whereas the deskilling rate is forty percent. Dandaura (2015) posits that any company with up to five

hundred employees tends to deskill employees. People must be innovative and people who have innovative ideas are usually rewarded (Ibidapo-Obe, 2020). He states that students of tertiary institutions in the country are ostensibly worried about their future; they have protested over the continued closure of campuses as a result of Covid-19. As an academic, he appreciates their sentiments and he imagines where they are coming from. He claims that they are bothered about losing opportunities. However, he claims that people have not understood the epidemiology, physics, chemistry and possibly the biology of Covid-19. He does not think anybody wants to stay at home and he is quite sure that most people would like to go out. However, if one does not understand a disease, it is only reasonable to take the caution to stay away from where one thinks one can contract it.

In the presentation of a research paper on the state of digital disability inclusion compliance for effective learning and rigorous research in Nigeria', at Mambayya house in University of Kano, Adeyemi (2020) discloses that the Executive Director of CITAD, MalamY.Z. Ya'u appealed to relevant authorities across the nation to create a framework that will include Digital Education for the disabled right from the secondary school level. He lamented the discrimination being suffered by disabled undergraduates in tertiary institutions across the nation. Hence, he enjoined the federal government to formulate a policy that will mandate the citadels of higher learning in the country to put in place the needed facilities which will enable people with disabilities to acquire comprehensive digital knowledge. Digital education enormously enhances learning, owing that it adds finesse to it.

Research and development (R and D) will continue to remain at the forefront of the growth and development process, particularly with the rise of exceedingly globalised and knowledge-driven economies (Bogoro, 2020). He alludes to the fact that investment in research and development is central to the synthesis of new knowledge. From the viewpoint of Bogoro (2020), in most African nations, Nigeria, which is the largest economy in entire Africa when it comes to nominal Gross Domestic Product (GDP) inclusive, the role of R and D in accomplishing economic development does not appear to have been given the required attention. Nevertheless, he stresses that in Asia, developing nations such as Malaysia, Singapore, South Korea and Taiwan are among the highest successful wherein education and technology have been at the heart of national development policies. Bogoro (2020) indicates that these nations have great potentials to become powerful global competitors in relation to sustainable development, given their efficient and exceedingly well-educated labour force and their export-oriented industries. From his perspective, they are potential motivators for the advancement of R and D in other developing countries.

Human resource practitioners in Nigeria utilise ICT for job advertisements, job selection, job recruitment and job placement, although its adoption was discovered to be quite low in Nigeria (Omolawal, 2018). Job applicants have been saved a lot of the stress initially encountered while in the quest for jobs. In this wise, whoever can adequately explore LinkedIn, a social networking website for business people to communicate, would have to upload profiles; particularly, the professional often use the networking site to find new jobs opportunities and share numerous pieces of vital information. An applicant is able to secure a job of his choice without having to go through much rigour. To this end, technology is a key driver in securing jobs with ease. However, Omolawal and Onyeonoru (2021), reveal that it is unfortunate that several Nigerians do not usually check their emails. This indicates that ICT has not been fully adopted in Nigeria in comparison to the western world.

It is really unlikely that there would be an e-learning option that entirely supports the diverse multiple of needs (Adewole, 2020). Adewole contends that a child's needs quite vary considerably from one child to another. According to her, if one has seen a particular child with special needs, one has only seen a child with special needs. She establishes that needs range from deficits in speech and language to social interaction, behaviour modification, physical needs, and mental health dysfunction, amongst others. She states that it suffices to affirm that diverse e-learning options with modified content are much needed to truly support the varied needs. She believes that while the e-learning platform meets some needs and keeps education flowing, it proves less supportive for others, particularly children from less-privileged backgrounds who do not have access to it and for children who require physical intervention and sensory integration, including touch, deep pressure and massage.

In respect of the impacts of technology on work contents, several young Nigerian start-ups who asked for help to find investments, some asked for help to find resources or contacts whenAgbata visited Silicon Valley (Guma and Agbata, 2018). They assert that the young

Nigerian start-ups have made the magical trip to Silicon Valley and have come out successfully with some investments. They maintain that the initiative is a good development. Nevertheless, on the flip side, it may imply that Nigeria is losing what should be its local start-ups. By and large, one should take cognizance of the awesome value which SV has contributed not necessarily in terms of the American economy but across the globe. He indicates that during a visit to PlugandPlay Tech Centre situated in Sunnyvale, about 50 executives and entrepreneurs came from Brazil to be immersed in the disruptive innovative Silicon Valley is known for. They stress that companies such as Telefonica, BNP Paribas, NED Bank as well as a few others regularly send employees to visit Silicon Valley. He avers that the teams in the aforementioned companies remain innovative and usually think disruption.

The low point of the use of internet for business transactions is the fact that social media is an open source where hackers and fraudsters normally take undue advantage of several subscribers (Marin *et al.*, 2020). They claim that their primary objective is to showcase businesses and interpersonal relationships. They enjoin the internet users to take the good advantage to project their businesses without having to abuse it. They further submit that those people who fondly perpetrate havocs on social media should desist from such acts. All the same, the advent of social media has immensely enabled numerous businesses thrive. Among the industries that have substantially benefited from social media are those in aviation, healthcare, real estate, utilities, business services, media, food and beverage, textiles, and transportation. Social media is the most recent phenomenon in communication that has given people the freedom to speak freely to anyone about anything or anyone in a very democratic fashion (Ekpu, 2020). According to Ekpu (2020), social media is a platform that individuals use to share information.

The digital revolution would redefine jobs such that whoever is not technology savvy would be eliminated from the scheme of work in the fourth industrial revolution (Amobi, 2018). Meyer (1999) stresses that in the pre-industrial epoch; William Lee developed a sewing machine. However, Queen Elizabeth I was hesitant to give him the patent right as a result of the apprehension emanating from tax payments which the citizens of England were remitting to the England Authority during that period. With the intervention of the parliament, William Lee was given the Patent Right. In spite of this invention, jobs have not gone intoextinctiontill date. Jobs will never go into extinction because the planning of work is done by the people. People should upgrade to remain in the scheme of work perpetually. Digital technology enables people to deliver results which imply that the vast majority of people who do not have jobs at hand should explore technology (George-Igbafe, 2020). People should learn a digital skill which is an elevated version of the technology. She confirms that NBS (2020) indicated that those who lack digital skills do not stay on jobs for long. In this wise, people should leverage digital skills given that everything is technologydriven (George-Igbafe, 2020). People should learn about Artificial Intelligence, robotics and digital platform. People should become change-makers in the digital epoch.

Technology is a catalyst for the fundamental development of a given nation (Guma and Agbata, 2018). Idowu (2020) asserts that the state government and doctors were at loggerhead over Covid-19 incentives across Lagos State, Nigeria. Regarding this development, Sanwo-Olu urges striking doctors to resume work. Igbokwe (2020) discloses that in flattening the curve which connotes the rallying cry of the Covid-19 pandemic, technological gadgets are pretty essential. Nwalor (2020) asserts that FG has chosen to reduce the costs of the internet by 2025. This symbolises that the internet is central to both small and medium enterprises across the country. Ahmed (2020) discloses that in the Manufacturing Association of Nigeria, Covid-19 has boosted the consumption of locally-made goods. He asserts that the assembly-line operators should comply with the social distance guidelines to flatten the curve of Covid-19 across the country.

In an era of e-learning adopted to impart knowledge into students in the spring of Covid-19, children with special needs require extra efforts to learn via e-learning because they are mostly children with Autism and other related development disorder including Attention Deficits, Attention Deficit Hyperactive Disorders as well as Learning Difficulty (Adewole, 2020). Most schools have some children with co-morbidity. She confirms that these children with special needs are those who have disorders; they have been diagnosed with more than one disorder. She claims that it was initially difficult turning the table but it has now progressively improved. She asserts that the majority of students, including those with additional needs, had prior exposure to technology before the Coronavirus outbreak. Against

this background, they were able to transit and cope as long as their classes are short and engaging. In any case, the case of the indigent children without the privilege is worrisome.

Robot workers amused people when they executed tasks like real workers during the coronavirus pandemic (George-Igbafe, 2020). In this light, she posits that digital skills are required in today's workforce owing that employees need to start digital skills as today's work requires artificial intelligence skills. Adepatan and Ugoeze (2020), maintain that in the spring of the Covid-19 pandemic, exceptionally skilled employees operated remotely in the comfort of hotel rooms rented by their companies. This initiative immensely afforded the employees to carry out their job functions remotely in the comfort of their hotel rooms without encountering any constraints. The implication of this is that one must be scandalously skilled to survive technological waves in the fourth industrial revolution. Amobi (2018), posits that contingent skills would characterise the nature of work in the digital era. Everything revolves around developing digital skills to remain indispensable in the era.

In light of Nigeria's impending 60th birthday on October 1, 2020, the country's need to improve its human capital has been examined (Nwafor 2020). He cites specialists who have said that the nation's citizens will never be able to do anything as a group without the use of human capital. In Nwafor's opinion (2020),Human capital specialists have been given the task of expanding their thinking beyond business to include the nation as a whole and what is necessary for Nigeria to continue developing by Busola Alofe, the Registrar and Chief Executive Officer of the Chartered Institute of Management and Personnel Management of Nigeria (CIPM). According to Nwafor, Alofe believes that HR professionals' work aids in promoting the agenda (2020).

Dexterity has been the main reason for high income, great wealth and financial independence for numerous people (Ogunmupe, 2020). He avers that one's ability to determine one's priorities and assiduously work on those priorities until they are eventually accomplished is indications and measures of one's self-discipline, willpower and personal character. According to Ogunmupe (2020), this is a crucial habit one must develop if one truly wants to be a great success. According to him, this one habit alone will make one a

self-made millionaire. He maintains that developing a reputation for speed and dependability is the thirteenth habit of self-made millionaires. According to him, since time is the currency of the 21st century, everyone at the moment is in a tremendous hurry. He affirms that customers want their services or products delivered almost immediately.

It is crucial to note that only a few universities in the universe are exclusively research institutions (Bogoro, 2020). According to him, the few most distinguished academic institutions even have a major responsibility for teaching. He contends that the universities in the developing nations were essentially established as teaching institutions primarily by colonial authorities interested in training civil servants and employable staff in the education sector. In the light of this, Bogoro (2020) submits that the founding objectives of universities across the country made it extremely challenging to have research-intensive institutions; as research was usually thought of as secondary. He stresses that this is pretty imperative to change the orientation and refresh the traditional objectives of universities across Nigeria.

Concerning the Covid-19 vaccine, Kavanagh, Erondu, Tomori, Dzau, Okiro, Maleche, and Gostin, (2020), affirms that the rule of thumb pretty needs to be taken into cognizance which essentially refers to the fact that every chemical is a potential poison that signifies retrogressive relapse. According to him, individuals have defense-fighting cells to resist the impacts of Covid-19 on the metabolism. He stresses that blood cell varies from one person to another. Against this background, multiple tests must be carried out to ascertain the efficacy of vaccines invented to combat the virus. In other words, clinical trials are at the heart of vaccines to curtail the spread of coronavirus to establish whether it will not be detrimental to the health of mankind. Scannell (2020) indicates that Virginia launches smartphones to track coronavirus spread. Concerning the coronavirus vaccine, there is a trust gulf between the government and the people (Kavanagh *et al.*, 2021).

Leaders in human resources (HR) are needed throughout Africa in order to construct organizations with excellent talent and advance the industry that has recently gained attention (Nwafor, 2020). Given that they emphasize the necessity of a global standard, talent, and voice for optimal production, she claims that HR is essential to Africa's growth.

Nwafor (2020) points out that the HR professionals provided their submissions during the Pan-African Panel session of the 52nd Annual National Conference of the Chartered Institute of Personnel Management of Nigeria (CIPM), where they engaged in extensive discussion about establishing the agenda for human capital management in Africa. Nwafor (2020) claims that Wale Adediran, President and Chairman of Council, CIPM, focused on creating the road map.

Local jobless centres across the USA which receive federal funds spend an average of \$3, 500 per person on retraining (Semuels, 2020). Nonetheless, Semuels (2020), contends that Ayobami Olugbemiga, the press secretary at the National Skill Coalition, posited that jobless centres normally run out of funds early in a calendar year as a result of limited funding. Semuels (2020) submits that Gabe Dalporto who is the CEO of Udacity who offers online courses in programming and data science andAI established that a billion people will lose their jobs in the next 10 years because AI and robots will take over certain jobs from people. He stresses that if one tried to reskill a billion people in tertiary institutions, one would break the university system. He maintains that if federal funding were widely available, the surge of people who need retraining would certainly be more than universities can handle.

In a given hotel in the contemporary corporate world, a mechanical butler which was designed by robotics company Savioke might roll down the hall to deliver towels and toothbrushes which required no clues (Semuels, 2020). In his position, robots have been deployed in the course of the pandemic, to meet guests at their rooms with newly disinfected keys. Semuels (2020) discloses that a bricklaying robot can as well lay more than 3,000 bricks within an eight-hour shift; separate breastbones and carcasses in slaughter houses and pack pallets of food in processing facilities. Semuels (2020) posits that automation of tasks does not indicate that robots are taking everyone's jobs. In his perception, for centuries, humans from weavers to mill employees have worried that advances in technology would create a world without work and that is never proved to be the case. Semuels (2020), contests that ATMs did not immediately decrease the number of bank tellers. The advent of ATMs has resulted in losses of certain jobs owing that customers were lured by the convenience of cash machines which reduces the stress in visiting banks

regularly. Semuels (2020), claims that banks opened more branches and recruited tellers to handle tasks that are beyond the capacity of ATMs. He argues that without technological advancement, much of the American workforce would be toiling away on farms which ultimately accounted for 31% of the USA's jobs in 1910 and at the moment, account for less than 1%.

In critically examining the effects of technology on work content, Guma and Agbata (2018), posits that as an African living in Africa, he knows that Africa is confronted with challenges of innovations and each day he is encouraged by the increasing number of bold start-ups taking such challenges. He states that this is one reason Nigeria started CFAs Start-ups Hangout, a monthly meet-up/fire chat session that seeks to connect start-ups with experienced entrepreneurs and mentors. According to him, one of the objectives to replicate the Silicon Valley model is essential to bridge the knowledge gap which exists among start-up founders in Nigeria. He further argues that this can be achieved by inviting experienced industry veterans and entrepreneurs to provide the start-up founders with practical insights which would enable them to come up with better solutions and add value to the African economic growth in general. He maintains that he is a strong believer in Africa. In a similar vein, an interesting TedX Talk by Stephen Ozoigbo lucidly distils some of the firmly-rooted assumptions of what Africa is not. As quoted by Guma and Agbata (2018), it was summed up nicely thus that there is a new Africa and he welcomes individuals to join on this journey given that the only way is up.

The significance of a mentor is herculean to overstate whereas implementing a mentorship strategy as part of succession planning should not be paid lip service to (Omolawal, 2018). According to Omolawal (2018), human resource management, strategy, mentoring, and succession planning are basic ingredients of organisational growth and development. In a similar vein, creating a mentorship plan remains a crucial component of successful succession planning of a given organisation (DeRosa, 2018). According to Maxwell (2020), HR professionals need to be aware of the factors that influence recruitment and its challenges as well as how to address engagement and sustainability issues across the continent.

As posited by Semuels (2020), Daniel Susskind who is an author of *World without Work: Technology, Automation and How We Should Respond* discloses that machines do not fall ill; rather, they do not need to isolate to protect peers and they do not need to take time off work. Semuels (2020) maintains that in respect of the pandemic, the new wave of automation will be tougher on people of colour like Collins who is black and a low-wage employee. Semuels (2020), avers that many black, as well as Latino Americans, are cashiers, food-service workers and customer-service representatives which are among the fifteen jobs which are most threatened by automation looking at the trend from McKinsey. He asserts that before the coronavirus pandemic, the Global Consulting Company estimated that automation could displace about 132,000 Black employees across the USA by 2030.

Online learning providers, according to Semuels (2020), can offer relatively inexpensive upskilling options given that people do not have guidance counsellors, classrooms and other features of brick-and-mortar schools. However, there could be more of a role for employers to provide those support systems going forward owing that it is cost-saving and it makes learning effective. Semuels (2020) indicates that Dalporto, who calls the wave of automation during Corona Virus Economic Pearl Harbour, opines that it is incumbent upon the government to provide a tax credit of \$2, 500 to organisations that provide retraining for deskilled employees. Semuels (2020) asserts that organisation severance packages include \$1,500 in retraining credits. He explains that the majority of employers are turning to Guild Education which works with employers to subside upskilling. According to him, a programme which it launched in May 2020 enables organisations to upset a fee to have Guild assist laid-off employees in securing new jobs. He claims that employers see this as a means to create loyalty among these former workers.

In this context, inclusive digital education, which must incorporate social media, is essential for educating people for the benefits and opportunities that will come with work and responsible contributions in the near future (Adepatan, 2020). The promotion of ethical and responsible social media and technological practices must be part of this, as must the creation of interest in them. For instance, promoting ethical online content creation and social media ethics in programs for journalists is essential. Adepatan (2020) asserts that the

government should be proactive in the governance of social media by actively engaging with pertinent parties in the technology community, civil society, and youth organizations, as well as the social media platforms, to communicate and come to consensus on common and novel approaches, as well as on data protection and privacy issues.

To substantiate the significance of digitisation in Nigeria, Prince Dapo Abiodun, the governor of Ogun State launched Adire Digital Market in Ogun, Nigeria (Ubani, 2020). This has a potential of fostering the economy of the state and the country at large. Ilaya (2021) maintains that technology can foster the economy, if well-harnessed as it enhances productivity. The federal government must roll out the technology to fast-track connectivity to boost the economy. According to him, connectivity between technology and production cannot be divorced. He affirms 5G will help the economy and production of goods to foster. Small and medium-sized businesses will be boosted as well. Because of the economy, technology needs to be upgraded. Government must do the basics so that the economy will be boosted. Technology will strengthen the ways people work in both the public and private sectors. He indicates that the strength of the population should be explored as well. He submits that people should be encouraged to be more productive in terms of technology, education and entertainment.

Trade Unions protested in Mexico over employment uncertainties brought on by the Coronavirus regarding the effects of technology on jobs (Aliyu, 2020). She makes the claim that hotspot states in Australia report fewer new coronavirus cases; this will encourage economic activity in the aforementioned states. For Nigerian telecommunications operators, the Covid-19 pandemic and the resulting economic disruptions in the first half of 2020 generated enormous income of NGN 1.97 trillion (Adepatan, 2020). In his opinion, the amount spent on telecommunication services, specifically airtime, in the first half of the year represented an increase of almost 57 billion dollars compared to the amount spent during the same period in the previous year.

The Vice President, Prof. Osinbajo who happens to be a SAN and the Chief Justice of Nigeria, the Senate President, Ibrahim Tanko Muhammed, Ahmed Lawn, the Speaker of the House of Representatives, Femi Gajabiamila, and the President of the Nigerian Bar

Association (NBA) were among the other industry leaders and legal luminaries scheduled to attend the first legal technologies Virtual Conference on August 13–14, 2020, to substantiate the influence of technology on work (Onyekwere, 2020). From his perception, the conference, which will be accessible to participants across the universe via the Zoom video conference app, is being organised by Law Pavilion Business Solutions Limited, Nigeria's top LegalTech Company, in synergy with Telnet Group, Nigeria's top digital transformation company. He opines that Mr. Ope Olugasa, the managing director of Law Pavilion Business Solutions, will be in attendance.

Today, being digitally connected, technology seamlessly enables millions of people to carry-out job functions and learn from home (Ronkainen, Edstam, Ericsson and Ostberg, 2020). Quintessential examples of the exponential transformation of technology, according to Wright and Schultz (2018), are the aviation sector, construction sector, agricultural sector, banking sector, communications sector, and health sector, among others. Nevertheless, the evolution of technology has implications for work requirements in the workplace so much so that technological advancement changes the critical nature of work characteristics in the workplace (Thompson, 1983). Edwards (1979) describes workplace as a contested terrain owing that the business owners usually aim at optimising profits in business transactions at the expense of employees. Business owners always accomplish this aim by adopting sophisticated machines such as stop watch to time employees in workplace particularly in the manufacturing settings. This is due to the fact that technology seems to optimise profits more than employees and it reduces the physical exertion and mental efforts of employees in the workplace (Amber and Amber, 1965). Employees are in a precarious situation in that technology optimises profitability and efficiency more than human workers (Graham, 2009). Automated machines have begun to threaten the existence of workers in the autocomponent industry in India as they make their presence felt (Murrali, 2015). As automated technologies make their presence felt, the fate of workers becomes bleak as workers do less of what they used to do (Murrali, 2015). If this development persists, what will be the fate of workers? Numerous people have irretrievably lost jobs in the toxic Covid-19 pandemic, given that robots and artificial intelligence are substituting them faster more than ever before (Semuels, 2020). The spring of machines has made jobs moribund for centuries (Semuels, 2020).

2.5 Technology and Job Alienation

In attempting to show that sophisticated technology engenders job alienation, it becomes fundamental and germane to establish that the concept of alienation is one of the focal ideas in Marx's Sociological critique of work with regards to the capitalist societies (Edgell and Granter, 2020). According to Edgell and Granter (2020), Marx's construal of alienation was both unavoidable and universal in capitalist societies. By and large, alienation could be overcome when the workers are conscious of their existence. Alienation cuts across all human endeavours (Oriola, 2017). Amber and Amber (1965) submit that alienation is viewed as a scenario whereby an employee is an object whereas technology is a subject. According to them, an employee loses physical efforts as well as mental exertion when equipment is a simple automatic machine. When equipment is self-initiated, it takes away the initiative of an operator. In this wise, removal of discretional power is central to alienation from work. In respect of the subject matter of worker powerlessness, Akinwale (2014) avers those employees worked in a precarious condition and worked extra time without being compensated. In view of job alienation, Weber (1922) posits that social stratification emanates from a struggle for scarce resources because people construe it as economic resources. Alienation can equally entail a struggle for prestige and political power (Perulli, 2022).

In a scenario where a piece of equipment is controlled by symbolic process, an operator's efforts are not really immediately following the fact that it is controlled by robots; it is set in motion by professional programme engineer as well as routinely servicing the equipment by maintenance engineers. What is evident is that work relations between two unequal groups are usually lopsided. This signifies that an employee is usually at the receiving end. Pertinent to the subject matter of alienation, Hull *et al.*, (1982), maintain that empirical research carried out in New Jersey among the employee in managerial jobs revealed that there was no waiting time as aptly gathered from such employees. Foster (2010), contests that the harsh experiences emanating from being forced to earn one's living by endless conformity to boring machine-regulated routines, progressively divorced from one's creative potential simply because of efficiency as well as profitability are all indices of job alienation.

Influence of division of labour and mechanisation of work results in alienation among employees, given that they lose all control over the labour (Edgell, 2006). Given this, employees in the capitalist system of economy in the long run adopt instrument orientation to work. Against this background, Marx contends that it is nothing more than a way to earn a living. Edgell (2006) affirms that at the heart of alienation is that it is greater in some jobs than others; if the particular work is routinised, fragmented, standardised, rationalised, simplified and monotonous, the employees are more detached from their work, particularly in the assembly line work process. However, if the work requires greater involvement of attention, the employees feel more active.

The relationship which exists between employers of labour and employees within employment relationships is usually lopsided (Nnonyelu, 2011). The idea being portrayed here is that the relationship which transpires between two unequal groups is always one-sided, given that the former aims at optimising profits whereas the latter's desire is to earn money for the labour being expressed in work settings. From his viewpoint, trade union is a continuous association between the have and have not, which cannot be put on the same pedestal. Unions as bureaucratised organisation within workplace are an essential element of a firm which is viewed as the mouthpiece of employees in times of crises. As a matter of fact, the place of trade unions in employer-employee relations cannot be undermined as it is germane to dispute resolution before it degenerates to a crisis that can be counter-productive (Faniel, 2002). Apart from the fact that unions see to the welfare of employees, they are pretty necessary in a given firm to mediate on behalf of employees when a dispute arises.

The historical antecedent of the concept of alienation is firmly enshrined within European cultural and philosophical tradition whose root is traceable to the Old Testament as well as in the works of the Greek pshilosopher who is known as Plato as well as his followers (Rinard, 1996). The conceptualisation of the notion of alienation has evolved tremendously across the ages. Notwithstanding, because the subject matter has remained relevant in all ramifications of life signifies the significance of the phenomenon which connotes the subjective experience of being separated from the universe emanating from one's inability to establish meaningful interactions with the globe or to be devoid of the willingness to do so.

No simple definition can adequately capture the numerous intellectual traditions that have engaged the notion of powerlessness as a pivotal explanatory idea of alienation (Blauner, 1964). He avers that one basis of confusion borders on the fact that the notion of alienation has integrated philosophical, psychological, sociological, as well as political orientations. This implies that its inter-disciplinary approach gives it multi-dimensional approaches which give it numerous conceptualisations. This principally justifies it not having a universal conception. Foster (2010), maintains that the exact social process of production is the flesh and blood as it is the case in human body composition such that both act of work, the relationships of subordination and superordination, through which work relations are organised, and controlled.

The intriguing news regarding alienation, as established by Kostas Axelos, is that all human history has been essentially the history of alienation; no reality has preceded alienation given that Axelos claims that man has usually up to the moment been alienated (Oriola, 2017). He posits that alienation is not unchanging. However, it has become accustomed to the relations in the infrastructure as well as superstructure. He submits that the intrinsic malleability of alienation is trans-continental, trans-generational and trans-historical.

In a capitalist society which is the society that people live in, worker's alienation is inevitable owing that a worker mostly expresses labour in privately owned corporations where he is viewed as a raw material. Hence, his recognition and value result from his ability to contribute his quota to the realisation of surplus value. The labour expressed by a worker is quite central to the production of goods and services. Marx (1844) frowns at the historical processes that concentrate the process of production in the hands of the capitalists, and reduces the power of the worker in the labour process. In the labour process, the relations between two powerfully unequal people are usually lopsided. In writing on social relations, Marx (1844) maintains that relations between the capitalists and workers are exploitative.

Alienation is when a worker lacks control over his work. Blauner (1964) posits that an alienated worker becomes an object to the machine when he lacks control over his work. Marx (1844) notes that alienation can be construed as the separation or estrangement of

human beings from some crucial aspects of nature and society which sometimes engenders feelings of powerlessness, meaninglessness, social isolation, hopelessness and self-estrangement. Akinwale (2014) contends that employees did overtime without being paid owing that they lacked the power to contest the alienation suffered from the workplace.

From the historical standpoint, the universe is conceived as a social universe and being alienating. The people who were tagged alienated were those who were unable to become identified with the society (Osin, 2009). He argues that the alienation is the appropriation of the cultural-historical experience of mankind that occurs in a conversation with others which can be considered as significant from a particular person's immediate environment and interim members of the previous generations through books and works of art forms what is referred to as an individual's mind.

Regardless, individuals become exceedingly self-reliant from society by getting to discover personal dimensions. Consequently, individuals' conversation with the universe is not entirely determined by their biological needs and social roles any further. Consequently, the conversation develops into an inner conversation besides the outer conversation. This scenario can be conceived as existential analysis. According to Akinwale (2014), employees were subjected to precarious working conditions to the extent that they were subjected to extra hours without compensating them; he describes this kind of scenario as alienation from work. This mirrors the extraction of surplus value which Marx (1844) emphasize and maintain as characteristic of the capitalist societies in which people live in.

Alienation is the way and manner in which workers perceive and assign meanings to their work, it greatly accounts for their attitudinal approaches and behavioural patterns. Nevertheless, it is not the production technology that predisposes employees to alienation (Goldthorpe and Lockwood, 1963). In other words, the perspectives of employees do shape their behaviours but it is not the technology deployed for the execution of tasks that shapes their behaviours. They both observe that across the production technology, the employee conceive work mainly as a means to an end, especially as a means for determining or attaining those in instrumental employees. To re-enforce the foregoing, Baran (1969) avers that the interests of the business owners and that of the employees run invariance. The point

being established here is that the employers aim at optimising profits by minimising the costs of production whereas the employees aim at receiving substantial wages for the labour expressed in the course of production of commodities.

The analogy of a life-long professor who is frustrated over the growing amount of time which he spends with students aptly captures worker alienation. In a similar vein, the insurgent who is infuriated over the environmental disposition and degradation epitomises job alienation. When a banker is downsized and he is expected to assist in training his successor who is based abroad can be said to experience job alienation. Equally, the lone wolf Identity Christian terrorist, and Boko Haram terrorist who have been afforded no education, no skill, possess zero human capital development and place no value on human life are all preys of the system which produces human waste or wasted humans. All these similarities suitably illustrate the phenomenon of alienation (Oriola, 2017). He argues that these real-life actors in the amphitheater of life all point to the chemistry of socio-economic status, gender, space, race and factors beyond the immediate environment with regards to the new alienation.

Foster (2010), attests to the fact that some business owners were initially overseeing the affairs of their business ventures but having observed that the burdens were challenging, they resorted to engaging the services of managers who were saddled with the responsibilities of planning, management, coordination and administration, which Onyeonoru (2005), explicitly conceptualises the hallmarks of Industrial Relations. Foster (2010), contends that for the business owners to invest the surplus values on further businesses, the work process is bifurcated into conception as well as its execution, thereby the management is encumbered with planning whereas the employees are saddled with its execution. It has been established that what emerges thereafter from these social relations is an exploitation of the employees.

Oriola (2017) avers that the notion of alienation has become part of ordinary language, mostly used in media. He further stresses that the concept permeates every aspect of human endeavour. He posits that a group could be said to be alienated from society or young people alienated from main stream value. IPOB epitomises the concept of political alienation in

Nigeria (Oriola, 2017). According to Marx (1844), workmen are interchangeable parts to machines.

Alienation, according to Marx (1844), has four dimensions which are stated as follows: (1) alienation of workers from the process of production (2) alienation of workers from the end products (3) alienation of workers from co-workers (4) alienation of the worker from the species of self. Blauner (1964), maintains that alienation varies across industries. Given this scenario, he carried out studies in four industries which are: (1) printing (2) textile (3) automobile (4) chemical. He discovered that workers in the printing and chemical industries enjoyed considerable control over their jobs which is in contrast with the craftsmen in textile and automobile industries. Oriola (2017) argues that a professor who teaches extra hours whose salary is not paid by the federal government is being alienated from his job.

Blauner (1964), identifies four dimensions of alienation which are stated as follows: powerlessness which is the lack of control over work or workplace; meaninglessness which is loss of worth of the work because work is subdivided into routine, repetitive and monotonous activities; social isolation which borders on when workers cannot identify themselves with the society where they work and self-estrangement which refers to when workers feel foreign to the products of their labour. Berg *et al.* (1987) contend that Blauner's data do not consistently support the inverted u-curve hypothesis. Their re-examination of Blauner's data indicates that the hypothesis is supported if the textile category is excluded.

According to Seeman (1959), alienation has five dimensions which are powerlessness, meaninglessness, normlessness, social isolation and self-estrangement. His notion of powerlessness signifies when a worker lacks control over his job. His notion of meaninglessness simply indicates when a worker feels disillusioned in his job. Normlessness connotes when the values are not adhered to in a particular organisation thereby merit is no longer rewarded. He construes social isolation in terms of the inability to be identified with the firm with which one works. Finally, self-estrangements are being conceived as a scenario whereby a worker is separated from the product of his own hands.

It is essential to stress that in the Communist Manifesto (1867), Marx and Engel contend that workers should be conscious of their existence in order to put an abrupt end to the exploitation of the business owners. This is evident in the popular parlance of Marx which goes thus: A class in itself and a class for itself. The interpretative meaning of this is that until the workers realize their existence, they cannot rise against the exploitation of the business owners. In this wise, they will be able to bring to an end the undue subjugation which they experience in the hands of the capitalists. It is worthy of stressing that Marxism is inarguably a theory of the antagonism of the exploitation occasioned by capitalism which is an instrument of inhuman treatment which the workers suffer in the hands of the bourgeois.

It is crucial to note that the Marxian conceptualisation of advanced technology resulting in increased alienation has generated philosophical debates between techno-optimists and techno-pessimists. While the former maintains that the emergence of automation results in skill decline which brings about a class of workers known as proletariat, the latter argues that the advent of automation results in skill rise which ushers in a category of employees known as professionals. In other words, it was discovered that the former avers that workplace automation automatically users in the destruction of handicraft skill, whereas the latter affirms that the spring of technology removes the drudgeries of work, thereby taking work beyond post-industrial era known as the post-Fordist era.

In contrast to Marxian conceptualisation of the social relations which exist between the bourgeois and the proletariat, Burawoy (1985) submits that Marxian conception of social relations is utopian in nature. According to him, it is practically unrealistic for the employees to take over the control of the production. The reality of the matter is that if the control of work is left in the hands of workers, they would definitely do everything according to their whims and caprices. To buttress this, Boje (1999) argues that it is wise to concentrate the planning of work in the hands of the management given rigorous training which they have undergone. With their expertise, they should be able to plan how the work should be carried out professionally. In this regard, Burawoy (1985) maintains that if a firm achieves efficiency, it would equally benefit the array of the worker because a financially buoyant firm would not subject its workers to undue pressure. This view is in tandem with the view of Blauner (1964) who stresses that a firm with buoyant economic status would invest heavily in its workers such that they would be comfortable psychologically,

financially and mentally so much that they will experience less pressure emanating from being given targets.

Amidst the notion of alienation, Baran and Bellamy (2017), contests that the interests of both business owners and employees differ, in that while the former aims at optimising profits, the latter equally aims at earning colossal salaries to cater for immediate needs. The most unfortunate situation is that the latter is viewed as raw material within any given firm Harvey et al., 1983). Hence, the humanisation of employees is elusive. In this wise, the main value of a given employee lies essentially in his or her ability to contribute his or her quota to profit optimisation to invest it in the enterprise to flourish (Seeman, 1959). One other intriguing aspect of Baran and Bellamy's stance on the notion of alienation borders on the fact that an employee can only express labour in a privately owned firm where he or she is viewed as a mere raw material just like all other raw materials expected to bring value to the table. To strengthen this, Akinwale (2014), indicates that in a capitalist economy, an employee is being directed into action by business owners as if he or she does not possess a sense of rationality whereas an employee is a rational and autonomous entity. The idea being portrayed is that in a given firm, an employee lacks control over the work process he or she is being directed to carry-out job function in the light of what the management dictates to him or her.

There are points of convergence and divergence critical in Marxian conceptualisation of increased alienation and in Seeman and Blauner's conception of alienation. It is essential to note that Marx (1844) explains alienation as four dimensions which include: alienation from the process of production; alienation from the finished commodities; alienation from co-workers and alienation from specie of oneself. It is noteworthy that Marxian construal of alienation can be understood essentially in terms of activity alienation; product alienation; social isolation and specie alienation. In the case of Seeman (1959), he conceives alienation in terms of powerlessness, meaninglessness, normlessness, social isolation as well as self-estrangement.

In the case of Blauner's construal of alienation, he maintains that alienation has four distinct dimensions which include: powerlessness, meaninglessness, social isolation and self-

estrangement. Irrespective of the slight variations in the perspectives of these scholars as far as the notion of alienation is construed, the point being established in this context borders primarily on the fact that employees lack power over their jobs in any given capitalist mode of production as work is divided into various segments.

Deducing from the foregoing, a worker is not permitted to be part of the production process from the beginning to the end because the work process is broken down into fragments and a worker can never be part of the production processes right from the start to the very end. Beyond this, when a worker participates in the production process, he or she cannot get to see the end product as work is increasingly fragmented. Very characteristic of work arrangements in the capitalist system of production, a worker is not quite at liberty to identify himself or herself with the firm where he or she works neither can he or she be involved in the decision-making process. Asides from this, a worker is disillusioned as a result of the fragmentation of work owing to job automation.

Academic literature fittingly establishes that free trade economy, monetary and fiscal policy and less intervention of government are expressly advocated for. It is imperative to establish that the proponents such as Weber (1905), in "The Protestant Ethics and the Spirit of Capitalism" and Keyn (1939), in "The Theory of Employment: Interest and Money" and others began to view the economies of nations from the social framework of Stateism. It is crucial to note that these scholars contest that the nation-state has become an instrument of advantage in the interest of a selected few who gained the means of production, influence state policy and exploit those who do not have much influence.

In August 2016, the main highway from Caracas, Venezuela to a popular archipelago in the city of Chichiriviche was completely barricaded by protesting employees (Oriola, 2017). Oriola notes that both sides of the highway are the nucleus for agriculture business. In his perspective, one firm had just downsized approximately 50 percent of its entire workforce and the preponderance of them is from lower cadres of the hierarchy. Oriola (2017) explains that the protest was jointly championed by employees who were downsized and those who were not laid off. According to him, the firm was believed to have the intention to lay off more employees and have them replaced with cheaper labour at a time of high levels of

unemployment and major economic crises in Venezuela. He avows that both the recently downsized and would-be laid-offs collectively staged a protest to express disapproval against the management's decision to get them laid-off. This lends credence to how technology alienates employees in the workplace. Oriola (2017), contends that a professor whose salary is not paid but he teaches students diligently and whole-heartedly, in spite of the non-payment of his salary, is alienated from his work. He contends that the subject matter of alienation permeates all areas of human endeavours.

The organic composition of capital entails not paying wages of employees (Foster, 2010). What the business owners resort to is investing in other organisations so that their businesses would grow rapidly. If business owners extract surplus value, majority of them ensure that they invest in other organisations order to flourish. To overcome this, employees simply need to develop exceptional skills to avert the calling of shots of the management. Asides from workplace settings, Oriola (2017) notes that the likes of The Indigenous People of Biafra and Niger/Delta youth are clamouring for sovereignty due to the marginalisation which emanates from the distribution of resources and political power. This signifies that alienation permeates all ramifications of human endeavour. To this end, alienation reflects on all facets of humanity.Marx (1844), sternly frowns at the economic history which concentrates the control of the production process in the hands of the capitalists (Foster, 2010).

2.6 Technology and Job Satisfaction

In stating that technology plays a pertinent role when it comes to deriving contentment from one's job, it is crystal lucid that man remains one of the most complex factors of production. As time, tools, finance, machinery and information can be easily managed quite effectively, efficiently and economically to accomplish the set organisational goals, the management of human elements remains pretty difficult to conduct. The management of human factors in the workplace therefore entails the fact that managers ought to take into cognizance that human nature is characterised by values, temperament, choices, eccentricity, emotions, preconjectures, idiosyncrasy, attitude, volition as well as sentiments, all of which robustly contribute to affect their work performance in the workplace (Baruch, 2004). According to

Baruch, the necessity for the effective management of employees has precipitated the springing up of a specialised department within the gamut of an organisation, saddled with the responsibility of resolving issues bordering on labour, which is realty felt more in a particular profit-oriented organisation.

It is key to note that the subject matter of job satisfaction was first used by the foremost Scottish economist, Smith (1776), maintains that when a particular worker focuses on utilising a piece of certain equipment, such a worker will achieve efficiency as well as proficiency but this, according to him, would result in a mundane and dissatisfied workforce (Taneja and Thoombs 2011). He substantiates his point on the ground that the entire work process becomes monotonous and routinised, consequent upon concentrating on utilising a single tool to perform job functions. Besides this, the notion of job satisfaction arose as a result of the pitfalls rudimentary in Scientific Theory which was propounded by Taylor in 1911(Taneja and Thoombs 2011). Taylor's postulation was principally in the bid to optimise profits in an organisation where the Organised Labour Theory was propounded. It is worthy of establishing that Taylor (1911) posits that work should be fragmented, thereby, each employee should concentrate on his unit which brings about specialisation and which, by extension, increases the productivity of an organisation. Owing that Taylor did not factor in the motivation of workers, his theory was faulted. In an attempt to salvage Taylor's Scientific Management Theory from its pitfall, the likes of Maslow, Mayor and Herzberg came up with Theories of Motivation otherwise known as Organised Labour Theory.

Taylor's Theory (1911) accounts for productivity of an organisation by adopting carrot and stick measures. Despite the time and motion measure advocated by Taylor in 1911, it was discovered that productivity was still lacking in the organisations. Taylor failed to take into cognizance that human relations are central to the growth and development of a given organisation. In the light of this, Maslow and Lewis (1987), comes up with a Theory of Motivation which centres on the hierarchy of needs which principally focuses on the motivation of workers in a given organisation. Maslow and Lewis (1987), stresses the fact that people are propelled to acquire particular needs which take precedence over others. In his view, people's most basic need is primarily for physical survival and it is the first thing

which stimulates people's behaviours. As soon as this basic need is taken care of, the next stage is what propels them.

Against this backdrop, Maslow and Lewis (1987), highlights key areas in his pyramids of needs which are feeding, clothing, shelter and self-esteem. It is obvious that when an employee of a particular organisation is not well-motivated, he will not whole-heartedly contribute his quotas to the realization of the set goals and objectives of such an organisation because he will be disloyal to such an organisation. To satisfy a human being is quite difficult because human wants are insatiable (Smith, 1776). The reality of the matter is that what a person considers to be his best interest could be inimical to the interest of another person due to various situations and circumstances. Even a set of twins cannot have the same goals and aspirations towards their future. Little wonder the employers of labour strive to satisfy their employees to achieve optimal productivity. Despite the concerted efforts made by the business owners, satisfying employees still remains unattainable given that satisfaction varies considerably from person to person.

It is a herculean task to adequately satisfy the employees of a given organisation. This is primarily because what constitutes satisfaction for a particular employee may differ from what constitutes satisfaction for another employee. For instance, the monetary incentive could constitute motivation for employee 'A' in Nigeria while it may not be a motivation for employee 'B' in the United Kingdom because choice differs. Job satisfaction varies considerably from person to person which ranges from the firm, job, income, coworkers, and supervisor's personality, mode of supervision, work conditions, fringe benefits and promotions. This is why most employers find it exceedingly uneasy to satisfy their employees because human needs are insatiable (Smith, 1776). Pertinent to job satisfaction which refers to the level of fulfilment which a particular employee derives from their job, Maslow's Pyramids of Need play a vital role in providing insights on the fulfilment that a worker derives from his or her job. According to Maslow, job satisfaction can be construed in terms of clothing, feeding and self-esteem. His construal of job satisfaction is captured in such a way that the peak of the hierarchy of needs indicates the height of satisfaction which can be likened to when a lecturer reaches the status of professorship, it is presumed that he or she should feel exceedingly fulfilled by ascending the peak of academic cadre owing that

self-esteem would be his or her utmost priority at this particular point in time. Maslow and Lewis (1987), submits that an employee who is in a lower cadre is very likely to derive fulfilment from clotting, feeding and salary. This epitomises the variations in job satisfaction in the workplace.

The Two-Factor Theory of Motivation centres on motivator and hygiene (Ghazi, Shahzada and Khan 2013). This theory is otherwise called Herzberg's theory of Motivation. According to Ghazi, Shahzada and Khan (2013), the basic assumption of this theory is that there are certain factors in workplace which result in job satisfaction whereas another separate set of factors engenders dissatisfaction. The aforementioned factors act independently of one another. Khan et al. (2013), aver that there are two sides of a coin to motivating workers which are: satisfaction and dissatisfaction.

The hygiene factors are being made available in an organisation; employees naturally feel a sense of meaningful connection to their work (Scott, Gravelle, Simoens, Bojke and Sibbald2006). According to them, this dimension of job satisfaction known as motivator entails the ability to use individual talents on one's job. In this respect, employees pretty need to be tasked with meeting up with well-defined standards of excellence as well as being recognised for what they do in the organisation. It has been stressed that explicit identification of a job well done via communication of praise as an employee reward programme is a typical example of motivating an employee. Another salient means of motivating an employee is by giving him or her opportunities for advancement in an organisation.

An employee can be satisfied to bring the best in him or her. This is because a satisfied worker will give his or her best in his or her job whether he or she likes the job or not. In other words, a well-motivated employee will be spurred into the action of executing tasks diligently in the workplace. The take-home point from the conception of Scott et al. (2006), job satisfaction is the fact that a particular employee may derive job satisfaction from the condition of work while another one may derive his or her job satisfaction from the association with the co-workers and another one may derive job satisfaction from take-home income and on and on like that. The baseline is that sources of job satisfaction differ

considerably owing that choice equally varies considerably from one person to another person.

A dissatisfied worker will definitely resort to labour turn-over and labour turnover ultimately results in low productivity (ScienceDirect, 2019). Scott et al. (2006) highlights nine dimensions which work content has which include: work content according to Smith, speaks to an employee's attitude towards his specific job duties and his tasks within a particular company. In his view, dissatisfaction arises in a scenario where an employee's job duties are not in line with his experience or talent. According to ScienceDirect (2019), satisfied employees are considered to perform and equally remain loyal to the organisation in which they work. This confirms the fact that motivating an employee serves as a catalyst to the productivity of a given organisation whereas demotivation engenders labour turnover rate in any given organisation.

Empirical studies show that workers' attitude and perception within an organisational commitment and performance is greatly determined by job satisfaction. As a typical example, the meta-analysis of organisational commitment by Meyer and Allen (1991), reveal that all three classifications of organisational commitment are undesirably connected to pulling out of cognition and turnover and affective commitment strappingly connected to organisation-relevance when it comes to performance, attendance, and organisational citizenship behavioural factor and employee-relevance (that is burn-out and work-family conflict issue). Besides, Khatibi et al (2009) maintain that there is a significant destructive relationship between work stress and job commitment in terms of affective commitment and normative commitment. Irrespective, it has been well-established by scholars that there is no significant relationship between continuance commitment and work stress. It is worthy of asserting that studies have been carried out in the light of job satisfaction and organisational commitment in educational settings, most importantly, in primary and secondary schools in Nigeria.

2.7 Technology and Job Commitment

To convincingly posit that workplace technology influences loyalty, willingness, undauntedness, responsibility, allegiance, and feeling obligated towards the vision, mission, goals and objectives of a particular firm in the contemporary industrial settings, Alao and Adelabu (2012) and Bawallaand Adenugba, (2021) maintain that the most rampant problem being encountered by companies' managers and employers in the technological environment which people are is principally how to adequately motivate employees for organisations to maintain the status quo with their well-trained staff for fulfilled workforce to contribute their quotas to the optimal organisational stakes. According to Alao and Adelabu (2012) and Bawallaand Omolawal, (2022), a given organisation's liveliness, be it public or private, emanates from the motivation of its workers, although their capabilities play just as essential a role in determining their work performance.

Job commitment is conceptualised by Meyer and Allen (1991) as a concept in an organisational field of work in terms of the comprehensive effort of a particular employee's participation and involvement in a certain organisation and the degree to which employee or personnel cherishes his or her job. Scholars posit that there are three distinct aspects of organisational commitment which are affective, normative, and continuance. It is essential to note that MeyerandAllen (1991)Hersowitch and Topolnytsky (2002) and Chen and Francesco (2003) unanimously submit that affective commitment borders essentially on perceived emotional attachment which an employee has towards an organisation. Continuance commitment is regarded as employees' perceptions and perspectives about economic costs of migrating from one's organisation where one works (Bawalla, 2021). Normative commitment is construed by Meyerand Allen (1991) as when an employee has intuition towards having an obligation to remain in an organisation but not in his organisation.

Conceptually, organisational commitment is interchangeably used as commitment which remains a concept in organisational enterprise of work (Meyerand Allen1991, Dick, 2011). From the standpoint of Meyer and Allen (1991) job commitment can be construed as the comprehensive effort of a particular employee's involvement and participation in a given organisation. Equally, it is the degree to which an employee values his or her job. Numerous studies categorised job commitment into three aspects, these are: affective, continuance and normative commitment (Meyerand Allen1991); Meyer, Stanley, Herscovitch, and Topolnytsky, 2002; Chen and Francesco, 2003; Cheng and Stockdale, 2003; Chang, Chi, and Miao, 2007). Affective commitment refers to a situation whereby an employee is having perceived emotional attachment or identification and getting involved in the organisation. Continuance commitment refers to an employee's view and perception in respect of the economic costs about leaving his or her organisation (Meyer and Allen, 2007). Normative commitment is conceptualised as a scenario whereby an employee's attitude regarding his or her obligation to either stay put or not in his or her organisation which is done by weighing the pros and the cons (Meyer and Allen, 1991).

Job commitment is the degree to which a worker likes his or her work. Numerous studies have been carried out on the concept of job commitment. It is imperative to note that job commitment is closely-intertwined with job satisfaction given that its antecedents originated from job satisfaction. Satisfaction varies considerably owing to demography of status, work experience, age, gender, race and education. Job commitment has been conceptualised as a critical area of work considering that several workers migrate from their jobs due to dissatisfaction at their workplaces (Arisukwuand Adeniyi, 2011). Spector (1997) extensively carries out studies on job commitment about organisational character. Whawo (1993) contests that the higher the prestige of a worker's job, the greater the degree to which he or she will like his or her work in terms of commitment and satisfaction. Job commitment is influenced by several factors, such as the quality of one's relationship with a supervisor, and the state of physical and work environment. It should be noted that increased job satisfaction results in highly improved performance.

Numerous employees who partook in the protests waged at Amazon against the background of hazardous working conditions were allegedly laid-off and Amazon is vigorously fighting federal complaints claiming at least two of the firings violated US labour (Sainato, 2021). He maintains that a total number of ten millionaires catch on \$400 billion's boost to affluence in the course of the coronavirus pandemic. As revealed by Sainato (2021), stakeholders' shares and profits rose in 2020 by billions of dollars. However, Amazon has only made provisions for a fraction of those extra earnings in bonuses and hazard pay to employees, owing to an analysis carried out by the Brookings Institution. It is expedient to note that Meyerand Allen (1991) maintain that the feeling of responsibility towards any given organisation is a by-product of satisfaction emanating from the tool a worker. According to them, a committed worker is enthused and loyal to contributing his or her own diplomatic, ideological, intellectual, and professional quota towards the accomplishment of the goal, objective, mission and vision of the organisation where he or she works whether he or she likes the job or not. Commitment is being viewed as a state or quality of being dedicated to a particular cause, activity, struggle, engagement, or a fight, as the case may be. In other words, it is viewed as an engagement or obligation which restricts freedom of a particular action.

To be consciously, deliberately, and intentionally faithful to an organisation entail being pleased with certain aspects of one's job. They stress that the degree of the contentment that an employee derives from work determines the extent to his or her enthusiasm and loyalty which propels him or her to discharge his or her task assiduously to attain the optimal goal of an organisation. Meyerand Allen (1991), posit that there are three models of job commitment which are: (1) Normative (2) Affective (3) Continuance.

Affective Commitment

The affective commitment of one's job, otherwise known as affective content, according to Meyerand Allen (1991), centres on having a strong emotional attachment towards a firm or towards the work which one does. People will develop affective commitment towards their jobs if they do experience positive emotions at work. This model is quite apt in terms of enhancing commitment and engagement in one's team. It is overwhelmingly evident that if one has great passion for one's job, one will genuinely carry out the tasks which one is saddled with so much so that one will gladly identify oneself with the organisation's goal and values without any hesitation. Worker who is passionate about their organisation will carry out their tasks diligently to contribute their quota to the growth and development of the organisation.

Continuance Commitment

In the case of continuance commitment, it is a notion that orbits around weighing the pros and cons in engaging in migrating from one's job or organisation as the case may be. In this wise, one might choose to stay put on one's job given the fear of the unknown (Bawalla, 2021). This is principally because the loss which one will probably encounter by indulging in labour turnover could outshine the benefits that one is likely to enjoy when one leaves one's current job for another, particularly in the area of one's role. Hence, the fear of what one stands to lose cautions one from leaving one's current job for another. One envisages losing money-wise, seniority-wise, role-wise, self-esteem-wise, and even the skills which one has acquired over the years and the social status which one has built over the years (Adegbite, Bawalla and Adedeji, 2020). This will propel one to put in one's best in remaining loyal to one's organisation. It is glaring that the severity of the losses usually increases with age as well as experience. One is more likely to experience continuance commitment in a situation where one is in an established, successful role, or one has had numerous promotions in one's current job.

Normative Commitment

Normative commitment is otherwise known as a sense of obligation to remain in an organisation whether the situation is good or bad. It focuses on when an individual feels obligated to remain with an organisation, even if such an individual is unhappy with the role he or she is saddled with, or even if the individual desires to chase better offers elsewhere, individual feels that he or she should remain in the current organisation given that individual thinks that it is the rational decision to take. This type of obligation could be a by-product of numerous factors.

An individual could think that he or she needs to remain with an organisation, having invested heavily in him or her in terms of money and training which will perhaps yield dividends in the foreseeable future such as sponsoring individual's education to a tertiary institution. Individual may choose to owe such an organisation a duty of care. The obligation can as well come in form of nurturing individuals. As a typical example, one's family might posit that one should remain loyal to one's organisation. This is ascribed to the

fact that the organisation has paid its dues which must be reciprocated by the individuals who earlier enjoyed the financial assistance of the organisation.

The Commitment Model

Meyer and Allen (1991) model of commitment aptly captures different workers' psychological states. The standpoint of the model was created for two principal reasons which are knowing the interpretation of the present state of research and establishing a framework for future research. It should be noted that this study is strictly focused on effects of technology on work contents in food and beverage firms in Lagos State.

The Factors Influencing Job Commitment

Incentives: employees are stimulated into actions by certain motivating factors such as awards, fringe benefits and allowances (Arisukwu and Adeniyi, 2011). All the enumerated incentives go a long way in propelling employees not to switch allegiance in organisations where they work. In other words, incentives serve as impetus which stimulates employees into loyalty to organisation where they are being recruited to. Permanent employees enjoy job allowances and fringe benefits more than casual workers (Jawando and Adenugba, 2014). It is intriguing to note that when these are not there to spur employees in organisations, they do not hesitate to migrate from one job to another. What ultimately accounts for turnover is principally the demotivation of such employees,

Job Security: Casual employees feel less secure in their job than permanent employees (Jawando and Adenugba, 2014). Employees are usually motivated by job security which shapes their decisions to remain loyal to organisations. Equally, a worker who is on temporary employment or appointment usually feels more insecure than an employee on a permanent employement who is entitled to total emolument packages in the workplace (Cuyper, 2009). An employee without job security has undesirable feelings towards his or her job and this destructively affects him or her. It is noteworthy that an employee whose job is insecure is not likely to be loyal to his or her employer. It was established that permanent work status is construed to be closely inter-related with job satisfaction and dedication of workers.

Leadership Distribution: An employee can be loyal to an organisation as a result of the leader he or she is accountable to within the organisation (Scott *et al.*, 2004). In essence, a leader in an organisation can be a source of motivation for certain employees such that they give their best, having been inspired by the attitude of such a leader towards them.Some leadership characteristics have been ascribed to employees concerning their level of job satisfaction and commitment (Hulpia, 2009). It was observed that there is a nexus between the leadership team and leadership support about the organisational commitment of employees. The ultimate concern of employers is the job satisfaction and job commitment to live an exemplary lifestyle following that his or her followers seem to emulate him or her in this category. The distribution of leadership roles and delegation of duty also enhances workers to be more committed to their work.

Role Stress: The malfunction in performance of role has been associated with lots of negativity which affect the well-being of employees to perform well in an organization. It is expected that an employee will experience disputes and conflict in the workplace (role conflict). The lack of information to carry out a particular task (role ambiguity) is seen as the main cause of role stress. One of the major causes of employees' non-productivity and ineffectiveness could be ascribed to ambiguity and conflict in the workplace. The foregoing has equally been found to significantly influence organisational performance and employee satisfaction of a given organisation.

Empowerment: As far as empowerment is concerned, it can be best described as improving the self-effectiveness of employees and increasing intrinsic task motivation Maslow and Lewis (1987), Empowerment is closely interrelated to competence and intrinsic motivation; it is also geared towards accomplishing objectives and goals. Moreover, empowerment is conceived as the process of getting tasks executed and enabling people to muster resources. In a similar vein, the subject matter of psychological empowerment emanates from social-psychological standpoints construed as psychological features and attitudes of employees as it pertains to their work as well as the roles assigned to them in their organisations.

The dichotomy between normative commitment and continuance commitment lies solely in normative commitment orbiting around the primary obligation which a particular worker is saddled with to carry out that which he or she is being paid for at the end of the month. Continuance commitment is entrenched in a scenario where a worker wants to migrate from one job or organisation to another by first and foremost considering whether the intended labour turnover will usher in a better prospect or not after leaving for another job or organisation.

2.8 Technology and Degradation of Work

In trying to prove that mechanisation and fragmentation of tasks lead to work degradation in the work settings, Marx (1844), contests that the notion of breaking down of work in various segments increasingly diminishes the knowledge and the intelligence of workers, in that workers are unable to creativelymake the goodsof their own hands which they fabricate by dint of hard work. Arising from the Marxian conceptualisation of labour relations in the context of capitalism, Braverman (1974), postulates that distinguishing in the breaking down of work and mechanising, is work degradation in the capitalist system of economy. Baran (1969), shares this view by revealing that labour and capital are the opposite poles of the capitalist society. Marx (1844) buttresses this stance by arguing that antagonism is manifested and perpetrated between labour and capital considering the fact that capitalism is integral to their relationship.

In the light of work degradation, Braverman wrote a watershed on work degradation during twentieth century. Braverman's book was a watershedand it reveals the motive behind the corporate monopolistic enterprise era. Braverman (1974) alludes to the fact that technology engenders deskilling in the highly technological industry. He maintains that what distinguishes an architect from a bee is that the former preconceives an idea whereas the latter basically uses intuition. What simply distinguishes both is the power of imagination. In this wise, Braverman vehemently frowns at reducing the tasks which are meant for employees being mechanised as he considers it as being degrading. In 2018, a total number of 1,000 employees of First Bank of Nigerian Plc. were relieved of their jobs through text messages (Nairaland Forum, 2019). This development got such staff devastated to the extent

that some of them defecated in their bodies. This scenario ultimately gives credence to work degradation in post-Fordist epoch.

Edwards (1979), posits that because the capitalists aim at realizing the surplus-value, technology is deployed to cut the costs of production and at the same time, maximise productivity. In the bid to realize much profit, a technology that controls time and motion is deployed into the production system. He further argues that such a technology does not give room for waiting time, which he refers to as it 'no waiting dummy'.

Deskilling is being conceptualised by Groover (1980), as reducing the level of expertise that is required to carry out a task of job function. Foster (1998), confirms that there have been other forms in which ruling groups extracted a surplus for themselves from the working population. In slave societies, the masters directly appropriated the labour of others. In feudal societies, the rulers took from the produce of others. Foster (1998), argues that it is what the workers required under rules that obligated the peasantry to surrender to the manorial lord which is a portion of their products or their labour. It has been established of feudalism that the nobility defended all, clergy prayed for all, and the commoners fed all. Central to deskilling tendency, Nairaland.com (2017) indicates the fact that First Bank of Nigeria sent text messages to about one thousand staff that their services were no longer needed. This development got such staff devastated to the extent that some of them defecated on their bodies.

Winner (1980) maintains that technical gadgets possess political qualities. To simplify this, the idea being portrayed in this context ultimately borders on the notion that machines, structures and modern material culture can be adequately evaluated, not necessarily in terms of their contributions to efficiency and productivity nor for their numerous helpful and harmful environmental side effects, but for the ways and manners in which technologies embody certain forms of power and authority. In line with this trend of argument, Wright and Schultz (2018), signifies that technology possesses anthropomorphic features which require little or no inputs from employees in the production processes.

What the foregoing suggests is that technology possesses certain human-like attributes which dictate what a worker is expected to do at a given period. Blauner's textile industry epitomises this kind of technology in that loading and unloading machines dictate what a worker is expected to do at a point in time. Besides, assembly-line technology dictates the pace and rhythms of productive processes. When technology is controlled by a symbolic process, the efforts of an operator are not immediate (Amber and Amber, 1962). This kind of technology can be viewed as possessing the attributes of a man. This is because it takes possessing discretional power for a machine to self-initiate. In a scenario where a machine exercises certain functions without the intervention of a worker, it ultimately indicates that such a machine possesses human qualities.

Blauner's conceptualisation of technology can be viewed as being loose (Hull *et al.*, 1982). The justification adduced revolves around the fact that his inclusion of the textile industry renders his categorisation illogical. The argument advanced is that the textile industry more advanced than the printing industry. Regardless, he indicates that if the textile industry is excluded from his categorisation of technology. It was maintained that assembly-line technology tends to alienate workers due to its official sub-division. From the empirical study carried out by Hull *et al*, (1982), assembly-line technology does not afford its operator the privilege to attend to visitors while on operation because it is standardised.

In the light of the prior viewpoint, it was submitted that there is no wanting time in assembly-line technology (Hull *et al.*, 1982). It is worthy of stressing that in Blauner's perception, assembly-line technology has two dimensions which are the manufacturing section and spare-part section. In the case of the spare-part section, all the accessories which will be needed in the assembly-line section are produced. Due to the fragmented and rationalised nature of this section, workers' time is regimented. The spare-part section includes a showroom through which accessories and assembled vehicles are show-cased. Whereas in the assembly-line section, production process is fragmented, standardised, rationalised and routinenised which results in a high rate of labour turnover.

In Ford Highland, the production of vehicles was initially concentrated in the hands of craft men (Meyer, 1999). Regardless, work degradation arose from the deployment of belt conveyors which rendered the craft men redundant. The high point of the deployment of this technology borders majorly on its ability to produce for the vast majority of end-users. From Braverman's view (1975), craftsmanship is destroyed and emptied of its traditional content, the remaining ties, already tenuous and weakened between the working population and science is almost broken. Braverman (1974) maintains further that science and technology are tools of exploitation by capitalism.

The entire working population is construed as old working-class (Foster, 1999). Dangers, as confirmed by Marx (1844), can befall a capitalist society and especially, in the area of employee management and job satisfaction. In Marx's opinion, capitalists treat labour as they do other raw product resources. Braverman (1974) maintains that the efforts from the fields of management are simply pretences at improving labour's job situation. Braverman (1974) sees the efforts of management to improve or enlarge jobs as simply efforts to reduce costs and improve profits. Thompson (1983) claims that despite the truth in that statement, resources still have to be managed and improved upon if possible. Thompson (1983) argues that this is why there exist today programmes and efforts to improve the quality of life and work for the entire labour pool and management as well. Such programmes include labour relation efforts, employee assistance programmes and many others.

The fundamental factor which distinguishes capitalism from other modes of economic systems is that the business owners take laws in their hands to take control over all processes of labour and production and this constitutes drastic change which is distinct from what existed in the previous societies. Obviously, the artisans and craftsmen did enjoy great control over their work. Foster (1998) gathers that it is only under the capitalist system that the masters take over the entire production process. It has been revealed that Telecom investors vehemently considered outsourcing and other recruitment modes of operation after Covid-19 (kajjumba *et. al.*, 2020). This attempt to sustain the organisation ultimately goes against the International Labour Organisation's Law. It is worthy of establishing that International Labour Organisation (ILO) sternly frowns at casualisation as well as outsourcing of employees as it oversees the wellbeing of employees in the workplace.

If the tasks meant to be carried out by workers are automated, the entire fate of workers in the foreseeable future ultimately becomes depressing (Murrali, 2015). As far as the issue of technology is concerned, Daniels (2015) submits that over-reliance and lack of skill usage

have resulted in skill losses. He specifically alludes to the fact that the advent of autothrottle and autopilot, has led to aviation deskilling. Daniels (2015), stresses that technology inevitably runs into passive mood such that when the machine breaks down, operators are not usually prepared to salvage the situation manually. Daudaura (2015) alludes to the fact that as the tasks which are meant to be executed by workers are mechanised, workers do find themselves doing less of what they used to do. This signifies the fact that technology deskills workers in the workplace.

At the inception of Ford Highland Plant, the production of Model T was concentrated in the hands of the craft men (Meyer, 1999). All the same, in the spring of belt conveyor, the production was fast-tracked so much so that it was mass-produced which served a large population of the people to the extent that the workers' wages were increased to compensate the workers who were deskilled by the advent of the technology. Having increased the salaries of the deskilled employees, the workers were able to purchase from the products they manufactured. Interestingly, Meyer (1999), states that a worker was earning a huge wage per week which made up for the skill that was taken over by the belt conveyor. The intriguing point is that the initial manual labour could not produce for a large majority of the population grows; technology needs to equally grow to cater to the needs of the emerging population.

Engineer A.S Harder was the first person who utilised automated technology in Ford Highland when he was the manager (Groover, 1980). Groover (1980), asserts that technology has exponentially revolutionised all the spheres of human life where it has been adopted so much that there is scarcely an aspect of mankind which it has left unaffected. As it renders the jobs of the clerical personnel, traditional drivers, drummers and assembly-line engineers deskilled, it has equally rendered the jobs of software and hardware engineers entirely enskilled. To this extent, it can be argued that there are two sides of a coin to the emergence of technology.

There are three dimensions to influence of technological advances on work variables which are deskilling, enskilling and skill polarisation (Gallie, 1979 and Hesig, 2017). They stress

that the crop of artisans who operate in modern times have taken to their destiny such that they do not bother to upgrade because they believe that they have reached the pinnacle of their vocation. Ironically, the people who are into white-collar jobs devote their weekends to acquiring one skill or the other. This provides insights on the situation of the current crop of technicians not being able to discover the faults from new models of automobile vehicles and generating plants. Influence of technology on job skills can be best described as a double-edged sword (Timothy, 2017). In putting this scenario in proper context, as technology decreases job skills in certain jobs, it equally increases job skills in certain jobs.

When technology drastically reduces skill contents, it is viewed as deskilling whereas where it increases the skill contents; it is seen as enskilling; otherwise referred to as upskilling. Pen (1991), maintains that in the spring of computerisation, there was massive apprehension among some employees and managers emanating from the fact that the coming of digital-controlled machines would eliminate them. In the long run, it turned out that the workers did not eventually lose their artisanal skills. Rather, they were able to gain knowledge about digital-controlled machines. However, Muralli (2015) contends that when production grew from simple to mass production, mechanisation of work became the norm of the organisation. This did not only catalyze production but it equally enhances the delivery system of the end-products. Technology ultimately fast-tracks production process of commodities. This principally signifies that in the era of population explosion, technology pretty needs to evolve to cater to the needs of the emerging population.

Machines have begun to threaten the existence of workers in the manufacturing companies as production grows from single production to mass production owing that machines have begun to make their presence felt (Orji, 2014). In this wise, Muralli (2015) poses a critical philosophical question which goes thus: if all tasks which employees carry out are mechanised, what will become the fate of the workers in the society? It is in the light of this that Salami and Oyewale (2013), maintain that employees place a high premium on technology owing that it reduces the costs of production and at the same time, increases productivity. Therefore, if an employee misbehaves, such an employee will be severely dealt with.

Technology remains the most essential factor which affords an organisation a unique feature. It gives comparative and competitive advantage to a given firm (Blauner, (1964). Technology facilitates comfort and numerous benefits but for those who refuse to embrace technology, its comfort and benefits automatically elude such individuals (Suomela *et al.*, 2014). Technology signifies essentially the equipment system, mode of mechanization; which includes the technical know-how, and the mechanical skills required in production (Blauner, 1964).

At the heart of technology, three major factors determine the kind of technology that is deployed in terms of manufacturing system of a certain firm, these are the overall state of particular industrial art which indicates the existing level and the mechanical and scientific processes, the economic and available engineering resources of certain organisations, and more than anything else, the nature of the products which the firm manufactures (Blauner, 1964). A particular industry's product can be relatively unique and individuated like homes, buildings, vehicles and even the roads that are constructed by certain building industry, they can likewise be highly standardised like the products of radio and electronics industries. In essence, what determines the uniqueness of a particular product is principally the machine deployed to carry out the production.

In the Neolithic period, up till the 80s, two distinct technologies have prevailed, these are authoritarian and democratic (Winner, 1980). The former is system-centred and extremely powerful but it is quite unstable, whereas, the latter is man-oriented and relatively feebleminded but it is quite resourceful and durable. In the view of Winner (1980), the deployment of nuclear power facilities is comparable to authoritarianism. Over-reliance on nuclear power as a source of generating energy is only accomplishable in totalitarian states while solar energy can be viewed as democratic technology.

In advanced capitalism, political problems are not masked any further by the natural working of the market (Burawoy, 1985). Nevertheless, they are showcased as problems of both science and technology. Burawoy (1985), further avers that the application of science to the labour process does not necessarily lead to the expansion of the forces of production but at the same time, lays the basis for a new ideology in which the sustenance of capitalist

relations was tabled as a technological issue to be removed from politics related matter. He asserts that the pursuit of efficiency became the basis of a new ideology and a new form of domination.

Buchloh (2010) stresses that technology is a trade-off given that skills and jobs are lost; salaries are slashed and other things that accompany technology are affected. Technology has evolved to the point of doing tasks without human intervention. It is germane to note that all automated technologies are technologies but all technologies are not automated. A technology becomes automated when it requires little or no human intervention in the production process Salvendy *et al.*, (2010). By 2025, 32% of work will be automated; therefore, those who are technology-savvy will explore the intrinsic benefits and convenience of it (Amobi, 2018).

The worldwide unemployment rate has been worsened by the spread of automated technologies (I.L.O., 2018). This gives great concern to the governments at all levels because 30% of social problems are caused by the spread of technological innovations (Okafor, 2018). Beyond this, Vallas (1988) maintains that the more workplace technologies, the less-autonomous and less-challenging work appears to be. As tasks are increasingly automated in the workplace, both operators' energy and efforts drastically decline, particularly in the production process Salvendy et al. (2010), Gallie (1979) refers to enskilling as upskilling. Rasak (2015) avers that when a worker is exposed to virtually all the units in an organisation, it is viewed as multiskilling. Automated technology tends to convert raw materials into finished commodities with little or no human intervention. Adesina (2020) confirms that digitalising Africa will enable Africa to thrive in the global economies.

Technology is principally driven more by the capitalist machinery and it is not really for the well-being of humanity (Braverman, 1974). The argument advanced by Braverman was presented by first and foremost categorising a main proportion of the labour force as proletariat and thereafter, establishing how the workforce has been deskilled. Braverman (1974) maintains that the artisans and the craft men of the working world are almost going into extinction considering the capitalists break down labour processinto the mental and

execution exercises such that the manual labour is concentrated in the hands of employees who can no longer imaginatively formulate the products of their own hands. He opines that capitalism should be viewed as a crime against mankind owing that it deskills the craft workers by fragmenting their conventional craft into numerous small parts and redesigns the work in that anyone could actually carry out any part of the small job functions. Judging by the bifurcation between conception and the execution of work in the capitalist modes of production, the pride and the sense of oneself as an employee in an ancient skill is entirely deprived of.

Technology has evolved from mechanised age, electronic age and information age to digital age (Cirillo *et. al.*, 2018). With the digitisation of learning which was suddenly forced on the entire globe because of the current coronavirus pandemic, frantic efforts were made to know how e-learning worked for children, particularly those with special needs and challenges confronted by those teachingthem (Adewole, 2020). She indicates that the challenges which people encounter currently include: optimally teaching with a short attention span on a digital platform and monitoring students' screen time.

Another fascinating instance of work degradation centres on the Building Engineering Services National Agreement (BESNA) which was made up of a few managers in building enterprises in the United Kingdom who came together to cut the pays of their employees by thirty-three percent of their wages (King, 2018). Wood (1987) avers that techno-pessimism and other reactionary movements posit that technology causes pollution to the atmosphere and even affects societal values, for instance, if a grown-up lady is found to be a virgin, her peer would see her as an object of caricature in the society. In reaction to this assertion, techno-optimists contest that technology has created jobs in some areas where there were no jobs. As a practical example, the advent of Information and Communication Technology (ICT) has paved the ways for phone accessory sellers and airtime sellers (Wright and Schultz, 2018). In the light of this, Dandaura (2015) opines that deskilling technology creates enskilling prospect in that as some jobs are rendered deskilled, such technologies pave ways for new sets of jobs for those who can take good advantage of technology. An empirical study which was carried out in an auto-component industry revealed that virtually all tasks carried out within the industry were computerised, except spraying of cars and fixing of tyres of the vehicle manufactured (Murrali, 2015). In addition to this, another empirical study aptly carried out in the Billboard industry in England by Austin (1991), indicates that machines were adopted in the billboard industry to carry out job functions and workers were left with sweeping off the dust. It was gathered that the work was characterised by job functions done by machines which limited human labour. Artificial Intelligence, Digital Platform, and robots indeed render work automaton demeaning and mechanical (Buchloh, 2010). Cardinal to the notion of the mechanisation of work, Buchloh (2010) contends that when work meant to be carried out by an employee is carried out by automated technology, it deprofessionalises their job given that their artisanal disposition is vitiated.

Braverman naturally takes a viewpoint about crude technological determinism and the submission on the shaping of the labour process being specific on a mode of production (Burawoy, 1985). In other words, the craft men were quite at liberty to commence the building of a particular artifact from the beginning to the end. In the spring of mechanisation, there exists a bifurcation between mental and manual tasks which renders work demeaning. Based on this, he posits that a similar situation can indeed appear as part of two distinct labour processes in correspondence to two distinct modes of production. If one takes a cursory look at the dichotomy between the planning and doing, one would get to see that the shop floor workers are being prevented from exerting their discretional power particularly when their tasks are being mechanised, the workers are left with doing the less of what they used to do which renders work undignified.

Scholars have carried-out empirical studies on technological advancement and its influence on work in various sectors. As typical examples, Blauner (1964), gathered that the technology adopted in assembly-line plants removed the autonomy of workers while Woodward (1965), stated that continuous process machines mostly deskilled workers. Likewise, Edwards (1979), discovered that stopwatch adopted in assembly-line subjected workers to the pace and rhythms of technology, Groover (1980), confirmed that automated technology deskilled workers while Vallas (1988), found that certain tele-communications equipment removed the dexterity of workers. Pen (1991), attested to the fact that digital platform enhanced the skills of workers, Adler (1991), signified that new technology required new skills to man it, Fitzgerald (1993), indicated that genetically hybrid seeds displaced and replaced farmers from their usual practices andMeyer (1999), reveals that belt conveyer deskilled craft men and artisans in Ford Highland Plant.

The job functions that were earlier carried-out by twenty workers are presently being completed by five workers saddled with the responsibility of monitoring the smooth-running of machines (Salami and Oyewale, 2013). Buchloh (2010), averred that technology resulted in deprofessionalisation while Atiku et al., (2011), observed that electronic banking deskilled employees from their jobs. In the same vein, Jawando and Adenugba (2014), gathered that the permanent workers in the food processing industry in Lagos, Nigeria enjoyed fringe benefits and job security than the casual, outsourced and contract workers while Murrali (2015), posited that machines deskilled assembly-line engineers in the autocomponent firm. Likewise, Dandaura (2015), found that robots and computer-assisted technology deskilled employees, Daniels (2015), stated that autopilot, autothrottle and automated course control deskilled pilots; Wahl, (2019), discovered thatUber Eats deskilled the traditional cyclists while Wright and Schultz (2018), established that robots deskilled workers. Amobi (2018), confirmed that robots and AI deskilled workers in Nigeria; Cirilloet al., (2018), claimed that technology taking over jobs meant to be done by employees has become a source of concern for governments; Omolawal (2018), observed that technology is central to selection, recruitment and placement of employees by HR practitioners in Nigeria while Adepatan and Ugoeze (2020), averred that Virtual Reality predisposed employees to hackers.

2.9 Technology and Flexploitation

In making frantic efforts to show that the notion of flexploitation is central to this study, it is pertinent to note that Anderson (1999) posits that Fordist System pioneered by Ford paved the way for post-Fordism. Post-Fordism is the name given to the dominant system of economic production, consumption and associated socio-economic phenomena in most industrialised countries since the late 20th century. According to him, modern industrial

production changes from the large-scale mass-production methods pioneered by Ford towards the use of small flexible manufacturing units. Flexploitation is critical to the trends in European welfare systems and labour market policies (Anderson, 1999). The subjective experience of employment insecurity may be more contradictory than discourses of fragmentation and flexploitation (Morgan, 2013). According to him, the notion of the well-being of employees is crucial in the analysis of flexploitation. He stresses that work-life balance is a contested notion which involves conflicting interpretation of flexibility to employment and family commitments.

People's capacity, as employees and family members, to achieve the kind of flexibility they want rests on their bargaining power. Flexploitation is the concept that Adenugba and Jawando (2014) refer to as casualisation of workers. According to Adenugba and Jawando (2014), casualisation of workers is occasioned by the motive to cut the costs of production and optimize profits. Anderson (1999) stresses that after the recession that struck the world's economy in 1980, many sectors which include banking, construction, and oil and gas resorted to contracting recruitments to recruiting firms to reduce the costs of production and increase productivity. Workers had to be paid by the recruiting firms. In this wise, the recruiting firms had to pay the workers with peanuts after deducting their percentages. Given the fact that workers were not paid directly by the organisation in which they worked, they were taken undue advantage of by working like an elephant and eating like an ant.

A total of 95,888 people are employed in the banking sector at the moment, of which 42.2% are contract workers who have wreaked havoc on the sector (Iyatse and Adepatan, 2020). They believe that contract workers should not only be paid less, but also be denied any benefits. They assert that there is little to no motivation for contract workers to be trustworthy and loyal. On the basis of this, individuals should be aware of where such calls come from when a specific consumer opens an in one day and receives a fake call the next day. Iyatse and Adepatan (2020) proved conclusively that the rate at which temporary workers are transferred to morally challenging employment is a more depressing circumstance. They claim that when operations grow more complex, skill declines due to task automation.

The utilisation of temporary employment is ultimately a way through which employers achieve profits by drastically reducing the costs of production and optimise profits (Jawando and Adenugba, 2014). From their standpoint, precarious work is created by sub-contracting labour, temporary and short-term jobs, fixed-term or contract and informal day labour. They establish that temporary employment is typically devoid of job security, fringe benefits and possibilities for advancement which were recently increasing across the globe. In the light of this, they affirm that temporary employment emanates from continuous changes in the working arrangement where it is quite difficult to secure employment opportunities, due to economic uncertainty which occasions an increase in global competition and the urge to reduce the costs of transacting businesses.

2.10 Technology and Division of Labour

In taking a cursory look at the subject matter of division of labour from the perspective of the word origin, it signifies the process of production thereby an employee or a group of employees is saddled with a specialised job function to optimise efficiency. Its origin can be traced to 1776 to 1778 given the effort of the foremost Scotties Economist, Smith. According to Dictionary.com (2016), division of labour can be construed as the breaking down of work into job functions or fragments being assigned to numerous employees, groups or equipment for the main essence of efficiency. Contemporary Dictionary (2018), posits that it is dividing a particular job into several specialised fragments, with a certain employee or a few employees being saddled with the responsibility to execute each aspect of the work. At the heart of mass production, division of labour is essential to fast-track production.

In affirming that division of labour results in deskilling of labour, it is salient to note that the notion of division of labour is credited to the foremost Scottish economist (Smith 1776). The principal focus of Smith's Wealth of Nations lies primarily in the concept of economic growth. Smith's notion of growth is firmly rooted in the increasing dilvision of labour. It is crucial to note that the notion of division of labour has been credited to the French scholar, Emile Durkheim in a sociological manner in his discussion of the evolution of society. He opines that rather than viewing division of labour as a resultant effect of desire for material

abundance, it should be regarded as specialisation emanating from changes in a social structure which was caused by a presumed natural increase in the size as well as density of population as well as the emerging increase in competition emanating from survival. In this wise, Durkheim posits that division of labour principally functioned to keep the societies from splitting apart, particularly under the aforementioned conditions.

Baran (1965) claims that in the early era of capitalism, division of labour emerged from the apprenticeship system whereby the capitalists began to recruit workers based on the capital they possessed at their disposal. It was gathered by Baran (1965), that when the work process became burdensome, the business owners had to engage the services of managers who were saddled with the responsibility of the planning, coordination as well as management of the production of commodities. It is pertinent to establish that Onyeonoru (2005) maintains that the hallmarks of the functions of a good manager lie primarily in coordination, management as well as planning of work to accomplish productivity.

Intensive specialisation of work in industrial societies, the refinement and simplification of job functions particularly with the aid of technology so that an employee can produce a small portion of commodities characterise industrial societies. There is seldom a division of labour within an industry in literate societies, except in situations involving the production of massive commodities such as aircraft, canoes as well as a house. From the perspective of Smith (1776), the subject matter of growth connotes the increasing division of labour which essentially orbits around the specialisation of a given labour force and which entails the breaking down of large jobs into numerous tiny fragments. In this regard, an employee becomes an expert in a particular isolated section of production. Hence, this enhances his efficiency and the productivity of an organisation.

Smith (1776) fervently believes that forcing individuals to perform mundane and repetitive tasks would lead to an ignorant and dissatisfied workforce while Marx (1867), claims that breaking down work are degrading. Marx (1867) posits that breaking down of work results in exploitation of workers owing that the capitalists extract surplus value. It is vital to note that Organised Labour has been credited to Taylor (1911), submits that work should be broken down into different segments such that each employee would focus on a particular

aspect of work which would in return result in efficiency and proficiency. Even though this model is seen as being effective in realising high productivity in most organisations, it has its pitfalls which the likes of Braverman, Thompson, Wood, Edwards and other Marxist scholars have criticised.

At the heart of the concept of division of labour, Durkheim (1893) indicates that the division is usually a tentative one and each employee becomes proficient in carrying-out other phases of job function. The whole essence of division of labour is basically to avert chaos in the society. This is because if one is specialised in a particular production process, he or she remains relevant in the scheme of work in a given society. It becomes compellingly lucid that there may be some levels of specialisation about the types of products. As a typical example, an employee may produce a piano for a religious user whereas another piano for an ordinary user. Meanwhile, each employee normally carries out every step of the production process.

Thus, division of labour according to Durkheim (1893), is essentially on the round of age, clan affiliation, hereditary status or guild membership as well as regional and craft dexterity emanating from job specialisation. The analogue of the production of matches aptly captures the subject matter of division of labour where he emphasizes that when a certain worker concentrates on a small portion in the production of matches, he or she acquires dexterity overtime given his or her focus on a small portion of the entire production process of matches. In his view, a worker who is saddled with the responsibility of packaging the boxes of the matches would become an expert over time by practicing the same job function. The same thing applies to the employee in charge of stripping the sticks of the matches. This is how dexterity is acquired over time in the production process. This is antithetical to Braverman's standpoint of the division of labour. Braverman argues that the comprehensive knowledge, as well as integrated skill, is lost as work is increasingly broken down into various segments.

In the light of the division of labour, Durkheim (1893) introduces the notion of anomie which connotes the breaking down of influence of social norms known as normlessness on which certain individuals in a particular society became frustrated thereby resorting to killing themselves. Durkheim (1893) stresses that in the 1800s, belief bordering on separate work spheres for men as well as women gained tremendous popularity in the United States. Before the 19th century, men women, as well as children, seemed to work collectively in family-based agricultural production as it was in entirely an agrarian society. More often than not, women are traditionally saddled with child-bearing as well as house chores. Despite this, there were some degrees of co-operation among them in terms of the mutual enterprise of running a farm as a family venture.

The 18th-century industrial revolution brought a new perspective on work in that majority of men had to venture into the paid labour force (Onyeonoru, 2005). In other words, the 18th-century industrial revolution ushered in wage payment as against the traditional craft system. It is in this regard that Onyeonoru (2005) argues that administration, coordination, supervision as well as management were all ushered in by the 18th-century industrial revolution. It has been contested that a romantic ideal of splitting of the ramifications of work emerged to justify the economic management of the traditional women who are expected to stay at home for procreative roles whereas men opted for wage payment. Traditionally, women were saddled with looking after the children as well as doing house chores.

Besides the foregoing, women were known to be pure, loving and caring which naturally made them suitable for home as well as family. Pettinger (1917) indicates that the cult of true womanhood which eventually became popular at that material point in time elevated mothering to a revered status profession. In the case of men who were traditionally meant to be intimately involved in the nurturing of children and at the same time running the affairs of the home as the traditional heads of the house, they were then viewed as being temperamentally unsuited for such role of marinating house. In this wise, men were meant to find their real calling in the impersonal public sphere of work. It is lucid that the occupational accomplishment of men's folks outside the home took on moral overtones. Moreover, men were viewed as fulfilling by their status.

Breaking down complex work into fragments in the industrial capitalist societies results in exploitation and degradation (Marx, 1867). The justification of adducing this proposition

centres on the fact that workers lose the comprehensive skill about the work. Arising from this, Braverman (1974) maintains that fragmentation of the complex job into smaller processes leads to work degradation. This is premised on the ground that workers lose autonomy about the work. He claims that it gives undue autonomy. The dichotomy between the planning and doing of work in the capitalist system results in the loss of the autonomy of employees (Thompson 1983).

The dichotomy between the conception and doing of work ultimately confines the discretional power of employees (Thompson, 1983). According to Blauner (1964), division of labour in assembly-line production alienates workers owing to the extent of the subdivision of the assembly plant. The variables of the division of labour in assembly-line, according to Blauner, are its fragmentation, standardisation, rationalisation and routinisation. To strengthen this, Smith (1776), stresses that the fact that labourers do not necessarily have to switch job functions in the course of executing tasks indeed saves a lot of time as well as money. This is principally what enables numerous firms to attain a lot of growth as well as development. In addition, Meyer (1999) provides insight on this by asserting that in Ford highland, division of labour was at its peak which affords the assemblers to concentrate their entire attention on a minute portion of the entire production process.

When an individual worker concentrates on a piece of equipment to perform mundane as well as repetitive job functions, it would automatically result in an ignorant, as well as dissatisfied workforce (Smith, 1776). The subject matter of division of labour will be incomplete without making recourse to Weberian (1905), conceptualisation of bureaucracy which essentially borders on division of labour. It is crucial to note that Weber has been credited with the subject matter of bureaucracy which centres on division of labour. The German Sociologist was regarded as the first scholar to use the term bureaucracy. According to Weber (1905), work would be divided into different fragments such that each employee would specialise in a small portion of the entire process of production of a particular product.

At the heart of his conceptualisation of bureaucracy, the specialisation of work is being emphasised. The main rationale behind his notion of breaking down the entire production process into different segments is to attain specialisation which automatically culminates into high efficiency in a given organisation. Regardless, scholars have come out to criticise his concept of bureaucracy as a bottleneck. Little wonder that most private organisations do not usually sheepishly adhere to the principle of bureaucracy owing that if a task is left in the hand of a particular employee and he or she is not on round, work needs to progress such that someone else has to carry-out such job task. However, the notion of bureaucracy is mostly practised in government establishments because employees often adopt the policy of whether they carry out their job functions diligently or no not, their salaries would be paid at the end of every mount. This is the account on which the critics have labelled bureaucracy a bottleneck given its emphasis on strict adherence to laid-down rules.

According to the free Encyclopaedia (1990), division of labour is being construed as a situation whereby there is a breaking down of large tasks, contracts as well as projects into smaller tasks. Each of these tasks has a separate schedule within the overall project arrangement. Essentially, it entails the allocation of tasks to employees or firms based on the expertise as well as the tools which such individuals and firms have at their disposal. More than anything else, division of labour, which is otherwise conceived as the division of work, is regarded as an integral part of economic activity within a particular country or firm. Durkheim (1893) asserts that division of labour is particularly efficient in that employees require less train given that they get acquainted with a minute number of tasks. Asides from this, it catalyses the utilisation of certain equipment as getting a particular job done.

It has been argued that there is absolutely no time wasting when a particular employee drops certain equipment and afterward picks up another tool in the event of task execution. It has been stressed that an employee benefits great loyalty as well as a sense of accomplishment from his or her branch of the production process. Smith (1776) claims that there is no need for a particular worker to move around a certain factory owing that a certain half-completed commodity gets to him or her. In this regard, an employee is quite at liberty to concentrate wholeheartedly on his or her job that best suits his or her expertise as well as his or her temperament in the workplace. This revolves around what Taylor (1911), considers

enhancing efficiency in a given organisation. A situation where production of commodities has high volume of officially divided work is peculiar with the economies of certain nations (Pettinger, 1915).

2.11 Technology and Work Automation

Most viewpoints on the end of work perceive changes in technology and production systems as critical to the demise of work (Edgell and Granter, 2020). Workplace automation determines job alienation in the workplace. Marx (1844) maintains that a worker can only express his labour in an organisation which is owned by a private individual where he is viewed as a raw material that needs to contribute his own quarter to the profit optimisation of such an organisation. Meyer (1999), observes that the origin of the word 'deskilling' is attributed to D.S. Harder, who was an engineering manager at the Ford Motor Company during that period. Arising from the argument advanced by Marx, Edwards (1979), contends that technology regulates the pace as well as the rhythms of work and gives no room for waiting time for employees to reduce the costs of production is deplored. In this wise, Edwards further asserts that the humanisation of workers is never on the agenda of the business owners in converting the raw materials to the finished commodities. From the foregoing, Groover (1980) maintains that the technology of automation has evolved from the field of mechanisation which essentially had its origin in the industrial revolution of the 18th century.

The mechanisation of tasks is being construed as an outright replacement of human power with mechanical power (Groover, 1980). The propelling force being the mechanisation of tasks has been ascribed to humankind's propensity to invent equipment as well as mechanical devices. As far as the subject matter of automation is concerned, Meyer (1999) submits that belt conveyor was first deployed in Ford Highland in 1907 down to 1913. From his perspective, A.S., Harder was the manager of Ford Highland back then which fast-tracked the production of Model-T cars.

A characteristic of automation is the fact that it enhances mass-production of cars such that it enables the production of cars for a large population of people. Meyer (1999), avers that all automated technologies are technologies whereas all technologies are not automated technologies. He further contends that for a technology to be worthy of being regarded as an automated technology, it must be able to control itself. To strengthen this, Wright and Schultz (2018), contests that technology has so advanced that it is now automated which suggests that it requires little or no human intervention in carrying-out job functions.

Automated technologies possess anthropomorphic physiognomies which principally indicate that they possess human-like features (Wright and Schultz, 2018). They point out that such automated machines function optimally without human intervention. By and large, it has been argued that human beings are the brains behind these inventions because automated machines cannot programme human intelligence in themselves. Thus, it is human beings who invent these automated machines. The unfortunate thing is that employers place a premium on automated technologies over human labour because the former optimise profits more than the latter.

About fifty-seven percent of employers have resolved to automate tasks in the future as against the seventeen percent of employers who currently automate tasks (Global Future of Work, 2018). This portends great danger to work so much so that people who remit money to their indigenous countries are threatened by the coming of an automated technology. This symbolises the fact that the fear of automation is the beginning of wisdom. Amobi (2018), submits that the spring of artificial intelligence, robots as well as the digital platform has resulted in job as well as skill losses whereby those who are unable to explore and maximise technology would be booted out of the scheme of work. There is a likelihood that robots will replace as 2 million more employees in manufacturing alone in the USA by the year 2025 in view of a recent paper by economists at MIT as well as Boston University (Semuels, 2020).

In the production system, automation can be conceived as a scenario in which an operator's energy and control over the production are replaced by machines (Amber and Amber, 1965). They further submit that with a low level of technology which is categorised as levels one and two, the operator's mental exertion and physical inputs are removed and he enjoys considerable freedom because the machine is a simple automatic. In level three, according to them, the removal of the initiative is fundamental because the machine is self-feeding and self-loading. In levels four and five, according to Amber and Amber (1965), the

operator's effort is not immediate in the production process. The argument advanced by them borders on the fact that the machine is symbolic. According to Vallas (1988), the evolution of technology from manual to mechanical, then, to electronic and to highly automated processes, has left no occupations untouched.

Automation has drastically altered those areas in which it has been introduced and there is scarcely an aspect of modern life that has been unaffected (Groover, 1980). Vallas (1988) contends that automation has had differential effects on work content in terms of autonomy, discretion and complexity. Vallas (1988) submits that automation upgrades some jobs whereas it degrades some jobs. According to Vallas (1988), automation has transformed primitive knowledge to advanced knowledge as automation keeps transforming the jobs of customer service representatives, clerical workers, software engineers and the operators in the assembly lines. Amber and Amber (1963), construes automation as the allocation of tasks between humans and technology in the production process in terms of physical and energy and efforts.

At the heart of automation, automation of Nigeria custom service will enable it execute its statutory functions (Sakari, 2020). The \$1,2000m electricity loan will enable the sector to achieve incremental as well as steady power supply in the country (Ahmed, 2020). Moghalu (2020) maintains that the problem which Nigeria has is a constitutional one which needs to be urgently sorted out to achieve a greater height. Groover (1980) claims that the level of automation can be construed as the extent to which an operator mans a machine, which either be manually operated, semi-automated, or fully automated. According to Tailor (2014), in auto component industry, the automation of work limits the autonomy and discretion of workers. According to Tailor (2014), the work that was done by 20 workers was reduced to the job of two engineers who monitored the smooth-running of the machine.

In terms of the situation in Nigeria, the use of automation has resulted in a significant reduction in the number of employees in the banking industry. The Alliance for Affordable Internet's National Coordinator, Olusola Teniola, argued that the introduction of digitalization and digital information essentially gives the bank's workforce the opportunity to up-scale and adapt to human-machine collaboration, which is currently becoming more

integrated in the future of work. Teniola, the immediate past president of the Association of Telecommunications Companies of Nigeria (ATCON), affirmed that automation, data science, and AI were technologies that removed the routine activities of bank operations and brought in efficiencies that humans cannot produce, as stated by Iyatse and Adepatan (2020). According to him, the use of AI is globally permeating every sector of economy.

According to Groover (1980), the degree of automation can be seen as the amount of control an operator has over a machine, whether it is operated manually, somewhat automatically, or totally automatically. In the car component sector, worker autonomy and discretion are constrained by automation (Muralli 2014). He notes that two engineers were now responsible for overseeing the machine's smooth operation, replacing the 20 laborers who had previously performed that function. The use of automation has significantly decreased the number of employees in the banking sector, which is relevant to the situation in Nigeria. According to Olusola Teniola, the National Coordinator of the Coalition for Affordable Internet, the introduction of digitisation and digital information fundamentally enables the

As stressed by Semuels (2020), Yvonne R. Walker who is the President of LivePerson maintained that most non-union employees do not get the required assistance. He contends that companies out there do not make provisions for employee training and upskilling. According to Semuels (2020), Walker disclosed that most employers do not see employee training as a good investment. He states that unless employees have a union working on these things, the employees get left behind. Semuels (2020) explains that in Sweden, employers pay into private funds which enable employees to get retrained. This is regarded as Singapore's Skill Future programme which reimburses citizens up to 500 Singapore dollars which is about \$362 in U.S.A currency, for approved retraining courses. By and large, Semuels (2020) posits that in the entire U.S.A., the most robust retraining programmes are for employees whose jobs are lost due to trade matters.

Artificial intelligence is becoming more adept at jobs which were once the purview of humans; this makes it more herculean for humans to stay ahead of machines (Semuels, 2020). As confirmed by Semuels (2020), JP Morgan asserts that it at present has AI which receives commercial-loan agreements and completes such agreements within seconds.

According to him, this used to take 360,000 hours of lawyer's time over the course of a year. Semuels (2020) asserts that as of May 2020, amid plunging advertising revenue, Microsoft downsized dozens of journalists at MSN and its Microsoft News service and replaced them with AI which has the potential of scanning and processing content. He contends that radio group iHeartMedia has retrenched DJs to take advantage of its investments in technology and AI. According to Semuels (2020), assistance was got to transcribe interviews for a story with the aid of Otter.ai, while an AI-based transcription service was utilised. Semuels (2020) is of the view that a few years ago, he might have \$1 a minute for humans to do the same thing.

Another fascinating example is the automation of traffic lights. This has displaced the vast majority of civil defense officials. The advent of Uber Eats has led to the deskilling of the cyclists and traditional drivers as they lack autonomy over their jobs (Wahl, 2019). The development of Uber has diffused to Nigeria whereby those traditional drivers are now relegated as they cannot read and comprehend Uber modes of operation. According to Amobi, (2018), 35% of tasks done by workers will be automated by 2030. There will be job losses as a result of automation. Jobs will be made available for those who can maximise and explore technology. According to Vallas (1988), the more automated the workplace, the less-demanding work becomes. This gives credence to how workers lose control over their jobs.

The level of automation should be best conceptualised in terms of the sharing of tasks between humans and machines with different degrees of human involvement in the production process (Satchell, 1998). In this wise, Kerr and Schumann (1985), submit that automation is viewed as the degree of mechanisation in terms of the technical level in five different dimensions or work functions. Billings (1997), avers that the level of automation should transit from direct manual control to largely autonomous operation where the human role is minimal. Another salient view of Sherican (1980) holds that the level of automation in a production process can be seen as when automation incorporates the issue of feedback, as well as relative sharing functions in ten stages of the production process.

The level of automation within the context of the expert system is most applicable to cognitive tasks which include the ability to respond to and make decisions based on system information (Endsley, 1997). Invariably, when cogitative inputs and the physical aspect of the work are removed, the humanity in a worker has been undermined. It is lucid that work becomes routinised and monotonous when a worker keeps pressing buttons as against exerting his intelligence and knowledge. Parasuraman *et al.*, (2000), contend that level of automation, as far as the production process is concerned, can be perceived as continuing from manual to automatic operation. In the production process, allocation of tasks between humans and technology is basically what automation can be best described as. In this respect, the status of a worker is undermined.

2.12 Technology and Labour

Etymologically, labour can be viewed as work, especially physical work. In trying to substantiate that labour is exploited in one way or the other by the capitalists in labour relations, Marx (1867), avers that labour is exploited by the capitalist tendency. This is evident in the way and manner that the business owners fragment work processes to extract surplus value. Labour is conceived as the mass of the working population that is exploited for the benefit of the capitalists. Labour has been construed by Foster (1998), as the aggregate of all human physical and mental efforts used in the creation of goods and services. From the perspective of Business Dictionary (2014), labour is a primary factor of production. It has been submitted that the size of a nation's labour force is determined by the size of its adult population, and the extent to which the adults are either working or prepared to offer their labour for the exchange of wages. The tasks earlier executed by workers are now automated which objectify human labour. To get out of this quagmire, honing one's skill is the ultimate.

2.13 Workplace Technology

To posit that workplace technology is critical to the understanding of influence of technology on work variables, Maclarkey (1997) maintains that information technology has adversely affected the workplace. He further stresses that computer technology has significantly deskilled and dehumanised work such that job security for millions of workers

has become illusory. All the same, job skill level and job interest increase with introduction of high technology into workplace with minimum destructive effect on job security. Technology innovation has an influence on employee's job performance where it helps to reduce human error, increase productivity, and increase the speed of communication (Baskaran *et al.*, 2020). A number of organisations are encountering difficulties in choosing appropriate technology adoption strategies with the hope to enhance efficiency and improve performance to be competitive in the market. Job satisfaction and innovations were found to be significant while workload was failed to be retained. Technology was found to have affected job security.

The increase in ICT/e-commerce activities overtime has not resulted in a decline in jobs which holds true for both Manufacturing and service industries (Falk, 2015). On the contrary, the different types of ICT activities are significantly related to labour productivity. Nevertheless, the sign and significance of the relationships differ considerably across different types of ICT activities and vary over time with lower magnitude for the more recent period. The twenty-first century has witnessed tremendous expansion in the utilisation and availability of technology that has created a paradigm shift in how work can be done (Holland and Bardoel, 2016). The tensions between smart and dark fundamentally changed the nature and boundaries of voice in the workplace, attitude towards workplace surveillance. As public sector work environments continue to embrace the digital governance revolution, questions of work surveillance practices and its relationship to performance management continue to evolve, but even more dramatically in the contemporary period of many public servants being compelled to shift to remote work from home in response to Covid-19 pandemic (Charbonneau, 2022).

The Internet and mobilisation of information and communication technologies (ICTs) have made non-manual work increasingly portable and remotely accessible (Schlachter, 2018). Considerable number of employees utilise ICTs to engage in work-relate tasks during designated non-work time, even without contractual obligation. Technology is becoming an integral part of every dimension of contemporary society (Jena, 2015). Technostress is a modern disease caused given its inability to cope with the new technologies in a healthy way. The diseases manifest itself in the process to accept and adopt computer technology efficiently in workplace. Those who struggle to accept computer technology usually feel pressure to accept and utilise computers. On the other hands, technological advancement and revolution in organisation has not only enhanced efficiency and effectiveness but equally assists reduce the challenges of boredom and fatigue in the workplace. The advancement of technology has been a dominant force in improving and enhancing the teaching pedagogy in colleges and universities. In the same vein, the exponential change of technology results in technostress among academicians in all types of educational institutions.

Organisations must step up their traditional roles and comfort zones so as to look at the new ways of executing tasks (Bushiri, 2014). Organisations need to create a work environment where people enjoy what they do, feel like they have a purpose, have pride in what they do and can reach their potential. Organisation working environment had an impact on members. Employees would improve their performance if the challenges identified in the course of research are combated by the management. The problem of flexibility of working environment, work noise distraction, supervisor's interpersonal relationship; with subordinate, presence of job aid, the use of performance feedback and improve of work incentive in the organisation in order to spur employees to carry-out their jobs. Beer (2020) avows that technology is changing the way organisations and their employees need to accomplish their tasks. An increase in complexity and mental work is accomplished, while working with automated systems and robots. Manual work has been discovered to decrease on numerous occasions. Workload and workflow interruptions increase simultaneously with autonomy, particularly with respect to digital communication devices. Role expectations and opportunities for development depend on how the profession and the technology relate to each other, especially when working with automated system. The implications for the demands necessary to deal with changes in work variables include knowledge about technology, openness toward change and technology, skill for self-and time management and for further professional and career development.

In 2020, the onset of a digital pandemic made digital working an essential way of working for large swathes of knowledge workers in what has been conceived as the world's largest work-from-home experience (Marsh *et al.*, 2022). Considerable insight has been uncovered

with regards to certain dark side effects, in relation to e-mail and smartphone. Nonetheless, a broader perspective of how they might manifest in relation to employees' holistic digital experience of work beyond certain information and communication technologies (ICTs) is grossly lacking, including a clear picture of objective demands of technology with which these effects are associated. There are a lot which remain to be understood across the full range of dark side effects with respect to digital workplace including the associations between them and how they relate to cognitive and affective outcomes. It was further revealed that the significance of both theoretical and diversity is highlighted. A gradual shift to remote working for organisations which has already spanned decades was abruptly accelerated as digital technologies became the chief way for large numbers of workers to remain productive and connected (Ozimek, 2020). A total of 56% of hiring managers feel that the shift to remote work has gone better than expected. For many people, digital workplace is a revolution which will not be reversed, not least given that early data indicates improved productivity within particular industries and roles, with higher levels of remote working expected in the future.

This shift in mode of work appears to have been accompanied by a shift in attitudes, with entrenched resistance to remote working broken down for both managers and employees (Cley and Williamson, 2022). The increased proportion of managers who considered their team's productivity had stayed the same. However, the proportion was not increased in 2021, which can be ascribable to decreased discretionary effort once the initial burst of work on the commencement of the pandemic had ceased. Adapting remote work policies to address employees specific work-life situations can result in increased well-being and productivity (Subel *et al.*, 2022). Working from home ultimately made a lot of people feel more productive owing that 55% of the home-based workers examined signified getting more work done. Nevertheless, there is a cost to this boost in productivity. When employees work from home, it can be uneasy for them to compartmentalise their personal and professional lives which results in a deterioration in work-life balance.

2.14 Technology and the Debate about Deskilling

In justifying the significance of the raging debate over workplace technology concerning their effects of work variables in the fourth industrial revolution, it is germane and fundamental to situate that the advent of technology has generated philosophical debate among scholars. It is vital to maintain that the debate has two strands of argment which are the Marxist scholars championed by Marx and his adherents as well as Blauner and his followers.

The entire debate about deskilling essentially centres on the influence of workplace technology on work variables under the capitalist system of the economy. While the Marxist scholars frown at the coming of automation on the account that it engenders expropriation of handcraft skill given the bifurcation between the manual as well as mental work within the context of the workplace, Blauner and his followers unanimously posit that the coming of technology removes the stress of work, thereby taking the workers beyond post-Marxist era by determining the production techniques which by extension strengthens the collegial ties among the manager, the supervisor as well as the shop floor workers.

The deskilling debate has centred on Harry Braverman's proposition that deskilling remains a general trend, given the prevalence of capitalist relations of production, which is otherwise known as contractual employment relations (Soderberg, 2020). The idea is that as the work process is broken down into different fragments in the capitalist modes of production, the mechanisation of tasks results in fewer proficiencies thereby, subjecting an employee to the pace as well as rhythms of the machine. The consequence of this is that knowledge and intelligence deteriorate, given the fragment and mechanisation of the tasks meant for an employee within an industry or economy.

From the foregoing, academic literature has explicitly stated that the philosophical debate about technology and its effects on work requirements was launched by Marx in 1845 asserts that advanced technology results in increased alienation. This view was rejuvenated by Braverman in 1974. Braverman (1974), argues that the division of labour and mechanisation of work advocated for by Taylor (1911), in Scientific Management Theory, ultimately results in the destruction as well as degradation of craftsmanship in the capitalist modes of production, judging by the dichotomy of the manual as well as mental work.

The debate about automation and the labour process is bi-directional which isenskilling and deskilling schools of thought (Vallas, 1988). The two strands of the debate which has been raging since 1944 are deskilling and enskilling. It is worthy of postulating that the former is likened to occupational downgrading as well as techno-pessimism whereas the former is viewed as enskilling which is otherwise known as occupational upgrading, upskilling, as well as techno-optimism.

As work is replaced by technology, work becomes exceedingly deskilled which by extension, creates more room for precarious and unstable temporary employment (Jawando and Adenugba, 2014). From Jawando and Adenugba's perception, since most organisations utilise all categories of temporary workers, there is the need to review existing labour laws as well as industrial relations practices in order to protect the categories of workers from violation of labour standards by organisations that are guilty of indulging in such unlawful practices. Vallas (1988) maintains that the enskilling school of thought seems to embrace the technological determinist point of view which sees automation as giving rise to highly specialised, simplified and less-alienating work processes. The consensus of the upgrading theorists, as conveyed by Faunce (1965), is that the rise of automated work processes signals qualitative breakaway from earlier trends of skill requirements which transcend mechanisation into post-hierarchical or even post-capitalist work processes.

One of the enskilling theorists, Vallas (1988), stresses that the coming of automation frees workers from the constraints of machine-paced work, enlarging their control beyond the immediate work environment. Workers, as stated by Zuboff (1988), should envision the totality of the production process to oversee and control it. The intriguing aspect of Vallas's contribution with regards to the deskilling is the he made concerted efforts to take the debate into its logical conclusion by striking a balance between deskilling and enskilling in order to see a dominant trend between deskilling and enskilling tendencies. The significant point is that he was able to reconcile the two dissenting groups.

Employment in technologically advanced firms as discovered by Adler (1992), affords workers to establish closer and more collegial ties with supervisors, engineers and technicians which by extension results in more cooperative relations between management and workers than has prevailed under earlier stages of capitalism. In contrast, Vallas (1988), contends that Braverman (1974) and his allied theorists repudiated each of these assertions, although, some have viewed Braverman and his theorists as technological determinists. Enskilling theorists as argued by Vallas (1988) seek to debunk the notions of technological determinism and they are almost unanimous in establishing that social relations shape workplace technology rather than the reverse. Given the ongoing struggle for control of the means of production between workers and employers, Tushman and Nelson, (1990), observe that the introduction of new technologies into the labour process cannot be seen as innocent, given that technology is used by the capitalists to expropriate workers' skills beneath the means of production.

The central claim of deskilling is that automatic equipment deepens the subordination of workers to the dictate of the employers (Vallas, 1988). The aim is accomplished by enabling management to remove whatever technical intelligence that remains in the workers' grasp. In the same vein, Braverman (1974), asserts that employers seek to translate workers' productive capacity into the maximum amount of labour performed and the management is forced to loosen workers' grip on technical knowledge and expertise, which provided a critical means of resisting management controls. It has been submitted that what emerges is a bifurcation between conception and execution. It becomes evident that the accumulation of capital gives rise to a relentless trend towards homogenisation and work degradation.

Technology is the subject whereas an employee remains the object (Blauner, 1964). By inference, the latter resultantly becomes a recipient of an action performed by the former. In this respect, the former becomes super-ordinate whereas the latter is viewed as being subordinate in the productive process. In semantics, a subject is conceived as the performer of an action while an object is viewed as a receiver of an action. This analogue is principally to illustrate a scenario where a subject is conceived as the performer of an action while an object is viewed as a receiver of the workforce. The idea being portrayed in this wise is the

fact that technology dictates the pace as well as the rhythms of the productive processes owing to technological advancement.

Gallie (1998) submits that the notion of skill is quite central to Braverman's conceptualisation of deskilling when it is viewed from a social class perspective. Gallie (1978), confirms that the majority of non-manual, intermediate and skilled manual workers have seen the need to hone their skills while Gallie (1978), argues that the majority of manual workers have resigned to the fate that the responsibilities and skills needed in their work had either remained constant or declined.

2.15 The Development of Labour Process Debate

Labour Process debate borders essentially on the capital-labour relations in the capitalist system of economy. The Labour Process debate is still raging on because it is a topical issue. Two schools of thought have emerged over the coming of technology which is deskilling and enskilling (Vallas, 1988). Deskilling School of Thought basically advances that the advent of technology ushers in an era which expropriates workers' skills. This creates a class of workers known as the proletariat whereas Enskilling School of Thought adduces that the emergence of technology has resulted in skill rise which creates a class of employees known as the professionals (Lee, 1981). Numerous studies have been conducted on the subject matter and the quests have been on technology deskilling and alienating workers. The major arguments of these two schools of thought have been raging on with the deskilling school of thought unanimously claiming that the spring of automated technology expropriates workers' skills by fragmenting work processes into smaller, simpler and everdeskilled proletariat. According to Deskilling School of Thought, fragmentation and mechanisation of tasks remove the critical aspect of the resistance of workers to managerial control and what emerges herein is the extraction of surplus value (Braverman, 1974). Irrespective of this, Blauner and his adherents advance that the advent of automated technology ushers in skill rise which results in professionalism. The philosophical poser that follows suit is that what is precisely the problem about the Labour Process Debate?

Scholars who belong to the Enskilling School of Thought have adduced that technology is not damaging workers' skills but it is enhancing workers' skills owing that new set of jobs are created and new work forms have been developed as a result of technological advances that remove the drudgeries of work (Lee, 1981). Irrespective of this, the socialist-oriented group, which is championed by Marx and Braverman, has advanced arguments that workers have been progressively destroyed by technology. They claim this destroys handicraft skills and causes decline in the workforce. In other words, the raging debate over the influence of workplace technology on work is credited to Marx in 1844. This was awakened by Braverman in 1974. It is germane and fundamental to situate that the influence of technological advancement on work requirements has generated philosophical debate among scholars. It is crucial to note that the academic literature has it that Marxian conceptualisation of advanced technology destroying knowledge and intelligence of workers triggered the Labour Process Debate. Against this background, Blauner (1964) contends that Marx committed a fallacy of sweeping generalisation on accounts that technology, which alienates workers differently, varies considerably from one industry to another while Braverman (1974) maintains that fragmentation of work and its mechanisation results in work degradation during the 20th century.

The entire debate about the labour process revolves around the influence of fragmentation and mechanisation of work on the labour process that engenders skill decline under the capitalist system of economy. While the Marxist scholars frown at the coming of automation on the account that it engenders expropriation of handicraft skill given the bifurcation between the manual and the mental work within the context of the workplace, Blauner and his followers unanimously posit that the coming of technology removes the drudgeries of work thereby taking the workers beyond the post-Marxist epoch by determining the production techniques which by extension strengthens the collegial ties among the manager, the supervisor as well as the shop floor workers.

The adoption of robots and artificial intelligence in South Africa confirms Braverman's apprehension over automated technology displacing workers from work (Bonde, 2018). The deskilling debate has centred on Harry Braverman's proposition that deskilling remains a general trend, given the prevalence of capitalist relations of production which is otherwise known as contractual employment relations (Soderberg, 2020). The idea is that as the work process is broken down into different fragments in the capitalist modes of production,

mechanisation of tasks results in less proficiency thereby subjecting an employee to the pace and rhythms of the machine. The effect of this is that knowledge and intelligence deteriorate, given the fragment and mechanisation of the tasks meant to be executed by employees within an industry or economy.

From the foregoing, academic literature has explicitly stated that the philosophical debate about technology and its effects on work requirements was launched by Marx in 1844 asserts that advanced technology results in increased alienation. This view was rejuvenated by Braverman in 1974. Braverman (1974) argues that the division of labour and mechanisation of work advocated for by Frederick Winslow Taylor in Scientific Management Theory in 1911 ultimately results in the destruction and degradation of craftsmanship in the capitalist modes of production, judging by the dichotomy between manual and mental work.

The two strands of the debate that has been raging since 1844 are deskilling and enskilling. It is worthy of positing that the former is likened to occupational downgrading and technopessimism whereas the latter is viewed as enskilling which is otherwise known as occupational upgrading, upskilling, and techno-optimism. As work is increasingly replaced by technology, it becomes deskilled, which by extension, creates more room for precarious and unstable temporary employment (Jawando and Adenugba, 2014). From the perception of these scholars, since most organisations utilise all categories of temporary workers, there is the need to review existing labour laws and industrial relations practices to protect the categories of workers from the violation of labour standards by organisations that are guilty of indulging in such unlawful practices. Vallas (1988) maintains that the enskilling school of thought seems to embrace the technological determinist point of view which sees automation as giving rise to highly specialised, simplified and less-alienating work processes. According to Faunce (1965), the rise of automated work processes signals a qualitative break from earlier trends of skill requirements which transcend beyond mechanisation into post-hierarchical or even post-capitalist work processes.

Vallas (1988) stresses that the emergence of automated technology free workers from the constraints of machine-paced work, enlarging their control beyond the immediate work

environment. As stated by Zuboff (1988), workers should envision the totality of the production process to oversee and control it. The intriguing aspect of Vallas' contribution concerning deskilling is that he made concerted efforts to take the debate into its logical conclusion by striking a balance between deskilling and enskilling to see a dominant trend between deskilling and enskilling tendencies. The essential point being portrayed in this wise is the fact that he was able to reconcile the two rival groups.

As discovered by Adler (1992), employment in technologically advanced firms enables workers to establish closer and more collegial ties with supervisors, engineers and technicians; this, by extension results in more cooperative relations between management and workers than has prevailed under earlier stages of capitalism. In contrast, Vallas (1988), believes that Braverman (1974) and his allied theorists debunked each of these assertions, although, some have viewed Braverman and his theorists as technological determinists. Enskilling theorists, as argued by Vallas (1988), seek to debunk the notions of technological determinism and they are almost unanimous in establishing that social relations shape workplace technology rather than the reverse. Owing to the ongoing struggle for control of the means of production between workers and employers, Tushman and Nelson (1984), observe that the introduction of new technologies into the labour process cannot be seen as innocent given that technology is used by the capitalists to expropriate workers' skill beneath the means of production.

The central claim of deskilling is that automatic equipment deepens the subordination of workers to the dictate of the employers (Vallas, 1988). The aim is accomplished by enabling management to remove whatever technical intelligence that remains in the workers' grasp. Central to this view, Braverman (1974), avows that employers seek to translate workers' productive capacity into the maximum amount of labour performed and the management is forced to loosen workers' grip on technical knowledge and expertise, which provided a critical means of resisting management controls. It has been submitted that what emerges is a bifurcation between conception and execution of tasks. It becomes evident that the accumulation of capital gives rise to a relentless trend towards homogenisation and work degradation.

Technology is the subject whereas an employee remains the object, dictating the pace and rhythms of work (Blauner, 1964). By inference, the latter resultantly becomes a recipient of an action performed by the former. In this respect, the former becomes superordinate whereas the latter is viewed as being subordinate in the productive process. In semantics, a subject is conceived as the performer of an action while an object is viewed as a receiver or recipient of an action performed by the subject. This analogy is principally to illustrate a scenario where a subject is conceived as the performer of an action performed by a subject. The idea being portrayed in this wise is the fact that technology dictates the pace and rhythms of productive processes owing to the fact that the operator's efforts are not immediate in the production process due to technological advancement.

Another significant shortcoming of technology is that it renders work somewhat automaton rather than being thoughtful (Buchloh, 2010). Bachloh construes this scenario as deprofessionalisation because technology lowers the bargaining power of employees. Any company that has up to five hundred employees tends to deskill its workers as they find themselves doing less of the tasks they used to do because machines do them (Dandaura, 2015). Pertinent to the Labour Process Debate, it was posited by Iyatse and Adepatan (2020), that Ecobanks' unions held a meeting over workers' sack with the affected employees in the previous week. The aftermath of the meeting that was held hit an impasse to the extent that none of the affected employees was given letters so far. According to Iyatse and Adepatan (2020), they are currently able to claim that they have not got any letters from anyone. Iyatse and Adepatan (2020) claim that while the individuals who looked to be impacted admitted that they had not received any retrenchment letters, no formal letters have been sent to them. Being members of the National Union of Bank, Insurance, and Financial Institution Workers, they must take any form of disengagement seriously and for no other reason. Iyatse and Adepatan (2020) reported that NUBIFIE instructed its members to stop accepting disengagement letters from their employers without the union's permission.

Technology has drastically transformed all the raminifications in which it has been adopted so much so that there is rarely an aspect that it has spared, (Groover, 1980). At the inception

of the Ford Highland Assembly Plant, the manufacturing of 'Model T' was concentrated in the hands of the craftmen and artisans (Meyer, 1999). In the deployment of the belt conveyor, the workers were rendered redundant. When Henry Ford observed that the workers were deskilled, he compensated them by increasing their wages. During World War II, France and USA formed a coalition to relieve some soldiers of their duties and retrain some recruits by way of cutting costs (Burawoy, 2000). Those soldiers were deskilled as a result of this decision.

The adoption of hybrid seeds in agriculture has led to displacement and replacement of some farmers from their usual practices given that such seeds do not require watering and the monitoring of sand and maturity stage of such seeds (Fitzgerald, 1993). The emergence of mobile apps, Automated Teller Machines, point of service and closed-circuit television has led to bank deskilling (Atiku *et al.*, 2014). Likewise, machines have begun to threaten the existence of workers in the auto-component industry in India as they make their presence felt. As automated technologies make their presence felt in the auto-component firm, the fate of workers has become bleak as they do less of what they used to do (Murrali, 2015). This leaves little to the imagination regarding what the fate of workers will be if this persists.

The phenomenon of the effects of technology on work has become a source of worry to governments (Cirillo *et. al.*, (2018). Cirillo *e. al.*, (2018) aver that the only profession that is immune from technological effects is teaching. The justification advanced is that desktops, internet and routers are installed at house level where students can easily relate with their teachers to seek clarifications on certain subjects. However, autopilot, autothrottle, auto flight and other automatic equipment resulted in skill decline in the aviation sector which resulted in the crash-landing of Air France 370 flying on the Atlantic Ocean (Daniels, 2015). This occurred when the aircraft ran into a passive mood which prompted the three pilots on board to react wrongly having lost the touch of salvaging the aircraft manually. Over-reliance on technology results in skill deterioration due to lack of usage. In this light, the Nigerian Civil Aviation Authority (NCAA) recommended acquainting the aircraft operators with manual operation of aircraft.

In the same vein, the advent of Uber Eats has engendered the deskilling of the traditional cyclists and drivers working in eateries (Wahl 2019). As technology deskills the jobs of customer-care service providers, assembly-line engineers, traditional drivers. drummers, weavers, elevator operators, travel agencies, and journalists, it equally enskills the jobs of digital market analysts, Point-of-Service operators, hardware and software engineers, phone-accessory sellers, programmers, architects, bloggers, logisticians, Artificial Intelligence specialists and online marketers (Groover, 1980 and Wright and Schultz, 2018). Wright and Schultz (2018), avow that 17% of employers currently automate tasks. However, 57% of employers will automate tasks by 2023. Amobi (2018) maintains that the digital revolution is characterised and dominated by robots, Artificial Intelligence, digital platforms, Aerial torpedoes, Uber Eats and Entheron, such that work belongs to those who can explore and maximise technology. She maintains that 75% of work will be done from homes such that contingent skills will be the in-thing.

Contrary to the position of deskilling standpoint, the coming of automation frees workers from the constraints of machine-paced work, enlarging their control beyond the immediate work environment (Zuboff, 1988). As stated by Zuboff (1988), workers should envision the totality of the production process to oversee and control it. When a worker develops conceptual knowledge of work, he becomes an operator of machines rather than being the one that is operated. Pen (1991), asserts that the workers in the printing industry learnt new skills bordering on a digital machine without necessarily losing their handicraft skills. On the strength of this, she posits that deskilling theory should be thrown into a trash bin and it should be substituted by Compensatory Theory of Skill. Equally, Adler (1995) indicates that the organisations that invest in technology and training of their employees thrive whereas those who fail to do the same thing heap blame on their workers while Global Lyon-Caen, A. (2021), maintains that the work of the future and the future of work belongs to those who are technologically savvy.

The reality of the matter is that technology has two advantages: as it deskills certain jobs, it enskills other jobs. Though jobs and skills are lost and salaries are slashed as a result of technology adoption in the workplace, deskilling jobs equally pave the way for other jobs. Those who disregard the integral benefits of technology often miss what those who explore it considerably enjoy.

In making an in-road into Labour Process Debate, Heisig (2017), claims that there are two perspectives when it comes to the future of capitalist societies. According to him, the two perspectives are positive and undesirable. He posits that both perspectives of the future are closely linked with a corresponding but opposing one which are optimistic and harmful pictures of the past pertaining to skills. It is vital to note that the advocates of a deskilled and degraded future of work begin with the image of skilled handcraft work as typical for the early stages of capitalism whereas the protagonists of the enskilling thesis conceive uneducated and unskilled rural workers as a take-off point of skill development in the capitalist mode of production. He affirms that both perspectives are quite legitimate and can refer to supporting evidence. He further stresses that irrespective of the position which one subscribes to, it cannot be denied. Nevertheless, claiming that illiteracy and the general educational level of the population of industrialised nations have risen and that growing proportions of the entire population have become fully incorporated into employment can be discountenanced on the basis that the educational and skill levels which can be utilised within the labour process have risen. By and large, this does not necessarily indicate that the skills offered are sufficiently exploited by the business owners.

2.16 Theoretical Framework

To provide a theoretical framework, the study leveraged on two theories which are Labour Process Theory and Alienation Theory. The rationale behind the adoption of these two theories is that Labour Process Theory provided theoretical explanations on an employee is objectified in use value as well as materialised with regards to planning, execution, control, skills and wage payments for the labour expressed in a capitalist economy (Marx, 1844). Alienation Theory essentially provides theoretical explanations on the dimensions of activity alienation, product alienation, social alienation and specie alienation in which employees usually experience in the workplace. The cardinal claims of Alienation theory lie primarily on the scenarion thereby employees are being subordinates whereas the machine is superordinate in the production process. In order words, an employee is perceived as an object while the machine is viewed as a subject dictating the pace and rhythms of task execution in the workplace.

Labour Process Theory ultimately explains how the labour process is arranged in the capitalist scheme and how work is objectified and materialised in used values whereas Alienation Theory provided the theoretical basis on the powerlessness, meaninglessness, social isolation and estrangement of workers from their species as an aftermath of working in the companies in hierachies. The alienation from the self is an outcome of being a member of an organisation whose conditions estrange workers from their humanity.

Labour Process Theory is quite apt in that it provides theoretical explanations on the work relations between the business owners and the employees concerning work. The pioneers of this theory are Marx (1844) and Braverman (1974). Labour Process Theory is regarded as Marxist Theory of the organisation of work under the capitalist mode of production. The theory provided theoretical insights on the planning, execution of work, the control, and the skills exerted for work, and the wages paid for the skills exerted for work and whether or not the wages paid are commensurate with the amount of the skills exerted. Labour Process explains the process whereby labour is reduced to the status of an object. When automated machines are adopted, tasks are automated, workers are subjected to the pace and rhythms of such machines which may decrease the cognitive power of workers. It is concerned about how labour is objectified and materialised in use values (Meyer, 1999).

In applying this theory to the study at stake, it becomes evident that the principal thrust of the theory borders on the bifurcation between conception and execution of work and its mechanisation under the capitalist system of economy which affords the management the autonomy to control the labour process but limits the use of employees' discretional power in executing tasks. In the bid to maximise profits, impersonal machines are adopted which render a worker to the position of a mere object against the need to respect the dignity and humanity in workers.

The theory revolves around who plans the work; who controls the work; the skills exerted in carrying out tasks and the wages paid for the labour expressed; whether the wages are commensurate with the amount of the skills exerted in the labour process. It indeed centres

on the organisation of work in a post-industrial era which is designed in such a manner that the capitalists influence the management to divide the labour process to remove workers' grip from the means of production to extract surplus from the employees (Foster, 2010). Beran (1965), contests that the rule number one which is otherwise called Catch 22 in the capitalist system of economy is the prospect of employees to provide capital for the capitalists. This justifies the purpose of their recruitments in workplaces. In effect, employees are seen as objects, not as human beings. Employees must provide values towards the growth and development of the corporations where they are being recruited into.

It has been established by Thompson (1983), that the removal of the comprehensive knowledge and the integrated skill of the work in labour process which is the critical means of workers' resistance to the dictate of the employers enable the continued exploitation of workers. To achieve this, employers of labour influence the management to remove the employees' skills from the means of production. What emerges therein is the extraction of the surplus value from the employees. In a capitalist system of production, the employers usually aim at maximising profits to the detriment of the employees. The division of labour increases productivity. The management reduces the costs of production and increases productivity (Thompson, 1983). The bifurcation between conception and execution of workers in the labour process such that the workers are not allowed to use their initiative as a result of management control. Hence, the Labour Process Theory seeks to examine the skills possessed by the workers in carrying out their jobs, who plans their jobs, who controls their jobs and the salaries earned for the labour to establish whether they are commensurate.

The primary focus of the Labour Process Theory is to ensure that salaries paid to workers are commensurate with the amount of the skills exerted. In other words, its primary concern is to ensure that workers enjoy their remuneration. In this regard, a democratic system of work was recommended. It is not the parliamentary system of governance that involves the legislators, the executives and the judiciaries but a situation whereby the planning, the control, the skills required and salary determination for the labour expressed will be done by the workers such that the workers will no longer be exploited for the benefits of the capitalists in the labour process. In further examination of this theory, it is rational to concentrate the planning of the conception of the work in the hands of the management. The basis for adducing this is hinged on how the management has strived towards adding value to it. The workers cannot give what they do not have. By virtue of the administrative prowess which the management has acquired through the crucible of training and having learned under the tutelage of the custodians of knowledge, the appropriate category of people to be saddled with the responsibility of planning will be the management.

Beyond from the foregoing, if workers were to be permitted to do things according to their desires, their egoistic nature will becloud their clear sense of reasoning. In reality, personal aggrandisement will thwart any viable plan they have in mind. Given this, it will be catastrophic to the growth and development of a firm to allow everyone in a firm to do things as they desire given that everyone would like to indulge in whatever that pleases them which will disrupt the progress of such an establishment. Hence, if there is no management to formulate policies and mete out sanctions to erring party in any given firm, the workplace will become brutish and chaotic. In this wise, it becomes necessary to delegate power to the management to plan how work will be done such that optimal goals will be achieved in a given firm.

In a similar vein, division of labour is key to the actualisation of the set-goal in a given firm. The foremost Scottish economist, Smith (1776), affirms that if every employee concentrates on a particular portion in an organisation, dexterity and proficiency will be attained. Besides, he alludes to the fact that if a worker concentrates on using particular equipment, he or she will become proficient in the task. Invariably, what a person is expected to do, should be properly done, even it requires spending a lot of time. To do this will enable one to become exceptional in one's field. Hence, one ought to strive to attain exceptional skills in one's chosen career to become outstanding. Workers should endeavour to envision the totality of the workplace to maximise the benefits intrinsic there. Workers should equally develop conceptual ideas to ascend the managerial cadre to manage, coordinate, plan and be in control as far as the workplace is concerned.

Given the transition of the food and beverage industry from the manual system to the semiautomated method and finally, to a fully automated system, the industry could not have remained stagnant. It would be erroneous to expect the industry to still be utilizing oven, manual food analyser, manual beverage analyser, washer, filler, capper, packer, pasteuriser, uncaser, belt conveyer and tigatten among other equipment, in the Post-Fordist era characterised by brand dryer, automate food analyser, automated beverage analyser, Krone, Domino, Mojonners, turbo bonal conveyor, cobrix, crown cork hopper, reflex, surge drum, Co2, mixer, slider beds, and programmable logical machines which mass-produce when the world population has exponentially risen to 7.6 billion, Nigeria's population being over 200 million.

The manual mode of production will not be able to cater to the needs of the proportion of the current population (Meyer, 1999). Hence, the onus lies on individuals to carve out a niche in the digital era. In other words, individuals should strive towards establishing a unique role for themselves by excelling in a particular area. Technology has been in existence since when Lee invented the weaving machine to upgrade the textile industry back then in England in the sixteen century. Up till present time, work has never gone to extinction.

When Henry Ford adopted the belt conveyor in 1905 in the production of Model 'T' Ford cars which mass-produced cars for the preponderant majority of people and deskilled the craftmen, he compensated the workers by robustly paying them such that they were able to afford to purchase the cars as well (Meyer, 1999). The adoption of belt conveyors back then made Model 'T' cars very cheap and affordable for people. Therefore, individuals should strive towards grooming themselves in order not to be relegated in the fourth industrial revolution. This is because technology has both constructive and adverse aspects. Skill and job will be lost; salaries will be slashed and other things that are associated with technological innovations. New technology requires new skills to explore it so much so that the old skill would have been antiquated. In the light of this, skill upgrading remains the sine qua non to combating the effects of workplace technologies on workers of any given firm.

Theory of Alienation

The protagonists of this theory are Marx (1844), Seeman (1959), Blauner (1964), and some others. The central assumption of this theory is how workers become objects while machines are subjects in the production system. It centres on the disillusionment of workers emanating from the aspects of their species of their beings as a result of working in the corporations that are stratified.

The theoretical underpinnings of Alienation Theory lie principally on four dimensions which are alienation from the process of production; alienation from finished products; alienation from the society and organisation where an employee expresses labour and alienation from species of oneself as a species working with an organisation where he is directed to goals by a business owner (Marx, 1844). Central to Alienation Theory, an employee reacts rather than acts. He is powerless to air his view. In this wise, an employee becomes subordinate while the machine becomes super-ordinate as the former goes by the pace and rhythms of the latter. In other words, he remains unassertive because of the fear of not being fired or queried. He goes by the pace and rhythms of the machine that removes his initiative. Marx argues that workers cannot define relationships with co-workers, and he is unable to own the items of value from goods and services produced by their labour. Although the worker is an autonomous, self-realised being, as an economic entity, this worker is directed to goals and diverted to activities that are dictated by the bourgeoisie, who own the means of production to extract from the workers the maximum amount of surplus-value, in the course of business competition among numerous industrialists.

At the heart of this study, the Theory of Alienation illustrates the self-estrangement that workers experience in the workplace as a member of an organisationally-stratified class. It gives theoretical insights into how workers cannot identify with the products of their labour as a result of the division of labour enunciated by Taylor (1911), in his Scientific Management Theory. Given the fragmentation of the work process, workers experience four dimensions of alienation which are powerlessness, meaninglessness, social isolation and self-estrangement. In other words, the theory gives clues on how workers are made to shy away from their friends and co-workers in the workplace.

Employees are not usually carried along in terms of decision-making. So, Employees become disillusioned and the entire work process becomes meaningless to them. In that light, work is carried on in an atmosphere of antagonism and hostility as evident in absenteeism, labour turn-overrates which signify migration of employees from one organisation to another as a result of certain factors, moonlighting, wildcat strikes, picketing, among other things, which in turn results in low productivity and so much more (Arisukwu and Adeniyi, 2011). Indeed, alienated workers feel dissatisfied which reflects on the overall productivity. In the Post-Fordist era, which is referred to as the second phase of industrialisation, mechanisation of tasks results in the objectification of employees as they are no longer dominant in the factory production process given that their efforts are no longer immediate because the production process is controlled by symbolic system. In addition, using automatic machines to produce goods and render services reduces workers to a status of an object. This undermines the humanity of the workers. Automated equipment has the features of humans, thereby threatening the existence of workers in the labour process.

If a worker is skilful on his tasks, he or she will gravitate from the one being dictated to, to the one dictating the pace and rhythms of the machine. The idea being portrayed here is that when a worker stands out from the crowd due to his or her skill, he or she is not at the mercy of the management who will not be able to dictate to her. As a typical example, when an operator of a pay loader mans it, there is little or no clue he or she receives from any instructor. If the heads roll in workplace, highly skilled workers will be spared, given that they are forces to be reckoned with in such a firm.

Exceptionally skilled employees are often outstanding among their colleagues. In the case of printing and chemical industries, the operators who manned printing and oil-refining machines enjoyed considerable skill exertion such that they did not bother to engage in labour turn-over, (Blauner, 1964). Arisukwu and Adeniyi (2011), aver that labour turnover is being construed as the migration of an employee from one establishment to another due to some factors which include lack of fringe benefits, lack of allowances, lack of promotion, lack of motivation, among other factors which demotivate a worker to migrate from his current organisation to another organisation. Labour turnover is categorised into voluntary

labour turn-over and induced labour turnover. It is voluntary when an employee willingly migrates from one organisation to another, whereas it is induced when an organisation requests an employee to leave a particular organisation (Arisukwu and Adeniyi, 2011).

Assuming there is only one person who is to remain in an entire firm, a person who possesses the best acumen will be the only person who will be saved to man such an enviable position. He or she will enjoy great capital investment because of his or her wealth of knowledge which the counterparts lack. To be relevant in the scheme of work in the digital eon requires being highly skilled to cushion the effects of workplace technologies on workers. Techno-pessimists who stand aloof to lampoon technological innovations will greatly miss the benefits and convenience integral in technological advancement and those who explore it will benefit immensely (Wood, 1987). Thus, workers should make frantic efforts to upgrade their skills to maximally enjoy considerable freedom in the fourth industrial revolution.

The Difference between Labour Process Theory and Theory of Alienation

The difference between Labour Process Theory and Theory of Alienation is that the former borders on the expropriation of skills which are possessed by employees that signifies the removal of the critical means of resisting the managerial control to keep extracting the surplus value from the production processes (Braverman, 1974 and Thompson, 1983). In comparison to the latter, it essentially refers to the power which employees lack over the control of work they execute in the workplace (Jin et al., 2021). Alienation essentially refers to how a worker is subordinate rather than being super-ordinate. It is a situation whereby a worker is an object rather than being a subject in the workplace (Jin *et al.*, 2021). Labour Process Theory orbits around how a worker is reduced to a mere object (Boje, 1991 and Meyer, 1991). It centres on technological advances and division of labour resulting in a reduction in the scope of individual tasks to one, a few or specialised tasks which results in the loss of the integrated skill and comprehensive knowledge about the work (Thompson, 1983). Knowledge and intelligence are taken away, given the fragmentation as well as mechanisation of work processes (Braverman, 1974). Alienation entails lack of power, lack of meaning, lack of freedom and lack of association in the workplace (Seeman, 1959).

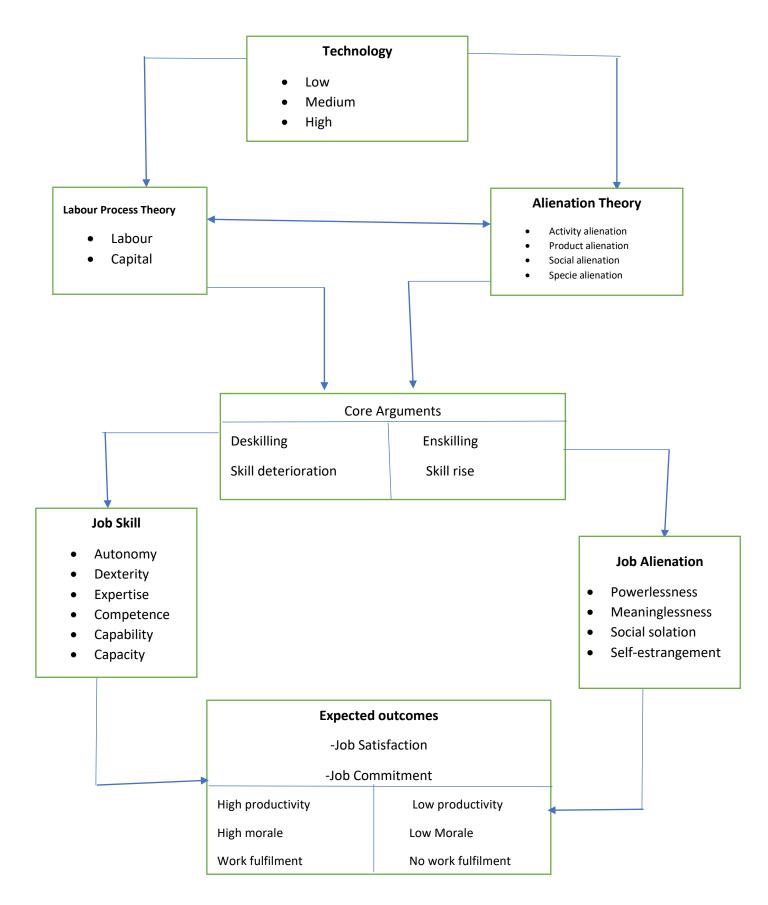


Figure 2.1: Theoretical Model

Source: Researcher, 2019

The Justification for Adopting Two theories

The justification for adopting the Labour Process and Alienation theories is typically due to the inadequacies integral in Labour Process Theory to explain job alienation, job satisfaction and job commitment which were complemented by the strengths of Alienation Theory to describe them. Labour Theory essentially explains how work is fragmented and mechanised to expropriate workers' skills which is their critical strength to resist managerial control. This enables employers to invest in further corporations. Labour is materialised and objectified in used value, whereas Alienation Theory provides explanations on powerlessness, meaninglessness, social isolation and self-estrangement, which workers experience on their jobs. Considering the fact that the former essentially explains how labour is materialised and objectified in used value, it holds that workers are not allowed to plan, monitor, determine the wages of their jobs and ingeniously devise the products of their own hands because technology does the bulk of the tasks that they used to do.

In comparison to Labour Process Theory, Alienation Theory explains how workers lack freedom over their jobs. It posits that workers are objects whereas technology is the subject dictating the pace and rhythm of work. The theory indicates that alienation has four dimensions which are alienation from the process of production, alienation from the finished products, alienation from the co-workers and alienation from the species of oneself working in an organisation that sees workers as mere materials that must bring profits to the firm. They are directed to goals as if they are not rational beings who are autonomous. In other words, the variant of alienation basically construes the subject matter of alienation in terms of alienationfrom the process of production; alienation from the end products; social isolation and self-estrangement.Since Deskilling Theory takes care of only influence of technology on skills, it became particularly imperative to adopt Alienation Theory to explain the dimensions of alienation which workers experience in the workplaces. On the strength of this, the adoption of the two theories to explain influence of technology on work became necessary.

CHAPTER THREE METHODOLOGY

3.0 Chapter Overview

This chapter focuses on the methods, procedures and justifications for the data gathering and analyses. It essentially centres on when, where and how data was gathered and analysed. More than anything else, justifications were adduced with regards to selections of the study location, the firms selected for the study and the rationale behind the selection of the statistics adopted for the analysis of the data generated in the field. It equally dwells on the study population, sample size, instrument of data collection. In all, it focuses on the indicators of workvariables (job skill, job alienation, job satisfaction and job commitment) were examined in the study. It unequivocally explains how technology was measured with regards to low, medium and high and the influence it had on the respective work variables. It provides insights on how the ethical principles were sought and adhered to in the course of the study. Finally, it reveals the limitations intrinsic in the study.

3.1 Research Design

This chapter focuses on the research design for the study which is a cross-sectional survey and it is explanatory in nature as the influence of technology on work variables was investigated whose trends patterns were explained as revealed by statistical outcomes being complemented by qualitative results. The premise behind its explanatory nature is that it aimed to generate data from the respondents to infer and explain the differences in job skill, job alienation, job satisfaction and job commitment across the three technological levels (low, medium and high) in various units and it acquired newly intriguing insights on the raging Labour Process Debate about influence of technological advances on work in Nestle S.A. and Nigeria Brewery Plc., Lagos, Nigeria. Given the nature, conception and coverage of the study, both quantitative and qualitative techniques were adopted in the collection and the analyses of the data generated. The justification for this is that the inadequacies of the former were complemented by the strengths of the latter (Saikh, 2016). Saikh (2016) asserts that a mixed-method approach of data collection and analysis enables a researcher to make sense of qualitative as well as quantitative data to complement, compare as well as contrast, and even immensely assist a researcher to explore research questions. In this wise, a smaller qualitative follow-up study plays a vital role in the entire overall design by paving way for an in-depth generation of data and classification of technological levels across the units of the firms. Conversely, the quantitative elements covered the results and the analyses of the questionnaire following the objectives earlier set out for this study.

The design of the study was principally centred on the intellectual discourse about the influence of technological innovations on work which has been raging on among Deskilling School of Thought championed by Marx and Braverman, Enskilling School of Thought led by Blauner and another neo-Marxist school of thought led by Gallie, Vallas, Cirillo *et. al.* and skill polarisation theorists.

3.2. Study Location

The study location was Lagos State. The justification for the selection of Lagos State is that it is the hub of industrial activities in Nigeria. Besides, it has the highest number of food and beverage firms in Nigeria (Ene-Obong and Sanusi, 2020). The basis for choosing the food and beverage industry is that it is viewed as the second to the industry in Nigeria and it is critical to expanding economic prospects (Babajide, 2010). Nestle S.A was selected because it is the biggest food and beverage componay in the universe while Nigeria Brewery was chosen because it is an indigeneous conglomerate when it comes to brewing alcoholic and non-alcoholic beverage in Nigeria. On the whole, the two firms are manufacturing companies that deploy technologies to manufacture commodities; they recruit workers for the manufacturing of goods; they are well-known firms and they have numerous units which vary considerably in terms of job functions.

The selection of Nigeria Brewery Plc. is justified on the basis of indigeneity and itis the forerunner and toporganisationwhen it comes to brewing alcohol and non-alcohol beveragesin Nigeria. The rationale behind the selection of Nestle Plc. is that it is the largest food

producing firm in the entire globe, which has been evaluated by revenues and other key criteria since the year 2014 as confirmed by Forbes International in 2014 (Sorvino, 2022). The activities of both firms are regulated by International Standard Organisation's Law, 2005 (ISO 22000: 2005) which states that the food and beverage industry should migrate from low-level technology to semi-automated technology to full automated technology to reduce the contamination caused by human intervention in the production process. The ISO's Law is implemented in collaboration with the Standard Organisation of Nigeria (SON). The law stimulates the food and beverage firms to migrate from low technology to medium technology and high technology.

It became expedient to investigate the influence of workplace technologies on job skills, job alienation, job satisfaction and job commitment of workers and establishes the prevailing tendency between enskilling and deskilling trends in the said firms in the digital era. Besides, the food and beverage industry is unique in expanding economic opportunities. It is almost the largest sector under the Manufacturers Association of Nigeria (MAN) (Babajide 2010) and it is central to human health (Pfizer, 2007).

Nigeria Brewery Plc.

Nigeria Brewery Plc. has a rich portfolio. Since the establishment of Nigeria Brewery Plc. in 1946, it has become the nation's flagship brand and the Nation's number 1 Beer that was Star Lager Beer in 1949 which has exponentially expanded its Lager portfolio and introduced an unmatched range of Non-Alcoholic, Stout, and Spirit Drinks (<u>http://www.nbplc.com</u>). According to Nigeria Brewery Plc., over 21 brands enjoyed locally and globally; it has customer-centric and dedicated to diverse products which cater for the growing expectations. In consonance with its dedication to win with Nigeria, it vehemently believes that it has the duty to brew a better world from Barley to Bar. It strongly relies on working partnerships to actualise shared goals, measure its positive contribution, and limit its negative impacts. It brews a Better World (BaBW) sustainability agenda which drives it to innovate and synergise to protect the environment, support local communities, and make meaningful contribution to society. All these are chiefly with the goal of supporting delivery of the United Nations Sustainable Development Goals.

Nestle S.A.

Nestle S.A signifies Nestle Societe Anonyme which indicates corporation being organised and existing under the laws of Switzerland and having its registered office situated in Vevey, Canton of Vaud, Switzerland and its permitted successors and assigns (Global Negotiator 2014). According to Nestle S.A., it has its headquarters located in Vigina and coordinates the major operations of its parent cooperation, Nestle S.A, selling Nestle-brand products in USA (<u>https://www.nestle.com</u>). Nestle Finance International Limited (NFI or the Company) presents its annual financial report for the financial year ended December 31, 2018. NFI is a public limited company (societe anonyme) organised under the laws of Luxembourg and is awholly-owned subsidiary of NestleS.A which is the holdingcompanyof the Nestle Group of Companies (the Nestle Group or the Group). NFI, which was formerly a public limited company (societe anonyme) organised under the laws of France formed on March 18, 1930, changed its domicile, and moved its registered office from France to Luxembourg on February 29, 2008. On June 1, 2013, NFI relocated its seat from 69, rue de Merl L-2146. Luxembourg to 7, rue Nicolas Bove L-1253 Luxembourg, Grand Duchy of Luxembourg.

It is worthy of note that NFI is founded for an unlimited duration. The Nestle Group produces and sells food and beverages as well as products connected to the health, nutrition, and wellness industries. The Nestle Group product portfolio has seven product classes being distributed across the entire globe which include: pet care, milk products and ice cream, nutrition and health service, powdered and liquid beverages, prepared dishes and cooking aids and confectionary and water. The chief business activity of NFI is the financing of members of the Nestle Group including by the sale, issue, exchange, transfer of otherwise and acquisition by purchase, subscription or in any other manner of debt instruments or other securities or any kind of instrument and contracts thereon or relative thereon. NFI may further assist the members of Nestle Group, in particular by approving them loans, notes, debentures, bonds, stock, facilities or guarantees in any form and for any term whatsoever and provide any of them with advice and assistance in any form whatsoever.

The Nestle Group manufactures and sells food and beverages, and products related to the nutrition, health and wellness industries. The Nestle Group product portfolio has seven product classifications, distributed across the globe which includes: confectionery and water, cooking aids and prepared dishes, wealth science and nutrition, pet care, liquid beverages and powdered, ice cream and milk products (<u>https://www.nestle.com</u>). The chief business activity of NFI is the financing of members of the Nestle Group including by the sale, exchange, issue, transfer of otherwise, and the acquisition by purchase, subscription or in any other manner, of stock, bonds, debentures, notes, debt instruments or other securities or any kind of instrument and contacts thereon or relative thereon. It is worthy of note that NFI may assist the members of Nestle Group, in particular by approving their loans, facilities or guarantees in any form and for any term whatsoever and provide and of them with advice and help in any form whatsoever.

3.3 Study Population

The study population comprised the permanent staff (both male and female, junior and senior) from different units of Nestle S.A and Nigeria Brewery Plc. The inclusion criteria of the study border on the employees who were permanent staff of either firm. Similarly, 18 In-depth interviews (IDIs) were conducted with the unit heads of Nestle whereas 20 IDIs were conducted with the unit heads of Nigeria Brewery Plc. The rationale behind the purposive selection of the unit heads is that due to their positions, they possessed in-depth knowledge on the subject matter. Nestle Finance International Limited presents its annual financial report for the financial year ended 31 December 2018. NFI is a public limited company (societe anonyme) organised under the laws of Luxembourg and is a wholly-owned subsidiary of NestleS.A that was formerly a public limited company (societe anonyme) organised under the laws of France to Luxembourg on February 2008. On June 1, 2013, NFI relocated its seat from 69, rue de Merl L-2146 Luxembourg to 7, rue Nicolas Bove L-1253 Luxemburg, Grand Duchy of Luxembourg. NFI is established for an unlimited duration.

3.4 Sampling Technique/Procedure

The sampling technique was multi-stage in its approach. The first stage: Nigeria was stratified into 10 industries thereby food and beverage industry was chosen. The rationale behind its selection is that the food and beverage industry is central to human health (Pfizer, 2007). It is unique in expanding economic opportunities and it is almost the largest sector in the Manufacturing Association of Nigeria (MAN) which includes primary sector and secondary sector (Babajide 2010). The second stage: Nigeria was stratified into six geopolitical zones and the South-west was purposively chosen. The rationale behind its selection is that the South-west has forty firms out of the 79 firms in Nigeria (Jawando and Adenugba, 2014). From South-west, Lagos was purposively chosen owing that it is the industrial hub of Nigeria and it has the highest number of food and beverage firms in Nigeria (Ene-Obong and Sanusi, 2020). The third stage: Food and beverage industry in Nigeria was stratified into 79 firms thereby Nestle S.A. and Nigeria Brewery Plc. were purposively chosen. The justifications for the selections of the two firms are based on the fact that the former is the largest food and Beverage Company in the whole world (Sorvino. 2022) and the latter is the pioneer and the biggest indigenous alcoholic and non-alcoholic company in Nigeria (Reutr, 2021). Finally, the fourth stage: The employees in the selected firms (Nestle S.A and Brewery Plc.) were selected throughrandom sampling.

3.5 Sample Size

The sample size for the quantitative study is 447 from Nestle S.A. and Nigeria Brewery Plc. A total of 305 employees wererandomly drawn from sample frame of 1,510 employees from Nestle S.A. while 142 employees were randomly drawn from 220 sample frame of employees from different units of Nigeria Brewery Plc.The disparity in the wide gap of the sample frame for both firms is that Nestle S.A. is the biggest company in the world whereas Nigeria Brewery Plc. is the biggest conglomerate in Nigeria. The justification behind the simple random selection is to give equal chance in selection of the respondents that participated in the study. The application of Taro Yamane's formula of 1967 was used to arrive at the same size for both firms. The calculation of the sample size for both firms can be found in appendix IV. Sample frame for the study was given from the payrolls of the

aforementioned firms. This was based on the existing population and the presence of the staff as well as the units' heads of the selected organisations. In a similar vein, 38 IDIs were conducted with the units' heads of the said firms. A total of 18 IDIs were conducted with units' heads in Nestles while 20 IDIs were conducted with units' heads in Nigeria Brewery Plc. The rationale behind the selection of the units' heads is due to their years of experience as a result of their length of service in the firms.

This study principally investigated influence of technology on work variables. Quantitative data obtained through the questionnaire were collated and analysed in tables, simple percentages. Subsequently after the data cleaning, it was observed that about 325 copies were completed and eventually analysed for the study. ANOVA was used to testinfluence of technology on workvariables such as job skill, job alienation, job satisfaction, and job commitment. The significance of having these characteristics is to distinguish the respondents' backgrounds and statuses in providing bases for comparisons of responses and, similarly, help in explaining issues that accounted for similarities or differences about substantive issues of the research work.

An attempt was made to examine the extent of variations of workplace technology, job skill, job alienation, job satisfaction and job commitment among employees in different units of the firms. The total population of 38-unit heads was purposively chosen from the respective units of the companies for IDIs. What accounted for the disparity in the number of IDIs is because the structures put in place differed. The justification for the selection of the units' heads is that they possessed in-depth knowledge on the subject matter, having stayed on the jobs for many years.

3.6 Instruments and Methods of Data Collection

This study adopted a combination of quantitative and qualitative instruments of data collection. The quantitative method involved administering copies of a questionnaire (both open-ended and close-ended) to the employees of both Nestle S.A and Nigeria Brewery Plc. while the qualitative method of data gathering focused on conducting In-depth interviews with the unit heads of both firms to elicit pieces of information from them on the sophistication of the tools deployed, modes of operation of the equipment used, educational

qualifications to classify the technologies utilized, and providing answers to questions bordering on influence of technology on job skill, job alienation, job satisfaction and job commitment in both firms. This complemented the generated quantitative data.

The Questionnaire Administered

A total of 255 copies of questionnaire were retrieved from respondents in Nestle S.A. while 142 copies were collected from the respondents in Nigeria Brewery Plc. This represented (88.8%) response rate of the 397 copies returned. The breakdown of the copies of the questionnaire collected from different departments of the firms are as follows: In Nestle S.A., 18 copies were returned by HR; 16 copies by Production; 12 copies by Beverage; 17 copies by Quality Assurance; 19 copies by Accounts; 18 copies by Sales; 11 copies by Maintenance; 4 copies by Security; 15 copies by IT and Technology; 13 copies by Automation; 9 copies by Internal Control; 25 copies by Planning; 8 copies by Total Production Management; 5 copies by Admin and Hygiene; 9 copies by Transportation; 43 copies by Safety, Health, Safety and Environmental Sustainability; 4 copies by Reception; 5 copies by Project Management and 5 copies by Finance.

In Nigeria Brewery Plc., all the copies which were administered were eventually returned. In Nestle S.A., about 50 copies were missing; this represented (11.1%) of the total number of copies of the questionnaire administered. After thorough data cleaning, it was observed that about 71 copies of the questionnaire, which represented (15.8%), were not duly completed and so, they could not be included in the analysis. The breakdown of the copies of the questionnaire which were haphazardly filled is given thus: In Nestle S.A., 4 copies of the questionnaire were not properly completed in HR; 5 copies in Production; 6 copies in Beverage; 2 copies in Quality Assurance; 8 copies in Account; 4 copies in Sales; 1 copy in Maintenance; 3 copies in Security; 4 copies in IT and Technology; 5 copies in Automation; 6 copies in Internal Control; 8 copies in Planning; 5 copies in Total Productive Management; 3 copies in Admin and Hygiene; 7 copies in Transport; 13 copies in Safety, Health and Environmental Sustainability; 3 copies in Reception; 4 copies in Project Management and 3 copies in Finance. It was only a copy that was not well filled in Nigeria Brewery Plc. A total of 325 copies, which represented 72.7% response, were duly completed.

In-depth Interviews (IDIs)

A total of 38 IDIs were conducted with units' heads in both firms. The questions for IDIs can be found in Appendix III. The units in Nestle S.A. included Human Resource, Production, Health, Safety and Environmental Sustainability, IT and Technology, Planning, Water Supply Chain, Account, Quality Assurance, Sales, Maintenance, Culinary, Security, Automation, Admin and Hygiene, Total Productive Management, Transportation, Internal Control, and Beverage whereas the units in Nigeria Brewery included: Human Resource, Production, Packaging, Account, Logistics, Sales, Maintenance, Security, IT and Technology, Engineering, Admin and Hygiene, Catering, Transport, Internal Control, Marketing, Project Management, Total Productive Management, Training, Bar and Finance. The rationale for the conduct of these In-depth interviews is that the unit heads presumably possessed in-depth knowledge of the subject matter. In other words, the justification for this is that they had a wealth of knowledge in the area of the study in perspective.

3.7 Methods of Data Analysis

Two methods of data analysis were adopted, namely quantitative and qualitative methods of data analysis. For the quantitative elements, data was generated via open-ended and close-ended questionnaires. In other words, data was obtained with the aid of open-ended and close-ended copies of questionnaire. In this wise, it became salient to test influence which these technologies had on job skill, job alienation, job satisfaction and job commitment across the units and report the results based on the different units that the two selected food and beverage firms were composed of. Statistical Package for Social Sciences (SPSS) (version 24) was used to analyse the data generated. It is worthy of mention that the statistical tool used for the analysis of the data generated was Analysis of Variance (ANOVA). The rationale behind the use of ANOVA is premised on the fact that the design was to test influence of technology on job skill, job alienation, job satisfaction and job commitment.

3.8 Measurements of Key Variables

The key variables used in the study are levels of technology, job skill, job alienation, job satisfaction and job commitment. How the key variables for the study (technology, job skill, job alienation, job satisfaction and job commitment) are measured is stated thus:

Job Skills

The variable of skill was measured by Likert-scale items which include autonomy, knowledge, dexterity, expertise, ability, competence, capability, coordinating capacity, ingenuity, understanding, confidence, prowess, acumen, work challenges, discretion, work intrigues, judgment and clear idea. Each item was scored from '1' to '5' with '1' assigned to "very low" and '5' to "very high". Section 3 of appendix II contains the questions asked on job skill from respondent in both firms. A composite score of these items was derived by summing the total number of items used and dividing it by '2'. The table containing the reliability measures of job skill can be found in the appendix section of the thesis.

Reliability Test of Job Skill

Subsequently, the items used, which were obtained from the works of Gallie (1978), Lee (1981), Vallas (1988) and Spencer (1990) were eventually subjected to a reliability test. The items which were found not to be contributing much to the reliability of the scale were eliminated, given that their Cronbach's Alpha coefficient values were lower than .70. This is because .70 and .60 were considered to be reliable, according to the principle of Cronbach's Alpha. After summing up the composite scores of the variable items, the data were aggregated to the unit levels. Afterward, the composite scores of the individuals' data were aggregated to the unit level. The average percentage of job skill was aggregated to unit levels as against individual levels. The rationale behind the aggregation of data was that the technological levels were at the unit/departmental levels. The premise for aggregating the composite score to the unit level is that units were the focus of the study. Technology was rated in terms of low, medium and high. Thus, it became significant to examine the variable items gave rise to how the variable of skill was derived. In this respect, one-way

analysis of variance was used because it is a comparative test of the effect of an independent variable on dependent variables.

The principle of Cronbach's alpha holds that the co-efficient is good only if the values are .84, .70, .78 and .57. Cronbach's alpha is being construed to be a measure of consistency which is quite internal. This can be said to be how closely related a set of items are as a group. In other words, it is considered as a measure of particular scale reliability. As far as Cronbach's alpha is concerned, a high value for a particular alpha does not necessarily indicate that the measure is unidimensional.

Job Alienation

The variable of job alienation traditionally has four dimensions which are: powerlessness, meaninglessness, social isolation and self-estrangement (Blauner, 1964). Having adopted, adapted and mofified Seeman's (1955) model of job alienation, four dimensions were used. Out of 32 items used by him, 15 items that are relevant to this study were subjed to Crobach's alpha measures. Blauner's four traditional dimensions derived from Seeman's four dimensions were measured using a 5-point Likert scale ranging from strongly agree, agree, undecided, strongly disagree and disagree. The items border on four dimensions of alienation which are powerlessness, meaninglessness, social isolation and self-estrangement. The reliability measures of items for alienation can be found in the appendix section of the thesis. The psychometrics of the items used in the study is contained in the appendix section. Before the analysis of data began, thevariable items were changed to the ones which were eventually used for the analysis proper. The rationale behind this was for easy coding. The composite scores of the variable items were aggregated from the individual level to the unit or department level. The rationale for aggregating the composite score to the unit level is that units were the focus of analysis. The composite score was eventually aggregated from the individual level to the unit level. The variable items eventually became how the variable of job alienation was derived. Having aggregated the data from individuals to unit levels, ANOVA was carried out to determine influence of technology on job alienation across the three levels of technology in the units. The items were eventually subjected to a reliability test to eliminate the items which did not contribute anything to the reliability of the scale.

Job Satisfaction

It is significant to note that job satisfaction has its distinctive concepts which revolve around satisfaction from the firm, satisfaction from job, satisfaction from co-workers, satisfaction from the boss, satisfaction from work conditions, satisfaction from supervision, satisfaction from take-home income and satisfaction from progress (Smith, 1979). The combination of these variables gave rise to how the variable of job satisfaction was derived. All these variable items were measured using a 5-point Likert scale ranging from strongly agree, agree, undecided, strongly disagree to disagree.

Afterward, the items were summed up and their summation was divided by the number of the items. The composite scores were eventually aggregated from the individual levels to the unit levels. The justification for aggregating the composite scores to the unit levels is that units were the focus of analysis. The combination of these variable items determined how job satisfaction was derived. Having aggregated the data from individuals to the unit levels, ANOVA was used to determine influence of technology on job satisfaction across the three levels of technology in the units.

Job Commitment

The variable of job commitment has distinctive concepts which were derived from model that was formulated on job commitment by Meyer and Allen (1991). The model was adopted, adapted and modified. The typical concepts that constituted job commitment included affective, continuance and normative commitment. The three dimensions of job commitment orbit around loyalty, obligation, allegiance, dedication, enthusiasm, free will, zeal devotion and willingness. All these concepts were measured, using a 5-point Likert scale ranging from strongly agree, agree, undecided, strongly disagree and disagree regarding 12 variable items that the employees responded to.

It is essential to note that the tables for the realiability measures of average job skill, job alienation, job satisfaction and job commitment can be found in the appendix section of the thesis. The instrument used inelicitings vital information from the respondents can be found in the appendix section of the thesis.

3.9 Levels of Technology

The different technologies that were utilised across the units of the selected firms were identified as including oven to band dryer, belt conveyor to Turbo Bonal Conveyor, manual food analyser to semi-automated food analyser to fully-automated food analyser, counting machine to point of service, Co2 mixer to surge drum, mainframe computer to personal computer, Excel to System Application in data processing, manual beverage analyser to semi-automated beverage analyser to fully-automated beverage analyser, labeler to reflex, uncaser, carbon cooler, scanners, Automatic Data Processor to Hire-to-Retire Module App, closed-circuit television. These technologies dramatically revolutionised the nature of work in the firms.

Similarly, migration from capper to Crown Cork Hopper, packer to cobrix, filler to krones, pasteuriser to domino and washer to mojonner, stabiliser to Uninterrupted Power Supply, manual equipment to semi-automated and highly automated equipment and IT support equipment, slow speed machine to very high-speed machine, manual-controlled machine to programmable logical control, manual to high-speed line and wrapping machines, Manual Manufacturing System to Computer Integrated Manufacturing System has drasticallytransformed the mode of task execution in the selected firms. Having identified these technologies, they were classified according to their sophistication, modes of operation and the knowledge required inoperating them. The categorisation of technological levels can be found in the appendix section of the thesis.

In determining the levels of technology utilised across the units of the selected firms, having adopted, adapted and modified Burawoy's (1985) model, three criteria were used, namely, the sophistication of the tools deployed to execute the tasks, the modes of operation of the equipment utilised in the units and the educational requirements for the operation of the equipment adopted in carrying out the job functions in the units of Nestle S.A and Nigeria Brewery Plc.

In an attempt to determine the sophistication of technology, having adopted, adapted and modified Burawoy's (1985) model, a technology which was crude, craft, simple, involving,

skill exertion laden, simple automatic and manually operated, was assigned '1' which was regarded as low technology. A technology that was semi-automated, loading, unloading and self-initiated which required both manual and mechanical operations was classified as medium technology and assigned '2'. However, a technology that was discovered to be advanced, sophisticated, computer-integrated, logically controlled and digitally, electronically and symbolically operated, which did not require the immediate efforts of operators given that everything was connected together, was categorised as a high technology and '3' was assigned to it.

To determine the educational requirements for the operations of the equipment, '1' was assigned to secondary education; '2' was assigned to tertiary education and '3' was assigned to professional training outside the tertiary education.

To get the final measure for the level of technology of each of the units of the selected firms, the score of each unit on those three criteria was summed and divided by 3. A unit with an approximate score of 1 was designated as having low technology. The one with an approximate score of 2 was designated as being a medium technology unit and the one with an approximate score of 3 was designated as a high technology unit.

The equipment that was categorised as low-level technologies included oven, low-speed machine, washer, filler, capper, pasteuriser, labeller, scanners, closed-circuit television, system application in data processing, desktop, Excel, counting machine, point of service, routers, stabiliser, microwave, electric cooker, mainframe computers and routers.

Medium-level technologies included belt conveyor, semi-automated food analyser, semiautomated beverage analyser, semi-automated food analyser, surge drum, krone, domino, mojonner, carbon cooler, reflex, Co2 mixer, uncaser, crown cork hopper, cobrix, tigatten and hire to retire module app.

High technologies included band dryer, programmable logical control machine, computer integrated manufacturing machine, extra tigatten, automatic data processor, automated equipment and IT-support equipment, turbo turbobonalconveyor, very high-speed machine, high-speed line and wrapping machine.

It is crucial to note that Burawoy's (1985) model was adopted, adapted and modified to develop a technological scale. Burawoy (1985) categorised simple technology as manually operated, which is regarded as low technology; he classified semi-automated technology as both manually and mechanically operated, which is regarded as medium technology; and he classified advanced technology as digitally, symbolically and electronically operated, which is viewed as high technology.

However, Blauner (1964) identified the levels of technology before his study in four industries (printing, textile, automotive and oil refining industries respectively) whereas Burawoy (1985) worked with a copper industry for one and a half years to identify the levels of technology that were utilised in the firm. In the case of this study, given that Burawoy's (1985) model was adopted, adapted and modified, vital information was elicited from the unit heads who had in-depth knowledge of the technologies deployed in the various units, having stayed on their jobs for numerous years in both firms. This justifies the attempt made to determine the levels of technology by conducting IDIs with them which were eventually transformed into quantitative data. The questions which were posed to the unit heads bordered on the sophistication of the technology utilized, how the tools deployed are operated and the education required to man the equipment deployed in the units of both firms.

The breakdown of the determination of technological levels across the units of both firms investigated can be found in the appendix section of the thesis. This includes how the equipment was rated as well as the criteria used in measuring the equipment.

Firms	Technological levels	Units		
	1 Low	Transportation and Internal Control. (2 units: 3.2%)		
Nestle S.A (18 units) (1866)	2 Medium	HR, IT and Technology, Water Supply Chain, Account, Logistics, Sales, Maintenance, Security, Finance, Total Productive Management and Health, Safety and Environmental Sustainability. (11 units: 71.7%)		
	3 High	Culinary, Quality Assurance, Pure Life Water, Beverage Production and Engineering. (5 units: 25.0%)		
Nigeria Brewery Plc.	1 Low	Catering, Transportation, Bar and Internal Control. (4 units: 19.1%)		
	2 Medium	HR, Account, Logistics, Sales, Maintenance, Security, IT and Technology, Admin and Hygiene, Reception, Finance, Water Supply Chain, Total Productive Management and Research and		
(20 units) (1946)	3 High	Development. (13 units: 63.8%) Production, Packaging and Engineering. (3 units: 12.1%)		
Source: I	DIs, 2018	1 roduction, 1 ackaging and Engineering. (3 units. 12.170)		

Table 3:1 Categorisation of Technological Levels of the Units in Nestle S.A. andNigeria Brewery Plc.

3.10 Statistical Tests

Responses that were generated through the questionnaire which were administered to the workers in the two firms were analysed with the aid of the Statistical Package for the Social Sciences (SPSS). For the avoidance of obscurity, this was done in three different levels which included Univariate analyses of the socio-demographic characteristics of the respondents and bivariate analyses of independent and dependent variables. This covered such areas as age, marital status, religion, educational backgrounds, take-home income, work experience, cadres, and ethnic backgrounds of respondents, given the diverse heterogeneous nature of Lagos State where the research was carried out. In a similar vein, at the bivariate analysis level, descriptive statistics, One-way ANOVA was used to show influence of the independent variable on dependent variables like job skill, deskilling, job alienation, job satisfaction and job commitment.

It is worthy of affirming that to test the effects of technology on average job skill, average job alienation, average job satisfaction and average job commitment, Analysis of Variance (ANOVA) was carried out. Besides, comparisons of the differences in the means of job skill were done to establish the exact technological level across the units of the firms that accounted for the statistical significance. The same thing was done about other dependent variables to establish the influence of technology on them.

3.11 Ethical Considerations

Ethical standards are comprised of the consideration for confidentiality, informed consent, anonymity and voluntary participation (Babbie, 1998). In strict compliance with the enumerated standards and other ethical principles on research bordering on human subjects, the researcher made concerted efforts to strictly uphold the principles that aim at protecting the privacy and dignity of individuals who were expected to provide salient information for the research in perspective. The researcher made concerted efforts to obtain ethical approval from Nigeria Brewery Plc., with the reference number: H-Rewards/20223/003 while a similar ethical approval was obtained from Nestle Societe Anonyme with reference number: Ref: HRD/SL/IE/AFF.

The principles guiding research were discovered in the areas listed as thus:

Anonymity: The researcher made sure that the identities of the respondents/participants were not disclosed in whatsoever in the study.

Beneficence to Respondents: The overall objective of the research was to investigate influence of workplace technology on selected work variables in Nestle Societe Anonyme Lagos, Nigeria with a view to advance viable policy recommendations which will facilitate formulating policies which will safeguard workers from deskilling and alienation that will enhance their satisfaction which will bolster their commitment towards the goals and objectives of firms. This will immensely benefit the participants in the long run in the course of task execution in their respective workplaces.

Confidentiality of Information Elicited: Information generated from the participants was treated with utmost confidentiality. This was accomplished by making sure that the participants' identities were not revealed. Numerous responses were coded so as to avoid any link to the individual participants. The data which was generated was sorted and used strictly for intended purposes. Likely publications emanating from the research will present aggregate data, not in recognizable and personalised form.

Cultural Sensitivity: The researcher ensured that respondents/participants' belief systems and practices, values, etiquettes, norms and mores including that of the firms to which human subjects were selected were greatly respected.

Informed Consent: The consent of the participants in the research was duly sought prior to the instruments were administered. This was preceded by proper introduction and explanation of the main purpose of the study to the participants who in the long run gave their consent prior to the data collection.

Justice: All the respondents/participants in the research were treated with fairness, equity and equality without discrimination, prejudice, bias, or ethnic groups.

Non-malfeasance: Respondents in the research were not exposed nor subjected to any danger, peril and harm.

Voluntariness: The participants were not coerced or compelled to participate in the study and they were informed of their rights to either participate or withdraw from the study, if they so desired.

3.12 Limitations of the Study

This study was limited to the food and beverage firms which were situated in Lagos, Nigeria, and which were Nestle. S.A. and Nigerian Breweries Plc. Attention was focused on influence of workplace technology on selected work variables, particularly the pervasiveness of technologies as against human workers in Nestle S.A. and Nigeria Brewery Plc. The study ultimately focused on the equipment which were utilised across units in the manufacturing and brewery of the finished products.

The scope of the study went beyond the manufacturing and brewery in order to cover the use of technologies such as production, administration, marketing, sales, account, and so on, given that they are used for various aspects of production and other aspects of task execution. More precisely, the study was conducted among the permanent staff (both employees and the Units' Heads) of the selected firms. Beyond this, the study as well limited its respondents to the Units' Heads of the selected firms situated in Lagos State, Nigeria. The timeline for the study was 2018 to 2019. The study in the same way focused on the permanent staff of the two firms. It focused on the employees and the Units' Heads

The researcher was able to gather that deskilling tendency was found to be a dominant trend in Nestle S.A. In contrast, upskilling tendency was discovered to be a dominant trend in Nigeria Brewery Plc. Alienation tendency was not established in both firms which is peculiar to work in the digital epoch. Technology was discovered to deplete the fulfilment of workers in Nestle S.A.Contrary is the case in Nigeria BreweyPlc. given that technology heightened the contentment of workers. Technology was observed to dampen the loyalty of employees to the mission and vision statement in Nestle S.A. In the case of Nigeria Brewery Plc., technology boosted the allegiance of workers to goals and objectives.Against the backdrop of the limitations inherent in the study earlier alluded to above, people are advised to interprete the data with caution given that it is not representative.

CHAPTER FOUR

RESULTS AND DISCUSSION

4.0 Chapter Overview

This chapter presents the results and discussion of the findings obtained from the two selected firms. This chapter is divided into sections: Section one presented and discussed the socio-economic characteristics of the respondents whereas the subsequent sections presented and discussed the results obtained regarding the substantive issues of the study which centred on the objectives of the study. This was done following the arrangements of the objectives of the study. The study centred on the controversies emanating from the advent of technological inventions on work among Deskilling, Enskilling and Skill Polarisation schools of thought which have been raging on for quite some time. In this wise, it became imperative to examine the real situation with regards to the Labour Process Debate in the post-Fordist epoch. The question requiring an answer is whether technology has adverse influence on workers or not.

In the light of this, some scholars have adduced arguments that technology is not damaging workers' skills but rather improving them, given that new jobs are being created and new work forms have been developed consequently upon technological advancement. The companies, Nestle S.A and Nigeria Brewery Plc., were purposively chosen as a unit of analysis for this study. The reality of the matter is that it is not all employees who are in technologically-intensive units. Some employees are in low-technological level units owing that they exploit simple equipment or no equipment at all in executing their job functions.

It is evident that it is not all workers who are allocated to technologically-intensive units. Some workers are in low-technological level units given that they are using simple tools or no tool at all in carrying-out tasks. Arising from the foregoing, the idea is that if technology truly has harmful influence on employees, influence which technology will have on them in low technological level units will vary from the employees in medium technological level units and the employees in high technological level units following that the sophistication of technology varies considerably across the units of the selected firms. The expertise of the employees varies considerably across units. Hence, influence which technology will have on these three categories of employees would vary considerably.

Against this backdrop, if one compares and contrasts these three categories of employees, one should be able to know whether technology has an adverse influence on employees or not. Otherwise, if there is no difference in the means of job skill, job alienation, job satisfaction and job commitment, it signifies that technology has no impacts on workers' levels of skill, alienation, satisfaction and commitment. In other words, it indicates that technology has no adverse influence on work variables. Statistically, when the ANOVA technique is used in an analysis, one can indirectly infer whether there is an influence or there is no influence, if one gets to see the differences in the means, particularly significant differences in the groups. Then, one can unequivocally conclude that technology influences job skill, job alienation, job satisfaction and job commitment. In this respect, one can unambiguously conclude whether technology influences job skill, job alienation, job satisfaction and job commitment or not.

Deductively, to judge by the result which will be revealed by ANOVA, one can vividly see the dominant trend among deskilling, enkilling and skill polarisation. The result will go a long way to provide wealth of enthralling insights on the controversies emanating from whether technology deskills enskills or has skill divergent trend on work in the digital epoch. It will be overwhelmingly evident that whatever trend is being revealed by ANOVA will definitely be the real situation of the influence of technology on work in the digital revolution. The sophistication of full automated technology varies significantly from both manual technology as well as semi-automated technology. Skill exertion required in manning sophisticated machines equally differs substantially from both manual machines and medium-level technologies.

Variable	Frequency Nestle S.A	Percentage Nestle S.A	Frequency Nigeria Brewery Plc.	Percentage Nigeria Brewery Plc.
Sex:			U U	2
Male	115	62.5%	75	53.8%
Female	69	37.5%	66	48.8%
Total	184	100.0	141	100.0
Marital status:	-			
Single	64	34.8%	41	29.1%
Married	103	56.0%	75	53,2%
Separated	16	8.7%	24	17.9%
Widow/widower	1	0.5%	1	0.7%
Total	184	100.0	141	100.0
Religion:	101	10000		10000
Christianity	105	57.1%	92	65.2%
Islam	70	38.0%	46	32.6%
Traditional	9	4.9%	2	1.4%
Others	7	4.770	2	0.7%
Total	- 184	- 100.0	1 141	0.7% 100.0
IUIAI	104	100.0	141	100.0
Ethnic group				
Hausa	32	17.4%	16	11.3%
Ibo	49	26.6%	34	24.1%
Yoruba	68	37.0%	41	29.1%
Others	34	19.0%	50	35.3%
Total	184	100.0	141	100.0
Income:				
Less than ₩100,000.00	47	25.5%	25	17.7%
№ 100,001.00- № 125,000.00	25	13.6%	40	28.4%
₦125,001.00-₦150,000.00	18	9.9%	29	20.6%
№ 150,001.00- № 175,000.00	26	14.1%	20	14.2%
№ 175,001.00- № 200,000.00	25	13.6%	7	5.0%
₦200,001.00-₦225,000.00	18	9.8%	6	4.3%
₩225,001.00-₩250,000.00	11	6.0%	6	4.3%
₦250,001.00-₦275,000.00	4	2.2%	5	3.5%
№ 275,001.00 and above	10	5.4%	3	2.1%
Total	184	100.0	141	100.0
Educational qualification				
before recruitment:				
None	3	1.6%	0	0.0%
Primary	1	0.5%	0	0.0%
Secondary	39	21.1%	37	26.2%
Tertiary	140	76.1%	104	73.8%
Others	1	0.5%	0	0.0%
Total	1 184	100.0	141	100.0
Further educational attainme		10000	171	10010
after recruitments:	-111			
Not applicable				
Masters	103	56.0%	79	56.0%
Others	27	56.0% 14.7%	79 7	5.0%
Total	54	29.3	55	39.0%
1.01.21	.)4	27.J	.).)	37.0%

Table 4.1 Socio-Demographic Characteristics of Respondents from both Firms

Source: IDIs, 2018.

Table 4.1 indicates the socio-demographic characteristics of the respondents. The sex of the respondents indicated that the large proportion of the respondents (62.5%) in Nestle S.A. and (53.8%) in Nigeria Brewery Plc. were male workers. This result was quite expected, given the lower level of selection, recruitment and placement of women in the formal sector, particularly in the top positions and strategic sections, as far as Nigeria is concerned. This confirms the glass-ceiling syndrome which women encounter in the formal settings in Nigeria. The selected firms are manufacturing companies that are arduous in nature. This result, therefore, is in tandem with the existing academic literature and statistics on the dominance of male counterparts in the formal sector (Omolawal and Akinwunmi, 2020). Women's procreative roles, socio-cultural beliefs, education, and glass-ceiling barriers are some of the likely factors responsible for the disparity (Amadi, 2020 and Arowojolu, 2021).

On the marital status of the respondents, a large proportion of the employees in NestleS.A. (56.0%) and Nigeria Brewery Plc. (53.2%) were married. This result is justifiable because the age range of the majority of the respondents was within the marriageable age bracket. Given the preponderance of respondents who were married in both firms, it is expected that the study respondents would be firmly rooted in terms of experiences of life, work experience and being able to take up responsibilities in the selected firms.

On the religious affiliation of the respondents, the large proportion of the respondents were Christians who were about (57.1%) in Nestle S.A while (65.2%) in Nigeria Brewery Plc. These results seem to be coincidental owing that in formal organisations; religion could not have been used as a yardstick for consideration in the process of job advertisement, recruitment, selection, placement and probation into various units in the selected firms. Recruiting companies usually subject the job applicants to cognitive written tests before the companies subject such prospective job applicants to interviews. Hence, employees are normally recruited into organisations by business owners to increase quality delivery and profit optimisation.

With respect to the ethnic groups of the respondents of the two selected firms studied, the result revealed that the two firms studied were heterogeneous in nature, particularlyin terms of ethnic groups. On the other hand, the Yoruba ethnic group was found to be a dominant

ethnic group with 37.0% in Nestle S.A. and 29.1% in Nigeria Brewery Plc. respectively. This can be ascribed to the fact that the two firms studied were situated in the Southwestern part of the country where Yoruba people are predominant.

In respect of the income levels of the respondents of the two firms under investigation, the monthly income of the respondents from the two firms investigated signified that the majority of the respondents in Nestle S.A. (25.5%) earned less than \$100,000 on monthly basis; while the majority of the respondents in Nigeria Brewery Plc. (28.4%) earned between \$100,001.00-\$125,000.00 on monthly basis.

The educational qualifications of respondents when they were being recruited were investigated and the findings indicated that the majority of the respondents (76.1%) and (73.8%) from Nestle S.A and Nigeria Brewery Plc. respectively had tertiary educational qualifications when they were recruited. From the same table, further educational attainments of the respondents after recruitments were investigated and the result depicted that the majority of the respondents in Nestle S.A were (56.0%) and the respondents in Nigeria Brewery Plc., (56.0%) indicated that further educational attainment after recruitment did not apply to them while (29.3%) and (39.0%) had further educational attainments. This signifies that the majority of the respondents had improved on their educational qualifications after they were recruited into the firms. The statistics revealed that the majority of the respondents were highly educated. Another intriguing aspect of this study is that it focused on the permanent staff of the selected firms who underwent training upon their recruitments. They had on-job training which enabled them become professionals over the years. This is attributable to the fact that education is spread globally in the 21^{st} century. The foregoing aligns with Adler's (1991), submission on technology that the work of the future and the future of work will be so sophisticated that individuals should make concerted efforts to upgrade their skills given that the jobs will not require the rank and file.

The earlier result equally corroborates the position of the Lyon-Caen (2021), which stresses that new skills will be required to operate new technologies given that the present skills would have been obsolete to explore and maximise new technologies. This resultequally gives credence to the stance of Amobi (2018) that individuals should horn their skills to

explore and maximise new technologies. This result aligns with the position of the Lyon-Caen (2021), which signifies that the current skills required to operate current innovations would have been antiquated to accommodate innovations. It is advised that people should upgrade to compete comparatively in the global trade. The preceding recommendation equally strengthens the position of Amobi (2018), that there would be more job and skill losses by 2020. In her view, people should innovate, create, invent, and diversify to be relevant in the scheme of work in the era of digitisation. This gives credence to Gate (2018), who maintains that human capital development is the pretty key to national development.

The priorelucidation conforms with the view of Amadi, (2020) and Arowojolu (2021), who maintain that human capital development is pretty central to eradicating illiteracy and augmentingthe input-output ratio of employees in a given organisation in Nigeria. According to her, training remains an essential part of employees' performances owing that it is a crucial instrument that results in the addition of economic value to their performances in justifying the return of the huge investment. Amadi, (2020) and Arowojolu, (2021) emphatically submit that the organisations which invest heavily in human capital development derive value for such huge investment whereas the ones which fail to do so eventually end up complaining about the employees who are recruitedinto such organisations that they fall shorts of expectations. It is evident that making investments in a business usually yield dividends in comparison to organisations which do not place high premium on investment, the turn-over rates will differ considerably. In this respect, it is usually a wise decision for an organisation to embark on investing heavily in labour force as it was discovered by Amadi, (2020) and Arowojolu, (2021) that human capital development places organisations on vantage position. The foregoing corroborates the submission of Adler (1992), who maintains that the organisations which invest heavily in the training of employees, particularly when it comes to adoption of new technological innovations, end up deriving high productivity whereas the organisations which fail to invest in the training of employees are usually immersed in complaining about low productivity.

-Firm	Age						
	N	Minimum	Maximum	Mean	Std. Deviation		
Nestle	184	21	57	32.20	5.689		
Nigeria Breweries	141	20	48	32.61	5.028		

Table 4.1.2 Mean Distributions of the Firms and Respondents' Ages from both Firms

Source: IDIs, 2018

Table 4.1.2 depicts that the minimum age of respondents in Nestle S.A. was 21 years while the maximum age year of the respondents was 57 years whereas in Nigeria Brewery Plc., it was revealed that the minimum age of respondents in Nigeria Brewery Plc. was 20 years while the maximum age of respondents in was 48 years. It was further revealed that the mean age of respondents in Nestle S.A. was 32.20 while the mean age of respondents in Nigeria Brewery Plc. was 32.61. The standard deviation of the respondents' ages in Nestle S.A. was 5.689 while the standard deviation of respondents' ages in Nigeria Brewery Plc. was 5.028.

Extrapolating from the table 4.1.1, it suffices to establish that the preponderance of the employees in both firms were relatively young. The factor responsible for this scenario is due to the fact that in the course of job advertisement, recruitment, selection, placement and probation, employees were recruited during recruitment exercise through recruiting firms which subjected job applicants to aptitude tests thereby recruiting the job applicants who triumphed distinctively. Thereafter, the firms conducted oral interviews for the qualified applicants. It is salient to note that the job applicants who successfully sailed through the oral interviews were eventually absorbed into the labour force. Upon their recruitments, they were placed under probations. The employees who were able to meet up with targets given to them were able to remain in the firms whereas the employees who lacked capacity to stand the rigour intrinsic in job execution were eventually relieved of their jobs. It is imperative to note that the recruiting firms set age brackets for the recruitment exercise in that the job applicants who did not fall within the age bracket were not considered to participate in the aptitude tests, let alone of being called for the oral interviews owing that the recruiting firms did not compromise standards in the course of recruitment exercise.

Note: 'N' indicates the total number of the units in each firm while 'n' depicts the number of the units with low, medium and high technologicallevels in each firm.

Table 4.2: The Extent of Influence of Technology on Job Skill in Nestle S.A. and Nigeria

Brewery Plc.

Firms								
Nestle (186	Nestle (1866)			Nig. Brewery (1946)				
(n=18 units)	(n=18 units)			(n=20 units)				
Tech levels				Tech levels				
Low		medium	High	Low	Medium	High		
Variables	(n=2)11.1%	(n=11)61.1%	(n=3)27.8%	(n=4)20.0%	(n=13)65.0%	(n=3)15.0%		
job skill	66.75	67.81	60.30	65.69	69.54	73.00		
f-ratio	3.96			1.31				
Df	2/15			2/17				
	2/15							
p-value	0.04			0.2				
comparisor	n test							
	1	2	3					
1 low tech	-		_					
2 medium	-1.056	-						
tech								
3 high tech	6.448	7.504*	-					

Source: IDIs, 2018

Table 4.2 presents the extent of influence of technology on job skill (measured by expertise, dexterity, proficiency, ability, competence, capability, capacity, ingenuity, confidence, creativity, complexity, knowledge, intelligence and autonomy) in selected firms. In an attempt to examine the influence of technology on job skill across the three levels of technology (low, medium and high), a one-way analysis of variance (ANOVA) was used to test influence of technology on job skill. This was done by testing the mean values of job skill. As depicted explicitly in the table 4.2, the mean values of job skills (66.75, 67.81 and 60.30) across the three levels of technology varied considerably in the two firms examined. ANOVA is an inferential statistical technique that its Honest Significant Difference (HSD) indicates that the differences in the three mean values suggest that influence of technology on job skill can be inferred. In other words, the mean values of job skill across the three technological levels varied considerably. The variations among the mean values of job skill across the three levels of technology indicated that technology truly influenced job skills. However, in the case of the uniformity of the mean values of job skill across the three levels of technology, it would be revealed that technology did not influence job skill. In this wise, the differences among the mean values of job skill, which are 66.75, 67.81 and 60.30, which were found to be statistically significant at p=0.04 and which ultimately signified that technology truly had some influence on job skill. The result is in tandem with the submission of Edgell and Granter (2020) who posited that one of the aftermaths of the rise of industrial capitalism was the outright destruction of handicraft skills which was closely associated with the advent of machinery and the assembly-line process.

In contrast to the statistical outcomegathered from the study, the qualitative result gathered from Culinary Unit Manager revealed that:

In Culinary plant, the transition of technological innovations from manual and very low speed line equipment to semi-automated and to highly automated equipment, IT-support equipment, logical programmable control equipment and very high speed lines being utilised in pressing and wrapping operations (1,500 cubes of Maggi per minute) has exponentially paved ways for employees with requisite training in different fields of Enginnering such as Electircal, Mechanical,Automation, Instrumentation, Chemical Engineering, Robotic Engineering, Mechatronics, Digital platforms and Artificial Intelligence, such that employees in the said unit enjoy considerable autonomy, particularly those who possessed professional certifications in the said disciplines, enjoy exertion of considerable expertise. These innovations have resulted in massive competence requirements which have enormously increased as more personnel are able to operate and maintain the equipment they utilise, to a large extent. To be candid, enskilling trend is enhanced in this wise, consequent upon the capacity to learn new methods of carrying out job functions. Employees become professionals when they undergo series of training overtime. (IDI/Firm1/CM/May, 2019).

In inferring from the foregoing, it suffices to posit that the technology that is being utilised over the years in Culinary Unit which is a maker of Maggi has evolved which has resulted in enskilling trend. The evolution of technology in the said unit has tremendously changed the critical nature of task execution. It is stimulating to note that employees who possessed the knowledge of Mechatronics were chiefly recruited in Culinary Unit through job advertisement, recruitment, selection, placement and probation. Upon their recruitments, they underwent series of training which enabled them become professionals. By virtue of their professionalism, they were able to man sophisticated equipment that produced in large quantity. Consequent upon this, work in Culinary Unit belonged to those who possessed professional skills who could operate the equipment optimally. Hence, work in the said unit was not meant for all and sundrybut for those who possessed the requisite skills.

From the study, it was revealed that the average job skill in the medium level of technology had the highest mean value (67.81). By inference, it indicated that as far as Nestle S.A. is concerned, employees in the medium level of technology possessed higher job skills than their counterparts in both low and high technological level units. This is because the job functions being executed by the workers entailed both manual and mechanical procedures respectively. The result corroborates the view of Pen (1991), who reveals that in the spring of computerisation, enormousapprehension ensued among employees and managers that the emergence of numerical control machines would eliminate them. In contrast, they acquired numerical control machine expertise without necessarily losing their artisanal prowess. The finding repudiates the stance of Hedgelland Granter (2020), who affirmed that most viewpoints on the end of work perceive changes in technology and production systems as critical to the demise of work. Moreover, the result from the study discountenances the position of Enskilling School of Thought. From the perspective of Blauner (1964) and his adherents, medium technological units had the lowest job skill due to the formal sub-division of the work which is mechanised in the medium technological level industry. In

other words, fragmentation, rationalisation, standardisation, and routinisation of an assembly-line plant determined the pace and the rhythms of work, therefore, limiting the workers' skills.

In comparison to the mean value of job skill (67.81) in the medium technological units, it was shown that the mean value of job skill (66.75) in the low technological units had more job skill mean value than their high level of technology units. This indicates that workers in the low technological units were less-autonomous than their counterparts in medium-level technological units, but possessed more skills than the employees in high technological units. This is followed by the mean value of job skill (60.30) in the high technological units. This signifies those employees in high technological units possessed lesser skills (60.30) than their counterparts in both low (66.75) and medium-level technological units (67.81), given the advancement in technology that they utilised. This is because the equipment deployed such as Band Dryer, extra Tigathen, Turbo Bonal Conveyor and Computer-integrated Manufacturing System were controlled through symbolic and digital processes such that the operators' efforts and energy were not immediately owing that virtually everything was automated. This practically subjected them to pressing buttons routinely in the factory system.

Considering that the high technological units had the lowest mean job skill (60.30), the employees in high technological units were most grievouslypredisposed to influence of the technology they utilised. It could be deduced that the more advanced the technology, the more deskilled the employees became. It suffices to stress that it conforms to the perspective of Marx (1844), who argues that the more technology advances; the more deskilled workers become. The result aligns with Braverman's (1974) postulationthat advanced technology results in the destruction of handicraft skills, knowledge and intelligence. The point being portrayed in this context is that the high technology industry erodes both the intelligence and knowledge of employees. The survey carried-out in both firms reinforces the view of Amber and Amber (1965), who posit that efforts of the operator in the high technological unit are not immediately following that the production process is controlled electronically and symbolically, while robots do the tasks.

It was gathered that high technological level units had the lowest mean job skill, which signifies that the employees in high technological level units were most affected by the technology deployed to execute tasks. The finding is also in conformity with the perspective of Braverman (1974), who argues that fragmentation and mechanisation of tasks in capitalist societies progressively result in unskilled proletariat. In other words, the more tasks are mechanised, the more employees lose intelligence and knowledge. Besides, the result is consistent with the stance of Braverman (1974), who forcefully contends that at the peak of mechanisation of tasks, the destruction of handicraft skills came into play in the craft and guild epoch. The argument advanced by him is that the more work is fragmented and mechanised, the lesser the autonomy the workers enjoyed on their jobs. This argument equally mirrors the view of Meyer (1999), who points that when work is mechanised in Ford Highland Plant, the skills of crafmen and artisans declined astronomically because the employees were not at liberty to inventively manufacture the products of their own hands. To reinforce Marxian conceptualisation of advanced technology, Marx (1844), maintains that the captains of the army win their wars by recruiting more generals, whereas the captains of industries win their wars by discharging their own generals. The corollary of this is that technology drastically results in a decline in the labour force.

In view of the result of analysis which signifies that the average job skill varied considerably across the three levels of technology, it became imperative to observe whether the variations in the mean values of average job skill across the three technological level units are statistically significant or not. In this wise, the result depicted that the variations in the mean values of average job skill across the three levels of technology in Nestle S.A. were found to be statistically significant at (F=3.96, df=2/15 and p=0.04). Deductively, the differences in the mean values in three technological levels were discovered to be statistically significant. It could be inferred from this result, that, the statistical significance of the variations in the mean values of average job skill across the three levels of technology, revealed that technology had undesirable influence on average job skill in Nestle, which in turn suggests that technology deskills workers. The cardinal factor responsible for the statistical significance of the extent of influence of technology on job skill in Nestle S.A. can be attributed to the lowest mean of job skill (60.30) found in high technological level units. The finding corresponds with the submission of Braverman

(1974), who posits that technology progressively deskilled employees in capitalist modes of production. It equally echoes the view of Edgell and Granter (2020), who posit that one of the consequences of the rise of industrial capitalism was the destruction of handicraft skills which was ascribed to the adoption of machinery and assembly-line process.

To reinforce the statistical discovery that was generated from the study, an IDI which was conducted with the Production Unit's Head reveals thus:

When we were utilising Oven System, Tigathen and Belt Conveyor in this unit, the unit had a sizable number of employees who were saddled with a lot of tasks to execute. Besides, they enjoyed considerable skill exertion in the course of discharging their duties. Nevertheless, migrating to Band Dryer, extra Tigathen, Turbo Bonal Conveyor and Computer-integrated Manufacturing System in producing Milo Tea and Nido, has drastically changed the significant nature of work, owing that about twenty employees who used to be allotted to the Production Unit have been radically reduced to five employees monitoring the smooth-running of automated machines. In the light of work automation, work in this unit exclusively belongs to the machine autonomous and programmers who call the shots on their jobs as they do the jobs which are not meant for the rank and file in the unit. (**IDI/Firm1/PM/May, 2019**).

Extrapolating from the prior in-depth interview, it is imperative to note that Production Unit haswitnessed significant evolution of technology which has resulted in skill destruction. The expertise required to operate ovensystembecame obsolete in the spring of Tigathen and thereafter, extra-Tigathen. As soon as Belt Conveyor was adopted in Production Unit, a number of employees were replaced and displaced by this innovation given that the work that initially required about twenty employees eventually required about five people to monitor the smooth-running of this equipment. In this respect, staff strength was significantly reduced as a result of this innovation. Fundamentally, there were skill losses, job losses and salaries were slashed and other things that accompanied technological advancement. Previous skills exerted in manning the former equipment became moribund to man the new equipment. It is noteworthy that upon the adoption of the new equipment, certain employees who were retained assiduously underwent series of training in order to get them acquainted with the new equipment adopted in the aforementioned unit.

The verbatim quotation lends credence to the view of Salami andOyewale (2013) who contest that the primary motive of capitalists is to adopt technology so as to reduce

production costs and optimise profits. According to him, the work that was done by various employees is currently done by a few employees who routinely monitor how machines run. Given this, one only finds a few workers in the production process who are saddled with mere monitoring of the smooth-running of equipment. This has slightly changed the critical nature of work as a result of replacing human workers with machines, which determines the pace and rhythms of work in the production process such that the efforts of workers are no longer immediate since the production process is controlled by digital platforms.

In the same vein, another Unit Head from the Quality Assurance Unit affirmed thus:

When the employees in Quality Assurance Unit were using manual beverage analyser and manual food analyser to examine both raws materials and finished commodities, they enjoyed considerable autonomy in terms of exerting skills to get tasks executed. However, the revolution of technology from manual beverage analyser to semi-automated beverage analyser, and finally, to fully automated beverage analyser and the transition from manual food analyser to semi-automated food analyser and finally, to automated food analyser, has enormously altered the ultimatelandscape of the Quality Assurance Unit, thereby the employees who are used to exertion of skills, currently press buttons monotonously in carrying out the job duties which immensely limits the amount of skill inputs on the part of employees, since the bulk of work is automated. (IDI/Firm1/QA/May, 2019).

Deducing from theprecedingin-depth interview, it is informative to note that Quality Assurance Unit has undergone massive technological transformation since its inception having witnessed the evolution of technology from manual food and beverage analysers to semi-automated food and beverage analysers to automated food and beverage analysers in the evaluation of raw materials and finished products. This evolution has had significant impacts on skill level of employees recruited in the said unit. Consequent upon the evolution of technology witnessed by this unit, workers were reduced to customarily pressing buttons as against exerting skills in the course of task execution. This scenario had implications for proficiency, autonomy, dexterity, expertise, work challenges, work demand and work intrigues. The notion of habituallypressing buttons ultimately inhibited the personal discretional power of the employees saddled with the responsibility of utilising automated equipment to evaluate raw materials and finished goods. The result lends credence to the standpoint of Braverman (1975), who contests that people's relationship with nature is not necessarily one of food-gathering or shelter-seeking in the crevices provided for them, ready-made by nature. Braverman (1975) further stresses that humanity takes the numerous materials bestowed by nature and alters them into various objects which are more beneficial to the mankind. Following the position of Braverman (1975), humanity works to live and to provide for itself the means and provisions of life. He postulates that if individuals often complain about work as a constraint being laid upon the species by nature, it is evident that work as a species' feature is natural to human life, as hunting and grazing are to other species.

In contrast to the particular result, an In-depth interview which was conducted with an HR Manager revealed thus:

When the HR unit was utilising Automatic Data Processor for the database of the employees, the employees lacked considerable autonomy in making some amendments in terms of their names, residential addresses and account numbers, such that they needed to lodge numerous complaints directly to the HR Unit. As soon as the unit migrated from Automatic Data Processor to Hire-to-Retire Module, they have begun to enjoy considerable autonomy in terms of effecting certain corrections when their names are misspelled, and particularly when they have issues with their bank accounts. (IDI/Firm1/HRM/May, 2019).

It is crucial to note that the advent of software and hardware in HR Unit robustlychangedmode of task execution in the unit in perspective. It is worthy of note that the transformation of technology in HR Unit resulted in enskilling trend given that it greatly enabled employees in the unit in focus to enjoy autonomy in terms of making corrections in their names, bank accounts and residential addresses without having to go through HR Manager. In effect, Hire-to-Retire Module robustly placed employees on a vantage position to enjoy considerable autonomy on their jobs than the previous Data Processing Application that requiredworkers to effect corrections in their names, account numbers and change of residential addresses until they contacted the HR Manager.To crown it all, Hire-to-Retire Module immensely afforded employees the opportunity to enjoy considerable autonomy in the course of task execution. In this regard, the coming of technology massively eases the stress involved in doing of work in this unit. The resultvalidates the stance of Meyer (1999), who confirms that in Ford Highland Automobile Plant, the production of Model T vehicles was initially concentrated in the hands of craft men and artisans. Nonetheless, having got to see that their efforts stiffening the pace of production, he resorted to adoptingBelt Conveyor, which rendered such employees redundant? Against this backdrop, work degradation arose from the deployment of belt conveyor which rendered the craft men dispensable. The high point of the deployment of this technology borders essentially on its ability to produce exponentially for the vast majority of the end-users, so much that the workers could equally afford to purchase Model 'T' cars having compensated them by increasing their wages. This position was reinforced by the view of another Unit Head from the Health, Safety and Environmental Sustainability Unit in Nestle S.A who maintains thus:

From the entrepreneurial viewpoint, the principal motive behind the deployment of technology for task execution by the business owners is basically forprofitoptimisation. By and large, in looking at the adoption of technology in executing tasks in this unit from the societal point of view, it massively reduces the staff strength given that the large proportion of the workforce declines astronomically as business owners fondly aim at profit maximisation. More than anything else, it reduced the skill levels of employees. The utilisation of technology ultimately results in job and skill losses and other things which are closely associated with technological advancement. Very characteristic of technological advancement, are the loss of jobs, loss of skills and other things associated with technology, (**IDI/Firm1/HS**and**ESM/May, 2019**).

The main point being established in the in-depth interview centres primarily on the chief motive behind the adoption of technology by the capitalists is to optimise profits. This is actualised by adopting technology to increase efficiency and reduce the costs of production. Beyond this, work is broken down into simpler, smaller units and mechanised in order to expropriate the workers' skills. More than anything else, management is engaged to spur the workers to discharge their duties whole-heartedly. In this regard, the planning of the work is concentrated in the hands of the management whereas the execution of the tasks is concentrated in the hands of shop-floor workers (Wilkinson, 1983). The adoption of technology eventually results in skill decline and creates a class of employees regarded as proletariat owing that lack of skill usagelogicallyleads to skill deterioration (Lee, 1981and Daniels, 2015). Technological advances coherently have impacts on skills of employees.

The result is consistent with the perception of Edwards (1979), who posits that on account of the capitalists adopting impersonal technology like a stopwatch, which determined the pace and rhythms of work such that there was no breathing space for employees. His work typically borders on the conflict that ensues between capital and labour in the workplace as the systems of control being designed by business owners to contain it, particularly in America. It essentially entails the transformation of the workplace as far as the twentieth century is concerned. The motive of the business owners, according to Edwards (1979), is to regiment the time of employees to optimise profits. In other words, the business owners are keen on organising employees' time to a strict system whereby every aspect of their life is strictly regimented to realize the surplus value in the production processes.

In corroboration with the result, the In-depth interview conducted with an Account Unit Head reveals thus:

Technology evolves as the population increases to cater to the needs of the emerging population. At the heart of technological advancement concerning work, the labour market suffered immense setbacks as the proportion of the labour force reduced drastically. However, it is advantageous because, it fast tracks the database of employees, eases auditing procedures, facilitates the delivery system, and increases the input and output ratio. But, on the other hand, it reduces the staff strength of a given firm as automated technology and some Apps do the bulk of the work meant to be done by the employees, which influence the employees' skill levels. In any case, technology cannot eliminate accounting, because, there are some aspects of accounting that require human factors, particularly the auditing aspect of accounting. Nevertheless, technology makes book-keeping and financial transactions faster, because, with just an alert, everything gets done swiftly without having to experience any hassles. As a matter of fact, transactions are sealed within a timeline. (IDI/ Firm1/AccM/May, 2019).

Evolution of technology has brought about a new dimension on work in Account Unit. The emergence of software enormously eased the processing and maintenance of financial and tax documents; management of account transactions; preparation of budget forecasts; management of balance sheets and profit and loss statements; publishing of financial statements promptly; computation of taxes and preparation of tax returns; handling monthly, quarterly and annual closings; ensuring well-timed bank payments and reconciliation of accounts payable and receivable in the enterprise of accounting. Utilising Excel for the purpose of database simplified the processing of ledger as far as Account Unit is concerned.

In essence, the traditional way of processing accounting equations which are assets, liabilities, and shareholders' equity is made easier by the implementation of account software. Availing oneself of several arrays of account software streamlined task execution in Account Unit. This is because it fastens the pace of getting tasks done within timeline.

The result lends credence to the viewpoint of Liker et al. (1999) who posit that technology's influence on work is ultimately contingent on a number of factors which include the rationale for its adoption, work organisation, the extent of shared agreement concerning technology, the labour-management contract, management philosophy and the process of technology development and its implementation. From a historical viewpoint, Liker et al. (1999) contend that technology was treated as a deterministic causal force with predictable influence. In recent times according to liker et al. (1999), there is recognition of the complexity of technology and its relationship to work that is both bi-directional and dependent on numerous contingent factors which are the dynamics of the change process and the outcomes that are inextricably connected. They maintain that different technologies are adopted into different social settings for different purposes with entirely opposite effects.

The result aligns with the view of Jaffe and Gertler (2005) who stress that the spring of computer-controlled manufacturing systems has entirely revolutionised the way, manner, and time for the manufacturing of products. According to them, modern factories are full of robots and AI where everything is being automated. In modern-day factories, the set of workers seen within a manufacturing company are few engineers who are solely responsible for the monitoring of the robots, AI, digital platform and other machinery. From their perspective, this is quite different from the old tradition where everything was manually done by human workers. They contend that there is an enormous loss of control over the production process being experienced by workers.

Following the statistical result generated from the study, an IDI that was conducted with a unit head from Finance Unit reveals thus:

When the unit was utilising Main-Frame Computer, it was quite herculean for the employees to get tasks done. By and large, due to advancement in technology, the unit migrated to desk top computers and personal computers that ease the stress of doing jobs. This innovation has really changed the landscape of finance

as an enterprise. The employees who failed to upgrade themselves were deskilled by technological innovations while those who developed themselves were enskilled by the advent of computerisation. The baseline is to upgrade in order to be relevant in the scheme of work. Otherwise, one would be rendered redundant in contemporary workplace. (**IDI/Firm1/FM/May, 2019**).

It suffices to state that the evolution of computers has been pretty exponential having developed from main frame computer to desktop, to personal computer and apple laptop. All these innovations have been quite instrumental to the actualisation of goals and objectives in Finance Unit. The coming of computerisation has improved financial transactions and record keepings. Equity, asset, market liquidity and decision-making process have been expedited by the emergence of technological innovations. Hardware and software are integral part of financial transactions in that with the aid of internet, financial transactions are swiftly done without much difficulty. In this regard, itsuffices to adduce that the coming of technology was born out of the necessity to lessen the constraints encountered in the course of managing large amount of money, particularly in Finance Unit.

In similar vein, the resultaligns with the perspective of Edgell (2006), who maintains that the nature of work in the contemporary epoch has greatly changed as a result of certain industries in the traditional sense concentrate on manufacturingofgoods and services. This is because the utilisation of equipment and mechanical work power have significantly reduced in number following the advent of computerisation, sub-contracting, automation, outsourcing the number of works which has been markedly declining in various industries with information revolution. In this wise, majority of the employees working with such organisations as WNS specialised airline management firm or working with Pune and Mumbai but can do either back-office airline or management function of British Air Ways.

In the light of the result, it aligns with the view of Scott and Marshall (2010), who assert that deskilling remains an apt concept that summarises the cardinal ideas of Braverman's work which was written in 1974. Technology, according to Braverman (1974), is principally driven more by the capitalist machinery and it is not really for the well-being of humanity. The argument advanced by Braverman was presented by first and foremost categorisation of the main proportion of the labour force as proletariat, and thereafter, the establishment of the way the workforce has been deskilled. He contests that the artisans, as well as the craftsmen

of the working world are almost extinct, given the capitalist labour process which breaks down mental exercises to manual labour and mental labour for the employees no longer to inspirationallyconstruct the products of their own yeoman labour. Capitalism is conceptualised by Braverman (1974) as a crime against mankind because it deskills the craft employees by fragmenting their conventional craft into small and simple parts, which makes the employees left with small job functions. In the light of this, there is the deprivation of the pride and sense in oneself as an employee of an ancient skill. The result coheres with the stance of Buchloh (2010), who asserts that the deployment of technology results in lowering the bargaining power of an employee; renders work automaton rather than thoughtful and undermines community. At bet, Buchloh (2010) construes this phenomenon as deprofessionalisation.

Another IDI which was conducted with a unit head from IT Unit goes thus:

Technology is an innovation that is a revolution that changes the ways people do things. As it evolves, people must adapt to it by developing new skills. Technology needs to evolve to cater to the emerging population of the world. Old skills may not be apt to man a new technology dexterously, as it might have become outmoded. The salient idea is to move with the pace of technological trends. Those who fail to align themselves with technological advancement will keep missing the in-built benefits and convenience in technology. Technological savvy explores and maximises technology to their advantage. (IDI/Firm1/ITM/May, 2019).

It is germane to stress that in IT Unit, everything is technology-driven. The in-depth interview implies that technology is an innovation which cannot remain motionless given that as world evolves; technology should evolve in order to cater for the needs of the growing population. Necessity is the mother of invention owing that the invention of technology was born out of the necessity to preserve all the happenings that occurred during the World War II when As You May Think was invented which is a device developed by Lickslider and Vannevar Bush in 1945 in which individuals stored information, communication, records, and books which were mechanised in order to be consulted with exceeding speedand flexibility. The device is an enlarged intimate supplement to Bush's memory. Thenceforth, technology has evolved from mechanical eon to electronic aeon, information era, and then, to digital revolution. Each of these phases of technological

evolution has had implications for work variables. In this wise, it is imperative to upgrade to optimise the benefits and ease that accompany technological innovations. Individuals who fail to bring into lineofthemselves with technological trend inevitably miss the profitscharacteristic in technological advancement.

The result is in correspondence with the position of Salami (2013), who aver that the work previously done by twenty workers is currently done by five workers who are saddled with the responsibility of monitoring the smooth-running of machines in the production process. The result aptly captures the view of Akinrimisi (2017), who affirms that technology is a trade-off, which connotes in Management, as the trading of something of immense value for something of minute value. In further examination of the discovery, it fails to align with the position of Bamidele (2013), who postulates that on the strength that employees are usually posted from one unit to another unit within an organisation, the concept of deskilling is a mirage which should be thrown into a trash. Moreover, the result does not align with the view of Ibidapo-Obe (2020), who alludes to the fact that people must be innovative, because, those with innovative ideas are usually rewarded.

The result is consistent with Ibidapo-(2020) Obe's belief that the Nigerian film industry is on the verge of collapse due to a loss in revenues brought on by the industry's lockdown during the coronavirus pandemic, which President Muhammadu Buhari imposed to stop the spread of the deadly virus on March 30, 2020. Ibidapo-Obe (2020) declares that Nigerian Universities should research for the Next Big Disruption. Ibidapo-Obe (2020), dissects the state of tertiary education in the country amid the Covid-19 pandemic. He affirms that the First-Generation Universities should be encouraged to pay the salaries of their staff and also address their other needs. He states that the Federal Government will come in through a competitive grant for capital development. According to him, people are going to be rewarded for innovative ideas. He also confirms that the coronavirus has done tragedies to mankind by relegating people to harassment. It should not be comfortable in any way when people say that the pandemic is a global one, which has incapacitated everyone.

The result corroborates the perspective of Bawalla (2020), who affirms that technology is exponentially reshaping the skills required for work, in that the demand for less advanced

skills that can be replaced by technology is gradually reducing or has drastically declined. He stresses that although the demand for advanced cognitive skills, socio-behavioral skills and skill combinations associated with greater adaptability is fast rising at an exponential rate. He posits that this is already evident in developed countries, and the pattern is equally plundering into some developing countries, particularly in Africa.

The result does not concur with the position of Jeremiah (2020), who affirms that The Finance Minister, Ahmed, expressed how happy he was that gas is being piped across the nation. It was further maintained that the development of gas would help to revive moribund industries across the country. As cited by Jeremiah (2020), Kyari (2020), signified that only 38% of the over 5, 120 kilometres of the facility owned by the state oil company functions at the moment, as a surveillance system is being constructed along with the Abuja-Kano-Kaduna (AKK) project to check vandalism. It was observed that the project will be delivered on schedule. Thus, frantic efforts will be made to rally so that there will be no issue around it. Above and beyond, Okwuosa indicated that over 10% of the project had been completed in the first phase which spanned over 13 kilometres with payment being fully made available.

The result is inconsistent with the view of Bogoro (2020), who contends, that Research and Development (R and D) will continue to remain at the very forefront of the growth and development process, particularly with the rise of exceedingly globalized and knowledgedriven economies. He alludes to the fact that investment in R and D is central to the synthesis of new knowledge. From the viewpoint of Bogoro (2020), in most African nations, Nigeria inclusive, which is the largest economy in entire Africa when it comes to nominal Gross Domestic Product (GDP), the role of RandD in accomplishing economic development does not appear to have been given the required attention in Nigeria. Nevertheless, he stresses that in Asia, developing nations such as Malaysia, Singapore, South Korea and Taiwan are among the highest successful countries where education and technology have been at the heart of national development policies. Bogoro (2020) indicates that these nations have great potentials to become powerful global competitors in relation to sustainable development, provided they have an efficient and exceedingly well-educated labour force with export-oriented industries. From his perspective, they are potential motivators for the advancement of R and D in other developing countries.

On the contrary, the result discontenaces the stance of Onyedika-Ugoeze (2020), who contends that Abdullahi affirmed that Nigeria is already one of the hottest countries when it comes to tapping into the potential of importing coronavirus vaccines, vehemently believes that the findings are insufficient and contradict the submissions. According to him, Nigerians are developing a technological strategy that will allow the country to benefit from financial services, land administration, education, and healthcare because Blockchain, a system for storing data in a way that makes it difficult to hack, alter, or cheat the entire system, is going to be crucial for tracking and breaking down goods and services.In 2020, Onyedika-Ugoeze makes reference to Abdullahi's claim that, according to a recent PWC report, blockchain technology will massively contribute \$1.76 trillion to the global economy over the next ten years (GDP). In this regard, people want Nigeria to be strategically placed to capitalize on the great economic potential of block chain, which is why people are doing what they are currently doing to bring all the stakeholders together, brainstorm, and develop strategies to ensure that Nigerians profit from the technology.

The result is correspondent with Nwafor's (2020) viewpoint, according to which HR professionals have a crucial duty that touches on nation-building. In light of this, human capital specialists need to broaden their horizons and consider the nation as a whole as well as the essential requirements for Nigeria's development. According to Alofe (2020) and Nwafor (2020), HR professionals really need to start making a difference in the development of the country. According to him, HR professionals should be aware of the vision, objectives, and skills that are required, as well as how people can help to create a nation's human capital, rather than just the specific organizations where they work. People have a variety of abilities that they use in a variety of organizations, according to Nwafor (2020). He emphasized the necessity for the same skills in order to advance the nation. According to Nwafor (2020), people really need to take a close look at the various sectors of the economy and what they can do to improve Nigeria. He contends that if Nigeria is to flourish, every citizen must be educated, either through higher education, technical training, vocational training, or self-employment.According to Nwafor (2020), there are highly

skilled HR leaders in all levels of government institutions who are succeeding admirably while supporting HR practitioners. He asserts that Alofe pays HR professionals to train public sector employees to be excessively groomed like the private sector. Alofe stated that Nigeria will be able to connect and achieve the desired progress and aim till the year 2030 if HR practitioners were to connect the doors in this manner.

Contrary to what has been stated thus far, the conclusion does not support standpoint of Oji (2020), that people really need to take a close look at the creative industries, such as Fintech, which was started in the USA by Americans and provides faster, better, and sparser growth capital, as well as other sectors that are likely to grow over the coming years and have the ability to develop specific funding strategies for those sectors. Beyond this, he suggests that Nigeria also needs to provide people access to sell goods in a long-term market in order to increase investment returns. According to Oji (2020), the Chief Executive Officer of the Financial Markets Dealers Quotations (FMDQ) Group, Bola Onadele, was of the opinion that 84% of employment in Nigeria is produced by the small- and medium-sized enterprise (SME) sector, which makes up 90% of all enterprises in the country. From the viewpoint of the Oji (2020), In order to give the country, the chance to quickly escape the destructive effects of the coronavirus on the economy of Nigeria, Onadele vehemently believed that the industry must be urgently restructured in order to attract investments from private equity firms and venture capitalists. According to Oji (2020), Onadele noted that technology is a crucial avenue for Nigeria to exit this area. Onadele was unfortunately unable to attend, but the Managing Director, Oye Onwuka, did a commendable job filling in for him. The fact that structured SMEs will greatly help people in Nigeria unburden themselves and connect with potential investors is instructive.

The result corroborates the perspective of Iyatse and Adepatan (2020), who establish that CBN makes different moves to ascertain the competence level of bank workers, in which case, Godwin Owoh, a professor of Applied Economics and Advisor to Soludo in the course of his tenure as CBN Governor, indicated that the apex bank pretty needs more human capital audit. It was stressed that the nation would in a few years start to see the repercussion of its opaque recruitment process in the past years. According to Iyatse and Adepatan (2020), the preponderance of the new operatives was recruited via the backdoor. It was

posited that in 10 out of 20 years, those recruits would become directors who will take critical decisions. Iyatse and Adepatan (2020), affirm that, at that time, Nigerians will come to the realisation that they do not have central bankers. They posit that banks urgently need a human capacity audit.

On the contrary, the result fails to align with the viewpoint of Adekoya (2020), who confirms that the delay in clearance of cargo across Nigerian ports is severely hurting investors and adversely affecting economic recovery. According to him, there are a number of issues bothering on unnecessary delays, weak applications of technology, arbitrariness in valuation, impunity, uncertainty of international trade transactions, cost escalation, deleterious investment, climate perception, ineffective mode of seeking redress and pervasive human interface. Adekoya (2020) alleges that numerous businesses had suffered disruptions in their investment projections due to large variations emanating from revisions of value and re-classification of imports by the PAAR Office at the customs headquarters and at the customs units at the port. He states that the scenario was becoming a major source of uncertainty for businesses. Adekoya (2020), asserts that the entire business community is stimulated to interfere with various units of the Nigerian Customs Service and other government agencies which make doing business exceedingly herculean and frustrating in Nigeria.

The result discountenances the viewpoint of Oji (2020), who confirms that a stockbroker with APT securities, Jamiu Kayode, maintained that all the tier-one banks have tremendously improved, in comparison of Q3, 2020 to that of 2019 except Guaranty Trust Bank and United Bank of Africa whose profits declined astronomically from \$46 billion to \$142 billion and \$81 billion to \$77 billion. It was affirmed by Kayode that the share prices had significantly increased. By and large, he indicated that the stocks were still devalued to a considerable degree. An independent investor, Amaechi Egbo, signified that the 65% LDR of banks and low-interest rates had supported economic recovery, regardless of the economic recession that Nigeria slipped into, as a result of the coronavirus pandemic (Oji, 2020). Against this background, Egbo (2020) discloses that government must keep creating an enabling environment for firms to thrive for them to judiciously utilise the loan facilities from banks and other financial institutions. From his view, if the government will remain

focused, in addition to the improved business environment and good regulations, the matter of rising NPLs would be checked in the banking sector, and this will make banks expand their operations and increase their profitability.

The result corroborates the viewpoint of Semuels (2020), which alludes to the fact that the deployment of robots to combat the Covid-19 was quite rapid. From his perspective, robots were suddenly cleaning floors at airports and taking people's temperature. Semuels (2020) confirms that hospitals and universities deployed Sally, a salad-making robot that was essentially invented by technological company Chowbotics, in order to replace dining-hall workers. Equally, malls and stadiums bought knight scope security-guard robots to patrol empty real estate. Regardless, the companies that manufacture in-demand supplies like hospital Robots supplied Yaskawa America to assist them in the increase of production. Semuels (2020) stresses that a number of companies closed call-centres that employ human customer-service agents, and shifted to chatbots which were ultimately invented by technology company LivePerson or to AI platform Watson Assistant. From the perception of Semuels (2020), Rob Thomas who is a Senior Vice President of Cloud and Data Platform at IBM which deploys Watson stressed that he sees it is a new normal. Though, the pandemic accelerated what was going to happen.

In further examination of the result, it was discovered that it fails to align with the position of Bamidele (2013), who postulates that in view of the fact that employees are usually posted from one unit to another within the same organisation, the notion of deskilling is a mirage and an illusion which should be thrown into a trash. Bamidele (2013), asserts that when an employee is posted from one unit to another within an organisation, such an employee is not likely to experience a modicum of deskilling, in that as he or she is transferred round the entire organisation, he or she will have enough time and space to acquire series of skills which will shape his bank of knowledge, and in turn, help him/her possess comprehensive knowledge about the particular organisation where he or she works. For instance, if an employee is posted to a customer-care unit for six months, he or she is quite at liberty to acquire the skill that is required to resolve customer-related issues as far as the company is concerned. In the course of working with the same organisation, if he or she gets transferred from the customer-care unit to the administration unit, he or she will start

learning the modus operandi of the afore-mentioned unit. In the long run, such an employee will acquire an amazing wealth of knowledge that invalidates the whole notion of deskilling, having had an ample opportunity to work around all units across the entire company.

In the light of the foregoing, the result reprises the view of Semuels (2020), which signifies that Yvonne R. Walker, who is the President of LivePerson, maintained that most non-union employees do not get the required assistance. He contends that companies out there do not make provisions for employees' training and upskilling. According to Semuels (2020), Walker disclosed that most employers do not see employee training as a rational investment. He states that unless employees have a union thinking about these things, the employees get left behind. Semuels (2020) claims that in Sweden, employers pay into private funds that enable employees to get retrained, which is also regarded as Singapore's Skill Future Programme. This reimburses citizens up to 500 Singapore dollars which is about \$362 in U.S.A currency, for approved retraining courses. By and large, Semuels (2020) posits that in the entire U.S.A., the most robust retraining programmes are for employees whose jobs are sent overseas or otherwise lost due to trade matters.

The result is in line with Oji (2020), who asserts that investors have expressed concern that the banking sector may record a rise in Non-Performing Loans (NPLs) as well as erode profitability if Nigeria's government fails to provide the necessary support to flourish performance and sustain growth. Investors have expressed concern about the banking sector's ability to maintain profitability in the face of the coronavirus's effects on businesses (Oji, 2020). From his point of view, this is simply because banks are essential in moving savings from strong economic sectors to weak economic sectors in order to stimulate investments.Given their book value per share and the economic constraints brought on by the coronavirus pandemic and other socio-political crises, Oji (2020) claims that investors have come forward to voice concern that banks' shares are currently selling on the stock market at a discount. This shows that the book value per share of banks is less than their market value. As a typical illustration, as of December 14th, 2020, one of the top banks' book value is approximately 32.94 kobo, whereas its market value is approximately 22.60 kobo (Oji, 2020).

The result is in tandem with the position of Jawando and Adenugba (2014), who submit that the employers were found guilty of indulging in the recruitment of casual employees in food-processing companies in Lagos State, Nigeria. According to them, this practice is against the regulations of International Labour Organisation (ILO) which place a premium on the dignity of labour. They affirm that employees should not in any way be subjected to casual work given that it is viewed as undermining the humanity inborn in workers. It is noteworthy that ILO's prime objective is to guide against the abuse of human labour in a given organisation such that the dignity of labour would be taken into cognizance by a given business owner. Against this backdrop, Jawando and Adenugba (2014), maintain that employers in the organisations which were studied fell short of ILO's regulations. By virtue of human existence, business owners should not be guilty of recruiting employees on account of casualisation. In light of this, workers should be recruited permanently via job advertisement, selection, recruitment, placement and probation. From their perspective, this will greatly enable employees to enjoy fringe benefits, allowances, salaries and other things accruable to them.

The finding lends credence to the view of Olutayo (2018), who asserts that technology erodes the jobs skills of clerical personnel considering that the advent of personal computers (PC) has engendered losses of the skills of the clerical personnel. In the further examination of this assertion, it can be argued that the clerical staff that made frantic efforts to add value to themselves by exploring computer skill acquisition will remain indispensable in the scheme of work in the digital era, irrespective of advancement in technology. More than anything else, people who have genuinely acquired skills that are related to computers remain relevant in the art of work.

The result is consistent with the perspective of Soderberg (2013), who posits that the origin of 3D printing can be traced back to numerically controlled (NC) and computerised numerically controlled (CNC) machinery, which could be said to have incorporated material traces of the two kinds of machinery. He argues that both technologies are based on the same principle, of guiding machine equipment with the aid of software. According to him, NC and CNC machines were being introduced amid industrial conflicts, so, they served as a touchstone in intellectual debates for and against the deskilling thesis during the 1970s.

Soderberg (2013) maintains that the open-source home-build 3D printer, in contrast, is being developed by a community of hobbyists. He avows that these hobbyists are situated outside of contractual employment relations. He maintains that yet, they are striving to make the 3D printer user-friendly. In other words, technology deskills users in the course of task execution.

The result lends credence to the submission of Semuels (2020), who submits that companies that deploy automation and AI confirmed that the technology allows such companies to create new jobs. Nevertheless, he argues that the number of new jobs is usually infinitesimal in comparison with the number of jobs lost. From the perspective of Semuels (2020), Rob LoCascio, who is the CEO of LivePerson, which designs conversational software, stated that it could afford a company to take a 1,000-person call centre and run it with 100 people including chatbots. He asserts that a bot can respond to about 10,000 queries within an hour which is viewed as an efficient call-centre rep that can answer six at a stretch.

The result is in coherence with the viewpoint of Obi- Uchendu (2020), who submits that the sum of \$21 million is the highest bitcoin that can exist. He alludes to the fact that bitcoin was first used to purchase pizza on Amazon. He stresses that coin is used for transfers of currency into bank accounts. He discloses that the smallest unit of bitcoin is called Satoshi. It is worthy to stating that the Satoshi remains the smallest unit of the bitcoin cryptocurrency which is named after Satoshi Nakamoto; therefore, the bitcoin ratio is 100 million Satoshis to one bitcoin (Thompson, 2020). Atiku *et al*, .(2014), state that the advent of ATM, POS, Mobile App and online transactions has deskilled most bankers from their jobs. Oyebode (2019), contests that Nigeria is part of the world history which must contribute its own intellectual and professional quota to the development of innovation. Hence, it cannot afford to be relegated to the background in terms of innovation.

The finding is not in tandem with the position of Adewole (2020), who argues that in the bid to emphasize the significance of technology in fighting against Covid-19, some of the accommodations which universities provided for the online classes are towards assistive technology, vocational teachings, life skills and practical hands-on activities, (Adewole, 2020). Resultantly, school founders chose to empower the teachers and equipped parents,

who required technological assistance by training them for the online platform. She posits that the school founders simultaneously introduced tele-therapy for the students with additional needs and this has fairly progressed well. Adewole (2020) opines that the truism of certain schools is that no child is to be left behind. The corollary of this is that the innovation enables schools to strive to give all children equal opportunities. She states that like their counterparts, the special students equally began online classes, and are quite fast becoming fluent at hearkening to instructions on digital platforms.

In contrast to Adewole's view, the result fails to re-enforce the stance of George-Igbafe (2020), who affirms that Africa can benefit significantly from technology. It is not just Africa alone that can benefit from technology, but, the entire globe. She made emphasis that people should think out of the box and take good advantage of technology and digital products. She stresses that those who lack technology acumen will lag. There are developing projects that provide digital products. There are programmes for technology products that can be tapped into.

In addendum to the foregoing, the finding repudiates the position of Omolawal (2015), who avers that technical factors, inadequate technology, erratic power supply, low internet broad band services, low ICT education, non-availability of local soft ware significantly pose numerous challenges to the utilisation of ICT in South-West, Nigeria. He stresses that over-reliance on foreign contries to generate internet services remains a huge challenge in Nigeria. He was of the opinion that Nigeria imports computers given that it does not manufacture such innovations.

The finding does not align with the view of Guma and Agbata (2018), who avers that it may not be quite easy to find the types of resources available in Silicon Valley in Nigeria. Nonetheless, the reality is that numerous places such as Yaba, Enugu, Onitsha and Aba already have the characteristics of Silicon Valley. All the same, it lacks government support (Guma and Agbata, 2018). Guma and Agbata (2018), state that a key message to all stakeholders in Nigeria is that everyone must join hands in ensuring that governments at all levels genuinely support entrepreneurs across the entire country by providing cheaper access to capital or the very least, sound policies which will enable the industry to thrive. He argues that the irony is that experts vehemently believe that the Silicon Valley model is pretty much full of hype and that it should not be embraced simply because it fits only the American system. By and large, he posits that it is wrong to copy the Silicon Valley model without adapting it to the local environment. Africa, according to Agbata (2018), is a young continent with tonnes of talented people, who are passionately taking on huge challenges and one of the goals is to help attract attention and support to them as much as possible.

The result is in agreement with the submission of Semuels (2020), which alludes to the fact that machines have made jobs antiquated for centuries. According to him, the spinning jenny replaced weavers, buttons displaced elevator operators and the internet drove travel agencies out of business. Semuels (2020), contests that one study estimates the fact that a total number of 400,000 jobs were lost to automation in the entire U.S.A. factories from 1990 to 2007. Nonetheless, the drive to replace humans with machinery is accelerating due to the companies' struggle to avoid workplace infections of coronavirus and to sustain operating at a low cost. He maintains that machinery shed about 40 million jobs at the zenith of the Covid-19 pandemic and while some have returned; some will never even return. Semuels (2020), posits that one group of economists did estimate that about 42% of job losses are gone irretrievably. He opines that the replacement of humans with machines may pick up more speed in coming months owing that companies move from survival mode to figuring out how to operate whereas the coronavirus pandemic drags on.

The finding corroborates the view of Adewole (2020), who states that with the digitisation of learning which was suddenly forced on the entire globe by the current coronavirus pandemic, frantic efforts were made to seek to know how e-learning worked for children, particularly those with special needs as well as challenges confronted in the course of teaching them (Adewole, 2020). She indicates that the challenges which people encounter currently include: optimally teaching with a short attention span on a digital platform as well as monitoring students' screen time. Adewole (2020) maintains that the ongoing expenditure on schools to maintain operational costs, and taxes as well as teachers' salaries, even while in the school premises are shut down, whereas other challenges bother on the inconsistency of data and power as well as technology. Against this background, school founders have fully digitalised all the learning systems as well as school administration. She

establishes that having realised early enough, the need for differentiated learning for each student on the digital platform.

The result does not correspond to the position of Ostberg et al. (2020), which indicates that in recent times, being digitally connected enables millions of people to carry-out job functions and learn from home. A philosophical poser was posed that, "what about those without access to Information and Communication Technology (ICT) equipment? Digital learning is evolving and there is the introduction of Ericsson Education that addresses digital inequality and the swiftly changing skill requirements for a globe shaped by ICT. It was indicated by Ostberg *et el.*, (2020), that UNESCO disclosed that a total number of 1.3 billion students and youth across the universe are affected by school and university closures as a result of the coronavirus outbreak. According to him, almost half of the entire global students' population is unable to attend school the way they used to.

The finding coheres with the perspective of Semuels (2020), who posits that artificial intelligence is becoming more adept at jobs that were once the purview of humans, and that has made it more herculean for humans to stay ahead of machines. As confirmed by Semuels (2020), JP Morgan asserted that, at present, there is AI that receives commercial-loan agreements and completes such agreements within seconds, which used to take 360,000 hours of lawyer's time over the course of a year. Semuels (2020), states that as of May 2020, amid plunging advertising revenue, Microsoft downsized dozens of journalists at MSN and its Microsoft News service which replaced them with Artificial Intelligence (AI) has the potential of scanning and processing content. He contends that radio group iHeartMedia has retrenched DJs to take advantage of its investments in technology and AI. According to Semuels (2020), help was got to transcribe interviews for a story with the aid of Otter.ai, whereas an AI-based transcription service was utilised. Semuels (2020) is of the opinion that a few years ago, he might have \$1 a minute for humans to do the same thing.

The result is in line with those of Ehanire (2020), who supports the report's findings that the illness leads to presenteeism (basically, employees working while ill at work), absenteeism, and a rise in staff turnover, all of which have a significant financial impact on businesses. According to the survey, 6 out of 10 workers were at an increased risk of experiencing

physical weariness, and 49% of workers were at an increased risk of experiencing emotional exhaustion, which could result in despair. He claims that the poll found that 40% of Nigerian employees had a higher-than-average chance of experiencing spiritual weariness and that 3 out of 10 workers overall had a higher-than-average risk of mental exhaustion. Because there has been a relatively few research on burnout among Nigerian workers, he argues that the disease is frequently disregarded despite the danger it poses to people, businesses, and society at large.

The result supports the argument made by Iyatse and Adepatan (2020), who claim that recruiting staff is afraid to ask for further help because letters from some banks have embargoed employment activities at the present. They assert that despite no one wanting to accept even the smallest mistake from personnel, a staff member of an old generation bank considered that stress is rather high. It was further noted that it was having an impact on the operations staff. According to them, when someone commits an expensive mistake, the bank demands payment from the offending party. No one is concerned about the amount of pressure the system places on people in light of this.According to information gathered by Iyatse and Adepatan (2020), Dr. Austin Nwanze, a professor in the Pan-Atlantic University Human Capital Development Faculty, fervently believes that the stress level will decrease as soon as banks resume their regular business operations. The fact that the layoffs were caused by the closure of some branches and the pressing need to lower operating expenses was emphasized. According to Nwanze, Iyatse, and Adepatan (2020), the current problem was caused more by a lack of experienced bankers than a shortage of personnel, which is more worrying.

In a similar vein, the result supports the argument made in Guardian (2022), which claims that the lack of skilled technicians in a variety of fields is a worrying trend as technology advances. This is because research into the phenomenon revealed tales of the decline and neglect of technical skills. By allocating the required finances for the development of infrastructure and human resources, several states have started to take action to revive schools. The Federal Government has constructed more than 100 technical institutions around the country over the years to broaden the pool of skilled technicians and encourage entrepreneurship. Nevertheless, technical and vocational education has suffered the same

fate given that public schools are characterised with dilapidated infrastructure, obsolete equipment, inadequate and unqualified teachers and instructors to meet with current industry skills.

The finding is consistent with the viewpoint of Agbata (2018), who states that Silicon Valley welcomes entrepreneurs from all over the globe including other parts of the United States. He avows that it is one place where entrepreneurs vehemently believe that they can leverage various types of resources in order to take their businesses to an entirely new level. He stresses that the Silicon Valley model can as well work for a country like Nigeria. There are quite a number of lessons that the people of Africa can learn from Silicon Valley (Agbata, 2018). He affirms that Silicon Valley is a place where a number of the top global technology brands have come out of, except new ones such as Microsoft and Amazon which started elsewhere. One reality that stares one in the face is the fact that Silicon Valley is such a huge and complex environment. He contests that Silicon Valley is the success it is, partly because of a combination of factors such as the presence of entrepreneurs, universities, research institutions, angel investors, mentors, incubators, accelerators, and financial advisors as well as large corporations all supported by sound federal and state government policies

The result supports the perspective of Semuels (2020), who asserts that there is a likelihood of robots replacing 2 million more employees in manufacturing companies, alone in the USA by the year 2025, in regards to a recent paper by economists at MIT and Boston University. According to Semuels (2020), the pandemic has created a very strong incentive for automating the work of human beings. As posited by Semuels (2020), Daniel Susskind, an author of a World without Work: Technology, Automation and How We Should Respond disclosed that machines do not fall ill, they do not need to isolate to protect peers, and they do not need to take time off work. Semuels (2020), avows that in respect of the pandemic, the new wave of automation will be tougher on people of coloured skin, like Collins who is black, and also on low-wage employees. Semuels (2020), stresses that many blacks, as well as Latino Americans, are cashiers, food-service workers and customerservice representatives, which are among the fifteen jobs that are most threatened by automation, looking at the trend from McKinsey. Semuels (2020), asserts that before the

Coronavirus pandemic, the Global Consulting Company estimated that automation could displace about 132,000 Black employees across the USA by 2030.

They claim that in 2005, a total of \$800 million disappeared, according to Nigeria Cyber Security. In this regard, the Nigeria Centre for Disease Control (NCDC), 2020 advised people to ignore any messages indicating they are recipients of Covid-19 funding or that NCDC has credited certain accounts. It was suggested that such a message be promptly erased and not shared for any purpose at all.According to the Chartered Institute of Forensic and Investigative Professionals of Nigeria (CIFIPN), as of the first quarter of 2020, Nigeria lost #5.5 trillion in the previous ten years to fraud, corruption, and cybercrime. They claim that as more people choose to work remotely, the number of breaches is predicted to rise considerably. After a hacker infiltrated one of its online Bible studies and succeeded in subjecting the participants to pornography, one of the oldest churches in San Francisco, California, USA, has filed a lawsuit against Zoom Video Communications Incorporation.

The finding aligns with the viewpoint of Semuels (2020), who affirms that advances in technology make AI an easy choice for organisations scrambling to cope well during the CoronaVirus pandemic. He believes that municipalities that had to close their recycling facilities where humans worked in close quarters are utilising AI-assisted robots to sort via tons of plastic, paper and glass. Semuels (2020) affirms that AMP robotics which is the company that specializes in making robots indicated that inquiries from potential customers increased exponentially, at least fivefold, from March to June 2020. As stated by Semuels (2020), Chris Wirth, the spokesman of AMP, stressed that in the previous years, about 35 recycling facilities used AMP Robotics, and by the end of 2020, nearly 100 recycling facilities would use AMP Robotics.

This result is in tandem with the position of Oyewole (2020), that school resumption during Covid-19 is pretty suicidal. The argument advanced by her bothers on the fact that FG has woefully failed to provide the basic facilities in terms of provisions of hand sanitizers, body infrared thermometer, isolation centres, personal protective equipment, washing buckets, boreholes, face masks and virtual classes, amongst others. He posits that it is practically not plausible to observe social distancing in academic environments in that a class containing 100 students cannot be reduced to 25 students in a roll. Oyewole (2020) posits that the notion of physical distancing, as stipulated by PTF, connotes the splitting of 100 students into 25 students, which suggests that teachers run an eight-hour class at a stretch, even as they are not robots. He contests that, provided FG makes provisions for Virtual Learning, he would have loved to lecture his students with optimum electronic interaction in the comfort of his room. Against this backdrop, Oyewole (2020) posits that Nigeria is yet to be ready for the resumption of schools. He believes that nations in the world maintained their academic calendar irrespective of the Covid-19 pandemic, with the aid of e-Learning. He recommends that Nigeria's government need to embrace technology, so as to adhere to international best practices.

The finding is consistent with the view of Bogoro (2020), who asserts that the synergetic relationship between academia and industry has been quite beneficial to the government of Singapore. Bogoro (2020), is of opinion that in Nigeria, a useful example of the triple helix model in operation is the lately formed National Covid-19 Research Conglomerate, spearheaded by the NCDC, which has brought researchers in academic and public research institutes, the NUC and TETFUND, and the private sectors as well as civil society together, under a single umbrella, for the sake of conducting research within Nigeria, with the supervision of WHO guidelines, to develop therapeutic, diagnostic Kits, and other solutions in order to combat the novel Covid-19. Similarly, individuals should ensure that they do not slip back into inactivity after people have overcome the challenge. According to Bogoro (2020), other numerous factors could help in the expedition to developing technological capabilities in Nigeria.

The result is in harmony with the work of Semuels (2020), who asserts that David's Bridal currently spends 35% less on call centres, and can effectively handle three times more messages via its chatbots than it can via voice or email. He argues that Zoey may be quite cheaper than a human. Nonetheless, it is not infallible. Semuels (2020) posits that through text, Zoey pledged to connect him to a Virtual stylist. However, he never received feedback from it or the company. A number of companies will likely look into technology as they encounter budget cuts and might pretty much need to reduce their staff strength (Semuels, 2020). He avers that Brian Pokorny, who happened to be the Director of Information

Technologies for Otsego County in New York State that cut 10% of his staff due to Covid-19 related budget matters, confirmed that it is unlikely for organisations to revisit the staffing levels which they were before coronavirus pandemic outbreak. According to him, there is a need to look at things like AI, in order to streamline government services as well as make companies more efficient.

The finding fails to strengthen the stance of Adewole (2020), who contends that in an era of e-learning adopted to impart knowledge to students in the spring of Covid-19, children with special needs require extra efforts to learn via e-learning because they are mostly children with autism and other related development disorder including Attention Deficits and Attention Deficit Hyperactive Disorders as well as Learning Difficulty (Adewole, 2020). Most schools have some children with co-morbidity. She confirms that these children with special needs are those with simultaneous disorders; having been diagnosed with more than one disorder. Adewole (2020) stresses that; such children with special needs can have both Autism and Down syndrome concurrently. Adewole (2020), states that it was initially herculean turning the table, but it has now progressively improved. She asserts that the majority of students, including those with additional needs, had exposure to technology before the coronavirus outbreak. On the strength of this, they were able to transit and cope as long as their classes are short and engaging. In any case, the indigent children without privileges worry one's soul (Adewole, 2020).

The finding is in correspondence with the standpoint of Oyebade (2020), who affirms that Arik Airline disengaged 300 employees as part of its cost-saving measures in the coronavirus pandemic era. From his viewpoint, the airline which is in receivership on behalf of the Federal Government and Asset Management Corporation of Nigeria (AMCON) has been under financial constraint since the inception of the coronavirus pandemic. Oyebade (2020) contends that its struggle at retaining a respectable fleet size since flights resumed fully in July 2020. Subsequently, after the lockdown, the airline has equally been embroiled with aviation employees' unions over salaries, fringe benefits, gratuities and other welfare matters for which its offices have, at the moment, been pocketed.

Nevertheless, the finding discountenances the view of Eshinlokun (2020), who asserts that when it comes to technology, Nigeria can improve to make the indigenous innovations world-class acceptable. As postulated by Semuels (2020), RDS Virginia disclosed that a recycling company situated in Virginia purchased four AMP robots in the year 2019 which were deployed on assembly lines to ensure that the paper and plastic streams were free of misplaced materials. As stressed by Semuels (2020), Joe Benedetto, the company's President, affirmed that the robots could work round the clock and would not take bathroom breaks or require safety training. It was observed that in the spring of the Covid-19 pandemic, robots took over quality control as humans were pulled off the assembly lines and given tasks that kept them at a safe distance from one another. He indicates that Benedetto breaths easier, knowing fully that he would not have to raise the robots' pay to meet the minimum wage. It was established by Semuels (2020), that Benedetto maintained that, for some reason he preferred the use of machinery. He indicates that for a singular reason, as long as he maintains it, it is there to work tirelessly, every day.

The finding substantiates the submission of Omolawal (2018), who avows that the utilisation of technology is pretty pertinent when it comes to the quality of staff recruitment in a given organisation owing that it was found to facilitate the recruitment of job applicants who were technology-savvy. He maintains that the employees who were recruited were already capable of multi-tasking and multi-skilling. According to Omolawal (2018), the utilisation of technology in staff recruitment eased the recruitment of employees who already possessed better exposure of global world which would immensely enhance their performance in workplace. Following the fact that such employees were recruited through e-recruitment, they were already firmly rooted in computer usage, in comparison to those employees who were recruited through written applications who were trained subsequent upon their recruitments. In his viewpoint, e-learning recruitment is at the heart of the quality of staff recruitment in the contemporary epoch.

The finding strengthens the view of Semuels (2020), who confirms that Pokorny was observed to have used a free trial from IBM's Watson Assistant early in the pandemic period and set up an AI-powered web chat to answer questions directly from the public, just like whether the National Baseball Hall of Fame in Cooperstown which is the county seat, had reopened on June 26 with limited capacity (Semuels, 2020). He posits that at a material point in time, Watson can answer about 75% of the questions which people pose and Otsego County has begun paying for the service which Pokorny indicates that it costs pennies per conversation. Semuels (2020), states that the county currently utilises AI just for online conversations, and, it also plans to deploy a Watson Virtual assistant which has the potential of answering phone calls. He contends that almost 36 states in the whole of the U.S.A. have deployed chatbots to respond to questions regarding the coronavirus pandemic and available government service given the National Association of State Chief Information Officers.

The finding refutes the stance of Adewole (2020), who asserts that to substantiate the role of technology in reducing the spread of infectious disease in Nigeria, school founders developed varied online contents which singly and jointly served both the typical and atypical communities (Adewole, 2020). She states that peer-learning and collaboration are pretty encouraged within a small-sized online classroom and all students are prompted to partake in the innovation. In her view, the children with additional needs attend with their typically developing peers and freely partake without restrictions. She asserts that all students in the exclusive class immensely benefit and all galvanized to contribute to their full potential. Adewole (2020) contends that students with special needs are unique and learn differently. She argues that each student's educational programme is individualised and contingent upon his needs. The majority of the personal challenges encountered ranged from short attention span, to over-reliance, and untrained parents as well as the need for specialised skill set to manage the students. She avers that there is also the issue of the newness of the tele-therapy and their adaptation to it, as well as the need for multiple therapists for some students with multiple disorders.

The result does not support Adepatan's (2020) viewpoint, which claims that it is very informative to acknowledge that social media platforms are still fresh and developing. Given this context, it might be too soon to provide an accurate or unfair assessment of the difficulties, advantages, and hazards associated with social media. Adepatan (2020) cites Uwaje's recommendation that sociologists participate actively in the analytic roadmap for repositioning the New Media to provide the most benefits to society as a whole. According to Jide Awe, the founder and CEO of Jidaw Systems, it is imperative to give practical digital

literacy for everyone in Nigeria first priority and to get started. According to Awe, who was quoted by Adepatan (2020), citizens must be well-equipped with digital education and transferrable skills for the 21st century in order to take advantage of opportunities and tackle such obstacles of the digital epoch. The result backs up Adepoju's (2020) assertion that identifying untapped business prospects in one's environment is essential for success in any line of work. Also, one should consider the difficulties posed by such chances and plan how to overcome them. He asserts that one should make frantic efforts to market one's ideas and showcase one's talents in one's environment. He emphasized the need of embracing advances and technology.

The finding substantiates the view of Semuels (2020), who avers that IBM and LivePerson signified that by creating AI, the companies are freeing up humans from doing more sophisticated tasks. He affirms that LoCascio is of the submission that companies that hascontracts with LivePerson pretty much need bot builders in order to teach the AI on how to answer questions, which means an increase of about 15% in the pay of the call-centre agents when they become bot builders. He posits that LoCascio maintained that the situation can be seen as one that would amount to massive job loss or one that would get a number of people moved into numerous places and positions in the globe for the betterment of their lives.

Without prejudice to Labour Process Theory, the emergence of technology, in actual sense has eroded the skills of clerical personnel, assembly-line engineers, traditional drivers and drummers. In this wise, one will not be far from establishing a factual statement to affirm that this finding entirely discountenances the position of Blauner (1964), and his adherents who unanimously assert that technology results in skill rise which creates a class structure called the professionals. Given the effect of technology on job skills, Iliffe, Kendrick, Morris, Masu, Gage, Skelton & Belcher, (2014), posits that the only two professions which are immune from technological advancement are teaching and administrative professions. The reasons adduced by Iliffe, S., Kendrick, D., Morris, R., Masud, T., Gage, H., Skelton, D., & Belcher, (2014), are that both parents and their off-springs usually have desktops, laptops, routers and internet facilities at their households, which students make use of in relating with their various teachers, mentors and supervisors while seeking insights into the course of their home-work. He maintains further that technology has limitations in terms of planning, coordination and admiration which are the hallmarks of the administrative personnel. The argument advanced is that the brain work behind conceptual work lies primarily on the personnel managers.

The finding lends credence to the viewpoint of Burawoy (2000), who asserts that in the Shipyard of San Francisco, skilled workers were deskilled to reduce the costs of production and enhance productivity(Blum, 2000). To this end, skilled workers were replaced with unskilled workers. Thompson (1987) maintains that during World War II, USA and France formed a coalition to discharge some skilled soldiers and make do of a few soldiers to fight their foes to cut costs. This was achieved by laying off the exceptionally skilled soldiers in waging war against their opponents and this brought about victory. This lends credence to how deskilling has occurred in the history of mankind. Salt was added to the injury of workers, because, asides from their job loss as a result of technology, those whose services were still needed had their salaries slashed, despite their inability to participate in the production process (Marx 1844). Machines have begun to threaten the existence of workers in the workplace as they make their presence exceedingly felt (Murrali 2015).

The finding is not in conformity with the exposition of Ibidapo-Obe (2020), who stresses that people are getting different information from individuals who should know about Covid-19. Thus, people pretty need to be patient and get somewhere before they can rush. For young people, it is not going to be possible to keep them totally away from one another. Thus, he appreciated their sentiments. However, he thinks they need to be patient. What government can do in flattening the curve of the deadly virus in view of how things have been frozen is to ensure that those graduates who are supposed to go for national service (NYSC), at the end of the season should still go batch by batch. However, Virtual Learning is ongoing in advanced countries which have ensured that their academic sessions are running while that is not completely done in Nigeria.

The finding contradicts the stance of Adegoke (2020), who maintains that in Nigeria, automation of tasks is not effective. That is a question of quality-of-service delivery that needs to be embraced to meet international best practices. The finding supports the view of

Adepoju, (2020), who asserts that to be successful in any business entails tappinginto the areas which are yet to be harnessed in the people's immediate environments. Furthermore, people should consider the challenges that are essential in opportunities which come their ways and map-out strategies on how to best combat the challenges that arise. He posits that in people's environments, they should make concerted efforts to sell their ideas and exhibit their talents. He emphasises that keying into innovations and technology is pretty crucial.

The finding discountenances the perspective of Semuels (2020), who confirms that companies will need far fewer bot builders than call-centre agents, the reason being that mobility is not usually an option, particularly for employees without college degrees or whose employers do not offer to retrain, (Semuels, 2020). Non-union employees are particularly susceptible. Semuels (2020) indicates that Larry Collins and his colleagues represented by Service Employees International Union (SEIU) Local 1,000 were quite fortunate, following that they were paid their full salaries for the foreseeable future in exchange, having taken 32 hours within a week of online classes in computer skills, accounting and entrepreneurship, amongst others. Semuels (2020) asserts that some employees might even get their jobs back, albeit temporarily, taking into cognizance that the state upgrades its entire systems. Despite this, about 11.6% of American employees were represented by a union in the year 2019.

The finding refuses to support the perspective of Adewole (2020), who maintains that indigent students are not the same by measure as those who are not indigent when it comes to e-learning. She opines that online classes do not replace physical schools. They are ultimately designed to keep the children engaged and mitigate learning gaps. Adewole (2020) opines that while online classes include academic content, they equally address life skills as well as vocational skills. She argues that when physical school resumes, schools will fill in the gaps. Adewole (2020) reveals that when it comes to e-learning, teachers have selflessly worked quite hard and burnt the nighttime oil. According to her, teachers play a very significant role in the life of students, which is usually overlooked. Adewole (2020), states that teachers genuinely love their students and strive to give them the best, always. She indicates that teachers have been quite instrumental in the quest for apt resources and the recreation of strategies. She avers that some teachers possess hearts of gold in imparting

knowledge into their students amid the threat to the slashing of their salaries, as well as welfare.

The result goes entirely counter to Adepatan and Ugoeze's (2020) assertion that there is a vast variety of digital products available in the digital age, with some being more secure than others. In light of this, when selecting a digital solution for virtual activities, one must consider both functionality for one's demands and security. They argue that virtual meeting planners should be aware of the risks involved and implement the appropriate cyber security measures. In any case, it has been determined that the Federal Government does not always use Zoom but instead makes use of Microsoft Team, which has been deemed secure. It was reported that Mrs. Adiza Umar, the National Information Technology Agency's (NITDA) head of corporate affairs and external relations, emphasized that the government had previously issued a warning to Nigerians cautioning them against using free conferencing platforms like Zoom and had instead provided security tips that individuals can use on their own, which is essentially an individual's discretion.

The finding similarly corroborates a case of deskilling which was articulated by Wood (1987) who posits that technology deskills workers and pollutes the atmosphere, because of the emission of mechanical devices. Atiku et al., (2014) contend that the advent of online banking has engendered a massive decline in the workforce as far as the banking sector is concerned. The finding aligns with the position of Atiku et al., (2014), who indicate that organisations incur a lot of costs in procuring technology and carrying out job functions that require coughing out huge amounts of money to compete comparatively. It is intriguing to note that technology enables small-scale businesses to enjoy the same benefits as large-scale organisations, if technology is deployed. However, Atiku et al. (2014) aver that the advent of electronic banking deskilled workers in the banking sector. The finding buttresses the perception of Nairaland.com (2017) that indicates the fact that First Bank of Nigeria sent text messages to about one thousand staff to the effect that their services were no longer needed. This development got the affected staff devastated. The finding fails to corroborate the opinion of Asnell (2005), who is of the view that when small and medium-scaled businesses procure technology, it affords them the same comparativeness as well as competitiveness as big organisations. The finding conforms with the stance of (Marin et al.,

2020), who states that International Students who are currently pursuing one degree or the other in the United States of America would be made to leave the country or risk deportation if their universities peradventure switch to online courses.

The finding does not align with the view of Ibidapo-Obe (2020), who alludes to the fact that people must be innovative because people who have innovative ideas are usually rewarded. He states that students of tertiary institutions in the country are ostensibly worried about their future, which led to their protest in the previous week over the continuous closure of campuses as a result of Covid-19. As an academic, he appreciates their sentiments and imagines where they are coming from; they are bothered that they are losing opportunities. However, to be frank, he believes that people have not understood the epidemiology, physics, chemistry and possibly, the biology of Covid-19. He does not think anybody wants to stay at home and he is quite sure that most people would like to go out. However, the people need to understand that caution is needed to stay away from where they can contract the disease, since it is uncertain the safety protocols given will prevent the contracting of the disease.

The finding lends credence to the view of George-Igbafe (2020), who affirms that digital technology enables people to deliver results, and this implies that the vast majority of people who are without jobs should explore technology. People should learn a digital skill which is an elevated version of technology. She confirms that NBS, 2020 indicated that those who lack digital skills do not stay on jobs for so long. In this wise, people should leverage digital skills given that everything is technology-driven (George-Igbafe 2020). People should learn about Agile. People should become change-makers. It equally aligns with the position of Obaseki (2020), who states that Nigeria needs to explore technology to ensure better service delivery. It re-enforces the perspective of Abiodun (2020), who contends that Nigeria needs to explore to cushion the recession. It supports the assertion of Buhari (2020), who posits that Nigeria must harp on infrastructure. It similarly buttresses the stance of Buhari (2020), who submits that border reopening will foster commerce in Nigeria who alludes to rebuilding the infrastructure base of the country.

The finding corroborates the view of Semuels (2020), who affirms that an organisation known as LivePerson saw a fourfold increase in demand in March 2020 given that companies closed call centres. He posits that some lucrative businesses are embracing automation for transactions. From his perception, LoCascio stated that what occurred was that the contact-centre representatives went home and a number of them could not work from home. He is of the view that David's Bridal that sells wedding gowns and other formal wears in about 300 stores in the entire North America and U.K. set up a chatbot known as Zoey through LivePerson in the previous year. Semuels (2020) indicates that Holy Carroll the Vice President of the customer service and contact centres disclosed that when the Covid-19 pandemic broke out, David's Bridal was compelled to close its stores, whereas Zoey assisted in managing customers' inquiries that flooded the company's call centre. It was submitted that without a bot, a number of people would have been drowned in the pandemic.

In addition, the result is consistent with Oji's (2020) argument that Guaranty Trust Bank often sells its products at a premium price as opposed to other banks, which are currently underpriced and selling their products at a discount on the stock market. Despite this, he proves that some scorecards were unique and provided a glimpse into dividend potential. According to Oji, Omordion said that the tier one banks had the financial resources to pay investors' dividends at the end of the current fiscal year. These banks are therefore underpriced, with the exception of Guaranty Trust Bank, which often sells at a premium while the others do so at a discount with a substantial margin of safety given their book value. The industry appears to be generally appealing and favorable for both new investors and traders (Oji, 2020). He claims that because of their resistance throughout the coronavirus outbreak, Nigerian banks have a fairly safe future. He certifies that the macroeconomic indicators are getting better, showing that the business environment is progressively becoming stable. According to Oji (2020), it is expected to support banks in light of this scenario.

The finding is consistent with the view of Marin, *et al.*, (2020), who stresses that announcements regarding the international students studying in the United States of America were made about Nigerians in the diaspora who could likely to be sent back to their

indigenous country, in view of the advent of e-learning. The announcements were made by immigration officers and customs in the States. The corollary of this is the fact that foreign students would stay put in their respective indigenous countries to receive lectures online without having to traverse any distance whatsoever. This according to her, would robustly impact the remittances which each country generates from schooling and working arrangements adopted by most foreign students. By inference, people in the diaspora would be repatriated to their aborigines if online programmes are eventually adopted by the universities founded in the United States of America. The idea being portrayed here is that it will become needless to come over to the USA to receive lectures so long they can as well receive the same lectures remotely. The finding buttresses the perception of Scannell (2020), who indicates that in every 60 seconds, about 1,300 people, including Americans were reported dead over the past few days of the coronavirus pandemic.

From the foregoing, the Theory of Alienation is refuted by the finding from this study. This suggests that people need to take good advantage of technology. The finding discountenances the view of Meyer (1999), who posits that in Ford Highland Automobile Plant, the artisans and craftsmen slowed down the production of Model 'T' vehicles for the then population which precipitated the adoption of a belt conveyor of mass-produced car, such that the employees' wages were exponentially increased having been rendered redundant. Meyer (1999), maintains that work has been in existence from the pre-industrial era which has never gone into extinction to date. In other words, work will continue to exist. Hence, individuals should come out of the pigeonhole of the notion that the coming of automation results in job alienation, and then, begin to take good advantage of the innovations and make the best out of technological advancement rather than being technophobic.

Thefinding aligns with the perception of Buchloh (2010), who maintains that technology deprofessionalises the jobs of doctors, pharmacists, machinists and librarians provided that it is cost-saving which renders work automaton rather than being thoughtful. According to Buchloh (2010), the deprofessionalisation of work is quite demeaning which undermines the bargaining power of employees, given task automation. The finding supports the view of Daniels (2015), who indicates that over-reliance on automation and lack of skill usage

results in deterioration of skill. He stresses further that when automation runs into an inactive mood due to the inevitability of engine breakdown, some workers are usually unprepared to rescue the situations, manually, due to the loss of the touch of manual skills which could be a result of over-dependence on automation. He argues that workers now find themselves doing the less of tasks they used to carry out in the workplace. Dandaura (2015) maintains that 25% of the companies which he studied attested that they have deskilled workers. According to Dandaura (2015), deskilling machines created jobs for those who are technologically inclined.

The finding strengthens the perspective of Wahl (2019), who establishes that the coming of Uber Eats has engendered massive loss of jobs and skills of traditional riders, given that drones are now being used to deliver food at the household level and, as well as in some offices. Fitzgerald (1993), posits that the advent of modified seeds, combined tillers, combined ploughs, combined planters, combined harvesters and combined processors, displaces and replaces farmers from their usual practices. This is said, because, farming activities that previously required about twenty people would require the services of five people doing the monitoring of combined tillers, combined ploughs, combined planters, combined ploughs, combined planters, combined tillers, combined ploughs, combined planters, combined tillers, that previously required about twenty people would require the services of five people doing the monitoring of combined tillers, combined ploughs, combined planters, combined ploughs, that any company that has up to 500 workers has a huge tendency of deskilling its workers.

On the contrary, the finding lends credence to the perspective of Semuels (2020), who avows that the actual automation problem is not so much about a robot apocalypse as posited by Mark Muro. Following this, Semuels (2020), maintains that people need to get trained and retrained but they actually cannot get such training in an accessible, efficient, well-informed, data-driven way. Semuels (2020) asserts that tens of thousands of Americans who lost their jobs in the course of the coronavirus pandemic may be unemployed for numerous years as was the case of Collins. Semuels (2020), states that Collins had access to retraining funding via his union contract. As quoted by Semuels (2020), Collins opined that he was too old to think about doing some other jobs given that he had already clocked 63 years of age and was contemplating on retiring early, so, he chose to return to what he was doing.

The foregoing finding further demonstrates Nwafor's (2020) claim that, as Nigeria approaches its 60th anniversary on October 1, 2020, the country's need to improve its human capital has been examined. He cites specialists who have argued that human capital is essential to anything that the nation's citizens could possibly do collectively. Nwafor (2020) claims that Busola Alofe, the Registrar and CEO of the Chartered Institute of Management and Personnel Management of Nigeria (CIPM), has urged human capital specialists to broaden their perspectives beyond business to take into account issues that will support Nigeria's continued development. Alofe agreed with Nwafor (2020) when she said that the main goal of human resources (HR).

Contrary to the finding, it refuses to correspond with the view of Oji (2020), who asserts that private equity is an alternative investment class that consists of capital that is not listed on a public exchange. He argued that private equity is composed of funds and investors which directly invest in private organisations, or engage in buyouts of public organisations. Oji (2020) confirms that the President and Chief Executive Officer of Anabel Group of Companies, Nicholas Okoye, indicated the need for the formulation of a capital market strategy that deals particularly with SMEs. From Oji's perspective, Nigeria needs to go a step further in looking at SMEs bonds because, according to him, at the moment, Nigeria does not have a SMEs debt platform. In this respect, there is a lot of fraudulent Collective Investment Scheme (CIS) out there to swindle people. In which case, Nigeria needs to get these CIS in order to support SMEs. It was stressed by Oji (2020), that Nigerians have to do a lot of thinking outside the box if they must develop this sector. According to Oji (2020), an SME capital market strategy is needed to make any intervention in the sector workable.

The finding does not lend credence to the view of Oyemade (2020), who affirms that individuals should look for opportunities in their respective environments and interpret them. He indicates that individuals will see natural opportunities which can be translated into life-changing opportunities in their immediate environments. He states that they should direct their minds towards the fulfilment of objectives. In order to recognise opportunities in one's environment, one should direct one's mind towards the fulfilment of objectives. Recognising the emerging opportunities entails spending quality time and meditating to internalize ideas about opportunities around one's environment. This will enable one to enjoy intergenerational grace.

The result is in agreement with Ehanire's (2020) viewpoint, who claims that Dr. Obi Igbokwe, a co-founder of WellNewMe, stated that despite the serious risks that burnout poses to employers; burnout in the workplace is still viewed as a problem that organizations around the world are attempting to address. He claims that because burnout risk reduction and treatment are frequently not very widespread, their effects are even more evident in resource-poor nations like Nigeria. He asserts that the survey's findings demonstrate that there are substantial mental health issues at work in Nigeria. In his opinion, burnout leads to additional stress-related illness, which has a substantial destructive influence on both physical and mental health. He claims that burnout causes presenteeism, which refers to working while feeling ill, absenteeism, and a rise in employee turnover.

The conclusion refutes Adepatan and Ugoeze's (2020) argument that many government meetings, including those of Nigeria's Federal Government Council (FEC), which is presided over by President Muhammadu Buhari, have taken place virtually. Zoom has been used for church services, business conferences, and classroom lectures. Its market valuation is estimated to be \$48.78 billion. They claim that, according to Virtual Capitalist of the USA, it will surpass the market share of all seven international airlines in a short period of time. They claim that security and information and communication technology (ICT) professionals revealed that greater urgent measures were necessary to stop the country's online space from being leaky.

Concerning the Covid-19 pandemic, the finding aligns with the perception of Bernard (2020), who states that Tunisia's economy shrinks astronomically by 21.6% in Q2 of 2020. According to Abe (2020), Tokyo 2020 Olympics got postponed due to Coronavirus. Besides, as coronavirus claims the lives of more victims, UCL, Europa Finals, LaLiga were postponed, indefinitely. Victor Moses was set to stay put at Inter Milan after being tested negative in his club in Italy (Akindele, 2020). Premier League seeks a six-week window to finish the season because of the coronavirus pandemic. The foregoing illustrates the adverse effects of the novel virus on sports. At the heart of the Covid-19 pandemic, Sobowale

(2020) affirms that Federal Government has to ban countries that placed travel restrictions on Nigeria.

The result supports Adepatan and Ugoeze's (2020) assertion that the security industry is in the midst of a revolution. Academic writing on cyber security in Nigeria has been heavily influenced by the problem of the confluence of information technology and security. Security professionals need to reinvent themselves to meet this new challenge since it is happening so quickly. They show that Chukwuemeka Ani, chief technology officer of Njalo.ng and a cyber-security specialist stated that the government must effectively implement the Cyber Security Act 2005 and prosecute anyone found guilty. People need to start using the internet more and get out of their slumber because there may come a time when thieves will be able to steal from people's bank accounts. This hypothetical situation is applicable when dealing with data and information. They state that people should exercise caution. They claim that Jide Awe, the chief executive officer of Jidaw System, said that as digital technology is deployed and adopted more widely, cyber dangers appear to expand. Regardless of this development, people should not be discouraged from adopting the cutting-edge techniques that this time calls for.

The finding corresponds with the position of (Usoh, 2020), which reveals that the UK government announces the temporary closure of betting shops and casinos, following the latest set of unprecedented guidelines being issued by the UK government to combat the spread of the Coronavirus. Heavy-weight contender, Kubrat Pulev, cared less if a crowd is present or not because he is willing to fight Anthony Joshua behind closed doors, given the fact that Joshua is scheduled to defend his IBF, IBO and WBA as well as WBO heavyweight titles against Pulev in London on June 20th, 2020. Due to the ongoing Coronavirus pandemic, there is a likelihood of the fight being pushed back to a date of July 25th, 2020. Callum Hudson Odoi was discovered to have tested positive of Covid-19 in his Chelsea FC. The finding corroborates the view of Adepatan (2020), who asserts that Coronavirus has transformed the crucial nature of work ethics, in that companies, religious bodies, schools, ASUU leadership and governments resorted to working remotely.

It is crucial to establish that the finding agrees with the view of Woodward (1965), who comes up with three levels of technology, which are: small batch, large batch and continuous process. According to Woodward (1965), in small batches, work is carried out manually and in large batches that are usually based on order, production is made in large quantities. This large batch conforms with Blauner's (1964) medium level of technology when the production process is mechanised and monotony sets in during the production process, thereby subjecting workers to the tunes of the machine. In the case of a continuous process, products are mass-produced.

The foregoing is in line with Blauner's (1964) continuous process, which is the zenith of the production process and which represents the future of work and the work of the future. Individuals should hone their skills to be relevant in the scheme of work. To buttress this view, Lyon-Caen (2021), submits that the current skill would have been antediluvian to man the innovations of the foreseeable future to explore and maximise such innovations. The finding buttresses the view of Wahl (2019), who stresses that Drive-in Hotel located in Japan deskilled workers, taking into cognizance that it was computerised using voice recognition from the gate where customers were being allocated to their various rooms upon making their payments via point of service and where Alexa switched on and switched off the electronic gadgets in the hotel.

At the heart of the finding from this study, Joseph (2017) contends that the emergence of combined cleaners, combined feeders and combined drinkers has resulted in a drastic decline of the workforce in the poultry and livestock practices. He avers that the aforementioned technologies tend to produce trailers of eggs within a timeline. Salami and Oyewale (2013), contend that technology is a trade-off as skill and jobs will be lost, salaries will be slashed and other things which are associated with technology will be affected. From the perspective of Joseph (2017), the coming of advanced technologies has drastically changed the landscape of the poultry business.

The finding is consistent with the position of the Lyon-Caen (2021), which indicates that the spring of technology would render certain skills obsolete because the jobs of the future and the future of jobs will be exclusively meant for those who possess digital skills. According

to this commission, technology will destroy certain skills. Amobi (2018) attests that technology took over certain jobs and created another set of jobs in 2020. In her view, jobs would then be meant for those who can explore and maximise technology to their own advantage. To this end, it becomes overwhelmingly evident that the coming of automated technologies has resulted in skill decline.

The deskilling tendency which was found to be a dominant trend in this study confirms the apprehension of Marx (1844), who maintains that advanced technology results in the destruction of knowledge and intelligence of the craft men. It is interesting to note that the finding gathered from this study agrees with the trepidation of Braverman (1974), who contends that fragmentation and mechanisation of tasks destroy handicraft skills. Braverman argues that division of labour and mechanisation of tasks lead to the simpler, smaller and ever-deskilled proletariat.

The finding equally fails to give credence to the submission of Thompson (1983), who avers that the division between planning and doing of work prevents workers from fabricating the products of their hands. The finding as well contradicts the perspective of Edwards (1979), who contests that impersonal tools were adopted by business owners for profit-making in the capitalist system of economy. The finding discountenances the perception of Braverman (1974), who submits that the introduction of machines is to extract surplus value which eventually results in outright work degradation as far as 20th century is concerned owing that it creates a division between mental and manual work, and that the division of labour gives monopoly of knowledge to the management and limits the discretional power and judgments of workers.

The finding is inconsistent with the position of World Bank (2012), which indicates that technology shapes the demand for work and changes production processes, thereby changing the work contents. Technology rapidly changes the skills being rewarded in the labour market. The finding fails to align with the perspective of Huvila (2006), who contends that in the digital revolution, there is no way individuals can dwell on work without attributing it to technology, considering that it is a piece of equipment devised to execute job functions. Most activities are premised on human expertise, dexterity and

ability. This can however be attributed to work. One can simply deduce a distinct evolving set of inter-linked human activities with explicitly or implicitly understood purpose, meaning and value. Conversely, there is a close relationship between work and technology. From the standpoint of technology, it is exponentially revolutionising the way people work and interact in the workplace or organisations and the ways organisations operate (World Bank, 2012). Digital technology in the workplace has come to stay in most organisations because it has tremendous impacts on the production process of any organisation, not only in terms of efficiency and effectiveness but in all ramifications to which organisations achieve their desired goals and objectives. The rise of digital hiring known as digitised talent management and smarter buildings epitomises the way technology is transforming the future of work across the globe.

The finding strengthens the view of Gallie (1978), who states that there are two sides to a coin when it comes to the subject matters of technology and skill. He stresses that the crop of artisans who operate in modern times have taken to their destiny such that they do not bother to upgrade because they feel they have reached the pinnacle of their vocation. Ironically, the people who are into white-collar jobs devote their weekends to acquiring one skill or the other. This provides insights on the situation of the current crop of technicians not being able to troubleshoot faults from new models of automobile vehicles as well as generating plants. The finding aligns with the stance of Salami and Oyewale (2013), who aver that the work previously done by twenty workers is now done by five workers monitoring the smooth-running of machines in the production process.

The finding refutes the position of Gates (2018), who asserts that the Government's Economic Recovery and Growth Plan (ERGP), typically identifies hugely investing in people as one of three strategic objectives. However, the execution priorities do not entirely capture people's needs, which ultimately indicate prioritising physical capital over human capital. Central to the finding, it strengthens the position of Akintunde (2020), who avers that Facebook, Instagram and Messenger are open sources for hackers and scammers to easily take undue advantage of. In this wise, he enjoins people to be wary of the evil-minded people who derive delights in inflicting pains into their fellow beings.

The finding is consistent with the perspective of Ojo (2020), who posits that a professor lost the sum of #600,000.00 for tax #13,000.00 for National Housing Scheme; #40,000.00 for pension; #10,000.00 for union dues totalling #123,000.00 for IPPIS deduction from a salary of #400,000.00. The philosophical question which begs for an answer is whether the job is worth the stress. Given the foregoing, it was submitted that there are some peculiarities with the academics. Quite a number of people erroneously equate university lecturing with other workplaces, just as if the peculiarities are similar. In the university system, it is not just about salary. A whole lot of university intricacies like visiting lectureship, external supervision, and a whole lot are seriously being threatened by IPPIS. Mostresearch funds are not coming from the government but they are privately funded by academics.

The finding aligns with the initiative of Ngige (2020), who posits that Keyamo, the current State Minister for Labour and Employment who was appointed by President Muhammadu Buhari in 2019, would supervise recruitment exercise due to impositions of recruits by Nigerian Senators, members on National Assembly, governors, local government chairmen, monarchs and other well-meaning Nigerians. This will enormously restore sanity to the Ministry of Labour and Employment in Nigeria. This initiative will robustly reduce putting round pegs in a square hole in the entire country. Besides, it will reduce the practice of federal character and quarter system being practised by the Federal Government of Nigeria.

The result supports Adepatan and Ugoeze's (2020) assertion that since the Zoom app is free and was created by a firm for individual use in accordance with their TandCs, the government is not required to protect its citizens from it. Choose software like Microsoft Teams, which are quite secure, if you really want complete protection during virtual conferencing. They demonstrate that Nigerians must work cooperatively to safeguard their data by performing frequent software updates and data backups. They contend that Nigerians should make it a point of duty to routinely check the app permissions, change the Wi-Fi router's default password, and uninstall any unused apps. Other precautions include locking down electronic devices with passwords, PINs, or biometric data, installing antivirus software on all internet-connected devices, selecting strong passwords for email and social media accounts that are difficult to guess, and routinely checking the privacy settings of social media accounts to thwart hackers' heinous activities. Given this context, digital literacy is defined as the ability to use common digital tools and apps, as well as to communicate, collaborate, be creative, and, most importantly, to employ critical thinking abilities (Adepatan, 2020). He contends that digital literacy should include topics like cyber security and technology ethics. He claims that all of these non-technical abilities are especially important to ensuring that social media and technology are implemented and developed in Nigeria in a secure and responsible manner. The head of Jidaw System further noted that in order to effectively influence the public in sincere, honest, emphatic, and believable methods, the pertinent government agencies must catch up with social media and combat harmful practices of undue and baseless speculations, Awe, according to Adepatan (2020), believes that the specified values must facilitate the transparent and unfettered flow of information. Adepatan (2020) urges that the government is to raise awareness of how to handle security and moral violations on social media.

The finding is correspondent to the view of Lambard (2020), who contests that Los Angelis Flippers Luiz William who happens to be a basket baller in the USA is to miss the NBA restart in the 2019/2020 season. It was gathered that FG meets resident doctors over strike ultimatum. This was occasioned by the non-payments of the Covid-19 risk allowance. Concerning Spain travel advisory, Germany warns against travelling to some regions in Spain in order to curb the spread of the Covid-19 pandemic. In Bangladesh, food displaced people so much that workers could not go to work. If the government had put in place a good drainage system, it would have paved the way for free-flow of erosion. Idris (2020), stresses that there have been worries over the safety of children in view of the school resumption during the coronavirus pandemic. According to Aluko, (2020), The Chairman of ASUU, Biodun Ogunyemi, avers that it would be suicidal to resume schools during the Covid-19 pandemic. Kenya extends nationwide curfew for another one month to flatten the curves of covid-19 across the country. Hajj was also cancelled due to the outbreak of the coronavirus across the globe. This adversely impacted this year's pilgrimage (Allister, 2020). IMF approves \$4.3 million for the Covid-19 emergency response. Spain pleaded with the UK to reserve compulsory Covid-19 quarantine (Rushing, 2020).

The finding coheres with the perception of Khan (2020), who asserts that W.H.O calls for a ban of international flights across the globe, due to the spread of the coronavirus that struck the entire universe. According to Lumbard (2020), Trump states that vaccine could be ready by the end of 2020. Qatar has signified interest in hosting Olympic 2021 having been postponed earlier on the accounts of the Covid-19 pandemic. Global covid-19 pandemic cases hit 16.4 million with 655,000 deaths as of July 28, 2020 (Khan, 2020). FG made directions for the resumption of schools for exit classes on the 3rd of August, 2020. Andy Murray hopes that the tournament can go ahead despite the spring of the Covid-19 pandemic across the globe. According to Looi (2020), Chelsea FC's player, Williams Borges da Silva, a Brazilian, is to undergo 10-day quarantine, having been found guilty of the violation of the social distancing guidelines in England on July 27, 2020

The finding aligns with the perspective of Anani (2020), who asserts that Global witness released its report on killings in the Latin American region which revealed that a total number of 212 people who were environmentalists and activists defending their land were eliminated in Columbia and the Philippine. It was stated that the Philippines is one of the worst affected places since 1970. According to him, about 90% of Brazilians were got rid of in the Amazon region. Colombia recorded a total number of 64 deaths in the year 2019 as it witnessed a rise in a community leadership crisis. It was equally reported that about 40% were indigenes of the communities. It was gathered that Honduras was most affected in the entire Amazon region. The environmental degradation the region is characterised by, and the attacks launched on the environmentalists and activists adversely had an effect on their agricultural businesses, oil and other businesses within the region. Marquez (2020), contests that US Congress has accused four leading tech companies which are; Facebook, Amazon, Google, and Apple on accounts of anti-competitive business practices. The founders of these tech giants are Mark Zuckerberg, Larry Page, Jeff Bezos, Elon Musk and Stove Jobs. According to Axios, given the accused anti-competitive business practice of the tech giants, their founders were summoned to appear before the US Congress and this was done via a video conference.

The result runs counter to Adepatan's (2020) assertion that Industry 4.0, or the Fourth Industrial Revolution, is just about smart manufacturing. The adoption of the internet of things (IoT), full process and production line automation, intelligent control of cyberphysical systems, big data analytics, cloud computing, and machine learning are among the technological elements of industry 4.0. Our industry as a country must make use of these technologies for increased economic prosperity and profitability. The Chairman, Conferences and Exhibitions, NCS, Ayodeji Aderogun, emphasized the Fourth Industrial Revolution's significance to Nigeria's growth and urged the country to awaken from its sleep, emphasizing that it holds the path to greater economic independence. The Covid-19 outbreak has greatly increased awareness among individuals of the opportunities that technology may provide, according to Aderogun, who also claims that 4IR is quickly altering the status quo. Nigeria cannot afford to let its guard down in light of this. This justification spurs cooperation as necessary components of the tool that will allow Nigeria to take advantage of this chance. He claims that the Fourth Industrial Revolution, which will bring about sustainable development, will be accomplished through the NCS conference, which will offer a multi-stakeholder forum to explore critical concerns in projecting upcoming applications and technology.

The finding authenticates the stance of Semuels (2020), who affirms that taking into cognizance the economy of about 30 million jobs in the USA that are short of what it had before the coronavirus pandemic, employers and employees may not essentially see the need for training for jobs which may not automatically be available for months or even years. Semuels (2020) stresses that it is not every employee that is keen on studying data science and cloud computing as well as artificial intelligence. According to Semuels (2020), the people who have found a means to move from dying fields to in-demand jobs are likely to do better. He maintains that about a few years ago, Tristen Alexandra was a Call-Centre rep at a Georgia power company when he took a six-month online course to earn a Google IT-Support Professional Certificate. Semuels (2020) has it that, a Google scholarship covered the total cost for Alexander who has no college degree, and was supporting his wife and two children on about \$38,000 a year.

The finding corresponds to the submission of Ribeiro (2020), who avers that Brazil is the second most-affected country when it comes to the Covid-19 pandemic with 888,000 deaths. The entire world population of 2.4 million people has been affected by the epidemic.

It was reported that in Brazil, about 3.3% of the entire Brazils population live in extreme poverty. In view of this, Brazil's government had to wade in by providing palliative for its citizens. Gustavo (2020) submits that G-Vargas Foundation observed that in Latin America, about 14 million people were affected by Corona Virus. Harrison (2020) stresses that the pandemic precipitated the UK government to make provisions for palliatives for its citizens, due to the restriction of the lockdown being imposed by the government to curb the spread of the disease.

The finding is in concord with the view of Johnson (2020), who states that there might be a need to ease the lockdown measures in the UK after a few months of the pandemic. Wahl (2019) maintains that Australia would consider stricter measures concerning lockdown to curb the spread of the novel pandemic. It equally aligns with the position of Clark (2020), who contends that the USA has recorded about 4.5 million Covid-19 cases such that out-of-job people have begun to receive package relief from the government. WHO sternly warns that the Covid-19 pandemic will stay with people for a century (Clark, 2020). By and large, it was reported that the vaccine will be ready by the end of the year 2020. According to him, Vietnam recorded the first case of Covid-19 death on July 30, 2020, after it was free from the pandemic for four months. He discloses that US experts appeared before Congress on July 31, 2020, over anti-effective business practices. A total of \$600 unemployment ended in the USA, consequent upon Covid-19 pandemic.

The finding supports Muanya and Esan's (2020), assertion that WHO cautions that Covid-19 may never go away. As a result, they contend that attempts to forecast its duration were futile and instead advocated for a big effort to combat it by creating an effective vaccine. The result isin concord with Iyatse and Adepatan's (2020) assertion that the expanding labour shortage in the banking industry was merely one new problem that needed to be addressed. They insisted that the choice was made as a result of the ongoing labour rationing, in which employees switch off on some tasks in an effort to reduce the spread of the coronavirus. After the shutdown prohibition was lifted, in their opinion, no bank has completely operated. This is attributed to worker rationing, which conveys the message that an employee should work harder in order to cover for absent coworkers. Iyatse and Adepatan (2020) determined that if a specific employee is not in the office, they should

work from home. Nevertheless, in reality, helping someone who works from home still needs the assistance of others who are in the office. This has put enormous demand on the capacity of human capital. It was noted that the industry is currently experiencing problems with capacity and competency that could limit its ability to grow.

The result concurs with Ahmed's (2020) assertion that there is a strong possibility that Nigeria will experience another recession due to the effect of the Covid-19 outbreak on the country's economy. She claimed that Nigeria's economy runs the risk of going back into a recession. According to her, the debt sustainability crisis is imminent given the coronavirus's effects. Businesses should take advantage of the N2.6 trillion plans put up by the Federal Government of Nigeria to mitigate the economic impact of the pandemic.

The result lends support to Iyatse and Orji's (2020) assertion that Jamiu Kayode's confirmation that the market might not necessarily blow up because people had two trading sessions that week that ended southward, on Tuesday and Wednesday, while three other trading sessions, on Monday, Thursday, and Friday, ended northward. They claim that during that particular week, the market is anticipated to behave in that way. According to Iyatse and Orji (2020), Nasarawa State University's Uche Uwaleke, a professor of finance and capital markets, stated last week that the government's response to the protests was often more conciliatory than hostile. This, in their opinion, had reduced investor stress. The finding corroborates the stance of Olaoluwa (2020), who confirms that Nigeria's government feels so threatened by a twenty-two-year-old lady that has her bank account frozen. It was stated that she was among the ten thousand young Nigerian's, including numerous women, who made history with the protests that swept the entire nation in October 2020 against police brutality. She was one of the first to take to the streets after a video went viral of a man allegedly being slain by the notorious Special Anti-Robbery Squad (SARS), sparking what eventually became known as the EndSARS demonstration in Nigeria. It was well-established that she set up a camp outside the Lagos governor's office on October 7, 2020, demanding that the police unit be disbanded. As a media strategist, she knew how to rally people on social media to join her. However, she succeeded in organising blankets for people who ended up sleeping outside the state government buildings for 72 hours before police launched an attack against them.

The finding validates the view of Onyeator (2020), who affirms that FG moves to revive the abandoned \$470m CCTV project in Nigeria. Ortom (2020) asserts that Gun License Policy pretty needs to be reviewed in Nigeria but not necessarily to enact a new one. The justification adduced by him is that the bandits and herdsmen possess more sophisticated ammunition. In this wise, he asserts that its review will immensely reduce the security threats confronting Nigerians at the moment. He maintains that partisan democracy should be jettisoned, and the protection of lives and the safety of the people should be paramount. He posits that it is when security thrives that people can transact businesses. The finding agrees with the view of Wilson (2020), who maintains that the usage of technology is pretty critical to the conduct of Ondo and Edo's gubernatorial elections.

The finding is in concord with the perception of Clement (2020), who avers that cashless policy suffocates Nigerians in that \$52 is usually deducted across banks for card maintenance fee, \$1, 000 for ATM card transfer, \$52 for an electronic transfer fee, \$4 for OTP transfer fee for software, \$4, 000 for hardware transfer fee, \$20 charge for each page bank statement of accounts, \$65 for interbank withdrawal fee after three withdrawals monthly, 3% on withdrawal\$500, 000, \$50 as stamp duty charge on transactions \$10, 000 and then \$4 for SMS alert fee. Daily Sun (2020), reveals that concerning Covid-19, FG plays around the gradual reopening of schools, though, curfew in Abuja, Lagos and Ogun States is now between 12 am and 4 am. Anger erupted in NAS over Fuel Price and Electricity Tariff Hike, which made TUC kick against the hike and nationwide protest looms as CUPP mobilizes civil society. Motorists and commuters groan over the fuel hike.

The conclusion agrees with Adepatan and Ugoeze's (2020) assessment, whichindicates that Saint Paulus Lutheran Church filed a lawsuit after hackers successfully, invaded participants' laptops and aired gruesome and upsetting films. The church authorities quickly contacted Zoom to request help in light of this. The business was, however, powerless to stop the trend. As a result, Zoom Video Incorporated expressed dismay over the development, calling it as a horrifying tragedy and emphasizing that the company's staff's hearts went out to the victims of the incident. It was similarly stressed that the wreakoffenders'havocs had been found and reported to the right authorities for the proper punishments. They were additionally prevented from accessing the platform. The business suggested that, as a result of what transpired to the church group during a meeting, zoom users should refrain from divulging their passwords and meeting access to everyone and their neighbor. They claim that on May 7, 2020, hackers insulted the speaker of the National Assembly, who is located in Thandi in Modise, and caused a virtual conference of South African politicians to break up by flooding the video call with pornographic photos. They claim that the South African parliament is closed and that video conferences are used to conduct its current sessions.

Similarly, the finding is not in coherence with the view of Othman (2021), who affirms that the efforts put towards food security in Nigeria lie primarily in mechanisation. He attests that policies are crucial to combating food insecurity in Nigeria given that the policies that focus on fertilizers and subsidising agricultural facilities are quite imperative. Othman (2021), contests that there is a level of agricultural business required to cater for the population explosion of 200 million people in Nigeria, particularly by deploring the appropriate technologies and mechanisation taking into cognizance that technology is key to exploring hectares of land. In the light of this, people should be enlightened on the appropriate investment. The application of fertiliser to plants makes a lot of differences in the effort at food security in the country. Modern equipment must be adequately harnessed. He opines that the importation of manufactured goods hits the sum of \$9.28 trillion from January to December (Othman, 2021). People should align with the new way of doing things. On account of this, the introduction of new technology to farmers is crucial. Dissemination of equipment should be prioritised by the government in the country. There should be a subsidy to motivate farmers. In this respect, Nigeria needs to invest properly in mechanisation as it is the case with Malaysia and India which developed from smallmedium to large medium agriculture.

The finding lends credence to the perspective of Fantinuoli (2018), who contends that, unlike other professions, the effect of Information and Communication Technology (ICT) on interpreting has been so far quite moderate. Despite this impressive milestone, recent advances in the area of computer-assisted, remote and most recently, machine interpreting, are swiftly gaining the interest of both practitioners and researchers. Fantinuoli (2018), contests that the volume ultimately aims at exploring main challenges, approaches and

issues confronting the interplay of interpreting and technology which is an area that is inadequately explored in the enterprise of interpreting studies. Its main intellectual agenda to the volume ultimately covers topics in the area of remote interpreting and computerassisted, both in the court sitting and conference as well as on experimental studies.

The result disproves Ohuabunwa's (2020) assertion that Nigeria established a vaccine laboratory plant in Yaba, Lagos, where yellow fever vaccine was being produced in the 1960s and 1970s. Nevertheless, little has changed in the previous 25 years since the facility closed. In recent times, the government, according to Ohuabunwa (2020), announced that Nigeria is currently engaged in a Public-Private Partnership (PPP) with a pharmaceutical company, which is, in any case, not present on stage. As a result, Nigeria abandoned the investment in vaccines, which is highly delicate and requires the most advanced technology, according to Ohuabunwa (2020). The current session of parliament is conducted via video conference calls. He claims that the nation lacks the necessary technologies to support it. Nigeria, which has made the wrong investments in anything having to do with the vaccine, is a clear example of this. He contends that Nigeria cannot revive its previous laboratory and that, even if it did, it would be useless now given how rapidly technology has advanced. According to Ohuabunwa (2020), the nation is experiencing revenue problems as a result of excessive borrowing that has nearly exceeded its limit.

The finding does not support the view of Ife (2021), who affirms that the greatest challenge confronting the manufacturing sector in Nigeria is power. No sector can thrive without power (Ife, 2021). Infrastructure policy needs to be reviewed in order to surmount the challenges emanating from the erratic power supply. Investing massively in industry and linking it with the economy is very critical.

The finding is inconsistent with the position of Ene (2021), who maintains that there are isolation centres in the states across the country to cater to coronavirus patients. Besides, oxygen is made available in all the thirty-six states across the federation. Guidelines should be given to people when it comes to home-based care, advocated for by Nigeria Centre for Disease Control (NCDC). Central to this, caregivers should be designated to the home-based care to look after patients infected with the novel virus. On the whole, the use of face

masks is necessary. It does not matter that the family members must stay with an infected person, whereas a healthcare practitioner is more appropriate to engage to look after an infected person. This is because there are a number of parametres to adhere to when it comes to home-based care. A concerted effort should be made to be a little bit involved in providing care for infected people.

The result negates Iyatse's (2021) argument, according to which exchanges and cryptocurrency investors have started reviewing their various business plans because the Central Bank of Nigeria (CBN) is sticking to its guns and keeping its restrictions on transactions in digital assets which is in the best interests of the country and parties involved. According to him, Nigerian investors on coin exchange platforms are withdrawing money to hold until they fully understand how the CBN's mandate will significantly affect them, provided the platform instructed them to migrate to card deposits with enough monitoring of the new rules. Iyatse (2021) asserts that the former deputy governor of the federal bank, Prof. Kingsley Moghalu, passionately disagreed with the CBN when it indicated that there are more effective ways to regulate financial transactions than taking a reactionary stance. In light of this, Moghalu disputed that central banks all over the world are mainstreaming digital currencies into their regulatory structures. Moghalu was a member of the apex bank team that launched the Bank Verification Number (BVN) and other innovations that were geared towards positioning the economy for digital disruption.

The finding supports the assertion made by Lawal and Adebumiti (2021), who claim that controversy has started to follow the University of Lagos's (UniLag) introduction of online education in the spring of the second coronavirus epidemic. In addition to the data expenses, they claim that the students bitterly lamented their inability to access the sites due to heavy traffic and epileptic network problems, which impeded the downloading of teaching materials, including videos. According to Lawal *et al.*, (2021), a cross-section of the students who spoke with Guardian about their experiences demanded that the virtual learning platform be completely scrapped until the teething problems have been resolved. According to Lawal *et al.*, (2021), given that instructors merely threw things at them without any explanation or instruction, students described the online learning experience as difficult. The learning management system (LMS), a Module App that is used

for online learning, was not widely accessible and hindered by intermittent network issues, according to a penultimate-level law student who hid behind anonymity.

Comparison Test of Job Skill across the Three Groups of Technology in Nestle S.A.

Having established that the differences in the mean values of job skill across the three levels of technology in the units of Nestle S.A., were found to be statistically significant at p=0.04, it became imperative to investigate the exact mean value out of the three mean job skill across the technological level units. The finding showed that the mean job skill of both high and medium technological levels accounted for the statistical significance often influence of technology on job skill which is the figure being asterisked herein (7.504*). This indicates that the mean values of job skills of high and medium technological levels contributed to the statistical significance of technology and job skill in Nestle S.A.

The Extent of Influence of Technology on Job Skill in Nigeria Brewery Plc.

Contrary to the finding which was gathered from Nestle S.A., in the case of Nigeria Brewery Plc., the finding revealed that high technological units had the highest mean (73.00) of job skill across the three levels of technology. Deductively, this indicates that the workers in high technological level units (65.69, 69.54 and 73.00) were more dexterous than their counterparts working in both medium and low technological level units. This trend negates the position of Braverman and his followers who unanimously contend that advanced technology results in skill decline which results in a class structure called the proletariat. The argument unanimously advanced by the deskilling theorists is that, the more technology advances, the lesser the skills that workers possess. As far as the finding gathered from the study in Nigeria brewery Plc. is concerned, it discountenances the position of the deskilling theorists who unanimously posit that the higher the level of technology, the lower the skill level of workers. It then suggests that although this is a fourth industrial revolution, workers possessed high skills at a high technological level, in spite of technological advancement. The implication of this is that workers in high technological level units enjoyed considerable autonomy and expertise in carrying out their tasks. What ultimately accounted for the variations in the mean job skill (65.69, 69.54 and

73.00) can be ascribed to the fact that the units across the firm were more technologically intensive than others which differently influenced job skills.

This indicates that given the equipment deployed in Nigeria Brewery Plc., the employees in high technological level units (65.69, 9.54 and 73.00) were more dexterous than their counterparts in both low and medium technological level units. It is vital to note that the finding revealed that the next mean value on the skill index in regards to Nigeria Brewery Plc. is concerned about the job skill in medium technological level units. This invariably indicates that workers in medium technological level units possessed lesser skill than their counterparts in high technological level units, but higher in skill level than their counterparts in low technological level units in carrying out their job functions. In this wise, it is worthy of observing that workers in medium technological level units were not as autonomous as those workers in high technology. This pattern of relationship between technology and job skill simply aligns with the perspective of Amber and Amber (1962), who assert that the removal of the initiative of operators is quite central to the medium technological level units. Equally, this trend falls short of the positions of (Blauner, 1964; Bell, 1973; Berg et al., 1987 and Hull et al., 1982), who unanimously contend that medium technological level industries affect the job skill most due to the fragmentation, standardisation, rationalisation and routinisation of factory settings that dictate the pace and the rhythms of the production processes.

In respect of the of mean of job skill in the low technological level units, the finding revealed that the low technologicallevelunits had the lowest mean value (65.69, 69.54 and 73.00) which symbolises that the workers in low technological level units possessed low job skill. The variations in the findings in the low technologically level units from both firms (Nestle S.A. 66.75, 67.81 and 60.30 while Nigeria Brewery Plc.: 65.69, 69.54 and 73.00) can be justified by the variations in their modes of manufacturing of the end-products which differently influenced job skills. It is overwhelmingly lucid that when a technology is in its crudest form, it is natural that the operators would enjoy considerable dexterity in manning it. In other words, such workers would enjoy considerable proficiency in utilising such equipment owing that they are quite at liberty to manipulate them as they desire. Glaringly, this epitomises the oldest form of the equipment utilised in the craft and guild era when the

farmers, craft men and artisans were carrying out their activities in terms of cultivation of the land with the aid of cutlasses and hoes as well as building canoes.

Given this, they greatly enjoyed considerable autonomy in planning, monitoring and wage determination of their work. The pattern of the relationship between technology and job skill which was gathered from the study apparently refuses to align with the view of Blauner (1964), who affirms that the technology utilised in the printing industry epitomises low technological level units, where the workers were quite at liberty to exert their skills in the course of carrying-out tasks more than their counterparts in textile and automobile industries, such that they did not engage in labour turn-over considering the considerable freedom which they enjoyed while discharging their duties. The finding buttresses the position of Obi-Uchendu (2020), who asserts that data is very critical to repositioning businesses in the path of blossoming in the post-Covid-19 pandemic in Nigeria. The finding lends credence to the view of Giokos (2020), who avers that the coronavirus pandemic boosts markets in Africa.

In contrast to the statistical significance of technology on average job skill across the three levels of technology in Nestle S.A., the finding gathered from Nigeria Brewery Plc. revealed that the differences in the mean job skill across the three levels of technology are not statistically significant at (F=1.31, df=2/17 and p=0.2). From the result, it can be deduced that technology did not influence job skill in Nigeria Brewery Plc. In other words, this indicates that technology had no influence on job skill in Nigeria Brewery Plc. given that the variations across the three technological level units were not statistically significant at p=0.2in Nigeria Brewery Plc. Inferentially, it technically indicates that technology did not deskill workers across the three technological level units as far as Nigeria Brewery Plc. is concerned. The chief causal factor responsible for the statistical insignificance in Nigeria Brewery Plc. can be ascribed to the highest mean job skill (73.00) discovered in high technological level units. The finding aptly corroborates the standpoint of Edgell and Granter (2020), with the assertion that the central workers in the post-Fordist epoch are professionals who are solidly rooted in education and training, to provide the type of skills which are exceedingly demanded in the post-Fordist societies. The finding equally lends credence to the viewpoint of Zuboff (1988), who affirms that an operator of any particular

equipment in the post-industrial society automatically becomes the operator if he knows his onions rather than the machine controlling him.

The finding aligns with the viewpoint of Bell (1973), who affirms that the centrality of knowledge and the growth of technical specialty will be the hallmarks of post-industrial society having transited from craftsmanship to the development of education. Post-industrial society is characterised by the possession of knowledge as opposed to the possession of the private property. He maintains that post-industrial society is dominated by the expansion of the non-profit sector; especially education, health and research. The argument advanced by Bell (1973), is that theoretical knowledge is central to production in post-industrial society, in that it becomes the main source of policy formulation and innovation for the society. The finding buttresses the view of Heisig (2017), who maintains that there are two opposite perspectives on the future of capitalist societies, which are the constructive one and the harmful in regards to skills.

Contrary to the finding, an In-depth interview which was conducted with a Production Unit Head in Nigeria Brewery Plc reveals thus:

As far as the Production Unit is concerned, the transition from washer, filler, capper, labeler, packer and Pasteuriser to mojonner, domino, Crown Cork Hopper, cobrix, reflex, uncaser, Krones and carbon cooler has drastically reformed the essential nature of the production process, such that the expertise which employees used to exert declines astronomically consequently upon the lack of skill usage. Employees find themselves doing less of what used to be the tasks they carried out. On the other hand, the migration from manual machines to automated equipment enormously reduces the production costs following that it produces in large quantity. Technology places firms on a comparative and competitive edge. (IDI/Firm2/PM/May 2019).

Arising from the in-depth interview, it is vital to note that deskilling tendency was gathered from the in-depth interview owing that the production of both alcoholic and non-alcoholic drinks in the Production Unit has witnessed tremendous progression. Brewing drinks in the era of crude equipment afforded workers the mammoth freedomto exert skills which enabled them to enjoy all-embracing autonomy. In the wake of semi-automated equipment, workers were subjected to the pace and rhythms of machines. Technological innovations in the Fordist epoch allowed for little inputs from employees. Automation permits those who possess wide-range of quality education and training and who are professionals that can quick-wittedly man automated equipment given that automation does not require plenty ofemployeesto man it but a few professionals. International Standard Organisation (ISO)'s Law, 2005 states that food and beverage industry should migrate from semi-automated technology to semi-automated technology and finally, to automated technology in order to limit undue contamination that may emanate from human interface with the products meant for human consumption.

The finding conforms with the view of Pen (1991), who maintains that in the spring of computerisation in the 1980s, there was intensive apprehension among managers and employees that the emergence of digital machines would eliminate them from the labour market. However, it eventually turned out to favour them in that they were opportune to acquire new skills bordering on digital operations of the digital machines without necessarily losing their manual skills. In a similar vein, it corroborates the perception of Amobi (2018), who avers that when 31% of the current jobs get automated, the only thing that will stand some workers out is the amount of skill they possess. Hence, concerted efforts should be made to hone one's skill in order not to be relegated to the digital era. In other words, concerted efforts should be made to hone one's skill in order not to be relegated in the fourth industrial revolution.

The finding substantiates the standpoints of Okafor, Imhonopi and Urim (2011) who gather that the utilisation of internet services aide dabout 54.3% lecturers in private universities in South-Western Nigeria to publish their works. They further revealed that a total of 61.6% of the lecturers were able to attend conferences and about 74.2% of the lecturers were able to teach effectively with the aid of internet services.

According to Okafor *et al.*, (2011), the preponderance of the respondents who were about 77.5% were observed to have been improved by the utilisation of internet services in improving the quality of teaching. Internet services were found to boost the research outputs 79.1% of private university lecturers in South-Western Nigeria. In this wise, majority of respondents utilised internet services were able to meet requirements for career advancement, particularly when it comes to promotion. Consequent upon this, internet

services were observed to have robustly contributed to the increase in teaching and research outputs of respondents in the study conducted which were found to have the potential for enhancing the teaching and research outputs of respondents in the future.

The finding lends credence to the perspective of Schneider (1983), who contends that the digital workforce is one of the most significant ways in which technology has tremendously shaped the work. According to him, a digital worker is construed as the technology which is artificial intelligence, intelligent process automation, robotics, augmented reality and virtual reality. All these perform tasks, jobs, and activities previously accomplished by a human worker. According to Schneider (1983), digital workers are already being deployed by some business owners. From the viewpoint of Schneider (1983), digital workers rather than replace human beings, enhance individuals' capabilities which frees up more of one's time to focus on higher-value tasks.

The finding is equally consistent with the view of Adler (1992), who avers that the work of the future will require a high level of skill to man the technology. The point being made is that possessing the new skill to man technology prevents workers from being affected by technological advancement. The finding similarly corroborates the position of Amobi (2018), who submits that the work of the future and the future of work will be so sophisticated that only those who possess digital skills will be able to compete comparatively in the fourth industrial revolution. Deducing from this assertion, those who fail to develop themselves digitally will be eliminated from the scheme of work as far as the digital era is concerned.

The finding is consistent with the position of Suomela *et al.* (2014), who contests that new and emerging technologies can enormously enable organisations to become exceedingly efficient and derive competitive advantage. He asserts that the increased complexity of information systems results in challenges. There are new approaches, needs, businesses imperatives as well as strategies that enterprises, public organisations and non-profits require to understand and apply. According to Suomela et al. (2014), there is trade-offs in resources needed; costs as well as benefits, priorities, risk levels and appetite; and the ability of the organisations to absorb change. He contests that these matters should be governed and

managed by the individuals in order to develop digital skills. He believes that the overall complexity is ultimately amplified when one appropriately includes cyber security as well as data privacy.

The finding lends credence to the position of Lima (2019), who contests that robots are not meant to replace human firefighters; rather, they are invented principally as equipment to enable efficient fire-fighting as well as salvaging lives and properties. Lima (2019) stresses that, in an event of conflagration, or any other type of emergency, robots are quite apt in rescuing the situation. Consequently, Lima (2019) submits that workers recruited in Fire Service will definitely never entirely get rid of disaster. All the same, robots, as well as future robots, can save lives and effectively deal with catastrophes that should be adequately invested in as well as researched. This finding is inconsistent with the claim of the deskilling proponents who assert that technology results in the expropriation of skill by breaking the work into smaller and simpler forms. Moreover, in mechanising work for the ever-deskilled workers, destruction of handicraft skills arises.

Given the foregoing statistical significance of the influence of technology on job skills across the units in Nigeria Brewery Plc., it can be unequivocally established that technology did affect job skills in Nestle S.A. This finding gives credence to Braverman's construal of technology destroying handicraft skills. The finding strengthens the view of Forster *et al.*, (2020), who posit that Vanander Bush, as well as Licklider, invented Memes that indicates "As You May Think" after World War II to document all the experiences gathered during the World-War II, so as not to lose the memory, because, it is believed that whatever is documented can easily be retrieved. This signifies that technology remains an essential tool for documentation of happenings. The finding buttresses the view of Scannell (2020), who indicates that Virginia launches smartphones to track coronavirus spread.

The finding is in tandem with the standpoint of Jose (2020), who maintains that technology has not only given rise to digital recruitment in the workplace but, has also equally paved the way for the way organisations hire talents and place them by human resource personnel in an organisation. From his perspective, technology eases job advertisement, selection, recruitment, placement and probation for organisations, by putting in place an efficient

workforce through various means, such as social media, which has to do with algorithms of scanning resumes and applying online. In making use of digital technologies, most entrepreneurs create global platforms based on businesses that differ considerably from the traditional production process in which inputs are provided at one end and outputs are delivered at the other end. Jose (2020), states that at the moment, organisations generate value by creating a network effect that links customers, producers, manufacturers and providers while facilitating interactions in a multi-dimensional model.

The finding, however, runs counter to Lawal and Adebumiti's (2021) assertion that University of Lagos (UniLag) students accuse lecturers of simply dumping materials on them without taking the time to impart knowledge into them. This makes the process of acquiring knowledge exhausting, energy-sapping, and difficult, especially when one does not understand the course of study. They contend that with the advent of online learning, students have not been instructed by professors who upload materials for them to download and study independently. 2021, a University of Lagos, Nigeria, 300-level Insurance student, indicated that the Module App was not working properly, according to Lawal and Adebumiti. He stated that in a class of 300 students, only two or three typically have access to the materials that have been posted for a given course and are given the responsibility of sharing those materials with the school's WhatsApp group. People are used to the way the university system is set up in Nigeria, where students who want to excel in their classes steal lecture materials.

It is pertinent to note that workers who fail to reposition their skills in line with the digital space in the fourth industrial revolution may not be relevant in the scheme of work because the work is characterised and dominated by robots, Artificial Intelligence, digital platforms, virtual reality, augmented reality and battery-powered cars (Amobi, 2018). Similarly, the work is characterised by bifurcation between conception and execution whereby the conception of work is concentrated in the hands of a few managements whereas the shop floor workers are saddled with the execution of work. Technology has been viewed to be responsible for skill erosion so much that some job skills will get expired given that technology will usher in an era that a large proportion of the workforce will decline astronomically. It will result in job displacement and job creation. The onus then lies in the

hands of the individuals to explore and maximize technology so as to become indispensable in the post-Fordist era.

At the heart of the impacts of technology on work, the finding confirms the stance of Obi-Uchendu (2020), who alludes to the fact that Patricia App is a technology-driven platform where customers can easily transact businesses. He submits that a group of researchers from the CIA invented bitcoin. He posits that bitcoin is software that sends coins and all transactions online. According to him, bitcoin is a decentralised currency. He states that Block chain is an umbrella body of bitcoin. He contends that the first medium of exchange was cowrie shell. He argues that bitcoin belongs to cryptocurrency. He posits that bitcoin is a wallet that requires 2 or more keys to transfer currency which is called multi seal wallet. According to Obi-Uchendu (2020), bitcoin is software that allows the buying and selling of currency. He avers that bitcoin is determined by the price of demand and supply. It creates job employments for a score of those who can explore technology to their own advantage. The finding aligns with the view of Okewole (2020), who advocates the use of block chain by farmers, traders and entrepreneurs in order to boost businesses and GDP. The finding equally corroborates the position of PWC (2020), which predicts a Global boost in GDP by \$1.76 trillion in 2030 by using digital master cards in business transactions.

The result is in line with Adepatan's (2020) assertion that Nigeria's Fourth-Generation (4G) mobile network coverage is around 37% despite a desire for more advanced and widespread telephony services. According to him, the fourth generation of broadband cellular network technology-following 3G and coming before 5G-is known as 4G. In the Draft Consultation Document for the Development of 5G Mobile Technology in Nigeria, the Nigerian Communications Commission (NCC) stated that as of December 2019, coverage data revealed that the majority of rural areas only have access to 89.8% of 2G networks coverage across the country, whereas 3G has coverage of over 74%. Adepatan (2020) confirms this information. Over 37% of the country's population was covered by data-centric 4G at the same time, according to Adepatan (2020), while less than 10% of connections resulted in a 32% penetration rate for mobile Internet. The 58th ECOWAS Summit is attended remotely by President Muhammadu Buhari from the statehouse (Alayande, 2021). Nigeria pledges \$100,000,000 to fight terrorism. The summit, which took place essentially for the first time,

underlined the need for information and investments in Nigeria (Sobowale, 2021). Despite the fact that data is present everywhere, it is not coordinated (Uzu, 2021). The government of Nigeria should favor native healers.

This finding is correspondent to the view of Michael (2021), who submits that the postindustrial era has projected that the future of work is already with the individuals, given that individuals can glaringly witness how technology is revolutionising the way people get their work done and how organisations operate. According to Michael (2001), the driving the change across numerous sectors and aspects of the economy, particularly in the workplace and organisational departments, the change is expected to continue for longer years. This epoch has depicted that there is a limited time like the present to evaluate the changes that take place and how they influence the world of work. Michael (2021), avows that, though it is very pertinent to think of the way jobs and workplaces will look in the future. One must evaluate jobs and workplaces in the modern-day. The introduction of human robots and machines in the workplace illustrates that individuals have already reached a point where robots are enhancing human capabilities. In light of this, it is imperative to acknowledge that technology is already impacting and unimaginably reshaping work.

The finding refutes the stance of Oyebade (2020), who confirms that Arik revealed that, given the devastating effects of coronavirus pandemic, which led to its constrained ability to complete heavy maintenance activities and return its planes to operations, and also caused stunted revenues against increasing operational costs, the management of Arik declared 300 employees redundant to its present level of operations. He is of the strong submission that in a swift reaction to the constraints posed by the highly infectious virus, the Arik'sunionhereby expressed dismay over the lay-offs of the employees. Because of this development, the management of Arik was faulted on account of taking irrational decisions. Against this background, the Chairman of Arik Branch of the union affirmed that the management's decision to downsize 300 employees in Arik was ridiculous and unacceptable. As a result of this, he maintained that the union was still discussing with the management over employees' issues.

The finding upholds the view of Adepatan and Ugoeze (2020), who contend that to urgently combat the impact of cybercrime on the people, According to Uwaje (2020), the CEO of Mobile Software Solution advocated creating secure national gateways, allowing data centers to host locally via edge computing, and migrating all of the country's ICT infrastructure from IPv4 to IPv6 within the next 18 months. According to Uwaje (2020), Nigeria loses \$60 billion, or around 21.4 trillion, annually to foreign nations that house the data and websites of its myriad organizations and enterprises. He claims that the majority of the applications' deployment came with a risk to national security. He claims that Dennis Amachree, a security specialist, showed that security information is seriously at risk. After a high percentage of student test results were favorable, Pastides (2020), confirms that more colleges turn to online courses.

As regards the model developed for the study, the finding justifies Labour Process Theory which holds that the workers are usually instructed by the management on what to do and their jobs are appraised by those who are higher than them. According to the Labour Process Theory, the workers do not necessarily determine the amount of skill required to execute tasks. They also do not determine the wages to be paid for the skill exerted and tasks executed, on whether the wages are commensurate with the amount of the skill exerted in carrying-out tasks or not. They as well do not determine the amount of skill that should be exerted while discharging the job functions. The model aptly provides what is obtained in the contemporary corporate world.

The result contradicts Iyatse and Adepatan's (2020) assertion that 2,359 junior employees were fired or resigned from banks, while 564 senior employees, who make up 18.5% of the workforce, were cut from the workforce. They claim that commercial banks unexpectedly expanded the number of their staff, who typically receives the majority of the personnel costs, from 153 to 210, a 37% rise. According to Iyatse and Adepatan (2020), the commercial banks' payrolls lost an average of 7,957 jobs between January and September 2020.From their perspective, merchant banks similarly reported a net staff balance of -73 during the same time period, whilst the non-interest banks increased their whole workforce. They claim that the combined payroll of the three major financial services groups, formally known as money deposit banks (MDB), decreased by 7,722. The day before that

hypothetical situation, Osita Nwanisobi, the acting director of corporate communications at CBN, requested that the top bank make it clear that no bank should ever be required to lay off its employees. In this way, he promised, the regulator would check the NBS numbers to make sure they were real.

In a similar line, the findings contradict Oji (2020), who contends that according to analysts, the banking industry, which has historically been the most liquid in the Nigerian equity market, has faced significant challenges recently. From her perspective, the coronavirus and the reduction in oil price have caused a wave of market sell-offs that have further impacted the banking sector, starting with rigorous regulatory restrictions and continuing to the current systemic risk. In this regard, Oji (2020) argues that the pandemic has deleteriously impacted businesses, which has resulted in increased operating costs, a decline in sales, crippling debts, and low customer support. Oji (2020) asserts that the scenario has had a detrimental impact on the third quarter (Q3) results of some of the largest banks, particularly in light of the fact that certain national events seem to be pointing to a tumultuous 2021 for businesses. According to figures from the National Bureau of Statistics (NBS), total banking sector credit to the Nigerian economy was in the range of 18.8 trillion naira in the second quarter of 2020, up from 17.1 trillion Naira at the end of the previous year, according to Oji (2020). Notwithstanding this, NPLs skyrocketed from 2.27% to #1.2 trillion at the end of the second quarter of 2020.

The finding fails to reinforce the submission of Adewole (2020), who contests that elearning, puts a number of pressures on parents. The majority of parents, according to Adewole (2020), are on full-time jobs, who work from home. The high dependency of the children in the course of online classes makes it pretty herculean for the parents to be optimally productive at their own jobs. She asserts that school founders had to make the online platform user-friendly and set up an ICT Support team specifically for parents' support. Adewole (2020) gathers that online schooling has put the majority of parents to a number of works such as expenses, the power, and materials required, amongst others. She maintains that most parents are on full-time jobs and are working from home, and this makes them struggle to juggle between both. It is pretty understandable when most parents react angrily to paying for an online school (Adewole, 2020). In the alternative, most school founders made concerted efforts to do certain things to make a difference which was to essentially dialogue with parents. They engaged in ongoing conversations, sent surveys, held town hall meetings and listened attentively to them.

Similar to this, the result supports the argument made by Lawal *et al.*, (2021), who contend that students' futures shouldn't be compromised by merely tossing information at them without sufficient justification. It was emphasised that a University of Lagos 300-level student stated that none of the teachers revised with the students when the online classes started. However, they have been dumping videos and information on them in all sizes. The website's constant crashes was the most annoying part of the whole situation. Most of the time, students cannot record their attendance until after midnight, when internet traffic would have decreased. Students reportedly found the online learning method depressing because it couldn't be compared to in-person instruction, according to Lawal *et al.* (2021).

The conclusion supports Adepatan's (2020) assertion that digital literacy is characterized by the usage of common digital tools and apps, communications, teamwork, creativity, and, most importantly, critical thinking abilities (Adepatan, 2020). According to him, such digital literacy should include cyber security and technology ethics. He claims that all of these non-technical skills are especially important to ensuring that technology and social media are developed and used in Nigeria responsibly and securely. The head of Jidaw System added that in order to have a significant impact in ways that are sincere, honest, emphatic, and believable, the necessary government agencies must themselves catch up in terms of social media and combat harmful practices, unfair treatment, and unsubstantiated rumors, Adepatan (2020), asserts that the specified values must encourage the open and free flow of information. Adepatan stated that Awe urged the government to raise awareness of and deal with security and moral transgressions of social media.

The result supports the argument advanced by Iyatse and Adepatan (2020), who claim that Kehinde Akuko, a telecom specialist, suggested that algorithms and machines in the workplace would lead to the creation of 133 million new jobs. In any case, by 2022, they will result in the loss of 75 million jobs. It is viewed as the future of employment in light of

this (Amobi, 2018). According to Aluko, it is inferred that the development of artificial intelligence would lead to the creation of 58 million net new jobs over the next few years. While the new roles and firms are intended to increase the usage of contractors conducting specialised work and the use of remote staffing around the globe, from the perspective of net possible job growth, there are expectations for a significant shift in permanence, location, and quality. According to Aluko's forecast, machines would perform more current job duties than people in 2025, compared to the 71% of tasks that are currently carried out by humans. The global workforce will unavoidably be significantly impacted by this transition.

The finding confirms the position of Ibidapo-Obe (2020), who maintains that while the students of private Universities receive their lectures online, the students of federal Universities do not receive any lectures online due to the strike action by the university lecturers. In any case, private universities are making use of the online platform, which makes some of them attain high degrees of achievements. They likewise have their exams written online, with adequate software put in place to monitor the students against malpractice. The universities make provisions for constant video on individuals, such that if anyone goes beyond certain areas, the person gets shut out and prevented from continuing the exam. Ibidapo-Obe (2020), discloses that public Universities cannot do such simply because of the strike being embarked on by ASUU.

The finding equally gives credence to the submission of the Lyon-Caen (2021), which maintains that technological advancement will usher in job displacement and job creation and will also present a lot of values that people should explore. The finding aligns with the submission of Atiku *et al.*, (2014), who indicate that organisations incur a lot of costs in procuring technology in carrying out job functions which require coughing out huge amounts of money to compete comparatively. Asnell (2005) is of the view that when small and medium-scaled businesses procure technology, it affords them the same comparativeness as well as competitiveness as it is the case with big organisations. The finding is in harmony with the standpoint of Adler (1990), who establishes that the firms that do not invest adequately well, or effectively in the pool of the workforce training are usually fond of antagonising workers as well as unions by sidetracking them from the

planning and implementation process. As a result of this, they fail woefully when it comes to preparation for the new technologies with a long-term strategic plan.

The finding buttresses the submission of Ahmed (2019), who reveals that given Fitch Ratings, Vetiva'a Research indicates a delicate sprout. The Votive outlook report highlights the numerous challenges confronting the oil sector in Nigeria. It is pathetic to say that inadequacies in power supply, budget implementation and transport infrastructure have crippled Nigeria's economic growth. Emefiele (2020), asserts that Nigeria needs to achieve viable growth of about sixty-eight percent in the oil sector which is required to effectively combat poverty as well as unemployment.

The finding aligns with the perspective of the Chairman and President of Lagos Chamber of Commerce and Industry (LCCI), Tolu Mabogunje, who enjoins economic managers as well as policymakers to embrace structural reforms such as, deregulating the oil sector and gas sector and fixing infrastructural challenges of poor power supply as well as bad roads across the country. The finding coheres with the view of Emmanuel (2019), who contests that during the eight years which the former governor of Benue State, Gabriel Suswan, spent in office, the state witnessed massive infrastructural development in terms of roads, health, and education as well as rural development. This implies that infrastructural development is central to growth and development of any nation.

The finding lends credence to the perspective of George-Igbafe (2020), who indicates that robot workers amused people when they executed tasks like real workers during the coronavirus pandemic. In this light, digital skills are required in today's workforce, taking into cognizance the need for employees to start digital skills because present-day work requires artificial intelligence skills. The finding buttresses the position of Lima, (2019), contests that robots are not meant to replace human firefighters. Rather, they are invented principally as equipment to enable fighting of fire as well as salvaging lives and properties. Lima (2019) stresses that in an event of inferno, or any other type of emergency, Robots are quite apt in rescuing the situation. Resultantly, Lima (2019), submits that workers recruited in Fire Service are definitely never going to entirely get rid of disaster.

The finding brings into line the view of Abimbola (2020), who indicates that technology is used for sending video messages during coronavirus. All the same, Lima (2019), asserts that Robots as well as future robots can essentially save lives and effectively deal with cataclysms that should be adequately invested in as well as researched. One thing which remains quite obvious is the fact that, peradventure a worker in the fourth industrial revolution has a cause to set up a firm of his or her own, he or she will inevitably embrace technology in order to compete comparatively and favourably. This portrays the fact that for a particular business to thrive in this contemporary epoch, a business owner pretty needs to leverage on technological innovations.

Asides from the foregoing, the finding is in concord with the submission of Semuels (2020), who asserts that in principle, automation and artificial intelligence should free humans from perilous and lacklustre tasks, so that humans can take on more intellectually stimulating assignments which in turn will enable companies to be more productive and raise employee wages. Semuels (2020), opines that in the past, technology was deployed piecemeal, thereby giving workers time to transition into new roles. Semuels (2020), asserts that those who lost their jobs could seek retraining. The corollary of this is that they should use severance pay otherwise known as compensation pay or employment benefits to find work in other fields. In his view, the change ushered in by the pandemic can be seen as being abrupt, because it made employers who were worried about the coronavirus and the sudden lockdown orders rush to replace employees with machines or software. Given this, there was no time to retrain employees (Semuels, 2020). As a result, companies became worried about their bottom-line cut. Employees suffered loss and were left on their own to find alternatives of mastering new skills where they were able to find a few options.

The result is in correspondence with Adepatan's (2020) argument, according to which some digital products and services, although broadly available in the digital world, are more secure than others. Hence, when selecting digital solutions for virtual reality, one should take their needs into consideration as well as security. He said that in order to prevent the horrible actions of hackers and fraudsters, one should be fairly aware of the hazards when holding meetings and put the necessary cyber security measures in place. According to Umaru (2020), the Nigerian federal government instead uses Microsoft Team, which is

thought to be more secure than zoom. According to Adepatan and Ugoeze (2020), Mrs. Hadiza Umar, the director of Corporate Affairs and Essential Relations at the National Information Technology Development Agency (NITDA), claims that the government of Nigeria previously issued a warning to its citizens regarding the use of free conferencing platforms like Zoom and also made provisions for security hints.

As firmly rooted in the finding of this study, Agbata (2020), posits that Michelle Messina who is the CEO of Explora International LLC and co-author of Decoding Silicon Valley wrote a book that attempts to decode the mystique of Silicon Valley, including the much subtle aspects which are in hidden plain sight. As submitted by him, Michelle had been there in the early days and one of the things disclosed is that what makes Silicon Valley different is the unusual culture of openness as well as support. It was posited that Silicon Valley is a place where people are open to supporting others as much as they can, without necessarily wanting anything in return. He points out that Silicon Valley is not, however, without fundamental challenges. He stresses that it has its own issues such as jaw-dropping inequality, poor transportation system and high housing costs.

Contrary to the finding, Adebayo (2020), maintains that employers should make frantic efforts to expose their staff to global training in USA, Canada, Germany, Italy and Dubai. He confirms that Clean Ace as a brand is not perceived as competing locally. According to him, to benchmark, the services in line with global standards should be the watchword of a given Industry. Adebayo (2020), pontificates that, importation of materials in order to ensure adequate care and delivery should be adhered to by every Tom, Dick and Harry. He is of the position that one of the core values is Integrity that has rubbed off positively on corporate image (Wurst, 2006). Adebayo (2020), states that staff must demonstrate a high level of honesty and integrity to the administration of esteemed clients. A given organisation has a strong focus on high quality and very affordable pricing (Adebayo, 2020). He contests that the internal processes of a company must be flexible to quickly determine bottlenecks in operations. From his perception, the brand's goal is the delivery of an exceptional customer experience. Adebayo (2020), avers that in the real sense, for the year 2020, it is easier quality or nothing else.

Hadiza Umar reveals that individuals must take safeguards on their own and use their judgement to stop the horrible crimes committed by hackers and scammers (Adepatan and Ugoeze, 2020). Umar proved that the federation's administration cannot shield everyone from the aforementioned apps. It is created by a firm and made accessible to people for free, subject to the Tand Cs of the company. Choose extremely secure programs like Microsoft Team if you really want complete protection when using virtual conferencing. She exhorts Nigerians to back up their data and conduct regular software upgrades to secure it. Normally, Wi-Fi network default passwords should be changed, app permissions should be reviewed, and unused apps should be deleted. Umar likewise suggests securing electronic devices with passwords, PINs, or biometric data, installing antivirus software on all internet-connected devices, selecting strong passwords for email and social media accounts, and checking the privacy settings of individual users' social media accounts.

According to this commission, the skill which a worker possesses at a material point in time would determine his or her relevance in the fourth industrial era taking into cognizance that the skill which one possesses currently would have been obsolete in the foreseeable future. The argument advanced borders on the fact that innovations require new skills to optimally man them. In the light of this, people should begin to envision being digitally skilled in order to enjoy the totality of the workplace. This submission is in line with the view of Zuboff (1988), who stresses that workers should envision the totality of the workplace in order to migrate from the one that is operated to the one performing the operations. Invariably, one who possesses conceptual knowledge will not be at the mercy of the management of an organisation. By virtue of their skill, they will be in charge of their jobs without necessarily being subjected to managerial control.

The finding equally corroborates the view of Wood (1987), who submits that workers should develop conceptual ideas so as to ascend managerial cadres in any given organisation. This will place one in an enviable position in a given organisation, so much so that one will not be taking instructions from any superior by virtue of one's expertise. The finding discountenances the view of Thompson (1983), who argues that work is a fragment to expropriate the critical means of resisting the managerial control in the workplace which

precipitates employers to engage the services of managers to break down the work processes into smaller and simpler portions for the extraction of surplus value.

It is glaring that those who are exceptionally skilled in an organisation are immune from managerial control. For instance, the operator of a Video Assisted Referee in football will not receive an order from any management. He takes charge by his or her expertise. In the era of digitisation, if heads roll in an organisation, those who are exceptionally good at what they do will be spared. In a scenario where a person is an operator of a pay loader or excavator, such a person unilaterally will man such a machine without having to seek tips from anybody. To this extent, it can be submitted that skill is a sine qua non to cushion up the effects of automation on job alienation in the era of digitisation.

This finding contradicts the claims of the Labour Process Theory with the statistically significant value given earlier. By inference, technology did not influence job skills as far as the firm in question is concerned. The finding refutes Bonde's (2019), who submits that in South Africa, the vast majority of employers have begun to adopt robots in service-rendering industries which precipitates women to pick security jobs as well as cleaning jobs to assist their husbands whose jobs have been taken over by robots. The finding allays the fears over what the theory tends to raise over the coming of automation. It then indicates that people need to avail themselves of innovations to explore their immediate environment.

The finding discountenances the view of Bonde (2019), who stresses that South African women had to resort to security and clerical work following the fact that their husbands who were bread-winners of their families had been displaced from their jobs by robots. This trend portends great catastrophe if it permeates all the professions. If robots take over all the jobs, the fate of workers would be disastrous. The fate of workers would be uninviting if robots take over all jobs. Hunger would invade everybody if robots take over all the jobs that workers do to earn a living. He posits that about 17 percent of employers have resorted to importing robots to execute tasks which will resort to an astronomical decline in the workforce.

Central to the finding, it is germane to establish that an IDI which was carried out in the Accounts Unit reveals thus:

The advent of software has revolutionised the mode of doing work in the Accounts Unit, such that with the application of software, work is done within a timeline. These innovations greatly ease the stress of doing work. It is crystal evident that the planning aspect of accounting can never be taken over by technology. The Account Unit has transited from Excel to System Application in data processing.Despite the fact that software facilitates accounting records, finance reports, data analysis and tax returns, the cognitive skills of humans remain central. The employees in the Accounts Unit are saddled with the responsibility of sending financial reports to numerous customers which include the future trends and current financial status of the firm. All these tasks require human interventions before they can be done. (IDI/Firm2/AccM/May, 2019).

The foregoing revealed enskilling tendency following that the spring of accounting software has tremendously changed the complexities and technicalities of corporate accounting. These technicalities are basically asset of guidelines and regulations which businesses should stick to when submitting information. The advent of Information and Communication Technology accelerates the dissemination of information to numerous customers. Insight and analysis on the accounting, audit and tax issues impacting have been improved by the advent of accounting software. Getting work done with the aid of software packages simplifies the constraints encountered in the course of task execution in Account Unit such that tasks are done swiftly without experiencing much stress.

In order to reinforce this finding, Wright and Schultz (2018), contends that technology is a tool to achieve one's goals and objectives. In view of this, it is high time techno-pessimists began to explore and maximise technological advancement. Otherwise, those who are technologically savvy will explore and maximise the benefits and comfort integral in technological advancement. The finding lends credence to the submission of Suomela et al. (2014), which was organised by Information, Communication and Technology specialists which asserts that information, communication and technology guarantee numerous benefits and convenience which one should avail oneself for so as to benefit, maximally. It was affirmed that those who are technologically savvy will explore the benefits and comfort inherent in information technology which will elude those who lampoon the technology.

The result aligns with the assertion made by Adekoya (2020), who states that Nigeria is one of the nations in Europe, the Middle East, and Africa (EMEA) to receive a portion of a 3M grant worth \$1.875 million, which will be used to fund projects promoting nutrition, mental

and physical health, education, and Covid-19 awareness in accordance with the most urgent needs in the region andin particular, United Way Greater Nigeria, the regional UW organization, is collaborating closely with 3M of Nigeria to put into effect a \$160,009 Covid-19 relief program for the support of communities in the five administrative zones of Lagos State that have been identified as at risk and will benefit 10,000 people in total. He claims that this includes assistance with food distribution and packaging in coordination with regional partners, such as the government, non-governmental organisations, and religious institutions (Adekoya, 2020).

The finding corroborates the view of Fayehun *et al.*, (2020), who maintain that mobile technology tends to catalyse access to healthcare in Nigeria, if and only if it is well-regulated. From their perspective, lack of adequate infrastructure is being considered as posing an enormous barrier to mobile healthcare in Nigeria Stefan Heunits and AFP through Getty Images. They gathered that from low and middle-income nations, digital as well as mobile communication technology has a great tendency to enhance the management of diseases in Nigeria. This finding is very much in tandem with the empirical investigation carried out by the United Nations (2018), which states that lack of infrastructure hinders the economic growth of any given nation. It was stressed further that the availability of technological innovations eases vehicular movement and facilitates the movement of people from rural areas to urban centre. It was equally affirmed that it creates employment opportunities for those who can take good advantage of technological innovations.

The finding lends credence to the stance of Obi-Uchendu (2020), who asserts that data is very critical to salvaging businesses in the post-covid-19 pandemic in Nigeria. Onyeator (2020), indicates that FG is to open international flights on August 29, 2020, across Nigeria after 4 months of lockdown. According to Fayehun *et al.* (2020), mobile technology is quite significant in terms of a medical emergency, particularly with regards to the potential of increasing access to healthcare where resources are limited as well as where systems are closely under stress. The finding similarly lends credence to the empirical study carried out by Omolawal (2018) and Wang *et al.*, (2020), who contend that utilisation of information communication technology tremendously enhanced the practices of human resource

management (HRM) practitioners in Nigeria in terms of selection, recruitments and placements of employees.

Nevertheless, Omolawal (2018) posits that the utilisation of information communication technology is extremely low as far as Nigeria is concerned. The finding captures the view of Akanmu (2019), a Google trainer in Nigeria, who contends that technology is cheaper than the manual way of getting jobs done in the digital era. The finding aligns with the view of Usoh (2020), who avers that FG sets a committee to create a digital identity for Nigerians. This will enormously enhance the database in Nigeria such that it would end the security challenges being encountered in Nigeria at the moment.

The result is in consistence with Alimi (2020), who asserts that given the circumstances brought on by the Covid-19 pandemic in the nation, there may be a need for some regulatory frameworks that will take into account and address unusual issues of the contemporary business environment, such as health emergencies that have an impact on businesses and corporate governance obligations. He suggests that the government and pertinent organisations, including the Security and Exchange Commission (SEC), Corporate Affairs Commission (CAC), and Nigerian Stock Exchange (NSE), should seriously consider reviewing and amending the current regulatory frameworks that direct corporate organisations to take into account and address emerging issues resulting from Covid-19 and related issues.

The outcome is consistent with Adepatan's (2020) assertion that the pace, breadth, and depth of the industrial revolution are compelling individuals to reconsider how societies advance, how businesses generate value, and what it means to be a human. The Fourth Industrial Revolution is more than just a technological transformation; it is a chance for leaders, legislators, and people from all socio-economic categories and countries to work together to harness convergent technologies and build an inclusive, human-centered future. According to him, the Fourth Industrial Revolution, or 4IR, marked a fundamental shift in how people live, work, and interact with one another. It is a new phase in human growth, according to the World Economic Forum (WEF), made possible by unprecedented technology advancements comparable to those of the first, second, and third industrial revolutions.

The result supports Alimi's (2020) assertion that stock exchanges throughout the world have taken a variety of actions in reaction to the outbreak. Some of them waive the initial annual listing fees for issuers registered in Hubei province, lengthen the reporting time for annual results from March 30, 2020, to April 30, 2020, and encourage businesses to have their meetings online. According to Alimi (2020), due to a lack of facilities and capability, people may be forced to postpone or reschedule their yearly meetings, with the associated costs, in Nigeria in order to address the issues posed by Covid-19. The government should think about implementing a regulatory provision that would allow businesses to adopt virtual-only or hybrid (with both in-person and virtual options) meeting structures to address atypical situations and emergencies in the business environment. This would definitely help Corporate Nigeria.

The finding aligns with the perspective of Ahmed (2020), who asserts that FG approves \$3.1 billion of Nigeria Customs Service. According to her, this initiative was unanimously resolved in FEC virtual meeting which was the fourteenth virtual meeting presided over by President Muhammadu Buhari on September 1, 2020. She avers that the adoption of automation will enormously guarantee international best practices which will foster transparency and accountability in the system. It will also boost the revenue which will be generated by the parastatals.

In examining the finding, it ultimately lends support to the perspective of Agbata (2020), who posits that as an African living in Africa, Africa is confronted with challenges of innovations and each day he is encouraged by the increasing number of bold start-ups taking such challenges. He states that this is one of the reasons Nigeria started CFAs Start-ups Hangout, a monthly meet up/fire chat session which seeks to connect start-ups with experienced entrepreneurs and mentors. According to Agbata (2020), one of the objectives to replicate the Silicon Valley model essentially is to bridge the knowledge gap which exists amongst start-up founders in Nigeria. He further argues that this can be achieved by inviting experienced industry veterans and entrepreneurs to provide the start-up founders with practical insights which would enable them to come up with better solutions and add value to African economic growth in general. He maintains that he is a strong believer of Africa as well as an interesting TedX Talk by Stephen Ozoigbo where he lucidly cleanses some of the

firmly-rooted assumptions of what Africa is not. As quoted by Guma and Agbata (2018), it was summed up nicely thus that there is a new Africa and he welcomes individuals to join on this journey, given that the ONLY way is UP.

A new conflict over demurrage on detained goods in Nigeria's ports is at the center of the country's economy (Salau, 2020). In this regard, he suggests that if immediate action is not taken by the current government, Nigeria's ports may experience a new crisis due to plans by shipping companies and terminal operators to impose demurrage and storage fees on cargoes that were stranded at the ports during the EndSARS protest against Nigeria. The notion put up here is that businesses are stifled as a result of the Nigerian youth organizing protests around the nation, making it impossible for owners of goods to process the goods because of the hostile environment. Everyone decided to keep their heads down in order to prevent losses of lives and property, as only a healthy being can conduct a business transaction.

The result lends credibility to Adepatan's (2020) assertion that Sodiya announced that the upcoming NSC International conference, which will take place virtually from August 11–13, 2020, will put more of an emphasis on the possibilities of 4IR under the subject. Industry 4.0, according to Emergency Applications and Technology for Industry 4.0 (EATI 2020), can help the nation reduce the nation's rising poverty rate. While expressing the Nigeria Computer Society's (NCS) willingness to assist the government in seizing this opportunity anytime the organization, which has around 15,000 members distributed throughout all states of the federation, is requested. Sodiya advised the private sector to keep working and not to rely solely on the government. The private sector should be prepared to participate in the development pattern, he says, even though the government alone is responsible for carrying out the bulk of the burden of implementing 4IR. According to the NCS president, the conference's theme was carefully and rationally chosen to give the industries in this contemporary society the necessary technological support. But despite the lockout, Jumia saw a 10 percent dip in Q2 (Guma and Agbata 2018).

The finding is in tandem with the standpoint of Amaechi (2020), who alludes that FG of Nigeria says Abuja-Kaduna rail transportation resumes by July 29, 2020. This indicates that

infrastructural facilities are quite central to the development of a given nation. According to him, it will tremendously fast-track inter-state travels and reduce the mode of conveying luggage from one state to another. Arising from this, infrastructure is pretty crucial to revolutionizing any country. The finding similarly lends credence to the perception of the UN (2018), that discloses that lack of infrastructural development hinders vehicular and people's movement. The baseline is that as basic infrastructure is major, technology is also important in boosting the economy of a given nation. Techno-pessimists should draw inspiration from the techno-optimists who explore and optimise technological innovations to revive the digital economy. The finding buttresses the view of Osibanjo (2018), who lauded the impacts of technological innovations towards driving down unemployment in Nigeria. According to him, it will drive the economy of Nigeria to the desired results. In view of this, he visits Silicon Valley with Nigerian tech entrepreneurs.

The finding strengthens the position of Semuels (2020), who establishes that in the past, when automation eliminated jobs, companies created new jobs in order to meet their needs (Semuels, 2020). He states that manufacturers who were able to produce more commodities utilising machines needed clerks to ship the commodities and marketers to reach additional customers. At the present, Semuels (2020), states that automation enables companies to do more production with a few employees. He posits that successful companies do not need as many employees to have their job functions executed. He avers that the most valuable company in the entire U.S.A. as of 1964 which is AT and T had about 758, 611 employees whereas the most valuable company at the present which is Apple, has around 137, 000 employees. Semuels (2020), states that present-day big companies make billions of dollars, and they share the income with fewer employees, with more of the profit going to the shareholders. As indicated by Semuels (2020), Daron Acemoglu, MIT economist who studied automation and jobs, is of a strong opinion that if a cursory look is taken at the business model of the likes of Google, Facebook, Netflix, Amazon and Microsoft, they are not in the business of creating new business tasks for humans.

The result corroborates Adepatan's (2020) assertion that computer professionals yearned for the Federal Government's indulgence to steer Nigeria toward the realization of the fourth industrial revolution, also known as Industry 4.0. The realization of the Fourth Industrial Revolution depends on governments' capacity to create the favorable conditions for the private sector to seize the opportunity, according to research conducted under the auspices of the Nigeria Computer Society (NCS), the national umbrella organization for all interest groups and stakeholders in the information and technology (IT) profession. He claims that during a Zoom conference with media on Monday in Lagos, the president of the NSC, Prof. Adesina Sodiya, stated that Industry 4.0 holds the key to many improvements for Nigeria, but they won't happen through simple thinking and lip service.

The finding confirms the view of Ibidapo-Obe (2020), who contests that Nigerian institutions pretty need to research rigorously to come up with lofty discoveries in the bid to curtail the spread of the infectious disease that befell mankind. He argues that it is only the private universities that embraced virtual learning during the pandemic due to the strike action which the federal universities embarked on, in respect to the IPPIS saga between FG and ASUU over the memorandum of understanding. He states that he proposed e-learning when he was the VC of UniLag but it was kicked against by the union. Due to Covid-19, Nigeria currently has more than 121 million internet users (Danbatta, 2020).

He insists that efforts need to be focused in order to make sure Nigeria does not overlook the opportunities that are built-in and essential for manufacturing, industrialisation, education, and the economy. He exhorts the Federal Government to make sure that the nation has access to the policies and infrastructure it needs to advance its development. According to his theory, the government's plan for the digital economy depends on the fourth Industrial Revolution. He claims that Industry 4.0 is accompanied by enormous prospects, such as the creation of new jobs, smart manufacturing, skill development, the expansion of small and medium-sized businesses (SMEs), and economic revival. The result concurs with Orondaan's (2020) theory, which holds that virtual learning connects kids in communities to learn easily and ensures international best practices, including the fact that it allowed the kids to learn really well and to gather data. He believes that the tools kids need to learn well should be supplied. According to Mustafa (2020), data usage will reach 80,000 terabytes by June 2020.

The finding gives credibility to the view of Wike (2020), who states that Rivers commissioned colossal projects in the state and more projects will be commissioned very soon. According to him, infrastructure development is at the heart of advancing vehicular as well as hominid movement which robustly fosters the economy of a particular nation. The result buttresses Adepatan's (2020) claim that Covid-19 drives increasing costs despite providing subpar services, resulting in a monthly subscription fee of \$1,725 for each member. According to him, GSM operators experience more growth so much that MTN claims that Coronavirus pandemic spike data usage. Contrary to his position, Adekoya (2020) stresses that FG defies IMF on new taxes being imposed. He posits that projects should generate returns in order to pay back debts. According to him, operators ask for a review of the Fiscal Responsibility Act.

The finding follows to the perception of Onolaja (2020), who approves that mechanisation of rice is critical to self-sufficiency. He discloses that subsistent farming falls short of providing for the current Nigerian population. He states that the deployment of combined ploughs, combined tillers, combined harvesters and combined processors isasine qua nonof mechanised farming. According to him, the opening of borders for the importation of rice would monumentally jeopardise the colossal investments the Federal Government has made in the local production of rice.

These findings are consistent with those of Adepatan (2020), who asserts that the Covid-19 pandemic and the economic disruptions it brought about in the first half of 2020 generated tremendous income for telecoms carriers in Nigeria reaching \$1.97 trillion. He claims that compared to the same period the previous year, spending on telephone services, particularly airtime, increased by about 57 billion dollars in the first half of the current year. He cites information that revealed second-quarter growth of 3.73 percent for MTN, Globacom, Airtel, and 9mobile based on earnings and average monthly user expenditure.

The finding corroborates the perception of Semuels (2020), who avows that in a given hotel in the present industrial settings, a mechanical butler which was designed by a robotic company, Savioke might roll down the hall in order to deliver towels and tooth brushes which required no clues (Semuels, 2020). In his position, robots have been deployed in the course of the pandemic in order to meet guests in their rooms with newly disinfected keys. Semuels (2020), discloses that a bricklaying robot can lay more than 3,000 bricks within an eight-hour shift, separates breastbones and carcasses in slaughter houses and packing pallets of food in processing facilities. Semuels (2020) posits that automation of tasks does not indicate that robots are taking everyone's jobs. In his perception, for centuries, humans from weavers to mill employees have worried that advances in technology would create a world without work and that is never proved to be the case. Semuels, (2020), contests that Automated Teller Machines (ATMs) did not immediately decrease the number of bank tellers. The bank tellers led to more teller jobs taking into cognizance that customers were lured by the convenience of cash machines which decreased the visit to banks, quite often. Semuels (2020), stresses that banks opened more branches and recruited tellers to handle tasks that are beyond the capacity of ATMs. He argues that without technological advancement, much of the American workforce would be toiling away on farms which ultimately accounted for 31% of the USA's jobs in 1910 and at the moment, account for less than 1%.

The result supported Ekpu (2020)'s argument, which states that there are currently 120 million estimated social media users in Nigeria. He believes that, if the figure is accurate, social media clearly has abearing, whether it is encouraging or undesirable. Ekpu (2020) asserts that the recent EndSARS demonstrations demonstrated the social media's huge punching power. Ekpu (2020), claims that social media channels were used to organize the EndSARS protests successfully, efficiently, and in large numbers. Online platforms were used for their mobilization of people both locally and globally, fundraising, legal, medical, and security services, as well as protest etiquette (Ekpu, 2020). That demonstrated one of the capabilities of modern technology (Ekpu, 2020). He claimed that while the material that went viral highlighted its upside, it equally revealed its downside, or the nasty side of the entire narrative, as a result of the misinformation, murder of the truth, and deceiving the public about the actual state of affairs during the protests.

The result is in accord with the argument made by Iyatse and Adepatan (2020), who contend that different banks have not yet replaced the knowledgeable employees they lost during the banking consolidation initiative supported by Prof. Chukwuma Soludo, the former head of the Central Bank of Nigeria (CBN). It was said that as digital banking develops, there will be a sharp decline in the necessity for human capital. More workers will be forced out of the labour market when this happens. The existing workforce should get ready for that era that is just now beginning. It is pretty obvious that a number of specialists firmly feel that the banking industry's days of relying heavily on human capital assets are over. In actuality; the market is moving online, with the typical customer performing all transactions on smartphones (Iyatse and Adepatan, 2020). According to them, the majority of business is conducted mostly through digital channels. For instance, according to data from NBS, the value of online payments made by clients in Q3 2020 was \$319, 999 trillion. According to Iyatse and Adepatan (2020), the Nigerian Interbank Settlement System (NISS) at #810.8 billion is almost 395 times more than the amount paid by check. Across-the-canter transactions have significantly decreased, and it was projected that they would continue to diminish as more people use the digital banking system.

The result fortifies Onyekwere's (2020) assertion that it is crucial to use technology to help both Nigerians and foreign businesses interested in doing business in Nigeria gain access to justice. He asserts that Olugasa said that where the judicial system is riddled with inadequacies and inefficiencies, economic progress is impeded. The judiciary, which consists of judges, attorneys, arbitrators, mediators, and legal institutions, plays a crucial part in this. According to him, possessing intangible intellectual property is crucial to having true wealth in today's global economy as opposed to just owning large real estate or cash. He asserts that nations that do not adequately recognize and defend intellectual property run the real risk of falling behind other nations' economies. Keynote addresses and panel discussions on the function of an effective judicial system in fostering innovation and economic growth will be part of the two-day virtual video conference. He claims that the panelists were Mr. Wale Fapohunda, the Attorney General of Ekiti State, Dr. Babatunde Ajibade, the Honorable Justice Amina Augie, and Judge Olukayode Ariwoola (JSC).

The finding brings into line with the position of Amusan (2020), who postulates that Artificial intelligence has the tendency of providing baseline intelligence for Nigerians which should be embraced by all and sundry given that students do not need to go to class before they can learn (Amusan, 2020). He opines that humanity needs to be fully involved

in Artificial intelligence. By and large, PWC (2020) indicates that the rise in the unemployment rate in Nigeria is about 30%. Amidst all these, the U.S.A government incentivises companies to automate by giving tax breaks for purchasing machinery and software (Semuels, 2020). He argues that a particular business that pays an employee \$100 pays \$30 in taxes. Nevertheless, a business that spends \$100 on the procurement of equipment pays about \$3 in taxes. Semuels (2020) indicates that the 2017 TaxCuts and Jobs Act lowered taxes on purchases of equipment so much that business owners can realize money in the procurement of equipment.

With regards to the situation in Nigeria, automation has led to a sharp drop in the number of workers in the banking sector. Olusola Teniola, national coordinator for the Alliance for Affordable Internet, asserted that the introduction of digitalization and digital information essentially provides the bank's workforce with the chance to up-scale and adapt to human-machine collaboration, which is currently becoming more integrated in the future of work. Teniola, the immediate past president of the Association of Telecommunications Companies of Nigeria (ATCON), agreed with Iyatse and Adepatan that automation, data science, and AI were technologies that eliminated the mundane tasks of bank operations and produced efficiencies that humans are unable to Semuels (2020). The qualitative data that was obtained from the Chief of Administration discountenances the quantitative finding.

At the heart of the finding, qualitative data that was elicited from the Head of Administration discountenances the quantitative finding which goes thus:

The spring of computerisation of tasks has ultimately changed what used to be the tasks meant for the employees in this unit, because, they are used to typing characters with typewriters. The corollary of this is that the knowledge of typewriters has been engulfed by the invention of computers. Those employees who failed to upgrade themselves are eventually rendered redundant. No doubt about the fact that the advent of computerisation eases and fastens the pace of typing documents. Computers have the capacity for storing information. However, one cannot rule out the fact that it renders a lot of employees who could not upgrade themselves entirely redundant. This indicates that the knowledge of typewriters has gradually become outmoded. The mode of typing documents has emerged which fast-tracks the pace of typing. The onus lies in the hands of the contemporary employees to get exceedingly upgraded so as to be able to perform the activities of the contemporary industrial settings. **(IDI/Firm2/AdmM/May, 2019).** The apt deduction which can be derived from the preceding elucidation is that the emergence of computerisation has resulted in skill decline of employees. With regards to the technological advances, those who made frantic efforts to add value to themselves were spared from technological waves. Those employees who failed to develop themselves technologically were rendered redundant. In this respect, to improve one's skill remains central to being immune from the influence of workplace technology on workers. The justification being adduced is the fact that those who took pain to add value to themselves technologically remained relevant in the scheme of work in the era of digitisation such that when heads roll in organisations, exceptionally skilled workers are usually spared. It is essential to acknowledge that the benefits associated with digital solution inevitably elude the techno-pessimists in general. The rational thing for individuals to do in the digital epoch is basically to hone their skills so as to remain pretty needs to embrace technological innovations in order to explore their immediate environments.

The finding corresponds to the stance of Ostberg *et al.*, (2020), which signifies that the mode of learning with efficacy of some students is currently chained even more to unconstrained and unchained their digital access is to quality education. In this wise, if students even possess online learning knowledge, it will serve as a catalyst to learning. Ostberg *et al.*, (2020), claim that there is equally an enormous demand for the provision of comprehensive online education programme in educational institutions and government. It is not an astonishing fact that these needs are always most severe in the most undeserved places. In addition, it is pretty intriguing that these undeserved places can exist anywhere. Even in technologically mature school districts, such as the one most children are so fortunate to be in, some students do not have access to domestic stability or food security including infrastructure and tools to prepare, to enable them to synergise effectively and learn online.

In a similar vein, another qualitative data which was generated from a unit head from the HR Unit goes thus:

A number of dramatic changes have taken place in this unit as a result of the evolution of technology. This has resulted in massive skill development. Given technological advances, job description changes drastically. Besides,

technological advancement has resulted in fundamental changes in the job specification. This has led to a lot of skill losses because the skill earlier required to perform certain job functions may become obsolete as a result of technological changes. When a new technology is adopted in a firm, it may require a new skill to man it. Training, which is an integral part of organisational productivity, is then required to acquaint the employees with the technology. It places employees with technological expertise in vantage positions. (IDI/Firm2/HRM/May, 2019).

The prior finding epitomises skill decline as technology changedthe tasks which individual employees performed. Technological advancement resulted in destruction of skills owing that as new innovations were being adopted, job specifications of employees followed suit which rendered the previous skills redundant. Consequently, employees were afforded series of training when innovations were adopted in organisations to get them acquainted with such innovations which enhanced their skills. This scenario exemplifies enskilling tendency as the employees were able to acquire new skill without necessarily losing the existing knowledge. It is evident that new technology would require new skill to optimally man it. As employees' job designs changed upon the adoption of innovations, they underwent training which enabled them to understand the new operational procedures of such innovations. Without fear of equivocation, both deskilling and enskilling trends were established in the foregoing.

The finding coheres with the views of Edgell and Granter (2020), who posit that the centrality of knowledge and the growth of technical specialists characterise contemporary industrial societies. The finding authenticates the position of Semuels (2020), who asserts that Alexander credited his certificate which assisted him to win promotion and stated that he currently earns more than \$70, 000 on annual basis by virtue of the technical knowledge which he has painstakingly acquired (Semuels, 2020). He maintains further that the promotion has given him a sense of job security. He avers that there is a great necessity for all and sundry to learn something technical. From the perception of Semuels (2020), Alexander knows that technology may significantly change his job in the next decade. In the light of this, he was ready to plan his next line of action. Semuels (2020) posits that by 2021, Alexander wants to master the skill of testing computer systems to spot susceptibilities to hackers and obtain a certificate in the practice called penetration testing.

On the strength of this, he affirms that it will all guarantee him a job to work alongside the technology that is changing the entire globe.

The finding is in coherence with the perspective of Onigbinde (2021), who maintains that the 2021 budget will fly if Nigeria's government has bilateral relationships with other nations. In this wise, the outlook on the economy is quite bright. Reps raise alarm over the deplorable state of Nigeria's Ports (Ajibade, 2021). He contends that the lack of scanners portends great danger to national security. Given the moribund state of the equipment, the ports are in a deplorable state. Resultantly, Reps recommend automation of the export and import process. This will go a long way to ensure transparency, precision, predictability, calculability, and accountability.

Concerning the model formulated for the test in this study, it is crucial to note that the study revealed that technology damagingly affected the job skills of the workers. Invariably, technology deskilled workers in the study. This indicates that the model confirmed that technology harmfully impacts job skills. This model is supported by the finding from the study. Without any fear of equivocation, workers greatly lacked autonomy, dexterity, expertise, work challenges and work intrigues as posited by the proponents of Labour Process Theory. The fear of Braverman is confirmed by the study. Although it has been four decades now that the theory has been formulated, it has been found relevant in the fourth industrial revolution given that it has been discovered to provide a wealth of intriguing insights on the work degradation as far as 21st century is concerned.

It is pertinent to posit that the underlying claim of the Labour Process Theory is that technology results in the destruction of skill. This, therefore, indicates that the theory has a place in the study as far as this study is concerned. In taking a cursory look at the finding, it suffices to state that it is partly in consistence with Blauner's (1964), position which holds that technology differs considerably from industry to industry. Blauner (1964) maintains that employees in low and high technology enjoyed freedom more than their counterparts in the medium level of technology who lacked autonomy and expertise given the fact that medium-level technology is self-initiated.

Talking about Deskilling Theory with regards to the study at hand, it suffices to posit that technology subjected employees of Nestle S.A. to a status of a mere object and material having rendered their skills declined, whereas the employees of Nigeria Brewery Plc. were not objectified nor materialised in used values by the technology utilised to execute tasks. On the strength of this, it can be established that the theory aptly captures the scenario in the former, whereas it does not hold water in the case of the latter.

To substantiate the model developed for the study, as far as the post-Fordist workplace is concerned, workers are materialised in used value in that the catch-22 is the guiding principle of an average business owner, because, the value which an employee brings to the company determines his relevance in the capitalist system of economy. Arising from this, Braverman (1975) maintains that the purpose of the capitalist system of economy is to extract surplus value from the production system. Against this background, a worker is viewed as a material just like other raw materials which must add to the profit margin of a firm given that humanisation of workers is not in the dictionary of the capitalists. Finally, in the capitalist society, the workers are reduced to mere objects, particularly when technology dictates the pace and the rhythms of work. In this wise, technology is construed as a subject whereas the workers are seen as mere objects. Without prejudice to the model, it has been able to provide a mammon of enthralling discernments on the effects of workplace technology on workers in the selected firms.

To conclude, influence of technology on job skill was discovered to be statistically significant in Nestle S.A., whereas it was established to be statistically insignificant in Nigeria Brewery Plc. This indicates that technology was observed to influence job skills in Nestle S.A, whereas it was found not to influence job skills in Nigeria Brewery Plc. The variations in the findings can be ascribed to the fact that the two firms investigated do not manufacture the same products. Asides this, they did not utilise the same equipment in carrying out their job functions. Technology varies considerably from industry to industry and influences work variables differently which aptly echoes Blauner's industrial categorisation of 1964 with the position that technology in the printing industry varies considerably from that of the automotive industry while that of assembly plant differs noticeably from that of the oil refining industry.

It is worthy of note that the variations in both firms can best be explained in terms of the fact that the employees in high level technology units in Nigeria Brewery Plc. were discovered to be more autonomous that their counterparts in both low and medium technology level units. In Nestle Societe Anonyme, Medium technology level unit employees were found to be more autonomous than their counterparts in both low and high technology level units. It suffices to establish that the modes of production of both firms differed considerably as Nigeria Brewery Plc. manufactured alcoholic and non-alcoholic drinks while Nestle S.A. manufactured consumables. This accounted for the discrepancy inherent in the findings. Accordingly, employees in Nigeria Berwery Plc. were discovered to possess dexterity owing to the equipment they utilised in discharging their job functions. These results are expected given that both firms are not homogenous in terms of the deployment of the equipment required in the discharge of duties and the end-products.

It is imperative to note that the findings which were gathered from Nestle S.A. aptly exemplifies the spring of industrial capitalism where mechanisation of the tasks which were meant to be carried-out by employees were increasingly mecahanised such as the utilisation of belt conveyor to execute tasks in assembly-line production as well as stop watch revealed by Blauner (1964) and Edwards (1979). Industrial capitalism epoch was ultimately marked by reducing employees to the pace and rhythms of machinery and manufacturing processes whereas the finding gathered from Nigeria Brewery Plc. appositely exemplifies the future of work and work of the future being characterised by Internet of Things, Artificial Intelligence, Digital Platform and robots thereby work belonging to individuals work are firmly rooted in manning sophisticated technological innovations. The remedy to respond to the influence of technological advances on work requires honing one's abilities to be indispensable in the organisation of work in the digital epoch. Failure to synchronise one's expertise in the era of digitisation will inevitably attract oughtright elimination from work.

Table 4.3The Extent to Which Technology Influences Job Alienation in NestleS.A. and Nigeria Brewery Plc.

Firms							
Nestle (1866)			Nig. Brewery (1946)				
(N=18 Units)			(N=20 Units)				
Tech levels			Tech levels				
	Low	Medium	High	Low	Medium	High	
Variables	(n=2)11.1%	(n=11)61.1%	(n=3)27.8%	(n=4)20.0%	(n=13)65.0%	(n=3)15.0%	
Job alienation	37.92	37.52	34.06	33.86	35.82	37.35	
F-ratio	3.59			.70			
Df	2/15			2/17			
P-value	0.053			0.5			
Courses IDI	~ 2010						

Source: IDIs, 2018

Table 4.3 showed that the mean job alienation differed considerably (37.92, 37.52 and 34.06) across the three technological level units in Nestle S.A. It was observed that low technological units had the highest mean value of job alienation (37.92) across the three technological units. It can be inferred that the workers in low technological level units that had the highest mean value of job alienation of (37.92), which signifies that they were most rendered powerless. Invariably, their jobs became meaningless, without being carried along in the decision-making process, which made them estranged from the species of their being than their counterparts in both medium and high technological level units (37.92, 37.52 and 34.06). This implies that despite the crudeness of the tools utilised in carrying-out tasks, they felt alienated from their jobs. This finding negates Blauner's (1964) study on attitudinal measures of job dissatisfaction in four different industries (printing, textile, assembly-line, and chemical industries). Blauner (1964), discovered that the employees in the assembly plant lacked autonomy on their jobs, thereby feeling alienated which depleted their satisfaction, and resulted in labour turnover. Tradition prevailed where bureaucracy was not practised as family and religious group members were recruited in the printing industry.

In comparison to the job alienation in low technological level units in Nestle S.A with the mean value of job alienation of (37.92), in a medium level of the technological unit, the mean job alienation across the three levels of the technological unit was lower (37.52) than that of the low technological level unit of (37.92). Deductively, what can be inferred from this result is that the workers in medium technological level unit with the mean value of job alienation of (37.52) felt less-alienated than their counterparts in low technological level unit with the mean value of job alienation of (37.92). This suggests the fact that employees in medium technological level unit with mean job alienation of (37.52) experienced lesser powerlessness, meaninglessness, social isolation and self-estrangement than their counterparts in low technological level unit with mean job alienation of (37.92). This finding refutes the views of (Blauner, 1964; Bell, 1973; Berg et al., 1987; and Hull et al., 1982) who avow that the employees in assembly plants which they considered as a medium technological level industry, experienced more job alienation than their counterparts in printing and chemical industries respectively as they lacked autonomy in exerting their skills in the course of task execution. The justification for this trend is that the employees in the medium technological level possessed the highest mean value of job skill of (67.81) but they

were more alienated than their counterparts at high technological level due to fragmentation, rationalisation, standardisation, routinisation and simplification of the medium technological level units.

The finding repudiates the generally held view of the enskilling theorists that the workers in medium technological level industries are more alienated than their counterparts in both low and high technological level industries as a result of the fragmentation, standardisation, rationalisation and routinisation of the medium level of technology of medium level industries. In the light of this, the argument that can be logically advanced is that technology differs considerably from industry to industry and from unit to unit. Contrary to the position of the Enskilling School of Thought that in medium technological level industries, workers experience alienation most, the deskilling theorists have unanimously contended that the more technology advances, the more the tendency of alienation was most felt in low technology which was followed by medium technological level units. The finding from the study depicted that the workers in medium technological level units felt alienated from work more than their counterparts at high technological level, but less alienated than the counterparts in low technological level units.

About job alienation across the three levels of technology in high technological level units in Nestle S.A., the finding that was gathered from the study indicated that the average job alienation in the high technological level units was the lowest in Nestle S.A. This unvaryingly indicates that the workers in high technological level units were least alienated from their jobs having had the lowest mean value of job alienation (34.06) in the three technological levels (37.92, 37.52 and 34.06). The logical interpretation of this trend of the relationship between technology and job alienation principally signifies that the employees in high technological level units did not experience job alienation like their counterparts working in both low and medium-level technological level units owing to the variations in mean values of job alienation across the units (37.92, 37.52 and 34.06). From this pattern of relationship between technology and job alienation, one can logically deduce that the employees in high technology level units in Nestle S.A. enjoyed considerable freedom in the discharge of their duties taking into cognizance that they were quite at liberty to exert skills.

The finding lent credence to the view of Blauner (1964), who contests that the operator of high technology level industries like chemical and oil-refining industries experienced low alienation as a result of the dynamics, value-adding, and diversity as well as per capita investment of the high technological level industries which he enjoyed. In objectivity, high technology should not be meant for the rank and file, because advanced technology by its very nature, requires high dexterity to man it.

From the finding, one can deduce that the employees in high technological level units in Nestle S.A. enjoyed considerable freedom in the discharge of their duties, given that they exerted skill in the course of carrying out the job tasks, irrespective of the fact that the technologies utilised in the high technological level units were so sophisticated that such equipment required low skill to man and manipulate them due to the symbolic, electronic, and digital modes of operation.

In respect of the statistical significance of the differences in mean job alienation across the three levels of technology across the units in Nestle S.A., the ANOVA test signified that the differences in mean values of job alienation across the three groups of technology are statistically insignificant (F= 3.59, df=2/15 and p=0.053). The interpretation of this result is that technology did not result in job alienation. To simplify it, technology was found not to result in powerlessness, meaninglessness, social isolation and self-estrangement as far as Nestle S.A. is concerned. In other words, technology did not affect job alienation. This is because the significant value generated from the ANOVA result is greater than .05 and .01, which suggests that the effect of technology on job alienation is not statistically significant. It is essential to affirm that the finding depicts that the deskilled workers were not alienated workers. The finding coheres with the view of Baran and Sweezy (2017), who posits that contemporary work is dominated by scientific-technical revolution and automation which requires higher levels of education, training, greater exercise of intelligence, and mental efforts in general. It similarly lends credence to the submission of Edgell and Granter (2020), who confirm that the post-Fordist epoch is a non-alienating epoch that is characterised by knowledge and technical specialties. They posit that the post-Fordist epoch is comparable to the pre-Fordist epoch where artisans and craft men were not alienated from

work, whereas Fordist epoch was alienating due to the fragmentation, standardisation, simplification, routinisation and rationisation of work processes.

In correspondence to the finding which was gathered from the quantitative result, an IDI which was conducted with a Unit Head from Culinary Plant revealed a similar trend which goes thus:

A great departure from the previous machinery has robustly increased the volume and quality of input and output ratio of end-products given the advancement in technological innovations that has essentially transformed the crucial nature of the production processes in the Culinary Plant. As a result of automation of work in the Culinary Plant, Employees who possess the requisite expertise through training, operate and maintain technology such that they are not at the mercy of the management. They are in charge of their jobs, which makes a lot of meaning to them and which results in staying put on their jobs. The major responsibilities they are saddled with border fundamentally on monitoring the smooth-running of the machinery. When anything goes wrong, they swiftly attend to it. Their presence in the production process is of paramount importance as they are always responsive to situations. They are not rendered powerless owing that they are in charge. In this wise, their jobs make meaning to them because they enjoy what they do. They feel fulfilled in their jobs. The work is meant for those who possess knowledge of mechatronics and automation. Hence, they do not feel powerless as their jobs mean a lot to them which culminates into optimal satisfaction and commitment, particularly through the use of high-speed lines that are used in pressing and wrapping operations capable of producing 1,500 cubes of Maggi within a minute. Strong bias in Mechatronics, Quality, Safety and Environmental Compliance and Labour Act provisions that are strictly adhered to, places workers in vantage positions in Culinary Plant. (IDI/Firm1/CM/May 2019).

It is coherent that the previous in-depth interview depicts that the operators recruited in Culinary Unit did not feel alienated from their jobs given that they were in control of their jobs considering that they enjoyed value adding; per capita income; diversity of the unit, and dynamics in the unit in perspective, being the professionals who manned the machines adopted in Culinary Unit having possessed the requisite expertise. When machines ran into passive mood, they could easily intervene owing that they possessed the knowledge of programming and maintenance. In other words, their professionalism principally entailed programming and maintenance of the equipment utilised in Culinary Unit. It is fundamental to note that employees in Culinary Unit were educated and professional such that they were not at the mercy of the management. They experienced skill rise as new innovations were being adopted, they underwent training which placed them on a vantage position to enjoy per capita income which afforded them to optimally enjoy value adding by virtue of their professionalism. Culinary unit typically exemplifies the nature of work in the post-Fordist epoch where work belongs to professionals.

The statistical finding from the study refutes what is established in the academic literature regarding advanced technology results in increased alienation. To buttress this, both Marx (1844) and Braverman (1974), maintain that a deskilled worker is an alienated worker. The argument advanced by the duo ultimately revolves around the fact that when work is broken down into different fragmented parts; skills deteriorate, given that initiative is deprived particularly when the planning of the work is concentrated in the hands of a few managements. It is based on this that Nwakanma, (2022), maintains that deskilling of work automatically translates into job alienation in the workplace. They both stress that technology creates a division between manual as well as mental work which limits the discretional power of the craft men to utilise their skill in the course of work execution.

The In-depth interview conducted with the Head of the Quality Assurance Unit reveals thus:

Automated food analyser and automated beverage analyser subject employees to a routine pressing of buttons of equipment which makes work boring. The automated equipment utilised in this unit does not allow employees to use their discretional power as they go by the pace and rhythms of technology. Workers in this unit do not have power over their jobs as the bulk of their tasks is taken over by automated food analyser and automated beverage analyser. The evolution of technology from manual food analysers and manual beverage analysers to automated food analysers and automated beverage analysers has dramatically revolutionised the evaluation of raw materials and finished goods, such that employees are restricted to pressing buttons routinely going by the pace and rhythms of the automated equipment. The advent of automated equipment ultimately limits the personal judgments of employees. (**IDI/Firm1/QAM/May 2019**).

Emanating from the previous in-depth interview, it becomes apparent that the operators of automated food analysers and automated beverage analysers felt alienated from their jobs having been subjected to routine pressing of buttons in the course of evaluating raw materials and end-products which prevented them from using their discretional power. Migration from manual food analysers to semi-automated food analysers and finally, to automated food analysers ultimately limited the personal judgements of operators of automated beverage analysers. In the course of executing tasks, they experienced activity

alienation; product alienation; specie alienation and social alienation. However, it can be contested that the workers who manned automated food analysers were afforded the opportunity to be in charge of their jobs given that they enjoyed considerable autonomy in the course of evaluating raw materials and finished commodities more than their counterparts in Production Unit.

The finding corroborates Blauner's view (1964), who affirms that alienation derived from the Inverted U-Curve Hypothesis showed that alienation was pretty low in low technological level industries. However, alienation was high in medium technological level industries like the automobile industry and alienation was equally low in high technological level industries like chemical and oil refining industries, thereby necessitating the operators in both low and high levels of technology to stay put on their job taking into cognizance the job satisfaction they derived from their jobs. The finding similarly negates the submission of Oriola (2017), who asserts that a professor who works overtime and who experiences nonpayment of his salary is alienated from his work. According to Oriola (2017), a Venezuelanbased company laid off some workers in the hope of replacing them with a machine which precipitated the workers to carry placards to protest against the development.

In coherence with the finding, an In-depth interview conducted with the head of the IT Unit reveals thus:

Individuals who are technology savvy enjoy massive control in optimising and exploring technology in the modern-day work situation. As a technology expert, innovations require developing one's skills which should stimulate individuals to acquire new skills to man them adequately. Those who possess adequate knowledge of technology enjoy considerable freedom in their jobs because the profession is an area that requires technology specialists to manage it. As a matter of fact, the management does not call the shots for IT employees because it is not meant for rank and file in the firm. On the strength of this, IT Engineers usually enjoy considerable freedom in their jobs which translates to optimal contentment that ultimately results in loyalty to the firm. Meanwhile, those who have a phobia for technology obviously miss the numerous benefits and convenience characteristic in technology. In essence, those who fail to embrace technology find things pretty herculean in getting things done as everything is technology-driven in the digital era. (**IDI/Firm1/ITM/May, 2019**).

Taking from the foregoing, being a technology savvy, alienation tendency was not felt in any way. As a technology savvy, optimal freedom was enjoyed without necessarily taking tips from the management. This is because IT requires an expert who manipulates and explores technology to his own advantage. In the light of this, he enjoys optimal freedom in the course of discharging his duty. It suffices that an IT engineer who knows his onions will never feel alienated owing that he enjoys considerable autonomy more than his counterparts in Production Unit. Possessing adequate knowledge of IT was a distinguishing factor in the unit in viewpoint owing that they were immune from alienation from the process of production; alienation from finished products; self-estrangement and social isolation.

The finding is inconsistent with the view of Marx (1844), who contests that captains of the army win wars by recruiting more soldiers, whereas the captains of the industry win war by discharging their soldiers. Deductively, technology results in a reduction in the proportion of the workforce as tasks meant for workers are mechanised. Marx (1844) stresses further that regardless of the technology that takes over workers' jobs, salt is added to the injury of the workers by slashing their salaries, technology weakens the bargaining power of the workers. The fact of the matter is that Marx (1844) frowns at the economic history which concentrates the control of labour process in the hands of the business owners. This mirrors the submission of Marx (1844), in the Communist Manifesto which holds that until the class becomes conscious of its existence, they cannot revolt against the bourgeois. Marx's maxim goes thus: The class in itself to class for itself. This basically denotes that the workers should wake from the slumber of exploitation of the business and revolt against them in order to put an abrupt end to the exploitation of the capitalists.

The finding contradicts the view of Anderson (1999), who conceives this phenomenon as flexploitation. According to Anderson (1999), in the spring of 1980 economic recession, the employers of labour made concerted efforts to revive service rendering sectors, the construction sector, and the banking sector by resorting to recruiting indirectly in firms in a bid to cut costs. In this respect, they were not recruiting employees directly. The employees were then working as an elephant but eating like an ant by collecting peanuts at the end of the day. This is closely intertwined with the notion of alienation given that the employees were rendered powerless in the workplace as at this material point in time.

In contrast, income maintenance is conceived as a means of de-commodification of labour, sheltering the employee from the pressures of labour market, and from its tendency to treat human beings as the commodity of a supply of labour (Gray, 2004). He maintains that in the fundamental inequality of the labour market, where sellers must sell or starve, unwaged benecfits assist job applicants to turn down the worst job offers and retain a modicum of bargaining power. It was established by Gray (2004) that the extent of de-commodification is a valuable parameter by which to examine benefit systems. In direct opposite, de-commodification sum-up the impact of any curtailment of benefit rights, including the imposition of extra conditions for claiming them.

The finding negates the viewpoint of Edgell (2006), who contends that influence of division of labour and mechanisation of work results in alienation among employees, given that they lose all control over the labour which they would be obligated to form routine tasks that would make their tasks strict. In view of this, employees in the capitalist system of economy in the long run, adopt instrument orientation to work. Consequent upon this, Marx contends that it is nothing more than a way to earn a living. Edgell (2006), affirms that the major problem of alienation is greater in most types of work than others if the particular work is routinised and monotonous. The employees have more detachment from their work, particularly in the assembly line work process. However, if the work requires greater involvement of attention, the employees feel more active.

The finding refutes the submission of Weber (1922), who posits that social stratification emanates from a struggle for scarce resources because people construe it as economic resources. It can equally entail a struggle for prestige and political power. The workers in the firm in a perspective did not have the feeling of alienation. The interpretative meaning of this is that economic resources did not result in any struggle as far as the firm is concerned. Invariably, it further indicates that the employees did not carry on production in an atmosphere of antagonism and hostility as contended by Marx, (1844). This finding is in tandem with the position of Blauner (1964), who opines that the employees that work with an economically viable firm will not feel alienated from their jobs, the reason being that they are not given undue targets by the management. The finding does not align with the viewpoint of Jawando and Adenugba (2014), who argue that employers of labour encourage precarious forms of work to reduce the costs of production of commodities while optimising profits that spurs them to avoid being held responsible for their employees and equally destroy unions. From their standpoint, insofar as employment situations around the globe have become exceedingly competitive and unstable; organisations have tended to offer more flexible employment conditions; focusing on potential challenges which include lowering the demand of the market and the possibility of lay-offs. According to Jawando and Adenuga (2014), the growth in contemporary employment is essentially driven by employers' demand for more flexibility and innovation as well as their aspirations to reduce labour costs and administrative complexity. They indicate that one of the ways through which an organisation does this is by hiring or firing employees according to the requirements of the market in a particular situation.

The finding does not align with the standpoint of Oriola (2017), who posits that Kostas Axelos maintained that the intriguing news regarding alienation is that all human history has been essentially the history of alienation; no reality has preceded alienation given that Axelos contested that man has usually up to the moment been alienated, oftentimes more or oftentimes less. Oriola (2017) posits that alienation is not unchanging. On the other hand, it has become accustomed to the relations in the infrastructure as well as superstructure. He submits that the intrinsic flexibility of alienation is trans-continental, trans-generational and trans-historical.

The result counters the findings of a survey conducted by WellNewMe, a health technology business, which found that roughly 64% of workers face an elevated risk of burnout, with women facing a little higher risk than males (Ehanire, 2020). According to the research, roughly two out of every ten employees would need immediate treatment because they were displaying behaviours that suggested they were in a crisis. According to Ehanire (2020), the effects of burnout might include excessive stress, impatience, rage, insomnia, weariness, sorrow, alcohol or drug abuse, heart disease, high blood pressure, Type 2 diabetes, and susceptibility to illnesses like the common cold and malaria. According to Ehanire (2020), those who are burnt out can be irritable, unpredictable, bold, lonely, illogical, aggressive, frustrated, and very difficult to be around. He claims that this health issue may have

disastrous effects on a family, the career, or friendships. Women were seen to be marginally more at danger than their male counterparts.

The finding is not in tandem with the view of Oriola (2017), who contends that a life-long professor who suddenly became frustrated over the growing amount of time that he spends with students without being paid his salary at the end of the month; an insurgent who is frustrated over the environmental disposition and degradation of his immediate community; a banker who was downsized and expected to assist in training his or her successor who is based abroad; the lone wolf Identity Christian terrorist; a woman in the City of Montreal who is uncomfortable any longer with the system; the jihadi foreign fighter and Boko Haram terrorist who has been afforded no education who has no skill and possesses zero human capital and as a resultant, he places no value on human life, they are all the victims of the system that produces human waste or wasted humans (Oriola, 2017). He argues that these real-life actors in the amphitheatre of life all point to the chemistry of socio-economic status, gender, space, race, and factors beyond the immediate environment in respect of the new alienation.

Going by the finding from the result gathered from Nestle S.A., workers did not suffer alienation from the process of production; alienation from the end-products; alienation from the society as well as the organisation and alienation from the specie of oneself. The finding from the study revealed that technology did not affect job alienation which fails to align with the Alienation Theory adopted which was propounded by Marx (1844). It can then be established that the study did not find the trend of Theory of Alienation taking into cognizance that alienation tendency was found not to be dominant following that technology did not destructively affect job alienation in the case of Nestle S.A. The finding contradicts the notion of casualisation which Jawando and Adenugba (2014), found out in the empirical study which they carried out in food processing organisations in Lagos. Going by the results of their findings, recruitment exercise in food processing firms was characterised by casualisation of workers which contravened the ILO's law regarding employment relations. The point being made in this regard is the fact that ILO frowns at the idea of workers being absorbed as casual workers which was found to be practised by the food and beverage companies in Lagos. Given the result of the analysis, the employees of both firms did not experience boredom whatsoever in the course of their jobs. It therefore indicates that work was not routinised in both firms. This fails to align with Smith's (1776), view about a worker concentrating on utilising a particular tool which Smith stresses that it results in proficiency, dexterity and efficiency as well as specialisation of work.

The Extent to Which Technology Influences Job Alienation in Nigeria Brewery Plc.

In relation to the effect of technology on average job alienation in Nigeria Brewery Plc., the analysis which was run signified that the mean value of job alienation in high technological units was the highest. This simply means that the employees in high technological units were most alienated from their jobs. In other words, the workers in high technological units were rendered alienated most by the technologies they utilised in carrying-out their job functions. The finding basically confirms the apprehension of Marx (1844), who maintains that the more technology advances, the more workers experience alienation. This is followed by the mean job alienation in medium technological units. It can be concluded that the workers in the medium technological level units were not as alienated as their counterparts in high technological level units but more alienated than the employees in low technological level units. This finding is inconsistent with the view of Blauner (1964), who stresses that job alienation is high in the medium technological level industries like the automobile industry. The justification adduced by Blauner is that given the formal sub-division of labour in the medium technological units, job alienation is mostly felt.

Finally, low technological level units had the lowest mean value (33.86) of job alienation. From the finding, the inference which one can logically draw is that low technological units had low job alienation. This suggests that the employees in low technological units did not experience powerlessness, meaninglessness, social isolation and self-estrangement. The finding mirrors the views of Blauner (1964), who maintains that the operators in the low technological industry did not feel alienated from their jobs given that its technologies were simple, thereby its operators enjoyed considerable autonomy more than their counterparts in both textile and automotive industries whose technologies dictated the pace and the rhythms of the task-execution. The idea being emphasized in the context is that medium technology determines what its operator needs to do. This indicates that a worker in a medium

technological level unit is not permitted to use his discretion as well as his judgments, owing to that he routinely goes by the pace and the rhythms of the machine.

With regards to the statistical significance of differences in the mean values of job alienation (33.8, 35.8 and 37.3) across the three technological levels (low, medium and high) and across the units in Nigeria Brewery Plc., the ANOVA test depicted that the differences in the mean values of job alienation across the three groups of technology are not statistically significant at (F= .70, df=2/17 and p=0.5). By inference, it suggests that technology did not undesirably influence job alienation in Nigeria Brewery Plc. In essence, technology did not in any way affect the freedom enjoyed by the employees working with Nigeria Brewery Plc. To substantiate this finding, it suffices to adduce that the crop of the employees who were sampled was the permanent staff who were recruited through a job advertisement, recruitment, selection, placement and probation and who have undergone numerous rigorous trainings and were not alienated like craft men and artisans in the craft and guild epoch.

Thus, the study lent credence to the view of Bell (1973), who indicates that the work of the future is characterised by knowledge and technical know-how which shield employees from alienation. Nonetheless, the finding did not align with the view of Seeman (1959), who argues that alienation being experienced by employees at the workplace has five dimensions which are; powerlessness, meaninglessness, normlessness, social isolation and self-estrangement. Out of the five dimensions of alienation, which are Seeman's variant, four dimensions were investigated in this study. The justification for exempting the fifth one (normlessness) is that it is incorporated in social isolation. The finding is consistent with the view of Blauner (1964), who asserts that an employee working with an economically viable firm is never subjected to job alienation because he is not under any pressure in terms of being rendered powerless, meaningless, and socially isolated, amongst others. He equally affirms that modern-day employees do not experience job alienation given that they work in groups.

Contrary to the statistical finding generated from the study, an In-depth interview conducted with a unit head in the Production Unit goes thus:

In the light of the migration from low technology to medium and high technology, the judgment of employees suffers a great setback as the proportion of the workforce is subordinate to the dictate of technology, especially in the production process except for machine autonomous, programmers and a few machinists. As tasks are increasingly automated, the control which employees used to enjoy has become increasingly elusive, owing to the spring of computerisation and automation of tasks. Besides, employees are being subjected to the pace and rhythms of machines which by extension, results in powerlessness, meaninglessness, social isolation and self-estrangement as far as the Production Unit is concerned. (**IDI/Firm2/PM/May, 2019**).

Given the foregoing in-depth interview, it is crystal coherent that workers in the Production Unit were interchangeable parts to machines. In other words, workers in Production Unit were cogs in the wheels of production process. In the capitalist mode of production, the control of the means of production is concentrated in the hands of the capitalists. The principal motive of capitalists is to employ technology to optimise profits and reduce the costs of production. In this light, technology replaces and displaces workers from their jobs. Regardless of all these, technology savvy remains indispensable in the scheme of work. It is apparent that machine autonomous, programmers and a few machinists remain immune from technological advancement.

Going by the statistical insignificance of the result of the study, it basically signifies that the employees working in Nigeria Brewery Plc. were not alienated from work. This can be interpreted to connote the fact that employees working with Nigeria Brewery were never destructively affected by the technologies which they utilised in service rendering. Hence, they enjoyed considerable leeway while carrying out their job functions. Contrary to the apprehension of the deskilling theorists that a deskilled worker is an alienated worker, the finding gathered from this study depicts that there was no modicum of alienating tendency that was discovered in Nigeria Brewery Plc. Thus, it can be established that technology did not alienate workers in the fourth industrial revolution given this trend. The finding is inconsistent with the submission of Akinwale (2014), who avers thatworkers worked in precarious conditions and worked extra time without being compensated.

It is worthy of remarking that out of the five dimensions of alienation which Seeman (1959), uses to conceptualise alienation that are powerlessness, meaninglessness, normlessness, social isolation and self-estrangement, four dimensions of alienation were considered being relevant by Blauner (1964). It is against the backdrop that Blauner's construal of alienation which focused on powerlessness, meaninglessness, social isolation, and self-estrangement, was adopted, adapted, modified and validated in this study. It is expedient to note that the four dimensions examined in this study revealed that employees did not experience powerlessness, meaninglessness, social isolation and self-estrangement. Similarly, the finding fails to conform to the position of Blauner (1964), who examined the attitudinal measures of job dissatisfaction, in four industries (printing, textile, automotive and chemical industries). According to Blauner (1964), there are four dimensions of alienation which are powerlessness, meaninglessness, social isolation and self-estrangement. Unfortunately, the finding revealed a contrary result to Blauner's conception of job alienation. It is shocking to establish that the finding fails to support the orthodox conceptualisation of advanced technology resulting in increased alienation. Above all, this pattern of relationship between technology and job alienation can be ascribed to the high skill which employees possessed in Nigeria Brewery Plc. guided them against influence of technology on job alienation.

Another significant In-depth interview conducted with a unit head from `Account Unit reveals thus:

It is those employees who are techno-phobic that remain perpetually subordinate to technology while technology remains super-ordinate. Employees who refused to upgrade their skills are less-assertive in workplace which technology-savvy enjoy considerable freedom on their jobs. The employees who know their onions are always enjoying considerable freedom in carrying out their job functions. (IDI/Firm2/AccM/May, 2019).

Deductively, employees who made frantic efforts to add value to themselves were immune from job alienation in the contemporary epoch. It has been emphasised Lyon-Caen, A. (2021), that the work of future and the work of the future belongs to the professionals who possess high quality education who undergo training to become professionals. By inference, work in the contemporary epoch will not be meant for rank and file. It then implies that techno-optimists are meant to enjoy the optimal welfaresin-built in digital epoch while such benefits and convenience elude the techno-pessimists. In this regard, individuals should make concerted efforts to develop technologically so as to avail themselves of the significant efficiency and effectiveness that accompany technological advances. A similar In-depth interview which was conducted with the head of the Admin. Unit reveals thus:

Looking at the phenomenon of job alienation, it is apparent that new technology requires new skills to man it, as old skills may not be apt to man it adequately. The employees who upgrade skills immensely derive considerable freedom from the tools that they utilise in the course of their jobs such that their jobs mean a lot to them which culminates into an optimal commitment to the firm. In this wise, it becomes pertinent to establish that those who take time to upgrade themselves enjoy substantial freedom in the course of carrying out their jobs. Meanwhile, those employees who sit on the fence when it comes to adding value to themselves do experience difficulties in staying long on jobs as they cannot give what they absolutely do not have. The employees who make themselves distinct from the crowd are not at the mercy of the management as they are always in charge of their jobs. (IDI/Firm2/AdminM/May, 2019).

What can be inferred from the prior in-depth interview is that alienation is a function of dearth of the requisite skills in the post-Fordist epoch. Those individuals who make genuine efforts to develop themselves technologically will be immune from job alienation while those who refuse to embrace technology will perpetually be prone to job alienation. Inferentially, professionals hardly feel alienated from their jobs owing that by virtue of their expertise and adroitness, they will not feel alienated from their jobs. Technology is at the heart of administration of organisations. Administrative personnel ought to develop technologically in order to enjoy immunity from job alienation in the contemporary epoch.

In contrast to the statistical finding generated from the study, the qualitative data that was elicited from the head of the Human Resources Unit reveals thus:

It is crystal clear that technology makes the execution of tasks easier, but when new technology is adopted, the old skill may not be suitable to operate it maximally. This is because the old skill would have become obsolete to operate new technology optimally. In this particular firm, the employees are not allowed to take alcoholic and non-alcoholic drinks home as they are under the strict surveillance of closed-circuit televisions installed in strategic places across the firm. If any employee is caught taking any of the product home, it will definitely cost him his job. This ultimately implies that the employees are not quite at liberty to take the products home. However, they are as free as the breeze to drink in Bar Unit after closing hours. (**IDI/Firm2/HR/May, 2019**).

It is deduced from the foregoing that pertinent to technological advancement, it is a doubleedged sword in that skills will be lost; salaries will be slashed and other things that come with technological advancement. This is basically because old skills may not be apt in manning new technological innovations. Moreover, technology is a continuum which develops as the universe develops. It behoves individuals to synchronise their skills with technological trend in order to be relevant in the digital revolution. The hallmark of HR encompasses job advertisement, recruitment, selection, placement, probation, job design, performance appraisal and policy formulation. All these intricacies are simplified with the aid of technology. HR as a profession is made easier when technology is adopted to carry-out job functions in HR Unit. For instance, job advertisement is made easier when technology is employed. Beyond this, database of employees is simplified with the aid of technological innovations. On the basis of this, it can be maintained that technological innovations remain critical to the HR practice. Thus, alienation tendency is ameliorated when workers have firm grip of technology.

The result backs up Adepatan's (2020) assertion that the pace, breadth, and depth of the industrial revolution prompted individuals to reconsider how societies function, how organizations develop their values, and even what it is to be human. The fourth Industrial Revolution is a chance for everyone, including leaders, legislators, and individuals from all socioeconomic categories and countries, to leverage convergent technologies to build a more open and human-centered future. According to him, the fourth Industrial Revolution, or 4IR, marked a significant shift in how people interact with one another as well as how they live and work. It is a new phase in human growth, according to the World Economic Forum (WEF), made possible by unprecedented technology advancements comparable to those of the first, second, and third industrial revolutions.

Central to Alienation Theory vis-à-vis the study in perspective, the study did not find alienation tendency in Nigeria Brewery Plc. This finding repudiates maxian conceptualisation of advanced technology resulting in increased alienation owing that employees of both firms did not experience alienation. It lends credence to the view of Blauner, Daniel and Adler who state that modern time employees seldom feel alienated from work given that they work in a team which frees them from disillusionment. The thrust of the theory for this study is that the employees of both firms did not experience alienation from the process of production, alienation from the finished products, alienation from co-workers, and alienation from oneself.

Alienation was not found to be influenced by technology given the result that was gathered by the study, failed to support the model. This, therefore, points toward that the employees of Nigeria Brewery Plc. did not in any way experience any of the traditional dimensions of job alienation which are alienation from the process of production, alienation from the finished products, alienation from the co-workers, and alienation from the specie of oneself. Given the foregoing result, it can be established that the model tested did not align with the notion of the workers being alienated from their jobs as a result of the technology utilised as far as Nigeria Brewery Plc. is concerned.

Firms									
Nestle (1866)			Nig. Brewery (1946)						
(N=18 Unit	(N=18 Units)			(N=20 Units)					
Tech levels			Tech levels						
	Lo	w Medium	High	Low	Medium	High			
Variables	(n=2)11.	1% (n=11)61.1%	(n=3)27.8%	(n=4)20.0%	(n=13)65.0%	(n=3)15.0%			
Job	45.42	43.34	41.38	35.23	36.07	39.31			
satisfaction									
F-ratio	4.88			0.76					
Df	2/15			2/17					
P-value	0.02			0.4					
Comparison test									
	1	2	3						
1 Low Tecl	-								
2 Medium	2.079	-							
Tech									
3 High	4.038*	1.959	-						
Tech									
Source: IDIs, 2018									

Table 4.4The Extent of Influence of Technology onJob Satisfactionin Nestle S.A.and Nigeria Brewery Plc.

Illustrated in table 4.4 are the mean values of job satisfaction across the three technological level units in both Nestle S.A. (45.4, 43.3 and 41.4) and Nigeria Brewery Plc. (35.2, 36.1 and 39.3), which varied considerably from one unit to another. In the quest for investigating influence of technology on average job satisfaction across the three categories of technology in Nestle S.A. (45.4, 43.3 and 41.4), it was shown by the ANOVA test that the mean value of job satisfaction in low technological level units had the highest job satisfaction (45.4). This basically suggests that the employees in low technological level units (45.4) were more satisfied with their jobs than their counterparts in both medium (43.3) and high technological level units (41.4). Invariably, employees in low technological level units (45.4) were most contented with their jobs. Arising from this, employees in low technological level units (45.4) were most pleased with their jobs given the crudest technology utilised in discharging their job functions which afforded them considerable fulfilment. This finding is consistent with the view of Blauner (1964), who submits that the employees in the printing industry which was conceptualised as a low technological level industry, were satisfied with their jobs so much so that they did not bother to indulge in labour turn-over which Arisukwu and Adeniyi (2011) conceptualise as the migration of employees from one industry to another considering that they enjoyed considerable autonomy, fringe benefits, allowances and extrinsic factors which spurred them to stay put on their jobs.

Contrary to the average job satisfaction in low technological units (45.4) earlier reported, it was discovered that the mean job satisfaction in the medium technological level units (43.3) was found to be lower than that of the low technological level units (45.4) but higher than that of the high technological level units (41.4). Interpretatively, one can infer from the result of the finding that the employees working in medium technological level units (43.3) were less-contented with their jobs than the employees working in low technological level units (45.3) but they were more contented with their jobs than the employees in high technological level units (41.4). In respect of the job satisfaction in high technological level units, the study gathered that job satisfaction in high technological level units had the lowest average job satisfaction (41.4) which simply suggests that the satisfaction of the employees in high technological level units (41.4) and medium technological level units (43.3). The result typically

showed that high technological level units had the lowest job satisfaction because of the lowest mean value (41.4) it had. The interpretative meaning of this result is that the satisfaction of employees in high technological level units was more affected by technology deployed to have job functions executed than their counterparts working in both low and medium technological level units.

In relation to the job satisfaction across the three groups of technology in Nestle S.A (45.4, 43.3 and 41.4), the study gathered that job satisfaction in high technological units had the lowest average job satisfaction which simply connotes that the employees in high technological units were least satisfied with their jobs given the technology utilised in carrying-out their job functions. By implication, the workers in high technological level units were not as pleased with their jobs as their counterparts working in both low and medium technological level units due to the tools deployed for discharging their job tasks. Connotatively, the derived fulfilment of employees from the use of technology examined in this study. Deducing from this result, it can be maintained that the employees in high technological level units were not as fulfilled as their counterparts in both low and medium level units in Nestle S.A. This finding refutes the unanimous stance of the enskilling school of thought which holds that in the digital era where everything is digitalised, a worker in a high technological level industry is most satisfied with his job given that he is less-dictated to by the management because he or she calls the shots.

The result from the analysis showed that the variations in the mean values of job satisfaction (45.4, 43.3 and 41.4) across the three classifications of technology in the units in Nestle S.A are statistically significant at (F=4.88, df=2/15 and p=0.02). The inferential statistics from the analysis indicates that the average job satisfaction in Nestle S.A. was depressingly affected by the technology deployed to discharge the tasks with which they were saddled in the workplace. In other words, given the prior p-value=0.02, employees in Nestle S.A. were not contented with their jobs given the technology utilised in executing tasks. The reality which cannot be disputed regarding the tool which an employee utilises vis-à-vis his or her level of contentment is that the technology which a worker uses to discharge his duty goes a long way to impact the level of contentment derived. The fact of the matter is that whether a

worker is pleased with the tool that he or she utilises to carry-out job functions or not, he or she must discharge such a duty as directed by his or her immediate supervisor. Nevertheless, the contentment which a worker derives from a tool utilised will greatly influence his or her productivity. This ultimately accounts for the rationale behind the stock-in-trade of the majority of the employers of labour who strive to deploy sophisticated equipment and create enabling environment to satisfy their employees in order to bring out the best in them. Contrary to the finding gathered from the quantitative result, an IDI from the Culinary Plant reveals thus:

A lot of checks in terms of quality to position the firm as a leading WELLNESS Firm, have tremendously transformed the modes of manufacturing of Maggi cubes in this unit, the employees who have undergone crucible of training and who are abreast with the intricacies of the production process, derive optimal contentment form their jobs. The employee with requisite skills in Mechatronics derives optimal job satisfaction from their jobs. Exceptional employees are contented with their jobs as they derive great joy in manning the equipment. As a matter of fact, they derive great delight in manning the equipment owing that the energy-sapping nature of the jobs is removed by technology. However, those employees who have a phobia for innovations are rendered redundant. It is crystal clear that to be in charge of one's job in the Culinary Plant requires being firmly grounded in technological innovations. Those employees who fail to acquaint themselves with technological trends hardly feel fulfilled in their jobs given that they do not really stay long on their jobs having failed woefully to make themselves indispensable in the scheme of work in the digital revolution. (IDI/Firm1/CM/May, 2019).

Originating from the finding preceding, it is fundamental and germane to situate that job satisfaction is a by-product of the expertise that workers possess at their disposal in the post-Fordist era.Employees who distinguish themselves in their chosen careers derive optimal satisfaction from their jobs. In Culinary Unit, the crop of employees who were recruited were predominantly skilled who emerged professionals overtime having undergone training upon their recruitments. Great enchantment was derived by employees in Culinary Unit given that they distinguished themselves in their respective careers. In this wise, to derive optimal satisfaction from one's job requires becoming a professional. This is principally because it gladdens individuals' hearts that they are in charge of their jobs without necessarily being at mercy of their superior bosses.To this end, manning programmable controlled equipment brought about optimal satisfaction of workers in Culinary Unit. It suffices to establish that, without any fear of ambiguity, this finding corroborates the position of the foremost Scottish economist, Smith (1776), who avers that when employees concentrate on using a particular tool to carry out job tasks, proficiency, efficiency, and productivity, as well as profitability, will be attained. He maintains further that dexterity is acquired over some time when a worker utilises a particular tool to execute tasks. Nevertheless, he contests that it will result in a monotonous, mundane, repetitive, boring and dissatisfied workforce. In a similar vein, the finding is consistent with the view of Khan *et al.*, (2013), who posit that the hygiene factor determines the satisfaction of a worker. In the case of Nestle S.A., hygiene factor was found to have depleted the job satisfaction of the workers in Nestle S.A.

Another In-depth interview which was conducted with the Head of the Quality Assurance Unit reveals thus:

In strict observance of the International Organisation's Law, which states that the food and beverage industry should migrate from manual technology to semiautomated technology and fully-automated technology, the industry is always compelled to adopt automated technology to eliminate undue contaminations emanating from the impurities caused by human interventions with the endproducts. The law propels the firms in the food and beverage industry to operate within the ambit of ISO's Law to avoid being sanctioned. Against this backdrop, a few employees who are professionals are required to operate the equipment adopted. In an actual sense, the routine pressing of the buttons of automated technology depletes the contentment of the operators in the Quality Assurance Unit owing that their discretion is not required while executing tasks. This translates to switching allegiance of employees whenever they get to see better offers elsewhere. The contentment derived by employees from the utilisation of manual food analyser and manual beverage analyser was massive in comparison to the contentment derived from operating automated food and beverage analysers. The coming of automated food and beverage analysers dampens job satisfaction emanating from merely pressing of buttons. The routine work poses boredom as employees found themselves doing the same tasks every day. Pressing the same buttons over and over can be quite boring. What exacerbates the fate of certain employees is that the employees specialise in doing a small portion of the entire manufacturing process which lies solely on the evaluation of raw materials and finished products. (IDI/Firm1/QAM/May, 2019).

In correspondence to the earlier in-depth interview, in total acquiescence with International Standard Organisation's Law (ISO) which mandates food and beverage industry to observe its law, Quality Assurance Unit strictly abode by ISO's Law by migrating from manual food analysers and manual beverage analysers to semi-automated food analysers and semi-

automated beverage analysers and finally, to automated food analysers and automated beverage analysers. The technological evolution has significantly changed the panorama of the evaluation of bothraw materials and end-products in Quality Assurance Unit. This fruition has significantly eliminated human interface with finished products to a considerable degree in Quality Assurance Unit. In this regard, satisfaction was vitiated consequent upon the subjection of workers to routine pressing of buttons in the course of the evaluation process of raw materials prior to the production proper and the evaluation after the production which precipitated repetition, routinisation and boredom. Satisfaction was essentially come-by when the workers were at quite at liberty to make inputs in the course of task execution in Quality Assurance Unit.

It is salient to note that Khan *et al.*, (2013) stress that two factors determine the motivation of workers in the workplace which are satisfiers and dissatisfiers. The satisfiers can be construed in terms of the job itself which determines whether a worker is satisfied with his or her work or not, whereas the dissatisfiers can be likened to factors outside the job, which include the tool utilised in carrying out tasks. In other words, satisfiers are the factors which result in the satisfaction of the workers, whereas the dissatisfiers are the factors that engender dissatisfaction of the employees which is caused by the technology which a worker utilises to carry-out job functions. The finding refutes the view of Spector (1997), who contends that the tool that a worker utilises in the discharge of tasks enhances his or her job satisfaction. Thus, the finding is very much consistent with the conception of job satisfaction of (Khan *et al.*, 2013).

In corroboration with the statistical result that was generated from the study, a Unit Head from the Production Unit was of the view that:

In the digital age, it is no longer news that automated technology is swiftly creeping into every aspect of human endeavours, to the extent that there is rarely an aspect that it has exempted. In the case of the Production Unit, employees are not allowed to answer calls during working hours nor attend to friends and relatives with the exemption of machine autonomous and programmers who enjoy considerable autonomy in their jobs but machinists dare not answer calls nor attend to visitors while working in the Production Unit. As a typical example, when an employee feels disillusioned during the official hours, he dares not make calls, bearing in mind that it can cost him his job. It suffices to establish that technology depletes the morale of the employees as far as this unit is concerned.

Beyond this, they concentrate on small portions of the entire production process. What adds gasoline to fire is that irrespective of the fact that technology does the bulk of their tasks, their salaries are equally slashed. (IDI/Firm1/PM/May, 2019).

Stemming from the earlier in-depth interview, it is striking to note that technology has exponentially revolutionised all the areas in which it has been adopted such that there is scarcely an area of human endeavours that it has left unaffected. As technology deskills some jobs, in the same token it enskills others. In Production Unit, technological revolution has not spared the production process in that manual production system enabled workers to enjoy substantial autonomy which translated to extensive freedom. Production system took another twist during Fordist epoch given that the advent of Belt Conveyor drastically reduced workers to the pace and rhythms of machines. In the post-Fordist epoch, automation requires highly educated workers whoare professionals by virtue of their training and expertise. Professionals are immune from job alienation owing that they call the shots in the course of the production to the extent that they swing into actions in the event of mishaps and they are equally saddled with the responsibility of periodic servicing of the equipment adopted. To this end, advanced technology results in morale depletion of workers but it can be ameliorated when workers are exceptionally skilled.

The finding lends credence to the empirical study which was carried out by Arisukwu and Adeniyi (2011), who observe that employees embarked on labour turnover consequent upon lack of fringe benefits, incentives, allowances, promotion and conducive work conditions which demotivated them to migrate from one organisation to another. Labour turnover is being construed as the migration of employees from one establishment to another due to several factors which include lack of fringe benefits, allowances, incentives, work conditions, promotion and supervision, which demotivates them to migrate from their current organisation to another organisation. Labour turnover is categorised into two, which are; voluntary labour turnover and induced labour turnover. It is voluntary when an employee willingly migrates from one organisation to another, whereas it is induced when an organisation requires an employee to leave a particular organisation (Arisukwu and Adeniyi 2011).

Contrary to the finding, an IDI conducted with IT Unit Head goes thus:

Executing tasks with the aid of technological gadgets can be quite intriguing and less energy-sapping, owing to that it simplifies the doing of things. In actual fact, optimal contentment is derived from working with the aid of technology. This is because it ultimately fast-tracks the work such that one will be refreshed after executing certain tasks. Carrying out job functions with bare hands can be quite strenuous. To be factual, it removes the back-breaking aspects of work. Technological innovations are invented predominantly to ease the difficulties being encountered while doing jobs. It does not dampen the contentment levels of employees in this unit. Rather, it boosts the contentment levels of employees because it is very intriguing and less-arduous working with equipment. Bearing in mind that one is always in charge of one's job, it makes one feel exceedingly contented. (IDI/Firm1/ITM/May, 2019).

Springing from the foregoing, no mincing words that technology removes the gruelling nature of work. Working with technology ultimately adds finesse to task execution owing that task execution without the appropriate tools in place can be mind-numbing. It is intriguing to note that having technology at someone's beck and call to carry-out job functions simplifiesthe likely constrainsts which someone can encounter in the course of task execution to the extent that workers would be refreshed in the long run rather than being fagged-out, irrespective often strenuousness of the work, owing that technology is utilised. In this respect, working with suitable equipment ultimately boots the contentment which workers derive from their jobs. In contrast, working with obsolete equipment can be sickening which has the tendency of depleting the morale of workers. To become a professional onone's job is an antedote to counteract the effects of technology on job alienation.

The finding runs counter to Todo's (2020) assertion that the FG of Nigeria, led by Dr. Chris Ngige, Minister of Labour and Employment, and ASUU, led by Prof. Biodun Ogunyemi, were involved in an industrial dispute. According to Todo (2020), Brown alleged that the Office of the Accountant General of the Federation (OAGF) had made-up some facts in order to avoid dealing with the peculiarity. According to him, ASUU met with OAGF and, for what they were worth, the discussions were primarily intended to persuade ASUU that the IPPIS could answer the union's issues, but this did not occur. Brown emphasized that ASUU has made presentations to the government and was prepared for the final presentation to NITDA, as mentioned by Todo (2020). The University Transparency and

Accountability Solution (UTAS) was accepted after the OAGF required that its members migrate first. If UTAS was approved, they would then be re-migrated to UTAS.

In this respect, this finding conforms with view of Scott *et al.* (2006), who maintain that once the hygiene factors are being made readily available in a given organisation, employees naturally feel a sense of meaningful connection to their jobs. According to him, this dimension of job satisfaction known as motivator entails the ability to use individual talents on one's job. In this respect, employees pretty need to be tasked to meet up with well-defined standards of excellence as well as being recognised for what they do in the organisation. It has been emphasised that explicit identification of a job well done via communication of praise employee reward programme is a typical example of motivating an employee. Another salient means of motivating an employee is by giving him or her opportunities for advancement in an organisation.

In contrast to the result of the finding, an In-depth interview conducted with an Account Unit Head revealed thus:

The advent of information technology monumentally reduces the stress of doing work. It guarantees transparency, efficiency, competitiveness, precision and accountability. With thumbs prints, transactions are done by merely capturing of biometric data of individuals. It affords organisations a competitive and comparative edge. The advent of technology enormously helps work move faster and less stressful. It helps workers to be effective and efficient. It eases mobility, particularly when one has a mobile phone, it makes things go faster. On the strength of this, the employees are pleased with the tools they utilised in carrying out their tasks given that it removes the arduous nature of work. (IDI/Firm1/AccM/May, 2019).

In alignment with the previous in-depth interview, it is significant to state that the coming of Information Technology fast-tracks the luxury of doing work. Workers in Account Unit who took their time to develop dexterity emanating from accounting applications experienced fewer constrictions in the course of work. They were able to navigate their ways with the aid of technology. As soon as some account equations appeared difficult, accountants manuovred their ways by using account software to unravel the situations. In this respect, optimal satisfaction was derived from the execution of tasks using technology to solve array of problems encountered. With bio-data, transactions were done without experiencing much stress. It suffices that the coming of technology translates to optimal satisfaction in Account Unit having relieved the restraints in doing of daily activities.

The qualitative finding aligns with the stance of Akinlolu (2020), who asserts that about 67% of respondents indicated that they were pleased with the services rendered by NAFDAC, that it is not a bad position for any regulatory agency in Nigeria. As he posited by him, Apampa maintained that if one goes by the position of National Bureau of Statistics (NBS) and the view of United Nations' ODS survey on major government agencies in Nigeria, which is done every two years, one will discover that the levels of dissatisfaction are quite grave with some particular MDAs in the country. In this regard, the NAFDAC is one of the better performing MASTERs in Nigeria.

In testing the model developed for the study which portrays that technology undesirably impacted job satisfaction, it becomes crystal clear that the technology which an employee utilises to carry out his job functions has a way of influencing his job satisfaction and job dissatisfaction, as the case may be. Invariably, technology has a direct association with the satisfaction of an employee of a given firm. Technically speaking, the model developed for the study is quite apt given that it provides wealth of enchanting understandings on how technology can either adversely or absolutely affect the satisfaction of a particular worker of any given firm.

The Comparison of Mean Job Satisfaction across the Three Levels of Technology

When the mean values of job satisfaction of the three technological level units were compared, it was observed that the mean job satisfaction of high technological and the low technological level units were found to be responsible for the statistical significance owing to the mean in asterisk which goes thus: 4.038*. This can be interpreted to indicate that the mean values of high and low technological level units accounted for the significance.

The Extent of Influence of Technology on Job Satisfaction in Nigeria Brewery Plc.

In contrast to the effect of technology on job satisfaction in Nestle S.A., in the case of Nigeria Brewery Plc., it was discovered that in considering the mean job satisfaction (35.23,

36.07 and 39.31) across the three groups of technology, it was found that high technological level units had the highest average job satisfaction, and on account of high technological level units, they also had the highest mean value of job satisfaction (39.31). This depicts that the employees in high technological level units were more satisfied with their jobs than their counterparts in both low and medium technological level units. To deduce from the result of the finding, it basically means that the workers in high technological level units were more pleased with their jobs than their counterparts in both low and medium technological level units. This finding corroborates the view of Blauner (1964), who submits that the operators in high technological level industries like chemical and oil-refining industries, were more satisfied with their jobs than their counterparts in both low and medium technological level industries, so much that they stayed put on their jobs, have not embarked on labour turnover, due to the dynamics, per capita investment, diversity and value-adding of the high technological level industry. He maintains that the intrinsic nature of a high technological level industry encouraged its operators to be satisfied with their jobs.

It was gathered that job satisfaction in medium technological level units across the three categories of technology in Nigeria Brewery Plc. had medium average job satisfaction (36.07). The thing to be deduced from this finding is the fact that job satisfaction in medium technological level units (36.07) was lower than job satisfaction in high technological level units but higher than that of the low technological level units. The idea being portrayed in this context is that the medium technological level units' workers were not as satisfied with their jobs as their counterparts in high technology but were more satisfied than their counterparts in low technological level units. In impartiality, the finding is inconsistent with the unanimous position of the Enskilling School of Thought that holds that employees in the medium technological level industries are more dissatisfied with their jobs than their counterparts in both low and high technological level industries given the routinised, mundane, repetitive and boring nature of the medium technological level industries. The argument advanced by the Upgrading School of Thought is that as work is formally divided into smaller and simpler tasks which are being mechanised, the operators in medium technology are more dissatisfied with their jobs than their counterparts in both low and high technological level industries, given the lack of freedom they experience.

Lastly, the result from the finding illustrates that average job satisfaction (35.23, 36.07 and 39.31) across the three levels of technology; low technological level units had the lowest job satisfaction (35.23). In this respect, one can infer that the employees in low technological level units were less-satisfied with their jobs than their counterparts in both medium and high technological level units following that low technological level units had the lowest mean value of job satisfaction (35.23). What this essentially portrays is that the employees in low technological level units were less-satisfied with their jobs than their counterparts in both medium and high technological level units. This finding negates the view of Blauner (1964), who affirms that workers in low level technological industries were more satisfied with jobs than their counterparts in medium technological level industries taking into cognizance its crudest nature which required considerable skill exertion because the autonomy that the employees in low technological level industries enjoyed automatically translated into high job satisfaction. The finding indeed does not align with the stance of the downgrading school of thought which holds that the employees in low technological level firms were more satisfied with their jobs due to the autonomy enjoyed because they exerted their skills which automatically translated into high job satisfaction. This finding fails to align itself with the claims of the Upgrading Theorists. In Nigeria Brewery Plc., workers in low technological level units were less-satisfied than their counterparts in both medium and high technological level units which technically contradicts the position that the Enskilling School of Thought posits.

In proffering an answer to the research question on whether or not technology influences job satisfaction in Nigeria Brewery Plc., ANOVA indicated that the differences in the mean job satisfaction across the three categories of technology are statistically insignificant at (F=0.76, df=2/17, and p=0.4). In the light of this result, it can be interpreted to signify that technology did not have adverse impact on job satisfaction in the case of Nigeria Brewery Plc. It simply indicates that the employees in Nigeria Brewery Plc. were satisfied with the jobs despite the technologies they utilised in carrying out their job functions. The take-home point in this finding is that technology had no impact on the satisfaction of the employees in Nigeria Brewery Plc. This basically connotes the fact that technology, which they utilised to execute tasks, had no bearing on their satisfaction in NBC.

In contrast to the statistical finding from the study, an In-depth interview which was carried out with a Unit Head in Production Unit reveals thus:

The satisfaction of employees about the technological advancement lies solely in their ability to utilise the technology that enables them to exert their skills. As automated technology does the bulk of tasks meant to be executed by employees, they tend to be disillusioned with their jobs. The ability of employees to artisticallyconstruct certain products of their own hands arepretty limited. In the contemporary epoch, the freedom meant to be enjoyed by employees has become exceedingly illusory. (IDI/Firm2/PM/May, 2019).

Subsequent from the foregoing in-depth interview, contentment meant to be derived from work has increasingly become a mirage following the fact that workers became less-assertive in the course of expressing labour. In a scenario whereby utilisation of technology resulted inremoval of discretion of employees, the contentment expected to be derived would dampen. The contentment derived from technology utilised borders primarily on the ability of workers to use their discretion in the course of carrying-out their job functions, regardless of the sophistication of the equipment in use. The ability of workers to use their discretion of tasks ultimately translates into massive fulfilment.

Without any fear of prevarication, it can be affirmed that the employees in Nigeria Brewery Plc. were satisfied with their jobs, irrespective of the equipment deployed to discharge their duties. This finding contradicts the apprehension of the Downgrading School of Thought that holds that consequent upon the advancement in technological innovations, the satisfaction of the workers declines astronomically. Essentially, the finding negates Marx's conceptualisation of the advanced technology resulting in increased alienation. According to Marx (1844), workers are interchangeable parts with machines. To Marx, a worker is an object whereas the machine is the subject which dictates the pace of what the worker does in the production process. Marx (1844) claims that employees are debased because their wages are slashed irrespective of machine taking over their jobs where they have no say in the production process. In this respect, the study fails to support the perspective of Marx. The study refused to align with Marx's notion of activity alienation, product alienation, social alienation and self-estrangement. In the same vein, the study fails to corroborate the perception of Seeman (1959), who conceptualises alienation in terms of powerlessness, meaningless, social alienation and self-estrangement. The finding similarly is inconsistent

with Blauner's conception of four dimensions of alienation which are powerless, meaningless, social isolation and self-estrangement.

To lend credence to the statistical finding, the qualitative data that was elicited from the head of Human Resources Unit goes thus:

The contentment derived from the technology utilised by employees is a function of being dexterous about what one is doing. The ecstasy of getting one's job done without hassles gives one great pleasure. This makes an individual to become like a golden fish that is being rallied around in a given firm. To be satisfied with technology which one utilises to carry out job functions requires possessing the ability to manipulate such equipment dexterously. A handful of the employees who are recruited in this unit are subjected to rigorous training upon their resumption to work through a job advertisement, selection, recruitment, placement and probation. Upon their recruitments, they undergo training to acquaint themselves with the work ethics. Having the array of expertise in their beck and call, they derive optimal contentment from doing their jobs. Nevertheless, those who cannot stand the rigour of work perceive work as being unnecessarily strenuous. Consequently, upon this, they become dissatisfied with everything happening within the firm. (**IDI/Firm2/HRM/May, 2019**).

In alignment with the priorfinding, it is informative to assent that the contentment derived from a particular work is a spin-off of the wealth of experience at employees' disposal. Contentment does not exist in isolation given that it is derived from the nature of work which individuals do. The reality of the matter is that if someone stands out from the crowd by possessing exceptional skills, such a person would become a force to be reckoned with. In labour market, exceptionally skilled workers are usually sought by business owners given that they have the tendency of turning organisations around to the extent that business owers usually knock on their doors. Companies do not spend much on exceptionally skilled workers given that they possess requisite skills at their finger tips. At bet, business owners are usually at the mercy of idea-orieted workers. When such workers carry-out job functions, they demonstrate adroitness and know-how that add flavours to work which portray the companies with where they work on a good note which give such companies a comparative and competitive edge. Such employees derive optimal satisfaction from their jobs by virtue of the dexterity given that they are usually rallied round.

The finding aligns with the perspective of Blauner (1964), who stresses that the operators of the chemical industry felt fulfilled in their jobs given that besides the monitoring of machinery which they were saddled with, they were able to repair the equipment when they developed mechanical faults, particularly when they run into passive moods. Beyond this, they enjoyed the diversity, dynamics, value-adding and per capita income of the oil refining industry.

Similarly, the finding is inconsistent with the perspective of Todo (2020), who asserts that the industrial dispute which ensued between the Federal Government was led by the Minister of Labour, and Employment and ASUU that was led by Prof. Abiodun Ogunyemi. The dispute was occasioned by the attempt of the Federal Government to migrate the ASUU members to a platform known as Integrated Personnel and Payroll System (IPPS) to eliminate ghost workers and maintain transparency and accountability in the system. Against this backdrop, ASUU members challenged the authority of the Federal Government because its members were not up to 71,000 members as adduced by Federal Government. In the spring of this hypothetical situation, ASUU members decided to keep up the strike that they had started, calling the IPPIS a hotbed of corruption in Nigeria. ASUU leaders insisted on continuing the nationwide strike in the face of this. It was said that the IPPIS distraction came from the Federal Government's illegal commitment, hard work, drive, and dishonesty to force Federal University employees to move to the IPPIS platform. In a same vein, the results disprove Ehanire's (2020) assertion that 64% of Nigerian employees, or approximately two-thirds of the workforce, are at risk of burnout and serious mental illness, which is a condition brought on by excessive and protracted stress brought on by the Covid-19 pandemic.

The result contradicts Ehanire (2020), who claims that the information in the study was gleaned from a poll done by the health technology business WellNewMe. He claims that the survey that gathered data on the risks of burnout encountered by Nigerian workers is a condition that might cause serious mental difficulties. Burnout has been conceived as a condition of severe and chronic stress-induced emotional, bodily, and mental tiredness. This condition frequently develops when a person feels overburdened, emotionally spent, and unable to satisfy responsibilities at work. Ehanire (2020) makes reference to the fact that burnout frequently results in emotional and physical weariness, which can have substantial effects for one's physical and mental health and from which one may require a significant

amount of time and treatment to recover. This position runs counter to Blauner's (1964) assertion that workers in the chemical industry experience economic ecstasy because they are not offered goals since the sector has the financial wherewithal to do so. In tandem with the finding, the qualitative data gathered from the study in Accounts Unit lends credence to the finding which goes thus:

The fact that the employees in this unit look refreshed after work with the aid of technology used in executing tasks is quite pleasing. The era of getting unduly fagged-out after exerting much energy in the course of work is over. As a matter of fact, the removal of drudgeries of work suffices to please employees. It is those who are not technology savvy who are dissatisfied with the benefits and convenience that come with technology usage. (IDI/Firm2/AccM/May, 2019).

Construing from the earlierbrief, it is overwhelmingly evident that work is carried-out with convenience when technology is utilised. Technology removes the gruelling aspects of work. Manual work is energy-sapping such that one will be extremely worn-out after a day's work. On the contrary, carrying-out job functions with the aid of apt technology enormously relieves workers of the wearisome nature of work. In this wise, the advent of technology to carry-out job functions is quite desirable given that it refreshes workers. Technolgy removes the onerous nature of work which implies that optimal satisfaction is derived from work when the suitable technology is deployed.

In a similar vein, the qualitative data generated from the head of the Admin Unit reveals thus:

An employee whose skills are engulfed by technological advancement and whose tasks are done by technology would definitely be dissatisfaction with his jobs. The contentment of employees lies primarily in being able to be in charge of their jobs. An employee who is rendered redundant by the technology that is adopted in a given firm will be in perpetual dissatisfaction. The technology that simplifies jobs ultimately paves way for job satisfaction. (**IDI/Firm2/AdminM/May, 2019**).

Emerging from the foregoing, it suffices to postulate that when the utilisation of technology results in skill destruction of employees, it translates into discontentment whereas when it enhances the skills of workers, it increases their fulfilment. Being able to use one's discretion on one's job meaningfully enhances job morale. The fact that technology makes work easier, it spurs workers into whole-heartedly executetasks owing that it guarantees

precision, accuracy, efficiency and effectiveness. It therefore suggests that working with technology is pretty desirable by employees as it relieves one of undue stress. In this wise, substantial contentment is derived from using technology to carry-out job tasks.

The finding falls short of the perception of Sainato (2021), who posits that employees working with Republic Services were given a few \$25 recharge card hampers at the beginning of April and May, 2020, respectively. All the same, that was basically all that was given as signified by Yong Miller who happens to be a sanitation employee working with Republic Services in the Akron, Ohio area in United States (Sainato, 2021). In the course of the pandemic, employees would fancy experiencing a little bump in their wages given that a number of employees have spouses who have been relieved of their jobs in the course of the pandemic and at that material point in time, they are a one-income family. From all indications, if the employees stopped picking up dirt at household levels for almost one week, the individual would realise the essential nature of the services they were rendering (Sainato, 2021).

In the application of the model developed to the relationship between technology and job satisfaction, it becomes imperative to note that the finding fails to support the model. This is principal because the trend of job satisfaction was not discovered as far as the finding gathered from Nigeria Brewery Plc. is concerned. In this respect, it can be established that the effect of technology on job satisfaction across the three levels of technology in Nigeria Brewery Plc. was found to be statistically insignificant which signifies that the model does not correlate with the finding.

It is striking to establish that skilled employees were discovered not being alienated owing that they were not found to be a cog in wheel of machines in the process of production of both alcoholic and non-alcoholic beverage in Nigeria Brewery Plc. Non-alienated employees were found to derive optimal accomplishment from their jobs. This finding epitomises the perceptions of Blauner (1964), Pen, (1991), Adler, (1992), Amobi, (2018) and Lyon-Caen (2021), that unanimously posit that work in the contemporary epoch would be meant for those individuals who are technology-savvy.

Table 4.5The Extent to Which Technology Influences Job Commitmentin Nestle S.A. and Nigeria Brewery Plc.

			Firms			
Nestle (1866)	Nig. Brewery (1946)					
(N=18 Units)	(N=20 Units)					
Tech levels	Tech levels					
	Low	Medium	High	Low	Medium	High
Variables	(n=2)11.1%	(n=11)61.1%	(n=3)27.8%	(n=4)20.0%	(n=13)65.0%	(n=3)15.0%
Job commitmen	18.58	18.65	16.37	13.71	15.18	15.38
				0.11		
F-ratio	5.30			2.11		
Df	2/15			2/17		
P-value	0.01			0.1		
Comparison test						
	1	2	3			
1 Low Tech	-					
2 Medium Tech	0.834	-				
3 High Tech	2.2176*	2.281*	-			

Source: IDIs, 2018

Table 4.5 portrays the mean values of job commitment across the three technological levels of the units in Nestle S.A. (18.58, 18.65, and 16.37) and Nigeria Brewery Plc. (13.71, 15.18 and 15.38) respectively varied considerably. As presented earlier, in the mean job commitment across the three categories of technology in Nestle S.A. (18.58, 18.65 and 16.37), the mean job commitment differed considerably across the units in Nestle S.A. According to ANOVA, medium technological level units had the highest mean job commitment. In essence, the level of commitment of employees in Nestle S.A. was higher in the medium technological level units (18.65) than job commitment in both low (18.58) and high technological level units (16.37). This technically implies that the workers in the medium technological level units (18.65) were more devoted to their jobs than their counterparts in both low (18.58) and high technological level units (18.65) were more devoted to their jobs than their counterparts in both low (18.58) and high technological level units (18.65) were more devoted to their jobs than their counterparts in both low (18.58) and high technological level units (18.65) were more devoted to their jobs than their counterparts in both low (18.58) and high technological level units (18.65) were more devoted to their jobs than their counterparts in both low (18.58) and high technological level units (18.65) were more devoted to their jobs than their counterparts in both low (18.58) and high technological level units (16.37). It signifies that technology resulted in high job commitment in the medium technological level units (18.65) in Nestle S.A.

The finding which was gathered in Nestle S.A is attributable to the fact that the employees in the medium technological level units (18.65) were discovered to be more devoted to jobs than their counterparts in both low (18.58) and high technological level units (16.37) which automatically metamorphosed to high job commitment. Deductively, the skilled employees who were in the medium technological level units (67.81) were observed to be more dedicated in their jobs than their counterparts in both low (18.58) and high technological level units (16.37). The finding negates the view of Blauner (1964), who contends that it was the employees of both low and high technological level industries who enjoyed autonomy and who were more dedicated to their jobs than their counterparts in medium technological level industries like assembly-line engineers who lacked autonomy and who judgment emanating from the formal sub-division of job functions, standardisation and rationalisation as well as routinisation of the production processes. The justification adduced for the medium technological level units having the highest mean value of job commitment is based on having the highest mean value (67.81) of job skill. It can be logically established that high skill automatically translated into a high level of job commitment. Interpretatively, a highly skilled employee was more devoted to his job given that he enjoyed considerable

autonomy which captures Blauner's construal of chemical and oil-refining industries whose operators were highly devoted to their jobs as they have been in charge of the entire industry despite its diversity, decentralisation and dynamics.

The result of the analysis revealed that low technological level units had the medium mean job commitment (18.58) across the three categories of technology in Nestle S.A. This signifies that the employees in low technological level units (18.58) were not as loyal as their counterparts in the medium technological level units (18.65) but they were more loyal than their counterparts in the high technological level units (16.37). In a nutshell, given the fact that the low technological level units have the mean value which is lower than (18.58) that of the medium technological level units (18.65) but higher than that of the high technological level units (16.37), it can be interpreted to imply that the employees in low technological level units (18.58) were less-inclined to exhibiting loyalty in their jobs than their counterparts in medium technological level units (18.65) but more loyal in their jobs than their counterparts in high technological level units (16.37). In looking at this trend critically, it becomes evident that it is inconsistent with Blauner's conception of industrial categorisation where he posits that an operator in a low technological industry like the printing industry was less-alienated from his job than his counterparts in medium technological level industries which resulted in more commitment than that of his counterparts in medium technological level industries.

In comparison with the average job commitment (18.58, 18.65 and 16.37) across the three classifications of technology in both low (18.58) and medium technological units (18.65), it was observed that average job commitment in high technological level units had the lowest mean job commitment (16.37). Invariably, it suggests that the employees in high technological level units in Nestle S.A. exhibited lower job commitment than their counterparts in both low and medium technological level units. From the foregoing, it can be inferred that the workers in high technological level units were less-committed in their jobs (16.37) than their counterparts in both low (18.58) and medium technological level units (18.65). The employees in high technological level units (16.37) were less-dedicated in their jobs than their counterparts in both low (18.58) and medium technological level units (18.65). Owing to the fact that, the employees in high technological level units (60.30) were

more deskilled than the employees in both low (66.75) and the medium technological level units (67.81), they were more disloyal in their jobs and firm than their counterparts in both low and medium technological level units.

Considering the fact that to manipulate technology in the high technological unit did not require much expertise (60.30) given that it required merely pressing buttons routinely which afforded its operator considerable autonomy and which should by extension, translate into high allegiance to the goals and objectives of the firm taking into cognizance that job commitment of such an operator is expected to be high. However, in the case of Nestle S.A., the finding from the study falls short of the notion of high technological units requiring high skill which automatically culminates into high loyalty in achieving the goals and objectives of a particular firm because what the finding from Nestle S.A. depicted is quite contrary to Blauner's construal of industrial categorisation. Naturally, an operator in high technology enjoys the dynamics, diversity, value-adding and per capita investment and other factors that will stimulate his job commitment. Thus, it is logical to affirm that an employee in the high technological level unit should be more committed to his job more than his counterparts in both low and medium technological level units given that such jobs are not meant for the rank and file. This exemplifies the view of Blauner (1964), who asserts that the technology in oil refining industries is the peak of mechanisation of work that represents the work of the future which does not require all and sundry to man its technology.

In providing an answer to whether technology affects job commitment in Nestle S.A., the result of the analysis revealed that the variations in the mean job commitment across the three categories of technology in Nestle S.A. are statistically significant at (F=5.30, df=2/15 and p=0.01). The simple inference which can be deduced from the finding is that technology significantly impacted job commitment as far as Nestle is concerned given the fact that there are significant differences in the mean job commitment across the three technological levels of the units in Nestle S.A. It therefore signposts that the employees in Nestle S.A. switched allegiance in their jobs given the technology they utilised in discharging their job functions. It implies that technology resulted in a decline in the commitment of workers in Nestle S.A. In other words, the workers in Nestle S.A. were disloyal in the discharge of their tasks given the equipment they utilised. Arising from this, it can be unequivocally posited that switching

of allegiance was the tradition of the employees in Nestle S.A. following the equipment they utilised in carrying out their job functions.

In correspondence to the statistical finding gathered from the study, a crucial IDI which was conducted with the head of Culinary Unit in Nestle S.A revealed thus:

The Culinary Unit employees who possessed increased versatility and demonstrable competency will not consider switching allegiance to others firms as an option because of the diversity, dynamics, per capita investment, value-adding and freedom which they enjoy. The employees who possess exceptional skills by dint of rigorous training remain loyal to the goals and objectives of the firm. As a matter of fact, such employees turn down offers from other firms having been contented with the sophisticated equipment and conducive work condition of the firm. Such employees present the firm on a good note wherever they go. (IDI/Firm1/CM/May, 2019).

Emanating from the prior synopsis, employees who are firmly rooted in their jobs usually stay put on their jobs owing that they enjoy value-adding, per capita income, diversity, and dynamics of a particular unit. Due to the fact that they call the shots in their jobs, they do not bother to indulge in labour turnover given that they are fulfilled in their jobs. In this regard, possessing high skills places one on vantage position to be free from job alienation. It has been stressed that the work of the future and the future of work will be so sophisticated that it will belong to the professionals who take charge of their jobs. Having array of skills in the digital epoch is an antidote to counteract the effects of technology on work variables. In this wise, a worker who stands out from the crowd enjoys considerable autonomy. By virtue of this, he remains loyal to the mission and vision statements of the organisation where he works.

Another IDI that was conducted with a unit head from the Production Unit goes thus:

There is absolutely no mutual trust between the business owners and the employees as the employees are not quite sure of their fate because automated technologies could be adopted which tend to displace and replace them from their jobs such that the fear of technology is the beginning of wisdom. A particular worker can suddenly receive a text message from the management that his/her services are no longer required as a result of automated technology has been adopted to produce in large quantities. The fulfilment of employees becomes elusive given the technological advancement because as tasks are increasingly automated, enormous apprehension grips employees because the business owners place a high premium on technology ahead of the employees as it reduces the costs of production. Without fear of equivocation, one will not be far from the truth to establish that the fear of automated technology is the beginning of wisdom, particularly in the Production Unit. The rationale behind adducing this is basically that the adoption of advanced technology can boot out certain employees from their usual tasks. The rate at which technology ravages the production processing is rapid so much so that employees do not know their fate. If this trend persists, the fate of employees is pretty bleak in the production process. (IDI/Firm1/PM/May, 2019).

The argument advanced in the previous in-depth interview; the optimism of workers is bleak given that they are prone to being fired at any given point in time. The justification adduced is that business owners place high premium on technology more than workers. Consequent upon this, fulfilment becomes exceedingly elusive owing that the face of employees is bleak as technology can displace and replace workers at any point in time. The fact of the matter is that technology has begun to make itself felt in the production process such that the efforts of operators are no longer immediate in the production process given that automated technology does the bulk of the tasks meant to be executed by workers. Against this backdrop, employees are usually hesitant to dedicate their allegiance to their employers, particularly in the digital epoch.

In coherence with the statistical data generated from the study, an IDI that was conducted with a Unit Head from Quality Assurance Unit reveals thus:

Loyalty to the firm is on shaky footings in that the employees do less of the bulk of the tasks which they used to do as a result of the core tasks are done by automated equipment. What is left to be done by employees is a mere pressing of buttons. It is natural to see employees switching allegiance from one firm to another having been subjected to the rhythms and pace of technology. Being restricted from using one's discretion can be repulsive which can stimulate employees to migrate from one firm to another. A worker whose job is threatened by technology would not think twice to resort to labour turn-over. (IDI/Firm1/QAM/May, 2019).

The point being adduced in the in-depth interview chiefly centres on disloyalty became the stock-in-trade of an average worker in the Quality Assurance Unit due to the usurpation of tasks by automated technology. Prior to the advent of automated food analysers andautomated beverage analysers, workers used to exert their skills which gave them some moments of fulfilment and in return, they used to demonstrate reciprocity to the unit through loyalty. The coming of automated food analysers and automated beverage analysers

drastically brought about a new dimension on work in that in evaluating both rawmaterials and finished commodities, physical exertion and mental efforts declined astronomically as a result of automated food and beverage analysers doing thebulk of work meant to be done by employees. This scenario drastically depleted the morale of employees in the Quality Assurance Unit.

The finding corresponds with the viewpoint of Blauner (1964), who submits that when employees in assembly-line production felt dissatisfied with their jobs, they did not hesitate before they indulged in labour turn-over which Arisukwu and Adeniyi (2011), conceptualise as the migration of employees from one industry to another which can either be voluntary or involuntary due to lack of fringe benefits and other intrinsic and extrinsic factors.

In comparison to the statistical finding from the study, the response generated from a unit head in the Account Unit revealed thus:

The allegiance of employees essentially hinges on a particular App being adopted by a particular unit because it makes work move faster. Besides, the work environment needs to be friendly. Basic amenities pretty need to be put in place to stimulate the employees to remain loyal to the firm's mission and vision. The technology which employees utilise to execute tasks has to be user-friendly to enable the employees to man it with ease. (**IDI/Firm1/AccM/May, 2019**).

The interpretative meaning of the prior in-depth interview borders essentially on the loyalty of employees towards a particular app is a function of the convenience and the pace that it brings to work. An enabling environment stimulates workers to deliver their best towards the actualisation of organisational goals and objectives. They will whole-heartedly contribute both their intellectual and professional quarters towards the realisation of mission and vision statements of an organisation. Flexibility of a particular technology determines its adoption and its diffusion. Its acceptance goes viral across a particular community if it is easy to operate.

In contrast to the finding, an IDI conducted with the IT Unit head reveals thus:

Relishing being in charge of one's job as an IT employee without necessarily being dictated to by the management of the firm ultimately stimulates one to be loyal to the goals and objectives of the firm. For the mere fact that everything is technology-driven which places employees in vantage positions ultimately enables employees to be in charge of their jobs. Fulfillment overwhelms workers in the IT Unit because it is a profession that excites employees to remain loyal to jobs so much so that engaging in labour turnover is not their worry at a material point in time. Technology is an innovation that needs to be explored. In this wise, employees in this unit value working with technological gadgets owing that they remove the rigour of work. (IDI/Firm1/ITM/May, 2019).

It can be interpreted that being in control of one's job as an IT specialist suffices to enable a worker to be loyal to a particular organisation. Besides, when a company invests heavily in a worker to undergo training, it will spur him to stay put on his job. An IT specialist is always loyal to a particular company as a result of the free hand which he enjoys on his job. Considering that everything is technology-driven in the digital era, being an IT specialist stimulates him to remain loyal to a firm owing that he is not dictated to his superior boss. His loyalty is unshakable by virtue of the autonomy he enjoys. More than anything else, he is instrumental to the actualisation of tasks execution in virtually all the units across the company where heworks because almost all the units in that particular company require his services to get tasks done with ease.

The finding refutes the position of Meyer and Allen (1991), which signifies that loyalty is achieved when a worker is contented with what he or she experiences in the workplace. This can be in form of training, supervision, promotion, work condition, investment, or the equipment deployed to execute tasks in the workplace. In a typical scenario where an an employee is trained while on job, he or she may decide to stay put. It is crystal lucid that a worker who utilises a sophisticated tool in executing tasks will derive immense pleasure in aiming at contributing his or her own quota growth and development of the organisation where he or she works. Employers will definitely be compelled to align themselves with technological trends as it enhances productivity and reduces the costs of production. The onus lies on workers to innovate, invent, aupgrade, create and diversify to optimally explore and maximise innovations to derive great job commitment.

The Comparison test of Job Commitment across the Three Levels of Technology in Nestle S.A.

It became imperative to compare the mean job commitment of low, medium and high levels of technology in Nestle S.A so as to discover the exact Tukey's Honest Significant Difference (HSD) that is responsible for the statistical significance of the differences in the mean job commitment across the three technological levels in the units of Nestle S.A. It was gathered that the mean job commitment in both high and low technological levels was statistically significant, which is the mean value in the asterisk: 2.218*. In a similar vein, in comparing the mean job commitment of both high and medium levels of technology, it was found that the mean job commitment of high and medium levels of technology was statistically significant, going by the mean value which is in the asterisk: 2.281*.

Beyond funfair, beyond entertainment galore, the model developed for this study aptly aligns with this finding in that it provides a wealth of interesting insights on how technology utilised in Nestle S.A. significantly impacted on the skill of the employees working in Nestle S.A. More than anything else, it revealed the relationship between technology and job commitment having initially revealed the relationship between technology and job skill. In this wise, it is valid to affirm that the model is apt for the finding given that it explicitly unravelled the interrelatedness among technology, job skill, job satisfaction and job commitment in Nestle S.A.

The Extent to Which Technology Influences Job Commitment in Nigeria Brewery Plc.

Contrary to the finding gathered in Nestle S.A., the average job commitment in high technological level units in Nigeria Brewery Plc. was observed to have the highest mean value of job commitment (15.38). This can be deduced to signify that the employees in high technological level units were more devoted to their jobs than their counterparts in both low (13.71) and medium technological level units (15.18). Given this result, it can be affirmed that the workers in high technological level units (15.38) did not switch allegiance in any way as their counterparts in both low (13.71) and medium technological level units (15.38) did not switch allegiance in any (15.38) to the goals and objectives of the firm than their counterparts in both low (13.71)

and medium levels (15.18) of technology. This finding does not align with Bravermaniac construal of technology who forcefully posits that technological advances, as well as division of labour, destroyed handicraft skills of the craft men and the artisans in the craft and guild epoch which by extension, engendered dissatisfaction and non-commitment of workers to their jobs and firms where they worked. In a critical examination of Braverman's apprehension, a deskilled worker will naturally be disloyal to his job and firm where he or she works having been rendered deskilled, such a worker would not be keen on the realization of the mission, vision, goals and the objectives of a particular firm.

In comparison to the average job commitment in high technological level units (15.38), it was found that the average job commitment in medium technological level units (15.18) was lower than that of high technological level units (15.38) but higher than that of low technological level units (13.71). Inferentially, the employees in medium technological level units (15.18) were less-dedicated to their jobs and firm than their counterparts in high technological level units (15.38). However, they were more devoted (15.18) to their jobs and firm than their counterparts in low technological level units (13.71). In rating loyalty among the employees in the three categories of technology across the units in Nigeria Brewery Plc., the commitment of the employees in medium technological level units (15.18) was lower than the employees in high technological level units (15.38) whereas their job commitment was higher (15.18) than that of the employees in low technological level units (13.71).

It suffices to posit that the medium technological level units' workers (15.18) registered allegiance (15.18) less than their counterparts in high technological level units (15.38) but they registered allegiance (15.18) more than their counterparts in low technological level units (13.71). This logically signifies that the employees in medium technological level units (15.18) were more loyal in the attainment of the goal and objectives of the firm than those in low technological level units (13.71) but they were less loyal than those employees in high technological level units (15.38). The finding is antithetical to what Blauner (1964), postulates regarding the medium technological level industry's operators where he asserts that the medium level of technology erodes job commitment which epitomises the peak of alienation due to officially fragmented and mechanised nature of work. Against the backdrop of the sub-division of work in the assembly-line, its operators were more alienated

from work than their counterparts which automatically results in low job commitment.gainst the backdr technological level units in Nigeria Brewery Plc. had the lowest job commitment (13.71). This suggests that the employees in the low technological level units (13.71) were the most disloyal workers in Nigeria Brewery Plc. Given the differences in the mean job commitment in the three categories of technology (13.71, 15.18 and 15.38), it suffices to affirm that the workers in low technological level units (13.71) were at the bottom of the job commitment scale in comparison to their counterparts in both medium (15.18) and high technological level units (15.38).

This finding is not in concord with the view of Woodward (1965), who contests that in small-batch technology units, an employee exerts his dexterity in fabricating the products of his or her own hands given that it is manually done, where the execution of tasks involves exerting one's skill in carrying out the job functions which is quite involving. Objectively, the low (13.71) commitment observed in low technological level units is a by-product of the low skill (65.69) which the workers in low technological level units possessed in Nigeria Brewery Plc. This shows that the workers in low technological level units possessed low skills (65.69) which resulted in low job commitment (13.71) of such workers. Going by the finding from the study, it was discovered that the employees of Nigeria Brewery Plc. who were in low technological level units had low skill mean value which resulted in low job satisfaction and which eventually translated into low job commitment. Invariably, low skilled workers were in low technological units whose job satisfaction and job commitment were extremely low.

The result from the analysis indicated that the differences (13.71, 15.18 and 15.38) in the mean values of job commitment across the three groups of technology in the units in Nigeria Brewery Plc. were found to be statistically insignificant at (F=2.11, df=2/17 and p=0.1). The implication of the result of the finding is that regardless of the sophistication of technologies deployed in Nigeria Brewery Plc., the workers were never guilty of switching allegiance from their current jobs to other jobs or firms. In other words, the employees in Nigeria Brewery Plc. felt obligated to the mission and vision of the firm. Beyond this, the employees in Nigeria Brewery Plc. were keen on achieving the desired goals and objectives of the firms despite the technology they utilised in carrying out their job functions. On the

whole, the workers in Nigeria Brewery Plc. did not switch allegiance when it comes to the actualisation of the optimal goal of the firm. High technological level units' employees were found to possess the highest mean job skill (73.00) which automatically translated into the high mean job commitment (15.38) in Nigeria Brewery Plc. which indicates that the employees in high technological level units in Nigeria Brewery Plc. possessed dexterity (73.00) more than their counterparts in both low (65.69) and medium (69.54) technological level units which resulted in high job commitment (15.38).

In contrast to the statistical result which was spawned from the finding, a vital In-depth Interview that was conducted with the Unit Head from the Production Unit goes as follows:

In a scenario where employees lose their jobs and skills as a result of computerisation and automation of tasks, the loyalty of such employees is compromised as their jobs and skills are threatened by automated equipment. It will be foolhardy of a particular employee to remain loyal to the mission and vision of an organisation when he knows that he can easily be eliminated at any given time. Such an employee must be proactive, rather than being reactive. In this regard, such an employee must expeditiously develop a Merlin factor in order to look for an alternative. (**IDI/Firm2/PM/May, 2019**).

Considering the fact that employees were not sure of the fate in the next hour, they did not hesitate to switch allegiance when they are presented with opportunities and so, their loyalty was not in doubt. Loyalty is a mutual thing in that business owners cherish technology over the employees to the extent that they do not dilly-dally to lay-off employees when innovations that have the tendency of optimising profits are being invented. It is compellingly lucid that employers are quite at liberty to hire and fire employees when they consider it necessary. Owing that technology has the tendency of boosting productivity and efficiency of a given company, when adopted; the fate of employees becomes desolate. Taking into cognizance that upon the adoption of new technology, business owners can easily choose to do away with certain workers at any point it time, employees equally do not bother their heads to think about indulging in labour turnover when they are privileged to secure better offers elsewhere.

Arising from this finding, one will not be far from the truth to establish the fact that technology did not have any correlation with job commitment as far as Nigeria Brewery is

concerned. The finding is consistent with Meyer and Allen (1991) submission that when a worker is pleased with his or her experience of utilising a particular tool in workplace, he or she will whole-heartedly contribute his or her intellectual and professional quota to the goals, objectives, values, mission and vision of the organisation where he or she works. A satisfied worker will glaringly deliver his or her best if he or she derives pleasant experience from the tools he or she utilizes to execute job tasks. It is crystal evident that when a tool removes the drudgery of job, a worker tends to be pleased with such a tool owing that he goes home refreshed.

Regardless, when the use of particular equipment removes the efforts and energy of a worker in the production process, such a worker will not concentratedly discharge his duty given that it will deleteriously influence his loyalty towards the organisation. This will undesirably influence the mutual trust between an enterprise owner and an employee taking into cognizance that it affects how he contributes his quota to the actualisation of the goal of the organisation. The finding revealed that technology did not harmfully influence the job skill of workers in Nigeria Brewery Plc. Equally; the finding showed that technology did not alienate workers in Nigeria Brewery Plc. By extension, the employees were never influenced by technology when it comes to their satisfaction which reflected on their job commitment.

Owing that the employees of Nigeria Brewery Plc. were never deskilled by the equipment they utilised in discharging their job functions, it is logical to posit that they were not alienated from their work given the tools deployed to execute tasks. It then reflected on the satisfaction of such workers having not been deskilled and alienated by the equipment they utilised in discharging their duties. It then follows that the employees of Nigeria Brewery Plc. were committed to the firm having not been deskilled and alienated by ithe equipment utilised. Thus, it suffices to submit that non-deskilled and non-alienated workers were satisfied with their jobs whose allegiance were dedicated to the firm's mission and vision statement revealed by the result from the finding gathered from Nigeria Brewery Plc.

The result repudiates Onyedika-Ugoeze's(2020) belief that at the conclusion of the technical strategy, people will identify the important risks and determine how they may manage those

risks so that people will be aware of the dos and don'ts and how to best extract value from BlockChain. In light of this, he reveals that Abdullahi recommended that Fadele Adeolu, a representative of the apex bank of Nigeria, promised the central bank's support for the BlockChain effort.The apex bank's full commitment to the Blockchain initiative, which would propel the growth of Nigeria's economy, is enshrined in Abdullahi's proposal. On the basis of this, Abdullahi declared that the program's accessibility will greatly provide the desired consequences. He claimed that Abdulsalam Umar, a BlockChain expert, claimed in an overview of the National Block Chain Adoption Plan that BlockChain will significantly lower costs and improve security throughout the entire nation just because of its supportive environment.

A similar qualitative data gathered from the head of the Accounts Unit goes thus:

The utilisation of software and hard wares to get work done greatly inspires employees to work optimally in this unit. Having sophisticated equipment in place to execute tasks enormously stimulates employees to work seamlessly, ultimately propels employees to be efficient as it gives no room for complacency. As a matter of fact, having the necessary tools at one's disposal to execute tasks, serves as an impetus to pursue the goals and objectives of the firm. This indeed serves as a source of inspiration to remain loyal to the mission and vision of this firm. This discourages employees to consider opting for other firms in the event of better offers elsewhere. (IDI/Firm2/AccM/May, 2019).

The interpretative meaning of the earlier in-depth interview is that the availability of soft ware and hardware while carrying out job functions ultimately spurs workers in Accounts Unit into effectiveness and efficiency. As a matter of fact, having a suitable technology at one's disposal facilitates task execution. In other words, efficiency and effectiveness of an organisation can be accomplished when workers have the appropriate equipment to carry-out their job functions. In this regard, employees put in their best when they have a variety of tools to carry-out their daily tasks. In contrast, working with obsolete tools has the tendency of dampening the morale of workers. Consequent upon the frustration emanating from the utilisation of moribund equipment to execute tasks in a certain organisation, workers can easily resort to labour turnover given that the preponderance of employees do not cherish being stressed out.

The qualitative data which was collected from the unit head in Admin Unit reveals thus:

It is practically impossible to see an employee whose job is being swallowed by technology to be loyal to the mission and vision of a particular firm. This is because his pride as a worker is ultimately derived from his job as the job is self-fulfilling and self-actualising. The pride of an employee lies primarily in his ability to be gainfully employed and exert skills in the course of executing tasks. When the skill of an employee is no longer required in a firm, his loyalty to such a firm will be compromised to switch allegiance to another firm. However, the employees who enjoy considerable freedom in their jobs hardly switch allegiance. (IDI/Firm2/AdminM/May, 2019).

It suffices that reciprocity is a game of life given that employers construe employees as raw materials that must bring profits to organisations whereas the employees' chief aim of expressing labour in organisations is geared towards realisation of money in order to cater for themselves and their families. Fundamentally, employers place high premium on equipment ahead of the employees owing that the former enhances profitability more than latter. In this respect, employers fondly reduce the costs of production and at the same time, increase productivity. This is usually done by adopting technology and downsizes certain employees. When technology threatens the existence of employees in a particular company, such employees will never hesitate to switch allegiance. Certain technologies make their presence felt in the manufacturing process such that employees do not really know their fate. In this kind of instance, such employees have no optionbut to indulge in labour turnover when opportunities come their ways.

Another significant qualitative data which was elicited from the unit head in the HR Unit goes thus:

Being loyal to a particular firm is apparently a mutual thing. For employees to portray a firm on a good note requires being somewhat satisfied with tools, fringe benefits, take-home income and other things. In the case of this firm, the employees in this unit can be regarded as being loyal to some extent but to a greater extent, they can be said to be disloyal when it comes to technology reducing the proportion of the labour force, they can easily switch allegiance when they get to see better offers elsewhere. They will not think about it twice as the money remains a motivating factor in Nigeria. (IDI/Firm2/HRM/May, 2019).

It can be substantiated that loyalty is a two-way thing. For employees not to switch allegiance in workplace where they express their labour for the salaries which they usually earn on monthly basis, they will perceive some elements of reciprocity on the part of business owners aswell. For employeesto stay put on their jobs, even they are offered other jobs elsewhere, organisations pretty need to make provisions for amazing allowances, impressive fringe benefits, good salary package and other things that propel employees into loyalty. There is no smoke without fire given that loyalty should be born out of incentives provided by business owners. Employees usually weigh the pros and cons of their decisions on whether to switch allegiance or to stay put on their jobs. Making provisions for incentives for employees will immensely spur them to remain loyal to organisational goals and objectives. On the whole, when employees derive optimal satisfaction from the equipment which they utilise in carrying-out their daily tasks, they usually reciprocate by not switching allegiance.

The foregoing indicates that technology has an influence on the nature of work in contemporary industrial settings. Although, influence varies considerably from unit to unit owing that technology varies considerably from unit to unit bearing in mind that the job functions differ considerably from unit to unit. This mirrors the perspective of Blauner (1964), who maintains that technology varies from one industry to another.

The finding negates the stance of Sainato (2021), who maintains that numerous employees who partook in the protests waged at Amazon against the background of hazardous working conditions alleged that they were laid-off and Amazon is vigorously fighting federal complaints claiming at least two of the firings violated US labour (Sainato, 2021). He maintains that a total number of ten millionaires catch on \$400 billion boosts to affluence in the course of the coronavirus pandemic. As revealed by Sainato (2021), stakeholder shares and profits rose via 2020 by billions of dollars. Regardless, Amazon has only made provisions for a fraction of those extra earnings in bonuses and hazard pay to employees, owing to an analysis carried out by the Brookings Institution.

In the application of the model to the study, the findings portrayed no link between the model and the findings in that the technologies deployed to execute tasks in Nigeria Brewery Plc. were found not to deskill and alienate workers which by extension, did not destructively impact on the job satisfaction of the employees that did not eventually impact on their job commitment. Without any prejudice to the model, it explicitly explained the interrelatedness of the independent variable (technology) as well as the dependent variables

(job skill, job alienation, job satisfaction and job commitment in the study. Hence, the model is quite appropriate for the study taking into cognizance that it explained how technology impacted the skills of the workers. Correspondingly, it was discovered that technology had a connection with the satisfaction of the workers. It depicted how high skill resulted in nonalienating work processes. It then showed how workers felt contented with their jobs insofaras they were not deskilled and alienated. It demonstrated how non-alienated workers felt satisfied. In the long run, it revealed how satisfied workers remained loyal to their jobs and to the firm. This justified the appropriateness of the model developed.

4.6 Theoretical Discussion of Findings

Labour Process Theory is quite suitable in providing a theoretical explanation for the study in focus given that its theoretical underpinnings suitably capture the finding of the study which was gathered from Nestle S.A owing that the differences in the mean job skill (66.75, 67.81 and 60.30) across the three levels of technology in Nestle S.A were found to be statistically significant at p=0.04. The corollary of this is that technology deskilled workers which reflect the underlying tenets of Labour Process Theory. Bearing in mind that the finding revealed that technology deskilled workers in Nestle S.A, it can be deduced that technology objectified and materialised workers in used value. By inference, the employees of Nestle S.A were reduced to the status of a mere object as a result of utilising technology in carrying-out job functions. In a similar vein, the employees of Nestle S.A were seen as raw materials which must bring value to the firm.

The finding equally mirrors the fundamental claims of the Labour Process Theory which centre on the workers lacking autonomy in terms of the planning of their jobs, determination of skills which should be exerted in the execution of tasks, monitoring of tasks and wage determination for the tasks that are executed particularly whether their wages are commensurate with the skills exerted in carrying-out job functions. The point being established in this context is that the employees of Nestle S.A lacked autonomy about the planning of their jobs; skill exertion in the tasks being executed; monitoring of their job; and wage determination for the skills they exerted in discharging their duties. It then logically follows that the fundamental claims of Labour Process Theory ultimately border on the

motive of the capitalists to separate the work into the conception and its execution thereby the management is saddled with the planning of the work while the shop-floor workers are being saddled with the doing of the work. In the light of this, work processes and technology rendered employees deskilled following that capitalists aim at reducing the costs of production by adopting technology in order to optimise productivity.

In contrast to the suitability of Labour Process Theory to the finding that was gathered from Nigeria Brewery Plc., Labour Process Theory fails to capture the finding that was discovered from Nigeria Brewery Plc. taking into knowledge that the employees of Nigeria Brewery Plc. enjoyed considerable autonomy in planning, monitoring and wage determination of their jobs more than their counterparts in Nestle S.A given that technology was found not to degrade the employees in Nigeria Brewery Plc. following that the differences in the mean job skill across the three technological levels were found to be statistically insignificant at p=0.2. What this signifies is that technology did not deskill employees in Nigeria brewery Plc. which contradicts the fundamental claims of Labour Process Theory. What can be concluded from this finding is that the employees of Nigeria Brewery Plc. were not objectified nor materialised in used value which indicates that such employees were not perceived as individuals who were meant to bring value to the firm. Similarly, the employees of Nigeria Plc. were not reduced to the status of a mere object. What accounted for this trend is that the employees in high technological units were found to possess high skill levels which shielded them from being deskilled by technologies which they utilised in carrying-out job functions.

Another crucial point that is worthy of confirming is that judging by the result gathered from Nigeria Brewery Plc., the employees of the said firm were autonomous when it comes to the exertion of expertise in task execution. This refutes the stance of Labour Process Theory. The mixed finding can be justified by the variations in the modes of production of the two firms in perspective. Technically, bearing in mind that the two firms differed considerably in the modes of their production, it follows that the technology they both adopted varied which required different skills to man them. This is one of the flaws of Labour Process Theory as it did not take into account the fact that firms vary in their modus operandi which suggests that the technology varies considerably from one firm to another

which has various implications on the skill requirements depending on the context of the firms. This justifies the inability of Labour Process Theory to suitably explain influence of technology on work in Nigeria Brewery Plc. This shows that no theory is entirely immune from criticisms as flaws are inevitable.

Concerning the Alienation Theory adopted whose underlying claims revolve around the fact that workers are subordinate whereas technology is super-ordinate thereby experiencing alienation from the process of production, alienation from the finished products, social alienation and self-estrangement which indicates alienation from the specie of self as a result of working in an organisation which is highly hierarchised that workers are part of, the employees of both firms were discovered not to have been alienated by the technologies adopted to execute tasks with Nestle S.A having a p-value of 0.053 while Nigeria Brewery Plc. having a p=value of 0.5. This simply signifies that the cardinal claims of Alienation, social alienation and specie alienation were not found in both firms. It then indicates that the employees of both firms did not experience alienation from the process of productior; alienation from the finished products; alienation from the process of production; alienation from the finished products; alienation from the process of production; alienation from the finished products; alienation from the process of production; alienation from the finished products; alienation from co-workers and alienation from oneself.

It is pertinent to establish that the crop of workers which this study focused on were the permanent staff of the selected firms who underwent training upon their recruitments, selections, placement, and probations. Having undergone series of training upon their recruitments and having stayed long on their jobs, they became professionals, especially in Nigeria Brewery Plc. In this wise, they became skilled which unrestrained them from being alienated. Moreover, taking into cognizance that the employees in the selected firms worked in teams, prevented them from being alienated. The foregoing justifies the inability of Alienation Theory to aptly explain the alienation dimensions of the study. On the strength of this, it suffices to establish that skilled workers were non-alienated workers who enjoyed considerable freedom in the jobs which resulted in considerable satisfaction and commitment, particularly in Nigeria Brewery Plc.

Workers who studied courses such as Mechatronics, Engineering and Automation, Artificial Intelligence and Robotics were mostly recruited into the selected firms to man automated equipment owing to their expertise so much so that they did not feel powerless in their jobs. Given this, they were pleased with their jobs as their jobs had meanings to them owing that they enjoyed diversity, value-adding, and per capita income of Culinary Unit, Production Units and others, following that the selected firms were manufacturing companies that utilised advanced technologies for the manufacturing of commodities. Given the biases for the aforementioned courses, exceptionally-skilled employees were recruited to man the sophisticated equipment which enabled them considerable leverage to call the shots in their jobs without necessarily being at the mercy of the management. In strict consonance with the International Standard Organisation's Law which states that the food and beverage industry should migrate from manual technology to semi-automated technology and to highly automated technology in order to get rid of the contaminations that usually accompany the end-products, the said firms in the food and beverage industry adopted sophisticated technologies which required professionals to operate them. In respect of the sophisticated equipment which required expertise, their operators did not feel alienated from their jobs. On the whole, the foregoing fittingly captures the inability of Alienation Theory to sufficiently explain the findings which were assiduously gathered from the study.

4.7 Explanation for the Theoretical Model

The theoretical model developed for the study, which typically explains influence of technology on work, was presented. The theoretical model essentially portrays influence of independent variables on the dependent variables used in the study. It was discovered that technology significantly affected job skill, job alienation, job satisfaction and job commitment, depending on the sophistication of the equipment utilised. Equally, it was found that job skills affected job alienation, job satisfaction and job commitment. It is crucial to establish that the skill level possessed by an employee considerably determined the levels of job alienation, job satisfaction and job commitment. It is alienation affected job satisfaction and job commitment. It is overbearing to note that the level of alienation determined the levels of job satisfaction and job commitment respectively. Finally, job satisfaction significantly affected job commitment. It is

noteworthy that the level of job satisfaction of an employee considerably determined the level of job commitment.

In other words, the theoretical model centres on influence of technology on job skills, job alienation and job satisfaction. Job skill affected job alienation, job satisfaction and job commitment. Job alienation affected job commitment. Ultimately, job satisfaction affected job commitment. The technology which a worker utilises in discharging his tasks has a way of enhancing or declining his or her skill. A worker who was previously using a manual tool to carry out tasks can learn about the digital machine which adds to his or her existing skill. In this wise, such a worker has added to his or her existing scope of epistemology without necessarily having to lose the manual skill. Conversely, a worker who was previously operating manual food analyser and manual beverage analyser who eventually operated semi-automated food analyser and semi-automated beverage analyser would have lost the manual skills of operating this equipment, considering that he or she would have been subjected to routinely pressing buttons as opposed to using his or her manual knowledge and intelligence. This would considerably limit his or her dexterity and expertise in imaginatively fabricating the products with his or her hands.

When a tool dictates the rhythms and pace of work, the person using it will be rendered powerless given that he or she becomes an interchangeable part of the machine. To become an object rather than a subject in the workplace alienates a worker. Nonetheless, the utilisation of equipment greatly facilitates a collegial tie between a manager and a shop floor worker by conveying pieces of information to each other with the aid of information and communication technology. In this respect, the notion of alienation becomes illusory. In a scenario where a worker is apprehensive about the possibility of an employer bringing on board a technology that tends to take over his job or skill, he or she will not wholeheartedly discharge his or her duty. In other words, the thought of being replaced by a robot dampens the morale of a worker.

Resultantly, it will have implications for his or her salary given that the employer would not likely give him or her fringe benefits accruable to him due to technology reducing the costs of production and enhancing profitability. What ensues afterward is a lack of mutual trust between employer and employee because the fears of machines replacing them will affect their loyalty. The initial mutual trust enjoyed by both parties would become unattainable because of the threats posed by automated technology. A worker who is not contented with the tool he or she uses in discharging his or her tasks would become frustrated. Consequently, he or she will resort to labour turn-over which indicates the migration of an employee from one organisation to another due to numerous reasons which range from fringe benefits, lack of allowances, supervision, promotion, self-esteem, poor work conditions, poor salary packages and obsolete equipment.

If a worker is not contented with the equipment he or she uses to carry-out tasks, there is a huge likelihood that he or she will not be loyal to the goals, objectives, mission and vision of the firm where he or she works. To this end, the equipment which a worker utilises in discharging his or her duty is germane to his or her level of job alienation, job satisfaction and job commitment. By extension, a highly skilled worker is unlikely to be alienated, given that they are exceptional. This would enhance his or her level of job satisfaction and job commitment.

4.8 The Synthesis of Labour Process and Alienation Theories

The theoretical model classically explains influence of technology on job skills, job alienation, job satisfaction and job commitment. It ultimately portrays how independent variables influence the dependent variables (job skill, job alienation, job satisfaction and job commitment) used in the study. It indicates that technology influenced job skill, job alienation, job satisfaction and job commitment which resulted in deskilling in Nestle S.A but enskilling in Nigeria Brewery Plc. The idea that is being established in this context is that the technology which employees utilise to execute job functions has a way of influencing their skills, freedom, satisfaction and commitment.

Labour Process is a process which exists between two unequal classes of people whereby the capitalists attempt to exploit the workers such that work is carried on in an atmosphere of antagonism and resistance. In a relationship between two unequal groups of people, capital takes advantage of labour. Labour Process Theory is an ongoing process about work relations leading to other debates. The fundamental claim of the Labour Process Theory is that when technology is deployed in a given firm, it will result in the work degradation. It is a relation between the capital and labour, thereby the former exploits the latter whereas the latter antagonises and resists the attempt made by the capitalists because the former is deskilling the latter.

The Labour Process Theory is essentially about the capital and labour relations, in a scenario when an enterprise owner bifurcates work process into conception and its execution. In this context, the management is saddled with the planning of work whereas the shop-floor workers are saddled with the doing of work such that the workers lacked the autonomy to plan, monitor and determine their wages. Most essentially, they cannot resource fully manufacture the products with their hands, given that the management has spelt- out job specifications which must be followed to the fullest by the shop floor workers. What emerges therein is the extraction of surplus by the business owners which will be invested in other corporations for business to flourish. The argument advanced by the Labour Process Theorists is that the planning of the work should not be concentrated in the hands of a few managers. The counter-argument adduced by the enskilling theorists is that the managers who have undergone crucible of training should oversee the affairs of any given organisation to coordinate how activities are carried out, considering that when workers are allowed to do things according as they wish, things might be haphazardly done.

In situating the theoretical model in the context of Labour Process and Alienation theories, it is fundamental to establish that Labour Process Theory claims that the adoption of technology in the capitalist modes of production expropriates workers' skill by breaking down the complex work process into smaller, simpler and less-autonomous tasks which creates an unskilled proletariat. When the work is broken down, skill, which is the critical tool for resisting managerial control, is lost because the workers know about only a small portion of the entire production process. What emerges therein is the extraction of surplus value by capitalists to invest in more corporations. The further argument advanced by Labour Process Theorists is that the primary motive behind the introduction of machines by the capitalists is to optimise profits which are considered as being detrimental to the wellbeing of the workers. Labour Process Theory holds that technology materialises and objectifies workers in used value. In other words, the adoption of technology subjects the workers to a status of a mere object. Workers are viewed as mere materials like raw materials that must bring profits to the organisation. The theory entirely frowns at concentrating the conception of the work in the hands of the management and leaving the shop-floor workers with only the execution of work. It posits that workers are not allowed to plan, monitor and determine the wages of their jobs as a result of the technology that is adopted. Labour Process Theory provides theoretical underpinnings on how work is fragmented and mechanised to remove workers' skills which is the critical aspect of resisting managerial control and preventing the management from carrying on the work in an atmosphere of antagonism and resistance. The inadequacies of

Labour Process Theory to explain job alienation, job satisfaction and job commitment, necessitated complementing it with Alienation Theory to explain the lack of freedom that workers experience in the workplace.

In contrast to Labour Process Theory, Alienation Theory holds that a worker is an object whereas technology is a subject dictating the pace and rhythms of workers. It holds that the workers are subordinate whereas the machines are super-ordinate in the production process. It posits that a worker is rendered powerless as a result of technology, dictating both the pace and rhythms of the work. It states that a worker lacks control over his work when technology is deployed. The argument advanced by the proponents of Alienation Theory is that advanced technology results in increased alienation. According to this theory, alienation has four dimensions which are alienation from the process of production, alienation from the finished products, social isolation and alienation from the species of oneself as a member of an organisation that has hierarchies.

In a nutshell, while Labour Process Theory explains how the adoption of technology results in skill decline which creates a class of workers that are regarded as proletariat, Alienation Theory basically explains how technology results in powerlessness, meaninglessness, social isolation and self-estrangement of workers which depletes their satisfaction that decreases their commitment level to the goals and objectives of organisations. On the strength of this, it suffices to establish that the inadequacies of Labour Process Theory to explain other variables like job alienation, job satisfaction and job commitment are complemented by the strengths of Alienation Theory whose underlying claims centre on activity alienation, product alienation, social alienation and specie alienation which can make or mar a worker's satisfaction and commitment.

The theoretical underpinnings of the Labour Process Theory lie primarily on how the management is used by the business owners in the capitalist modes of production to break down the complex work process into smaller, simpler and ever-unskilled tasks such that tasks can be done by unskilled or semi-skilled labour. This is mostly accomplished when the business owners employ the management to fragment the labour process such that there will be a bifurcation between the conception and the execution of tasks. While the management is saddled with the planning of the work, the shop-floor workers are saddled with doing the tasks. It is about labour relations; the business owners who own the means of production attempt to solely control the labour process over the workers. In other words, the capitalists employ the management to split the work process into simpler and smaller tasks that produce an ever-unskilled proletariat. The labour process is fragmented so that each worker concentrates on a small portion of the entire work process which is a way of expropriating workers' skills, which results in deskilling.

With deskilling of workers, they will be paid fewer wages because if they demand pay increment, they can be fired owing that the business owners are quite at liberty to hire and fire. After all, technology is more valued and the capitalists will extract surplus value and accumulate wealth. With the accumulation of wealth, the capitalists will be more powerful while the workers will not be able to resist the managerial control since they know about a small portion of the entire labour process which further deskills them. With this kind of work degradation, workers become alienated from their jobs and as a result of the alienation from their jobs which they experience, they become dissatisfied with their jobs and consequent upon the job dissatisfaction, they become disloyal to their work. It is a process that occurs to workers as a result of technology that is deployed to firms by the business owners given that it optimises profits. Alienation Theory claims that technology is making workers more and more powerless as tasks are increasingly mechanised. This is because even though technology does the bulk of the tasks meant to be executed by workers, their salaries are slashed and the workers have no say regarding their conditions. As a result, workers become dissatisfied and become perfidious to their firms. These are the underlying claims of Alienation Theory as propounded by Marx in 1867. In other words, as work is exceedingly mechanised, alienation inevitably sets in. As capitalists try to control workers, workers resort to resistance against the dominance of the business owners. Invariably, Labour Process Theory leads to Alienation Theory. It is salient to acquiesce that both theories are quite appropriate for the study. The justification for adducing the stance is that the weaknesses intrinsic in Labour Process Theory are complemented by the strengths of Alienation Theory. This is how the two theories are employed in the study.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary

This chapter presents the summary, conclusion and recommendations of the entire study. As technology evolves, it has implications on the vital nature of work in terms of job skill, job alienation, job satisfaction and job commitment, which can be deskilling or enskilling or skill polarisation. The evolution of technology from simple technology that characterised the pre-Fordist era, which is manually operated, required skill exertion, entailed the intervention and involvement of workers and is classified as low technological level; to semi-automated technology that dominated the Fordist era which is both manually and mechanically operated and considered as medium-level technology; and then, to advanced technology which dominates the post-Fordist era and otherwise regarded as sophisticated technology which is operated digitally, symbolically and electronically, and also, classified as high technological level. Each of these epochs of the evolution of technology has had its implications on the dominant nature of work variables. Having painstakingly identified and classified the technological levels utilised across the units of the selected firms, influence of technology on job skill, job alienation, job satisfaction and job commitment was examined across the units of the aforementioned firms.

Against this background, the extent of influence of technological advancement on work requirements has generated a Labour Process Debate among three broad schools of thought (Deskilling School of Thought pioneered by Marx and Braverman,Enskilling School of Thought championed by Blauner and his adherentsand Skill Polarisation School of Thought led by Gallie, Vallas, Lee, and Heisig other neo-Marxist scholars). The Deskilling School of Thought avers that the introduction of automation results in the decline of skills which creates a class structure called prolitarianisation, whereas Enskilling School of Thought contends that the coming of automation results in the rise of skills which creates a class structure called professionalism. Skill Polarisation School of Thought postulates that the dawn of technology has bi-direction on work. In the case of the food and beverage industry, the transitioning of technology from oven to band dryer; manual food analyser to semi-automated food analyser and then to automated food analyser; manual beverage analyser to semi-automated food analyser and then to fully-automated beverage analyser; mainframe computers to personal computers; Automatic Data Processors to Hire-to-Retire Module; Cappers to Crown Cork Hopper, scanners, Closed-Circuit Television; Excel to System Application in Data Processing; Belt Conveyor to Turbo Bonal Conveyor; and Tigatten to extra Tigatten has changed the vital nature of work variables of the industry.

In the bid to investigate influence of workplace technology on workers in the selected firms in the food and beverage industry, four research objectives were formulated which are: (1) To examine the extent of influence of technology on skills of employees across the units of the selected firms in the food and beverage industry in Lagos, Nigeria (2) To investigate the extent to which technology influences job alienation in the units of the selected firms in the food and beverage industry in 23 To examine the extent of influence of technology on job satisfaction in the units of the selected firms in the food and beverage industry in Lagos, Nigeria (3) To examine the extent of influence of technology on job satisfaction in the units of the selected firms in the food and beverage industry in Lagos, Nigeria (4) To investigate the extent to which technology influences job commitment across the units of the selected firms in the food and beverage industry in Lagos, Nigeria. Examine the extent of influence of technology on job skill in Nestle S.A and Nigeria Brewery Plc., Lagos, Nigeria.

In view of the objectives which were set out to achieve in this study, it was gathered that deskilling tendency was found to be a dominant trend in Nestle S.A. In contrast, enskilling tendency was discovered to be a dominant trend in Nigeria Brewery Plc. At the heart of job alienation, alienation tendency was not established in both firms which depicts that employees in both firms were not rendered powerlessor estranged or disillusioned by the technology utilised in executing tasks. With regards to the extent to which technology influences job satisfaction, it was observed to deplete the fulfilmentof workers in Nestle S.A. On the contrary, it was observed to heighten the contentment of workers in Nigeria Brewery Plc. Central to the extent to which technology influences job commitment in both firms, it was discovered to dampen the loyalty of employees to the mission and vision

statement of Nestle S.A. In comparison to Nigeria Brewery Plc., it was gathered that technology bolstered the alliegiance of employees to the goals and objectives of Nigeria Brewery Plc. Thus, influence of technonology on work variables in the selected firms was established to have bi-directional trend in both firms having deskilled workers in Nestle S.A. while having enskilled workers in Nigeria Brewery Plc.

Empirical studies which were mostly carried out in more industrialized societies demonstrate that workplace technology is bi-direction, which isenskilling and deskilling. Thus, the level of technology utilized and the effects of workplace technology on job skill, job alienation, job satisfaction and job commitment were investigated in the selected firms in the food and beverage industry in Lagos State, Nigeria.

5.2 Conclusion

As a result of the findings, the study posits that technology has evolved from low technology to medium technology and high technology, due to its advancement, which has significantly influenced certain job variables, such as; job skill, job satisfaction and job commitment as evident in Nestle S.A, while it enskilled work variables in Nigeria Brewery Plc. There are two distinct perspectives when it comes to influence of technology on the nature of work. Technology is bi-directional in nature, given that deskilling trend was found as a dominant tendency in Nestle S.A, whereas enskilling trend was found as a dominant tendency in Nigeria Brewery Plc. On the strength of this, both deskilling and enskilling trends were found dominant in both firms investigated, which is in coherence with the standpoint of neo-Marxist scholars like (Gallie, 1978; Lee, 1981; Vallas, 1988; Adler, 1992; and Heisig, 2017), who unanimously maintain that influence of technology on work is bidirectional. Technology is a double-edged sword given that it deskilled the employees of Nestle S.A, while it enskilled the employees of Nigeria Brewery Plc. Skill polarisation should be given emphasis, rather than the contention of the rival groups on whether technological advancement deskills or enskills employees. Given that skill polarisation was established in the study, the neo-Marxist perspective should be emphasised when it comes to influence of workplace technology on workers as it is bi-directional, provided that it has both positive and adverse influence on the workers of both firms.

Technology and skill are not motionless because 19th century technology and skill may not be quite apt in the execution of job functions in the 21st Century. As the world evolves, technology evolves as well and changes work requirements. Existing skills, more often than not, become outdated to optimally man new technology. New technology oftentimes requires new skills to operate it. The skill earlier required to operate the oven system in Nestle S.A. eventually became outmoded to dexterously man band dryer. Skill must evolve as technology evolves to be relevant in the structure of present-day work relations, to mitigate the impacts of work on alienation and to enhance job satisfaction that will culminate into high job commitment, which will also stimulate workers to put in their best in the work process for the amplifying of the service delivery of organisations.

It suffices to establish that skill plays a crucial role in alleviating workers from job alienation which results in high job satisfaction that boosts their commitment, as evident in Nigeria Brewery Plc. Deskilled workers were discovered to be dissatisfied and had their commitment dampened because of the technology utilised in carrying out their job functions in Nestle S.A. In this case, if employers would want their workers to exhibit the best in them, frantic efforts should be made on their part to equip the workers with the requisite skills to free them from job alienation. This will have their satisfaction bolstered, and automatically translate to high job commitment, which will optimise organisational efficiency and effectiveness. This will ultimately yield mutual benefits for both business owners and workers. The enskilled employees will boost the profitability of a given firm, provided they are spurred to put in their best.

When they enjoy a level of freedom in their jobs that robustly boosts their satisfaction that alone boosts their loyalty to the mission and vision statement of the organisation. Despite the evolution of technology from simple to medium and to advanced technology, the exceptionally skilled workers are still in charge of their jobs, contented and dedicated to the mission and vision statements of firms as evident in Nigeria Brewery Plc. It is adequate to advance that the knowledge-based work in the post-Fordist epoch requires a highly qualified and skilled workforce whose satisfaction automatically culminates into high job commitment, in short, an enskilled labour force. To be immune from job alienation in the post-Fordist epoch requires being a professional whoclimaxes into optimal job satisfaction and job commitment. Thus, workers should make concerted efforts to be exceptionally skilled to boost their morale.

5.3 Limitations of the Study

- 1. The study could not cover all the firms in the food and beverage industry.
- 2. The study was unable to cover the entire federation on influence of workplace technology on work variables.
- 3. The study investigated onlyinfluence of workplace technology on job skills, job alienation, job satisfaction and job commitment.

5.4 The Recommendations that the Researcher has Come up with are Multi-faceted in Nature, and are Stated as Follows:

- 1. Business owners pretty need to groom their employees such that they can dexterously combat the challenges occasioned by technological advancement that shapes the activities of the firms, which is required of them to build an enterprising outstandingly skilled labour force with the readiness to work with plausible system computerisation, mechanisation, automation and production. This, in turn, results in different demands of numerous goods and services to enable them to measure up with the current needs of manufacturing goods.
- 2. Organisations' managements should ensure adequate capacity building for their workers to be creative to easily adapt to the emerging technological trend and make proper use of the technology adopted by their organisation. It should be known that capacity building is a broad way and an integral part of organisational productivity, which includes training, mentoring and succession planning.
- 3. Organisations should put structures and work processes in place, which will bolster high job satisfaction and job commitment, such that irrespective of the technology being put in place in an organisation, business owners should take cognizance of worker satisfaction and job commitment.
- 4. Employees should make unpretentious efforts to understand technological trend and sychronize their skills and be ambi-dexterous, diversified, inventive, creative, and innovative in order to remain requisite in the arrangement of work and immune from

the influence of workplace technology in the post-Fordist epoch, particularly in the production processes.

- 5. Policy makers should formulate policies that are sensitive to workers' welfare by investing heavily on human capital development. Policies which will robustly enable workers to feel immunefrom influence of workplace technology should be formulated.
- 6. International Standard Organisation should enact labour laws which will be human oriented. Laws which will bolster the contentment of employees across the globe should be prioritized.

5.5: Contributions to Knowledge

- 1. The study has contributed influence of workplace technology on selected work variables in the post-Fordist epoch to Sociology of Work.
- 2. It has been able to add job satisfaction and job commitment finesse to the Labour Process debate.
- 3. It has been able to provide a wealth of intriguing insights on influence of technology on selected work variables in the era of digitisation.

4. The study has been able to add Sociological methodology to investigate influence of technology on work variables in the digital revolution.

5. It has been able to add statistical evidence to the on-going intellectual discourse on

Labour Process Debate and discussion with rehgards to the influence of workplace technology on workers.

- 6. It has been able to make available a wealth of understandings on influence of workplace technology on workers in the post-Fordist epoch.
- 7. It has beenable to establish that in spite of the ISO's 2005Law (ISO 22000: 2005) that states that the food and beverage industry should migrate from low-level technology to semi-automated technology and to highly automated technology, employees in the aforementioned industry still expressed labour for the exchange of salaries.

5:6: Suggestions for Further Studies

The researcher hereby suggests that similar studies should be replicated in other firms in the food and beverage industry in order to investigate the other organisational factors that are responsible for the units whose technologies did not alienate workers.

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Appendix I

Informed Consent Form

IRB Research approval number.....

This approval will elapse on.....

Title of the Research: InfluenceofWorkplace Technology on Selected Work Variables in Nestle Societe Anonyme and Nigeria Brewery Plc., Lagos, Nigeria

This study is being conducted by Idowu Sulaimon ADENIYI of the Department of Sociology, University of Ibadan, Ibadan.

Sponsor of Research: This is self-sponsored

Purpose of Research: The purpose is to investigate influence of workplace technology on workers' skill, alienation, satisfaction and commitment in the contemporary epoch in the selected food and beverage companies in Lagos State, Nigeria

Procedure of the Research: a total of four hundred and forty-seven (477) employees and 38 units' heads participated in this study. The researcher used Taro Yamane of 1967 to arrive at the sample size whereas the units' heads were purposively selected for in-depth

interviews. The researcher used purposive sampling method to study influence of workplace technology on workers from the eligible employees into the study.

Expected Duration of Research: Depending on your response, the interview may take about one hour to complete.

Risk(s): The study will not pose any form of harm or danger to you as you will only be required to respond to certain questions which may take some time to complete. Please, note that some undesirable emotions may be generated in the course of the interview.

Confidentiality: All the information collected in this study will be given code numbers and no name will be recorded. This cannot be linked to you in anyway and your name or any identifier will not be used in any publication or reports from this study.

Voluntariness: Your participation in this study is voluntary and you are free to withdraw at any time. However, note that the information already collected about you before withdrawal may have been used in reports and publications. Such information can no longer be removed.

Alternatives to Participation: The researcher promises to comply with your wishes as much as practicable, if you desire to withdraw.

Consequences of Participants' Decisions to Withdraw from Research and Procedure for Orderly Termination of Participation: You are free to withdraw from the research at any time anymore. However, the researcher promises to make efforts in good faith to comply with your wishes as much as it is practicable.

Any Apparent or Potential Conflict of Interest: The research declares that there is no conflict of interest. There are no actual or potential competing interests either financial or otherwise that may bias the result of this study.

Statement of person obtaining informant consent:

I have fully explained this research to ______ and have given sufficient information, including about the risks and benefits, to make an informed decision.

DATE_____SIGNATURE_____

NAME

Appendix II Academic questionnaire Department of Sociology Faculty of the Social Sciences University of Ibadan

Dear Respondent,

I am a postgraduate student of the Department of Sociology, Faculty of the Social Sciences, University of Ibadan. This questionnaire is designed to obtain information on**Influence of Workplace Technology on Selected Work Variables in Nestle Societe Anonyme and Nigeria Brewery Plc., Lagos, Nigeria.** Your open and sincere responses will be treated with utmost respect and confidentiality. The information is required solely for research purposes. Kindly indicate your consent by ticking the appropriate box below before proceeding to supply the needed pieces of information in the questionnaire. Please, tick or answer under the response column as appropriate. Thank you.

Idowu SulaimomADENIYI

I Consent

I Decline

The Profile of the Organisation

Name of the organisation:

Department:

Year of employment:

Section 1: Could you Please, Answer the Following Questions as Honestly as Possible?

SN	QUESTIONS	RESPONSES
А	What is your sex?	Male
		Female
В	What is your age?	Please, specify
С	What is your ethnic	Hausa
	affiliation?	Ibo
		Yoruba
		Others (please, specify)
D	What is your marital Status?	Single
		Married

		Separated
		Others (please specify)
Е	What is your religiou	Christianity
	affiliation?	Islam
		Traditional
		Others (please specify)
F	What is your level of income	Less than N100,000
	(monthly)?	N100,000- N125,000
		N125,001- N150,000
		N150,001- N175,000
		N175,001- N200,000
		N200,001-N225,000
		N225,001-N250,000
		N250,001-N275,000
		N275,001 and above
G	What was your highest level o	Non formal
	education when you were	Primary
	employed in this company?	Secondary
		Tertiary
		Others (please, specify)
Η	What is your highest level o	Non formal
	education at the moment?	Primary
		Secondary
		Tertiary
		Others (please, specify)

Section 2: Could you Please, Answer the Following Questions as Objectively as you can?

SN	QUESTIONS	RESPONSES
А	Have you worked elsewhere before coming	No, I have not

	to this company?	Yes, I have
В	Which type of work were you doing in you	
	former workplace?	
С	Is it different from the one you are currently	No, it is not
	doing here?	Yes, it is
D	For how long did you work for your forme	
	organisation?	
E	When were you employed into this presen	
	organisation?	
F	How long have you been working here?	
G	What is your job designation here?	
Η	In what cadre does your job belong?	Management
		Supervisory
		Junior
Ι	Do you still perform the same task you were	No, I do not
	doing before coming into this organisation?	Yes, I do
J	Did you undergo any training afte	No, I did not
	employment?	Yes, I did
K	How long did the training take?	
L	Do you think that the training wa	
	necessary?	
Μ	Could you provide reasons for your above	
	answer?	
Ν	After the training, how long did it take you	
	to learn to do your first job well?	
0	Have you obtained any further qualification	No, I have not
	since your employment in this organisation	Yes, I have
Р	Which qualifications are they?	

Section3: To What Extent do you Agree or Disagree with the Truth in the Following statements?

SN	ITEMS	Strongly	Agree	Not	Strongly	Disagre
		Agree		Sure	Disagre	
А	I have knowledge to do my work well.					
В	I have the knowledge to get my work done					
С	I have the ability to get my work done					
	unsupervised.					
D	It takes me much time to finish a particula					
	task.					
E	I am quite confident in doing my work.					
F	I have creativity to get problems in my job					
	solved					
G	I always find my work very easy.					
Η	I have deep understanding of my job.					
Ι	I have a clear idea of what I am supposed to					
	do in my job.					
J	My job requires that I do things just the way					
	I am told.					
K	My task is always assessed by those who are					
	above me in my unit.					
L	I always come up with something new in my					
	job.					
М	I have the ability to carry out complex tasks					
	in my job.					
N	I am prepared to face difficult tasks in my					
	job.					
0	I have coordinating capacity in doing my job					
	in my unit.					
Р	I have the capacity to do multiple tasks in					

	my job in my unit.			
Q	I can do my work from the beginning to the			
	end.			
R	I have the competence to do my job well.			

Section: 4: To What Degree do you Agree or Disagree to Statements Below?

SN	ITEMS	Strongly	Agree	Not	Strongly	Disagre
		Agree		Sure	Disagre	
А	I have the power to make changes I conside					
	fit in my job.					
В	The pace of my work can be dictated by me.					
С	My job really allows me to have time for m					
	family.					
D	I usually have time to mingle with my					
	friends.					
Е	Most of my friends are from the company					
	where I work.					
F	All my friends are from the organisation					
	where I work.					
G	I have friends at my workplace.					
Н	I have numerous new friends.					
Ι	My coworkers are on speaking terms with					
	me.					
J	I so much like the job I do here.					
K	I know how important my job is to me in thi					
	organisation.					
L	My job has meaning on my life.					
Μ	I can take decisions all by myself in my job.					
N	If I am offered a better job elsewhere,					
	would go for it.					

		-	-	
0	I am fulfilled with my job.			

Section: 5: Please, Answer the Following Questions as Candidly as Possible.

SN	ITEMS	Very	Satisfie	Undecideo	Very	Dissatisfie
		Satisfie			Dissatisfied	
Α	How satisfied are you with thi					
	company					
В	How satisfied are you with					
	your job?					
С	How satisfied are you with					
	relationships with your co					
	workers?					
D	How satisfied are you with					
	conditions of work in you					
	unit?					
Е	How satisfied are you with					
	supervision in your unit?					
F	How satisfied are you with job					
	security in this organisation?					
G	How satisfied are you with					
	your take-home income?					
Н	How satisfied are you with					
	your boss?					
Ι	How satisfied are you with					
	tools you use in this unit?					
J	How satisfied are you with					
	your progress in this company?					
K	How satisfied are you with					
	promotions in this company?					

SN	ITEMS	Strongly	Agre	Not	Strongly	Disagre
		Agree		Sure	Disagre	
А	I believe I must be loyal to my organisation.					
В	One major reason I continue to work for this					
	organisation is that I believe that loyalty i					
	important.					
С	I feel a sense of moral obligation to remain in					
	this company.					
D	I really feel as if this organisation's problem					
	are my own.					
Е	I feel a strong sense of belonging to my					
	organisation.					
F	I feel emotionally attached to this					
	organisation.					
G	I strongly believe in a worker moving from					
	company to company.					
Η	It is my wish to spend the rest of my caree					
	with this company.					
Ι	This company has a great deal of persona					
	meaning for me.					
J	I have to be loyal to any organisation I work					
	for.					
K	Jumping from one organisation to anothe					
	seems right to me at all.					
L	I usually speak well of my company					
	wherever I go to.					

Section: 6: To What Degree do you Agree or Disagree to the Statements Below?

I am very grateful for your kind cooperation and patience demonstrated in filling the copy of the questionnaire. Thank you.

Idowu ADENIYI

APPENDIX III IN-DEPTH-INTERVIEW GUIDE

Introduction: I am **Idowu. S. ADENIYI**, a postgraduate student of the Department of Sociology, Faculty of the Social Sciences, University of Ibadan, conducting a researchon**Influence of Workplace Technology onSelected Work Variables in Nestle Societe Anonyme and Nigeria Brewery Plc., Lagos, Nigeria.** This interview with you is therefore to gather pieces of information that will be used for this research. Confidentiality, anonymity, informed consent, voluntariness, non-maleficence, beneficence, justice and cultural insensitivity will be strictly adhered to. Please, note that all the pieces of information generated from this discussion are purely for academic purposes and will be treated with utmost confidentiality. Do I have your permission to continue Sir/ma? Yes () No ()

The Profile of the Respondent

Name of the organisation:

Department:

Year of employment:

Socio-demographic Information of the Interviewee

- Age:
- Sex:
- Religion:
- Length of service:

IDI Guide for the Units' Heads

COULD YOU PLEASE TELL ME ABOUT THE TECHNOLOGIES DEPLOYED IN THIS UNIT? (PROBE FOR :)

- Which equipment were being utilised in carrying-out job functions before now in this unit?
- How the equipment was being operated before now?
- How sophisticated were the equipment which you were using before now?
- Which tools are utilised in executing tasks in this unit at the moment?
- How are the tools being operated?
- How advanced are the tools you utilise in your unit?
- Who initiates the functions of the tools?
- Which category of workers who use the tools in this unit?
- What is the involvement of workers in carrying-out tasks in this unit?
- How were you carrying out tasks before in this unit?
- How do you use these tools to carry-out tasks now in this unit?
- What skill does a worker need to possess to use the tools in your unit?
- To what extent has technology that you use reduced the skill levels of employees in this unit?
- What are the new skills required to execute tasks in your unit?
- Do workers exert expertise in this unit?

- What are the tasks which are no longer in existence in your unit?
- What are the educational requirements for the operations of these equipment?
- Has the adoption of technology in your unit enhanced the skill levels more than it has reduced them?
- Do employees in this enjoy considerable autonomy in the course of the discharge of their duties?
- Do the employees in this unit exercise some control in the course of their jobs?
- Are you contented with job in this unit?
- Are you pleased with job in this unit?
- Would you jump into another offer if see any?
- Is work boring to the employees in your unit?
- How fulfilled are the workers in this unit?
- Do workers speak well of the firm wherever they go?
- Do workers feel fulfilled on their jobs?
- Are the workers in this unit contented with their work?
- Do the employees jump into job opportunies when they see them?
- Do jobs have meanings to workers in this unit?
- Are employees in this unit loyal to the goals and objectives of this unit?
- Do employees in this unit switch allegiance?

Date and Place of Interview:

Appendix IV

Sample Size Determination for Nestle SA

n= N

1+N (e)²

n=Sample size

N=Population size

1=Constant

e=Marginal error which is 0.05

n = 1,290

 $1+1,290(0.05)^2$

n=1,290/1+3.225

n=1,290/4.225

= 305

Sample Size Calculation for Nigeria Brewery

$$n = \frac{N}{1+N(e)^2} ca$$

n=Sample size

N=Population size $n = \frac{N}{1+N(e)^2}$

1=Constant

e=Marginal error which is 0.05

220/1+220(0.05)²

n=220/1+0.55

n=220/1.55

= 142

Code Manual

Question Number	Variable Name	Value Label	Code	Column/Location
Respondent				1-3
Identification				
1	Firms	Nestle	1	4
		Nigeria Breweries	2	
2	Units/Depts	HR	1	5
		Pure Life Water	2	
		Safety	3	
		Planning	4	
		Account	5	
		Logistics	6	
		Quality Assurance	7	
		Sales	8	
		Culinary	9	
		Packaging	10	
		Research & Dev.	11	
		Engineering	12	
		Program Management	13	
		IT & Technology	14	
		Operation	15	

Internal Productive Mgt16Transportation17Traffic18Bar19Catering20Water Supply Chain21Ware House22Internal Control23Reception24Maintenance25Finance26Security27Admin & Hygiene28Clerical29Marketing30Procurement31Automation32Health, Safety & Env.33Sust343Year of EmployentCode in years4SexMale1105AgeActual ageActual11-126EthnicityHausa113Ibio2Yoruba3Akkok Edo4Ibibio5Igbira6Itsekiri7Ishan8Efik9Urhobo10Ijaw11Ikken14Betwara15Afemai167Marital Status8RelAffiliatnChitsianity1Islaam2				1.4	
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Ijaw11Eket12Annang13Benin14Bekwara15Afemai167Marital StatusSingle114Married2Separated3Others48RelAffiliatn	6	Ethnicity	Ibo Yoruba Akoko Edo Ibibio Igbira Itsekiri Ishan	2 3 4 5 6 7 8	13
Becket12Annang13Benin14Bekwara15Afemai167Marital StatusSingle114Married2Separated3Others48RelAffiliatnChristianity115	6	Ethnicity	Ibo Yoruba Akoko Edo Ibibio Igbira Itsekiri Ishan Efik	2 3 4 5 6 7 8 9	13
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7Marital StatusSingle114Married22Separated33Others448RelAffiliatnChristianity1	6	Ethnicity	Ibo Yoruba Akoko Edo Ibibio Igbira Itsekiri Ishan Efik Urhobo Ijaw Eket Annang Benin	$ \begin{array}{c} 2\\ 3\\ 4\\ 5\\ 6\\ 7\\ 8\\ 9\\ 10\\ 11\\ 12\\ 13\\ 14\\ \end{array} $	13
Married2Separated3Others48RelAffiliatnChristianity115	6	Ethnicity	Ibo Yoruba Akoko Edo Ibibio Igbira Itsekiri Ishan Efik Urhobo Ijaw Eket Annang Benin Bekwara	$ \begin{array}{c} 2\\ 3\\ 4\\ 5\\ 6\\ 7\\ 8\\ 9\\ 10\\ 11\\ 12\\ 13\\ 14\\ 15\\ \end{array} $	13
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8 RelAffiliatn Christianity 1 15			Ibo Yoruba Akoko Edo Ibibio Igbira Itsekiri Ishan Efik Urhobo Ijaw Eket Annang Benin Bekwara Afemai Single Married	$ \begin{array}{c} 2\\ 3\\ 4\\ 5\\ 6\\ 7\\ 8\\ 9\\ 10\\ 11\\ 12\\ 13\\ 14\\ 15\\ 16\\ 1\\ 2\\ \end{array} $	
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	7	Marital Status	Ibo Yoruba Akoko Edo Ibibio Igbira Itsekiri Ishan Efik Urhobo Ijaw Eket Annang Benin Bekwara Afemai Single Married Separated Others Christianity	$ \begin{array}{c} 2\\ 3\\ 4\\ 5\\ 6\\ 7\\ 8\\ 9\\ 10\\ 11\\ 12\\ 13\\ 14\\ 15\\ 16\\ 1\\ 2\\ 3\\ 4\\ 1 \end{array} $	14

		Traditional	3	
		Others	4	
9	Monthly Income	Less than N100,000	1	16
		N100,000- N125,000	2 3	
		N125,001- N150,000	4	
		N150,001- N175,000	5 6	
		N175,001- N200,000	7	
		N200,001-N225,000	8 9	
		N225,001-N250,000	10	
		N250,001-N275,000	11 12	
		N275,001 and above	13	
10	HLOfEduWhenE	Non	1	17
	mpl	Pry	2	
		Sec	3	
		MSc	4	
		BSc	5	
		HND	6	
		OND	7	
		NCE	8	
		SSCE	9	
11	Present Edu Lev	NA	0	18
		Masters	1	
		ICAN	2	
		BSc/BA	3	
		HND	4	
		OND	5	
		NCE	6	
		SSCE	7	
		ACA	8	
		CIPM	9	
		BSc Edu	10	
		CIPR	11	
		FitSM	12	
		Project Mgt	13	
		Prof Course in Comp	14	
		LLB	15	
		ProfCourseinPlanning	161	
		Prof C in Log	17	
		Criminology & Securit	18	
		MBA	19	
		\PGD	20	
12	HvYouWkB4	No	1	19

		Yes	2	
13	WcWkB4	NA	0	20
		None	1	
		Operative Machine	2	
		Account & Inventory	2 3	
		Teaching	4	
		Security	5	
		Cooking	6	
		Bar/	7	
		Sales	8	
		Clerical	9	
		Driving	10	
		Logistics	10	
		Production Technician	11	
		Secretarial	12	
		Forklift	13	
			14	
		Transportation		
		Cafe Attendance	16	
		Packaging	17	
		Fishing	18	
		Lab Attendance	19	
		Banking	20	
		Litigation	21	
		Real Estate	22	
		Care-Giving &Educ	23	
		IT	24	
		Audit & Consulting	25	
		Resource	26	
		Insurance	27	
		Contractor	28	
		Cashier	29	
		Nursing	30	
		Admin & Hygiene	31	
		Engineering Field	32	
		Factory Work	33	
		Recruiting Firm	34	
		Typist	35	
		NGO	36	
		Entrepreneur	37	
		Installatn of Equipmt	38	
		Waiter	39	
		Waitress	40	
		PA	40	
		Inventory	42	
		Service Producer	42 43	
		Selling Hm Appliances		
		Outsourcing Job	45	

			16	
		Project Management	46	
		Marketing	47	
14	IsItDiffFrCurren	No		21
	Job	Yes	2	
15	ForHLDYouWk	NA	0	22
	FFOrg	Actual	Actual	
16	Yr of Empl	Actual	Actual	23-26
-	- r			
17	HwLHYBnWkir	Code in months	actual	27-28
17	g Here		uotuui	27 20
18	JobDesignat	Quality Assurance	1	29
10	JODDesignat	-		29
		Safety	2	
		Mach Autonomous	3	
		Accountant	4	
		Logistics	5	
		Operator	6	
		HR	7	
		Sales	8	
		Prod Staff	9	
		Planning Staff	10	
		Hygiene & Admin	11	
		Driving	12	
		Research & Dev.	13	
		Filter	14	
		Forklift Operator	15	
		Water Supply Chain	15	
		Warehouse Assist	10 17	
			17	
		Internal Control		
		Admin Officer	19	
		Receptionist	20	
		Care-Giver& Educator	21	
		Web &SoftwareDevel	22	
		Senior Auditor	23	
		Health Inspector	24	
		Total Project Mgt	25	
		Security	26	
		Maintenance	27	
		Engineering	28	
		Cashier Control	29	
		Machine Technician	30	
		Waiter	31	
		Waitress	32	
		Auditor	33	
			33 34	
		Packaging		
		Catering	35	

		Traffic Officer	36	
		Project Manager	37	
		Secretary	38	
		Clerical	39	
		Service Provider	40	
		Supervision	41	
		Faculty Manager	42	
		Clerk	43	
		Finance Official	44	
		Marketer	45	
		Automation Engineer	46	
		Beverage worker	47	
19	Cadre	Management		30
		Supervisory	1	
		Junior	2	
		U unitor	3	
20	DoYStiPerfTSTa	No	1	31
	sk	Yes	2	
21	DYUndergoTrai		1	32
	ning	Yes	2	
22	HLDTr Tak	Code in Hours	In hours	33
23	IsTrNec	No	1	34
		Yes	2	
24	Reason the	NA	0	35
	Training is	It was enriching	1	
	necessary	It was insightful	2	
	5	It was informative	3	
		It was educative	4	
		It was exciting	5	
		It was interesting	6	
		It prepared me ahead	7	
		It groomed me	8	
		It equipped me	9	
		It exposed me to ethics	10	
		It was necessary	11	
		Understanding wk env	12	
		It was enlightening	13	
		Skill Acquisition	19 14	
		Human Cap Dev	15	
		It was a world-class	16	
		It increased my skill le	10	
		It was exhilarating	18	
		know the dos & don'ts	10	
		It was we-organised	20	
		It was int'l Standard	20	
	I	It was int i Standard	<u>~ 1</u>	

				I
		It broadened my knowl	22	
		It was mouth-watering	23	
		It honed my skill	24	
		It was amazing	25	
		Upgrading	26	
		To perfect my ability	27	
		It was less-stressful	28	
		To acquaint me	29	
		To exhan Gd Productiv	30	
		To activate intellect	31	
		It was Biz Incorporatd	32	
		It was necessity	33	
		Induction to role	34	
		It prepared me 4 Job	35	
		I already understood it	36	
		It was impactful	37	
		For human cap. dev.	38	
25	AftTrHLDITYT	NA	0	36-39
	L	Actual	Actual	
26	HvObFEdu	No	1	40
		Yes	2	
27	WhichQualifafte	NA	0	41
	mpl	Masters/MSc	1	
	1	ICAN	2	
		BSc/BA	3	
		HND	4	
		OND	5	
		NCE	6	
		SSCE	7	
		ACA	8	
		CIPM	9	
		BSc in Edu	10	
		CIPR	11	
		FitSM	12	
		ProjMgt	13	
		Computer Sc	14	
		LLB	15	
		Prof Co in Planning	16	
		Prof Co in Lo	10	
		Criminology	18	
		M BA	10	
		PGD	20	
		Grad Cert in SS Chain	20	
		Trade Test	21	
		Profco in Robotic Eng		
		SA A N D SD		

28A	Expertise	5	4	3	2	1	42
28B	Autonomy	5	4	3	2	1	43
28C	Dexterity	5	4	3	2	1	44
28D	Proficiency	5	4	3	2	1	45
28E	Confidence	5	4	3	2	1	46
28F	Creativity	5	4	3	2	1	47
28G	Challenge	5	4	3	2	1	48
28H	Knowledge	5	4	3	2	1	49
28I	Work Execution	5	4	3	2	1	50
28J	Discretion	5	4	3	2	1	51
28K	Planning	5	4	3	2	1	52
28L	Ingenuity	5	4	3	2	1	 53
28M	Complex Task	5	4	3	2	1	 54
28N	Difficult Task	5	4	3	2	1	 55
280	Coord Capa	5	4	3	2	1	56
28P	Capability	5	4	3	2	1	57
28Q	Complexity	5	4	3	2	1	58
28R	Competence	5	4	3	2	1	59
29A	Powerlessne	5	4	3	2	1	60
29B	Work Pace	5	4	3	2	1	61
29C	Wk&Famil	5	4	3	2	1	62
29D	Wk& Fri	5	4	3	2	1	63
29E	Social Isol	5	4	3	2	1	64
29F	Firm's Fr	5	4	3	2	1	65
29G	No Friend	5	4	3	2	1	66
29F	New Friends	5	4	3	2	1	67
29I	Self Estra	5	4	3	2	1	68
29J	Wk Likeness	5	4	3	2	1	69
29K	Imp Of Wk	5	4	3	2	1	70
29L	Meaninglesn	5	4	3	2	1	71
29M	Take Decisn	5	4	3	2	1	72
29N	Alten Job	5	4	3	2	1	73
290	Fulfilmt	5	4	3	2	1	74
30A	SatWFirm	5	4	3	2	1	75
30B	SatWJob	5	4	3	2	1	76
30C	SatWCoWk	5	4	3	2	1	77
30D	SatWCond	5	4	3	2	1	78
30E	SatWSup	5	4	3	2	1	 79
30F	SatWSecu	5	4	3	2	1	80
30G	SatWIncom	5	4	3	2	1	 81
30H	SatWBoss	5	4	3	2	1	82
30I	SatWTools	5	4	3	2	1	83
30J	SatWProgr	5	4	3	2	1	84
30K	SatWPromtn	5	4	3	2	1	 85
31A	Loyalty Bel	5	4	3	2	1	86

31B	Reason FWk	5	4	3	2	1		87
31B 31C	MoralOblig	5	4	3	2	1		88
31D	Org's Probl	5	4	3	2	1		88
31D 31E	SenseOfBel	5	4	3	2	1		90
31F		5	4	3	2	1		
	EmotnalAtta	5		3	2			91
31G	LabTurnOve		4			1		92
31H	Spend Caree	5	4	3	2	1		93
31I	Perso Meani	5	4	3	2	1		94
31J	LoyaltToOrg	5	4	3	2	1		95
31K	EmplTurno	5	4	3	2	1		96
31L	SpeakWOfO	5	4	3	2	1	~ -	97
Question Number	Variable Name		Val	ue L	abel		Code	Column/Location
Respondent								1-3
Identification								
1	Firms	Nest					1	4
		Niger	ria B	rewe	ries		2	
2	Units/Depts	HR					1	5
		Pure		Wate	er		2	
		Safet					3	
		Plann					4	
		Acco		é Inv	vento	ory	5	
		Logis					6	
		Quali	-	ssura	ance		7	
		Sales					8	
		Culin	•				9	
		Packa	~ ~	5			10	
		Train					11	
		Engin					12	
		Proje				nt	13	
		IT &					14	
		Opera					15	
		Total				Igt	16	
		Trans	-			.+	17 18	
		Traff		ontro	I IVIB	,t		
		Bar Cater	ina				19 20	
		Cater Wata	<u> </u>	mlr	Chai	n	20 21	
		Wate Ware			Ciial	.11	21	
		Intern			1		22	
		Rece			л		23 24	
		Main	-				24 25	
		Finar					23 26	
		Secu					20 27	
		Admi	-	Hvo	iene		27	
		Cleri		iiyg			28 29	
		Mark		7			30	
		IVIAI K	Jung				50	

		Davanaga	31	
		Beverage		
		Automation	32	
		Procurement	33	
		Mach Operative	34	
		Research & Dev.	35	
3	Year of	Code in years	Actual	6-9
	Employent			
4	Sex	Male	1	10
		Female	2	
5	Age	Actual age	Actual	11-12
6	Ethnicity	Hausa	1	13
		Ibo	2	
		Yoruba	3	
		Akoko Edo	4	
		Ibibio	5	
		Igbira	6	
		Itshekiri	7	
		Ishan	8	
		Efik	9	
		Urhobo	10	
		Ijaw	11	
		Eket	12	
		Annang	13	
		Benin	13	
		Bekwara	15	
		Afemai	16	
7	Marital Status	Single	1	14
/	Maritar Status	Married	2	17
		Separated	3	
		Others	4	
8	RelAffiliatn		1	15
0	KelAllillaul	Christianity Islam	2	15
			3	
		Traditional		
0	Manuthia Income	Others	4	10
9	Monthly Income	Less than N100,000	1	16
		N100,000- N125,000	2	
			3	
		N125,001- N150,000	4	
		N150,001- N175,000	5	
			6	
		N175,001- N200,000	7	
		N200,001-N225,000	8	
			9	
		N225,001-N250,000	10	
		N250,001-N275,000	11	
		11230,001 11273,000	12	

		N275,001 and above	13	
10	HLOfEduWhenE	Non	1	17
	mpl	Pry	2	
		Sec	3	
		MSc	4	
		BSc	5	
		HND	6	
		OND	7	
		NCE	8	
		SSCE	9	
11	Presentt Edu Lev		0	18
		Masters	1	
		ICAN	2	
		BSc/BA	3	
		HND	4	
		OND	5	
		NCE	6	
		SSCE	7	
		ACA	8	
		CIPM	9	
		BSc Edu	10	
		CIPR	11	
		FitSM	12	
		Project Mgt	13	
		Prof Course in Comp	14	
		LLB	15	
		ProfCourseinPlanning	161	
		Prof C in Log	17	
		Criminology & Securit	18	
		MBA	19	
		\PGD	20	
12	HvYouWkB4	No	1	19
		Yes	2	
13	WcWkB4	NA	0	20
		None	1	
		Operative Machine	2 3	
		Account & Inventory		
		Teaching	4	
		Security	5	
		Cooking	6	
		Bar/	7	
		Sales	8	
		Clerical	9	
		Driving	10	
		Logistics	11	
		Production Technician	12	

	· · · · · · · · · · · · · · · · · · ·	r		
		Secretarial	13	
		Forklift	14	
		Transportation	15	
		Cafe Attendance	16	
		Packaging	17	
		Fishing	18	
		Lab Attendance	19	
		Banking	20	
		Litigation	21	
		Real Estate	22	
		Care-Giving &Educ	23	
		IT	24	
		Audit & Consulting	25	
		Resource	26	
		Insurance	27	
		Contractor	28	
		Cashier	20 29	
		Nursing	30	
		Admin & Hygiene	30 31	
		Engineering Field	31	
		Factory Work	32 33	
		Recruiting Firm	33 34	
		-	34 35	
		Typist		
		NGO	36	
		Entrepreneur	37	
		Installatn of Equipmt	38	
		Waiter	39	
		Waitress	40	
		PA	41	
		Inventory	42	
		Service Producer	43	
		Selling Hm Appliances	44	
		Outsourcing Job	45	
		Project Management	46	
		Marketing	47	
14	IsItDiffFrCurren	No		21
14	Job	Yes	2	∠ 1
15	ForHLDYouWk		0	22
1.5	FFOrg	Actual	Actual	
16	Yr of Empl	Actual	Actual	23-26
10	11 Of Empl	Actual	Actual	23-20
17	HwLHYBnWkir	Code in months	actual	27-28
- '	g Here	code in months	ueruui	2,20
18	JobDesignat	Quality Assurance	1	29
	e e o D congniae	Safety	2	
L		Saloty	-	

		Logistics	5	
		Operator	6	
		HR	7	
		Sales Prod Staff	8 9	
		Planning Staff	9 10	
		Hygiene & Admin	10	
		Driving	11	
		Training & Teaching	13	
		Filter	14	
		Forklift Operator	15	
		Water Supply Chain	16	
		Warehouse Assist	17	
		Internal Control	18	
		Admin Officer	19	
		Receptionist	20	
		Care-Giver& Educator	21	
		Web & Software Devel	22	
		Senior Auditor	23	
		Health Inspector	24	
		Total Project Mgt	25 26	
		Security Maintenance	26 27	
		Engineering	27	
		Cashier Control	20	
		Machine Technician	30	
		Waiter	31	
		Waitres	32	
		Auditor	33	
		Packaging	34	
		Catering	35	
		Traffic Officer	36	
		Project Manager	37	
		Secretary	38	
		Clerical	39	
		Service Provider	40	
		Supervision	41	
		Faculty Manager\	42	
		Faculty Manager∖ Clerk	42 43	
		Faculty Manager\ Clerk Finance Official	42 43 44	
		Faculty Manager∖ Clerk Finance Official Marketer	42 43 44 45	
		Faculty Manager∖ Clerk Finance Official Marketer Automation Engineer	42 43 44 45 46	
19	Cadre	Faculty Manager∖ Clerk Finance Official Marketer	42 43 44 45	30

		Junior	2	
			3	
20	DoYStiPerfTSTa		$\frac{1}{2}$	31
01	sk	Yes	2	22
21	DYUndergoTrai	No Yes	$\frac{1}{2}$	32
22	ning			22
22	HLDTr Tak	Code in Hours	In hours	33
23	IsTrNec	No	1	34
		Yes	2	
24	Reason the	NA	0	35
	Training is	It was enriching	1	
	necessary	It was insightful	2	
		It was informative	3	
		It was educative	4	
		It was exciting	5	
		It was interesting	6	
		It prepared me ahead	7	
		It groomed me	8	
		It equipped me	9	
		It exposed me to ethics	10	
		It was necessary	11	
		Understanding wk env	12	
		It was enlightening	13	
		Skill Acquisition	14	
		Human Cap Dev	15	
		It was a world-class	16	
		It increased my skill le	17	
		It was exhilarating	18	
		know the dos & don'ts	19	
		It was well-organised	20	
		It was int'l Standard	21	
		It broadened my knowl	22	
		It was mouth-watering	23	
		It honed my skill	24	
		It was amazing	25	
		Upgrading	26	
		To perfect my ability	27	
		It was less-stressful	28	
		To acquaint me	29	
		To exhan Gd Productiv	30	
		To activate intellect	31	
		It was Biz Incorporatd	32	
		It was necessity	33	
		Induction to role	33	
		It prepared me 4 Job	35	
		it proputed into + 300	55	

		I already understood it			nod it	36		
		It was impactful				37		
		For human cap. dev.				38		
25	AftTrHLDITYT	NA		0	36-39			
	L		Ac	ctual			Actual	
26	HvObFEdu			No			1	40
				Yes	5		2	
27	WhichQualifafte	N	ΝA				0	41
	mpl	N	Aaste	ers/N	1Sc		1	
		I	CAN	1			2	
			Sc/B	ΒA			3	
			ND				4	
			ND				5	
			CE				6	
			SCE				7	
		AC					8	
			PM				9	
		BSc i		lu			10	
		CIPR FitSM					11 12	
		ProjN					12	
		Comp	-	Se			13 14	
		LLB	Juici	50			14	
		Prof Co in Planning		15				
		Prof Co in Lo		10				
		Crimi					18	
			BA	61			19	
		PG					20	
		Grad	Cert	in S	S Cł	nain	21	
		Trade Test		22				
		Profc	o in	Rob	otic l	Eng		
		SA	A	Ν		SD		
28A	Expertise	5	4	3	2	1		42
28B	Autonomy	5	4	3	2	1		43
28C	Dexterity	5	4	3	2	1		44
28D	Demand	5	4	3	2	1		45
28E	Confidence	5	4	3	2	1		46
28F	Creativity	5	4	3	2	1		47
28G	Challenge	5	4	3	2	1		48
28H	Knowledge	5	4	3	2	1		49
28I	Work Execution		4	3	2	1		50
28J	Discretion	5	4	3	2	1		51
28K	Planning	5	4	3	2	1		52
28L	Ingenuity	5	4	3	2	1		53
28M	Complex Task	5	4	3	2	1		54
28N	Difficult Task	5	4	3	2	1		55

280	Coord Capa	5	4	3	2	1	56
28P	Capability	5	4	3	2	1	57
28Q	Complexity	5	4	3	2	1	58
28R	Competence	5	4	3	2	1	59
29A	Powerlessne	5	4	3	2	1	60
29B	Work Pace	5	4	3	2	1	61
29C	Wk&Famil	5	4	3	2	1	62
29D	Wk& Fri	5	4	3	2	1	63
29E	Social Isol	5	4	3	2	1	64
29F	Firm's Fr	5	4	3	2	1	65
29G	No Friend	5	4	3	2	1	66
29F	New Friends	5	4	3	2	1	67
29I	Self Estra	5	4	3	2	1	68
29J	Wk Likeness	5	4	3	2	1	69
29K	Imp Of Wk	5	4	3	2	1	70
29L	Meaninglesn	5	4	3	2	1	71
29M	Take Decisn	5	4	3	2	1	72
29N	Alten Job	5	4	3	2	1	73
290	Fulfilmt	5	4	3	2	1	74
30A	SatWFirm	5	4	3	2	1	75
30B	SatWJob	5	4	3	2	1	76
30C	SatWCoWk	5	4	3	2	1	77
30D	SatWCond	5	4	3	2	1	78
30E	SatWSup	5	4	3	2	1	79
30F	SatWSecu	5	4	3	2	1	80
30G	SatWIncom	5	4	3	2	1	81
30H	SatWBoss	5	4	3	2	1	82
30I	SatWTools	5	4	3	2	1	83
30J	SatWProgr	5	4	3	2	1	84
30K	SatWPromtn	5	4	3	2	1	85
31A	Loyalty Bel	5	4	3	2	1	86
31B	Reason FWk	5	4	3	2	1	87
31C	MoralOblig	5	4	3	2	1	88
31D	Org's Probl	5	4	3	2	1	89
31E	SenseOfBel	5	4	3	2	1	90
31F	EmotnalAtta	5	4	3	2	1	91
31G	LabTurnOve	5	4	3	2	1	92
31H	Spend Caree	5	4	3	2	1	93
31I	Perso Meani	5	4	3	2	1	94
31J	LoyaltToOrg	5	4	3	2	1	95
31K	EmplTurno	5	4	3	2	1	96
31L	SpeakWOfO	5	4	3	2	1	97

Items	Firms' coefficient	Cronbach's Alph
	Nestle S.A.	Nigeria Brewery Plc.
I have the knowledge to get my work done	.931	.837
I can get my tasks accomplished independently	.927	.830
I have the ability to get my job done unsupervised	.927	.834
It takes me much time to get a particular task finished	.926	.835
I am confident in my work	.929	.829
I have creativity to get problems in my job solved	.927	.829
I always find my work very easy	.927	.841
I have deep understanding of my work	.929	.834
I have a clear idea of what I am supposed to do in my job	.933	.836
I always come up with something new in my job	.930	.833
I have the ability to carry-out complex tasks	.927	.829
I am prepared to face difficult tasks in my job	.928	.831
I have coordinating capacity in my job	.927	.831
I have the capacity to do multiple tasks in my job	.929	.829
I can do my work from the beginning to the end	.930	.833
I have the competence to do my job	.932	.835

Reliability Measures of Average Job Skill

Reliability Measures of Average Job Alienation

Items	Firms' Cronbach's Alph coefficient			
	Nestle S.A	Nigeria Brewery Plc.		
The pace of my work cannot be dictated by me	.777	.713		
My work does not allow me to have time for my family	.716	.640		
I hardly have time to mingle with my family	.728	6.17		
I do not have friends at all	.751	.670		
I do not like the job which I do here	.672	.621		
Most of my friends are from the company where I work	,679	.643		
My coworkers are on speaking terms with me	.729	.728		
I can take decisions all myself in my job	.739	.712		

Reliability Measures of Average Job Satisfaction

Items	Firms' Cronbach's Alpha coefficien				
	Nestle S.A.	Nigeria Brewery Plc.			
I feel fulfilled with my job	.862	.728			
I feel fulfilled with my coworkers	.672	.821			
I feel fulfilled with my work condition	.679	.640			
I feel fulfilled with supervision	.751	.642			
I feel fulfilled with my job security	.841	.752			
I feel fulfilled with my income	.712	.560			
I feel fulfilled with my boss	.671	.660			
I feel fulfilled with my promotion	.716	.730			

Reliability measures of average job commitment

Items	Firms'	Cronbach's Alph:
	coefficient	t
	Nestle S.A	Nigeria Brewery
		Plc.
I really feel as if this organisation's problems are my own.	.749	.500
It is my wish to spend the career of my life with this company	.728	.432
Jumping from one organisation to another does not seem righ	.730	.510
to me at all		
I usually speak well of my organisation wherever I go to	.768	.564
I do feel a strong sense of belonging to my organisation	.760	.588

The Determination of Technological Levels

Organisational units

CRITERIA	ATTRIBUTES	CODES
1.LEVEL OF SOPHISTICATION OF TOOLS	Simple	1
	Semi-automated	2
	Advanced	3
2.MODE OF OPERATING THE TOOLS	Manual	1
	Manual and mechanical	2
	Digital and electronic	3
3.THE BASIC EDUCATIONAL LEVEL OF	Secondary education	1
THE WOULD-BE OPERATOR	Tertiary education	2
	Technical education	3
4.THE SUMMATION OF THE NUMBER OF	9-3=3	3: High
THE CRITERIA DIVIDED BY THE NUMBER OF THE CRITERIA	6-3=2	2: Medium
NUMBER OF THE CRITERIA	3-1=1	1: Low



Our Ref: H-Rewards/2023/003 Date: 15th March 2023

TO WHOM IT MAY CONCERN,

CONFIRMATION OF RESEARCH CONDUCTED BY IDOWU SULAIMON ADENIYI

I write to confirm that Idowu Sulaimon Adeniyi, a PHD candidate in Sociology Department, facility of Social Sciences, University of Ibadan was granted the privilege to conduct a study with the project titled," Influence of Workplace Technology on Selected Work Varieties in Nigerian Breweries Plc in 2019".

I attest that the study included administration of questionnaires on a sample population of our employees and interviews were conducted with some unit heads on the subject matter.

Please accept this as our confirmation of the above study.

Yours faithfully, For: NIGERIA BREWERIES Plc

Eric-Olaleye Head Rewards

DIRECTORS: Chief K.B. Jamodu, CFR - Chairman; H. Essaadi (Dutch) - Managing Director/Chief Executive; Mrs. J. Anammah; Mrs. A.O. Aroyewun; S. Hiemstra (Dutch); A. Ighodalo; Mrs. N.O. Nwuneli, MFR; Mrs. I.M. Omoigul Okauru, MFR; Mrs. A.O. Aroyewun; S. Hiemstra (Dutch); A. Ighodalo; Mrs. N.O. Nwuneli, MFR; Mrs. I.M. Omoigul Okauru, MFR;





Good food, Good life

Nestlé Nigeria PLC RC 6540

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Ref: HRD/SL/IE/AFF Date: 22nd March 2023

TO WHOM IT MAY CONCERN,

CONFIRMATION OF RESEARCH CONDUCTED BY IDOWU SULAIMON ADENIYI

I write to confirm that Idowu Sulaimon Adeniyi, a PH.D candidate in Sociology Department, faculty of Social Sciences, University of Ibadan was granted the privilege to conduct a study with the project titled "Influence of Workplace Technology on Selected Work Variables in Nestle Nigeria Plc in 2019".

I attest that the study included administration of questionaries on a sample population of our employees and interview were conducted with some Unit Heads on the subject matter.

Please accept this as our confirmation of the above study.

Best regards.

Ogunyemi Abolaji Human Resource Services Manager

DIRECTORS: Chairman - D. C. Mezuike, MDJCEO - W. Elfusseini (Lebanese), J. K. Singla (Indian), M. Alarcon (Musican), R. Chavez (Mexican), G. Oyebode, J. Ehimuan (Ms.), A. Lamikanna (Mrs.), I. Ipinmoye NESCAFÉ.