VOL. 06 NO. 7,
NOVEMBER, 2024
E-ISSN 3026-9679
P-ISSN 3026-9423



African Scholar Publications & Research International
www.africanscholarpub.com

Journal of Business Dev. and Management Res. (JBDMR)

Technopreneurship and Human Resource Management in Nigeria

Oluwasina, Boladale Ruth; Olatoye, Adeolu O.; Adebayo, Adebola A.; & Ajibade, Aduragbemi Ademola

Business Education Department, College of Vocational and Technology Education, Tai Solarin University of Education
Corresponding Author: oluwasinabr@tasued.edu.ng

Abstract

Businesses seeking to be competitive and efficient in the ever-evolving business environment of today must integrate technology into their human resources management (HRM). However, little is currently known about the extent and effects of technology use in HRM in Nigeria. In light of this disparity, this study investigates how technology is used in HRM in Nigerian businesses. The main goals of this research are to provide a comprehensive assessment of the current state of technology adoption, identify the benefits and drawbacks it presents, understand its impact on employee satisfaction and engagement, and provide useful recommendations for its implementation. The paper highlights the various applications of technology in human resource management, drawing on a thorough examination of prior research. By emphasizing key areas where technology can increase organizational performance and efficiency, this framework serves as a compass. The study uses a mixed-methods approach, combining qualitative interviews with HR specialists from Nigerian companies with a review of the literature. Thematic analysis shows trends and insights that provide context for understanding the state of technology adoption today and its

implications. The study's conclusions show a disconnect between the degree of HR technology now being used in Nigerian businesses and its estimated potential. Wider adoption is hampered by a lack of digital literacy among the workforce, implementation costs, and infrastructure constraints. However, there exist multiple prospects for streamlining processes, enhancing collaboration, and elevating employee experiences via tactical utilization of technology. The study presents practical strategies in response to these findings. These include infrastructure upgrades, user-friendly platforms, intensive training programs, and strong cybersecurity precautions. By implementing these concepts and properly utilizing technology, Nigerian businesses can reach the full potential of HRM practices, resulting in enhanced efficiency, engagement, and success in the digital age.

Keywords: Technology Adoption, Human Resources Management, Nigerian Organizations, Opportunities, Challenges

Introduction

In the contemporary landscape of business and employment, the utilization of technology in Human Resources Management (HRM) has emerged as a pivotal force of transformation. This digital revolution has not only streamlined HR processes but has also provided organizations with unique opportunities to enhance efficiency, data-driven decision-making, and employee engagement.

According to the Global Human Capital Trends report published by Deloitte in 2020, organizations that adopt HR technology effectively can enhance productivity by up to 20% (Deloitte, 2020). By automating tasks such as resume screening, interview scheduling, and employee data management, HR departments can focus on strategic initiatives, such as talent development and workforce planning. This shift from manual to automated processes not only streamlines operations but also empowers HR professionals to take a more strategic role in driving organizational growth. Another significant opportunity that technology offers in HR management is the ability to enhance employee engagement and satisfaction. With the advent of digital communication tools, social media

platforms, and mobile applications, HR departments can establish effective channels for employee feedback, recognition, and collaboration. These technologies provide platforms for employees to voice their opinions, contribute ideas, and feel more connected to the organization.

Also, it has been seen that companies with highly engaged employees outperform their competitors by 147% in earnings per share (Gallup, (2021). And because technology-enabled platforms, such as employee recognition apps or social collaboration tools, foster a sense of belonging and promote a positive organizational culture, the use of technology is seen as the way to go for improving organisational performance. By leveraging technology for employee engagement initiatives, organizations can create an environment that motivates employees, encourages innovation, and improves overall employee satisfaction. Chawla and Prasad (2018) highlight the need for robust data encryption, secure cloud storage, and stringent access controls to mitigate the risks associated with HR technology. Organizations must implement proper data privacy policies and protocols to ensure that employee data is protected from unauthorized access or breaches. Additionally, organizations need to stay updated with evolving data protection regulations and maintain transparency in communicating their data security measures to employees.

One of the major characteristics of business is being involved in transfer or exchange of goods and services, alongside human activities, directed towards wealth acquisition thus leading to growth through arithmetic or geometric increase of the Human resource management. Similarly, the primary aim of business is to minimize cost and maximize profit while manufacturing goods and or rendering services to the society. Part of the responsibility of business organization is regular tax payment to generate income for the government, provide job opportunities for the public, improve standard of living for people in a country which inevitably results to sustained growth or development. This is essentially needed in developing countries with special emphasis on Nigeria.

Nigeria, an Oil-rich country has been bedevilled by corruption, inadequate infrastructure, political instability, poor macroeconomic management and technological backwardness. However, in 2008, the country began to pursue economic reforms which can transform the business corridor of the country among comity of nations. Business growth and consequently economic development has been limited by lack of infrastructure and slow implementation of reforms in Nigeria. The government has eternally been working towards developing stronger public-private

partnerships for roads, agriculture, and power which has yielded little or no result. However, leading emerging economies such as those in Africa have embraced technology in all aspect of their economies and it appears to be yielding desired result (Adeoti, Onwuemele, Aluko, & Osigwe, 2016).

Emerging economies have come to the realisation of technopreneurship prospects which is a blend of innovation, technology and entrepreneurship in an attempt to stimulate economic prosperity in today's knowledge-driven and globalised world. This is because more attention and emphasis from researchers, policy makers, think tanks, the government and all conglomerates that controls access to quality society, is given to innovation in technology as an important driver of sustained long-run competitive advantage, sustainable business performance and increase in human resource management. In Nigeria, it will amount to an understatement to admit that there exists an acute shortage of science and technology and technical knowhow, most especially high-tech entrepreneurial competence deemed sufficient to stimulate technology entrepreneurship. This worrisome situation has led to the near non-existent productive capacity of the continent, with quite minimal potentials for innovation (Bubou&Siyanbola, 2010). This is why integration of technology into entrepreneurship known as technopreneurship in Nigeria is considered overdue.

In today's competitive business environment, organisations face a common challenge which is the need to improve their performance in order to adapt to global changes. Organizations who deliberately innovate, or make continuous changes in their products and processes, win an edge in the world of advanced technology. The basic key to maintaining competitiveness lie in the ability to change and improve what we do and how we do it.Consequently, many innovative ideas die at the point of conception for lack of fund or capital. The challenge of capital has strangled most research work at developmental stages. Public and private establishment find it difficult to invest in breakthrough projects at such stages. Most people tend to identify with research work when there seems to be a glimpse of success. This tends to hinder or slow down projects.

In Nigeria, the total reliance and the ever pummelling oil revenue has made gladiators to jettison the development of small and medium scale businesses which can galvanise the ailing economy. Infrastructures are not in place to aid technoprenuer, power supply is at its lowest ebb and consequently, the economy suffers. This research was borne out of the economic burned of poor technoprenuer practice in Nigeria. It is against this

background that this research aims to examine technopreneurship as a pathway to business successes and economic growth in Nigeria**.** Specifically, it sought to determine the extent to which technology is used in businesses in Nigeria, influence of technology integration into business on human resource management in Nigeria, influence of technopreneurship on human resource management in Nigeria, challenges businesses face in the adoption of technology in Nigeria, and, solution to various challenges identified.

Research Questions

i. To what extent is technology used in Nigeria?
ii. What is the influence of technology integration into business on human resource management in Nigeria?
iii. What is the Influence of technopreneurship on human resource management in Nigeria?
iv. What are the challenges businesses face in the adoption of technology in Nigeria?
v. How can challenges identified can be addressed?

Conceptual Clarifications

Human Resource Management

Human Resources Management (HRM) refers to the strategic approach and effective management of an organization's workforce (Farndale, Scullion, & Sparrow, 2010). It encompasses a range of activities and practices aimed at maximizing employee performance, ensuring the well-being of employees, and aligning their efforts with the organization's goals and objectives (Ulrich, & Dulebohn, 2015). HRM involves various functions, including recruitment, selection, training and development, performance management, compensation and benefits, employee relations, and workforce planning. At its core, HRM focuses on managing people as valuable assets and recognizing their crucial role in organizational success. It entails creating a work environment that fosters employee engagement, motivation, and productivity while addressing their needs and concerns. Effective HRM practices not only contribute to the growth and development of individual employees but also enable organizations to attract and retain top talent, enhance organizational performance, and maintain a competitive advantage. Gary (2020) offers an in-depth understanding of HRM

principles, practices, and challenges. It covers essential topics such as job analysis, recruitment and selection, training and development, performance management, compensation and benefits, employee relations, and global HRM. It provides valuable insights into the evolving role of HRM in a dynamic business environment.

Armstrong (2014) explores the strategic aspects of HRM, highlighting the need to align HRM practices with organizational strategies to gain a competitive advantage. He discusses topics such as strategic planning, talent management, organizational development, and change management. While, Wright and McMahan, (2011) in the same vein highlighted the strategic role of HRM in managing human capital. They emphasize the need to view employees as valuable assets and emphasize the importance of aligning HRM practices with organizational strategies. Their work emphasizes the link between HRM and organizational performance and stresses the need for HR professionals to play a strategic role in managing human capital effectively.

Technology Adoption

Technology adoption refers to the process by which individuals, organizations, or societies accept and integrate new technological innovations into their existing practices, systems, or workflows (Sitorus, Govindaraju, Wiratmadja, & Sudirman, 2016). It involves the recognition of the potential benefits of a particular technology and the willingness to invest resources and effort in implementing and using it effectively. Technology adoption is a critical aspect of progress and development, as it enables individuals and organizations to stay competitive, improve efficiency, and achieve better outcomes. The concept of technology adoption can be understood in various contexts, such as individual, organizational, or societal levels (Leesakul, Oostveen, Eimontaite, Wilson, & Hyde, 2022). At the individual level, technology adoption involves the decision-making process of an individual to adopt new technology for personal use. For instance, when a person decides to switch from a traditional cellphone to a smartphone, they are engaging in technology adoption. At the organizational level, technology adoption is a strategic process that involves the integration of new technologies into the organization's operations and workflows. It may include adopting new software systems, hardware, or digital platforms to enhance productivity, streamline processes, or improve customer experiences. Organizations must carefully evaluate the benefits and costs of technology adoption,

assess potential risks, and plan for a smooth transition to ensure successful implementation.

Societal-level technology adoption involves the acceptance and use of technology on a broader scale, affecting multiple individuals and organizations. For example, the widespread adoption of the internet and smartphones has transformed the way people communicate, access information, and conduct business globally. The concept of technology adoption is closely linked to the Technology Acceptance Model (TAM), developed by Fred Davis in the 1980s (Sitorus, Govindaraju, Wiratmadja, & Sudirman, 2016). The TAM posits that an individual's intention to use technology is influenced by two primary factors: perceived usefulness and perceived ease of use. Subsequent research expanded on the TAM, incorporating additional factors such as social influence and facilitating conditions that impact technology adoption. One influential work on technology adoption is "Diffusion of Innovations" by Everett Rogers. In this book, Rogers introduces the diffusion theory, which explains how new ideas, technologies, or innovations spread through social systems. According to Rogers (2003), the diffusion process follows a bell curve, with different adopter categories, including innovators, early adopters, early majority, late majority, and laggards, based on their readiness to embrace new technologies.

Technopreneurship

Technopreneurship is not a commodity that can be easily traded but it's a composition of a group of skills, scientific expertise and intelligence possessed by an individual or a number of individuals which represents the first building blocks of the digital society, smart cities and space technology. It requires a high level of intelligence and expertise and it provides sophisticated programs to create strategic thinkers with the required skills to achieve success in a competitive dynamic environment. Traditional programs and primitive ways do not fit of thinking to reach the stage of technopreneurship.

Technopreneurship represents a new breed of entrepreneurship that involves intelligent people and those interested in technology. It brings together people with multiple skills who are critical to the success of the organization. One of the emerging technologies at the moment and is the result of technopreneurship is artificial intelligence, systems of expertise, system of automation, enhanced reality, Internet of Things, three-dimensional printing [5]. The technopreneurship is characterized by its high growth potential and its high impact on knowledge and intellectual property [6].

Singapore has begun to establish an IT incubation center to support technopreneurship, supporting the development of its enterprises, the introduction of smart technology, the creation of an innovative environment. This center serves as a platform for entrepreneurs from leading technology companies and to attract venture capitalists to build their own base

Firm and Resource-based theories are both relevant to the discourse of technopreneurship as a pathway to sustainable business successes and economic growth in Nigeria. The technopreneurship domain and the theory of the firm are also interdependent; the firm constitutes the specialised individuals and heterogeneous assets committed to a project or goal for the purpose of creating and retaining value for the firm. It aims to explain why firms exist, what determines their boundaries, what determines their structure, and what drives their different actions and performances (Bailetti, 2012). According to Teece (2010), the theory of the firm has not done much in explaining the process of innovation in creating new products and services and their profitable commercialization. This assertion birthed "the innovative firm" rather than the adaptive/optimising firm that utilises strategies and mechanisms. Technopreneurship and the resource-based view are interdependent because they are both concerned with how to create and capture value through resources that embody technology and scientific advances. According to resource-based theory, sustainable business performance results from resources that are inimitable, not substitutable, tacit in nature, and synergistic (Rylander, 2001; Barney, 1991; Al Ansari, 2014). It aspires to explain the internal sources of a firm's sustained competitive advantage; as such managers need to be able to identify the key resources that drive performance (Kraaijenbrink, Spender & Groen, 2010). Based on this theory the intellectual capital is a main resource to improve enterprise growth. It can be human (characteristics, knowledge, skills, and capabilities), organisational (technology, processes, patents, and networks), and social (links with customers, suppliers, and partners), all of which are important strategic resources/assets which the firm needs to propel its innovation efforts alongside increasing and sustaining competences and capabilities (Dorf & Byers, 2008; Martinez-Roman, Gamero & Tamayo, 2011). Moreover, intellectual capital has been studied by many past researchers who investigated the influence of intellectual capital on business performance (Ngugi, Mcorege&Muiru, 2013).

Methodology

Research Design

This research adopted a descriptive survey research type which is a form of a non-experimental research design. It is a type of research type where data are collected

after the fact (i.e after the occurrence of the noticeable change) where the variables of interest are not manipulable (Kerlinger& Lee, 2000). The research type allows the researcher to examine how specific independent variable (technopreneurship) affect the dependent variables (business success and economic growth).

Population

The population of this study comprised all the firms registered businesses with the Corporate Affairs Commission (CAC) in Ogun State. The Small and Medium Enterprises Development Agency of Nigeria (SMEDAN) and National Bureau of Statistics' Survey Report provided the starting point for the design of the methodology employed in determining the population and sample size for this study. The SMEDAN report (the first of its kind) provides credible and reliable Micro, Small & Medium scale Enterprises (MSMEs) database on the number and structure of MSMEs operatives in Nigeria on geo-political and sectoral basis. The report shows that there are 22,918 SMEs and 172,617,53 micro businesses, thereby making a total population of 17,284,671 MSMEs operating in Nigeria during the period under review. Consequently, in order to determine the sample size, the approximation procedure using Yemen Yaro formula was adopted with a working sample size of 1200 SMEs drawn.

Sample and Sampling Technique

A multistage sampling technique was used to select proportion of the Micro, Small & Medium scale Enterprises (MSMEs sample for this study. The South-Western part of Nigeria was stratified along the existing six states of Oyo, Osun, Ogun, Ondo, Lagos and Ekiti States. The selected of sample involved two stages. The first stage involvedclustering of the six states that make up the South-western states of which two states were purposively selected for the study. The states selected were Ogun and Osun States. The second stage was also carried out in two phases. A purposive sampling technique was also used to select two Local Government Areas from each state. Six hundred Micro, Small & Medium scale Enterprises (MSMEs) operators wererandomly selected from each of the local Government which means 1200 registered business owners participated in the study based on the list registered with CAC collected from ministry of Commerce for the respective Local Government Areas. The purposewas

to find out influence of technopreneurship on business successes and economic growth in Nigeria.

Research Question 1: To what extent is technology used in Nigeria?

Table 1: Extent at which technology is used in Nigeria businesses

Descriptive analysis on the use of technology for businesses in Nigeria

S/N	Technologies for businesses in Nigeria	SD	D	A	SA	$\bar{x}$	S.D.
1	Use of point of Sale (POS)	74 6.2%	158 13.2%	377 31.4%	591 49.3%	3.24	0.90
2	Counting Machine	98 8.2%	153 12.8%	434 36.2%	515 42.9%	3.14	0.93
3	Computer	86 7.2%	157 13.1%	488 40.7%	469 39.1%	3.12	0.89
4	3D printing	87 7.3%	184 15.3%	514 42.8%	415 34.6%	3.05	0.89
5	Robots	120 10.0%	212 17.7%	678 56.5%	190 15.8%	2.78	0.83
6	Artificial intelligence	147 12.3%	188 15.7%	673 56.1%	192 16.0%	2.76	0.87
7	Drones	130 10.8%	277 23.1%	686 57.2%	107 8.9%	2.64	0.79
8	Virtual and augmented reality	98 8.2%	582 48.5%	377 31.4%	143 11.9%	2.47	0.81
9	Digital employees	184 15.3%	500 41.7%	406 33.8%	110 9.2%	2.37	0.85
10	Online sales and delivery	467 38.9%	246 20.5%	371 30.9%	116 9.7%	2.11	1.04
Weighted Mean = 2.76							

Table 1 shows the technologies in use by business operators in Nigeria. “use of POS” ($\bar{x}$ = 3.24) was ranked highest by the mean score rating and was followed in counting machine ($\bar{x}$ =3.14), “computer” ($\bar{x}$ =3.12), “3D printing” ($\bar{x}$ =3.05), “Robots” ($\bar{x}$ =2.78), “Artificial intelligence” ($\bar{x}$ =2.76), “drones” ($\bar{x}$ =2.64), “Virtual and

augmented reality" ($\bar{x}$=2.47), "Financial support are received on regular basis from my husband family" ($\bar{x}$=2.37) and lastly "Digital employees" ($\bar{x}$=2.11) respectively. Inference to be drawn from above expression is that the major technologies used are; "point of sale", "counting machine", and computer.

Research Question 2: What is the influence of technology integration into business on human resource management in Nigeria?

Table 2: Descriptive analysis on influence of technology integration into business on human resource management in Nigeria

S/N	Influence of technology integration into business on human resource management in Nigeria	SD	D	A	SA	$\bar{x}$	S.D.
1	Increase in profitability	117 9.8%	169 14.1%	357 29.8%	557 46.4%	3.13	0.99
2	Cost minimization	116 9.7%	158 13.2%	404 33.7%	522 43.5%	3.11	0.97
3	Reduction in manpower needs	52 4.3%	153 12.8%	713 59.4%	282 23.5%	3.02	0.73
4	Fast and accurate service delivery	77 6.4%	202 16.8%	722 60.2%	199 16.6%	2.87	0.76
5	Wide coverage of customer base	93 7.8%	224 18.7%	741 61.8%	142 11.8%	2.78	0.75
6	Less wastage.	170 14.2%	342 28.5%	568 47.3%	120 10.0%	2.53	0.86
7	More efficient stock management and ordering systems.	190 15.8%	518 43.2%	357 29.8%	135 11.3%	2.36	0.88
8	The ability to develop new, innovative approaches.	239 19.9%	515 42.9%	358 29.8%	88 7.3%	2.25	0.85
9	More effective marketing and promotion.	497 41.4%	295 24.6%	288 24.0%	120 10.0%	2.03	1.03
10	New sales avenues	542 45.2%	246 20.5%	288 24.0%	124 10.3%	1.99	1.05

Weighted Mean = 2.50

Table 2 shows the influence of technology integration into business on human resource management in Nigeria. "Increase in profitability" ($\bar{x}$=3.13) was ranked highest by the mean score rating and was followed in succession by "Cost minimization " ($\bar{x}$ =3.11), "Reduction in manpower needs" ($\bar{x}$=3.02), "Fast and accurate service delivery" ($\bar{x}$=2.87), "Wide coverage of customer base" ($\bar{x}$=2.78), "Less wastage" ($\bar{x}$ =2.53), "More efficient stock management and ordering systems." ($\bar{x}$=2.36), "The ability to develop new, innovative approaches" ($\bar{x}$=2.25), "More effective marketing and promotion" ($\bar{x}$=2.03), and lastly "New sales avenues " ($\bar{x}$=1.99) respectively.

Research Question 3: What is the Influence of technopreneurship on human resource management in Nigeria?

Table 3: Influence of technopreneurship on human resource management in Nigeria

S/N	Influence of technopreneurship on human resource management in Nigeria	SD	D	A	SA	$\bar{x}$	S.D.
1	Reduction in capital flight	159 13.3%	180 15.0%	415 34.6%	446 37.2%	2.96	1.03
2	Increase in export earnings	119 9.9%	199 16.6%	682 56.8%	200 16.7%	2.80	0.83
3	High returns on investment	160 13.3%	213 17.8%	608 50.7%	219 18.3%	2.74	0.91
4	Emergence of new services and industries	246 20.5%	272 22.7%	265 22.1%	417 34.8%	2.71	1.15
5	Workforce transformation	195 16.3%	174 14.5%	647 53.9%	184 15.3%	2.68	0.92
6	Increased gross domestic product	119 9.9%	591 49.3%	373 31.1%	117 9.8%	2.41	0.80
7	Direct job creation	198 16.5%	555 46.3%	337 28.1%	110 9.2%	2.30	0.85
8	Business innovation	268 22.3%	517 43.1%	270 22.5%	145 12.1%	2.24	0.93
Weighted Mean = 2.39							

Table 3 shows the influence of technopreneurship on human resource management in Nigeria. "Reduction in capital flight" ($\bar{x}$=2.96) was ranked highest by the mean score rating and was followed in succession by "Increase in export earnings" ($\bar{x}$=2.80), "High returns on investment" ($\bar{x}$=2.74), "Emergence of new services and industries" ($\bar{x}$=2.71), "Workforce transformation" ($\bar{x}$=2.68), "Increased gross domestic product" ($\bar{x}$=2.41), "Direct job creation" ($\bar{x}$=2.30) and Business innovation ($\bar{x}$=2.24) respectively. Inference to be drawn from this expression is that the major influence of technopreneurship on human resource management in Nigeria are Reduction in capital flight, Increase in export earnings, High returns on investment, Emergence of new services and industries, Workforce transformation, Increased gross domestic product, Direct job creation and Business innovation in this order.

Research Question 4: What are the challenges businesses face in the adoption of technology in Nigeria

Table 4: Descriptive analysis of challenges businesses face in the adoption of technology in Nigeria

S/N	Challenges businesses face in the adoption of technology in Nigeria	SD	D	A	SA	$\bar{x}$	S.D.
1	A competitive business economy forces the C-suite to tighten their purse strings	214 17.8%	208 17.3%	422 35.2%	356 29.7%	2.77	1.06
2	New technologies do not come cheap	215 17.9%	244 20.3%	412 34.3%	329 27.4%	2.71	1.05
3	Skill Challenges	222 18.5%	203 16.9%	601 50.1%	174 14.5%	2.61	0.95
4	Technology Challenges	230 19.2%	248 20.7%	645 53.8%	77 6.4%	2.47	0.87
5	The Disruptive Impact of New Technology	287 23.9%	219 18.3%	612 51.0%	82 6.8%	2.41	0.93
6	End-user Resistance	246 20.5%	311 25.9%	570 47.5%	73 6.1%	2.39	0.88
7	Ownership Issues	261 21.8%	716 59.7%	163 13.6%	60 5.0%	2.02	0.74

8	Not implementing the right systems and procedures	309 25.8%	610 50.8%	235 19.6%	46 3.8%	2.01	0.78
9	Failing to win staff over to the new technology	624 52.0%	296 24.7%	204 17.0%	76 6.3%	1.78	0.95
10	Not training staff adequately in the utilization of the new technology	674 56.2%	269 22.4%	182 15.2%	75 6.3%	1.71	0.94
Weighted Mean = 2.18							

Table 4 shows the challenges businesses face in the adoption of technology in Nigeria. A competitive business economy forces the C-suite to tighten their purse strings" ($\bar{x}$ =2.77) was ranked highest by the mean score rating and was followed by New technologies do not come cheap" ($\bar{x}$=2.71), "Skill Challenges" ($\bar{x}$=2.61), "Technology Challenges" ($\bar{x}$=2.47), "The Disruptive Impact of New Technology" ($\bar{x}$=2.4), "End-user Resistance" ($\bar{x}$=2.39), "Ownership Issues" ($\bar{x}$=2.02), "Not implementing the right systems and procedures" ($\bar{x}$=2.01), "Failing to win staff over to the new technology" ($\bar{x}$=1.78), and "Not training staff adequately in the utilization of the new technology" ($\bar{x}$=1.71), respectively. Inference to be drawn from here is that the Challenges businesses face in the adoption of technology in Nigeria are; The Business Case. A competitive business economy forces the C-suite to tighten their purse strings, resource Crunch. New technologies do not come cheap, skill challenges, technology challenges, the disruptive impact of new technology, end-user resistance and ownership issues.

Research Question 5: How can challenges identified can be addressed

Table 5: Descriptive analysis on how the challenges identified can be addressed

S/N	How the challenges identified in (4) above can be addressed	SD	D	A	SA	$\bar{x}$	S.D.
1	Business should not be scared of taking risk	259 21.6%	231 19.3%	227 18.9%	483 40.3%	2.78	1.19
2	Government should subsidize new and emerging technologies	292 24.3%	190 15.8%	329 27.4%	389 32.4%	2.68	1.16

3	Employers must lead by example by investing in themselves the technical know of the technologies	222 18.5%	207 17.3%	540 45.0%	231 19.3%	2.65	0.99
4	The Nigerian government should create enabling environment for business with technology to thrive	214 17.8%	203 16.9%	585 48.8%	198 16.5%	2.64	0.96
5	Employees and employers should be prepared for the disruptions that comes along with new technologies	296 24.7%	209 17.4%	609 50.8%	86 7.2%	2.40	0.94
6	Users should be educated on the need for new technologies	246 20.5%	586 48.8%	264 22.0%	104 8.7%	2.19	0.86
7	Ownership rights should be addressed	518 43.2%	370 30.8%	202 16.8%	110 9.2%	1.92	0.98
8	Implementing the right systems and procedures	581 48.4%	280 23.3%	230 19.2%	109 9.1%	1.89	1.01
9	Winning staff over to the new technology	519 43.3%	416 34.7%	191 15.9%	74 6.2%	1.85	0.90
10	Training staff adequately in the utilization of the new technology	574 47.8%	369 30.8%	193 16.1%	64 5.3%	1.79	0.90
Weighted Mean = 2.28							

Table 5 shows how the challenges of technopreneurship can be addressed in Nigeria. "Business should not be scared of taking risk" ($\bar{x}$=2.78) ranked highest by the mean score rating and was followed in succession by "Government should subsidize new and emerging technologies" ($\bar{x}$=2.68), "Employers must lead by example by investing in themselves the technical know of the technologies" ($\bar{x}$=2.65), "The Nigerian government should create enabling environment for business with technology to thrive" ($\bar{x}$=2.64), 'Employees and employers should be prepared for the disruptions

that comes along with new technologies" ($\bar{x}$=2.40), "Users should be educated on the need for new technologies" ($\bar{x}$=2.19), "Ownership rights should be addressed" ($\bar{x}$=1.92), "Implementing the right systems and procedures" ($\bar{x}$=1.89), "Winning staff over to the new technology" ($\bar{x}$= 1.85), "Winning staff over to the new technology" ($\bar{x}$=1.79), and lastly "Training staff adequately in the utilization of the new technology" ($\bar{x}$=1.79) and lastly "My in-laws attention, care and concern, visits, relief on financial and psychological needs" ($\bar{x}$=1.78) respectively.

Research Hypotheses

Hpothesis One: There is no significant relationship between technopreneurship and Business Success in Nigeria

Table 6. Pearson Product Moment Correlation (PPMC) showing the relationship between technopreneurship and Human resource management in Nigeria

Variables	Mean	Std. Dev.	N	R	P-value	Remark
Technopreneurship	24.5358	4.4871	1200	.268*	.000	Sig.
Human resource management	26.3600	7.6414				

* Sig. at 0.05 level

It is shown in table 6 that there is a positive significant relationship between technopreneurship and Human resource management in Nigeria(r = .268, n= 1200, p(.000) < 0.05). Hence, it could be deduced that technopreneurship has significant influence on human resource management in Nigeria. Hence, the hypothesis was therefore rejected.

Conclusion

The influence of technopreneurship as a pathway to human resource management, national development and economic competitiveness has been established in this research. Modern competitive economies are knowledge-based and innovation driven. Technopreneurship can therefore be a platform which policy makers can use to forge a Nigerian economy that is technologically driven as well as knowledge based.

Suggestions

This research suggests the following in order to promote the emergence of technopreneurs that can launch Nigeria into global economic competitiveness by powering new businesses that provide solutions to human problems:

i. Strong commitment to Nigeria's economic development and value re-orientation and especially among the Nigerian political elite should be on the front burner of policy formulation in the country

ii. Innovation through supportive measures that enable technopreneurs improve products and production processes should be encouraged in micro, small, medium-sized enterprises (MSMEs) so that products and services from Nigeria can satisfy international quality standards

iii. The high risk involved and the great opportunities businesses present for leapfrogging Nigeria's development should make government to be proactive in providing venture capital-like funding for technopreneurs.

iv. Economic and innovation policies in Nigeria should focus on taking advantage of the emergent digital economy worldwide and create enabling environment for technopreneurs to thrive.

References

Adeoti, John O., A. Onwuemele, Y. Aluko, O. Okuwa and A. Osigwe (2016). *Universities as agents of innovation for inclusive development: Case studies of university interaction with marginalised communities in Nigeria*, Nigerian Institute of Social and Economic Research (NISER), Ibadan, Nigeria

Bubou, G. M. &Siyanbola, W. O (2010). *Science and technology entrepreneurship for socio-economic development in Africa (SEEDA)*. In proceedings of the third annual international conference on entrepreneurship organised by WITS Business School. University of Witwatersrand, Johannesburg, South Africa, October 20 – 21.

Fowosire, R. A; Idris, O. Y &Opoola, E. (2017). Technopreneurship: A view of technology, innovations and entrepreneurship. *Global journal of researches in engineering: Electrical and electronics engineering*, 17(7), 41-46.

Ganotakis, P. & Love, J. H. (2011). R&D, product innovation, and exporting: evidence from UK new technology based firms. *Oxford Economic Researchs*, 63(2), 279-306.

Griffith, R. (2003). R & D and absorptive capacity: Theory and empirical evidence'. *Scandinavian Journal of Economics*, 105(1), 99-118.

Harris, R. & Moffatt, J. (2011). R & D, innovation and exporting', SERC discussion research 73. *Spatial Economics Research Centre*.

Hofstrand, Don (2009). Understanding profitability. IOWA State University outreach. *Ag Decision maker a business newsletter for agriculture*.

John, K. N.; Maurice, O. M. & Joseph, M. M. (2013). The influence of innovativeness on the growth of SMEs in Kenya. *International Journal of Business and Social Research (IJBSR)*, 3(1), 25-31.

Juma, C. (2006). Reinventing growth: science, technology and innovation in Africa. *International Journal of Technology Globalisation*. 2 (3-4), 323-339.

Kraaijenbrink, J.; Spender, J. C. & Groen, A. J. (2010). The resource-based view: a review and assessment of its critiques. *Journal of management*, 36(1), 349-372.
Kwon, H. J. & Lee, H. C. (2004). An empirical study of the venture business' R&D expenditure on the enterprise value-compare high-technology firms to low-technology firms. *Journal of Korea Tax Accounting Research*, 15(1), pp. 85-101.
Lin (2007). Does Innovation lead to Performance? - An empirical study of small and medium enterprises in Taiwan. *Management Research News*, 30(2), 115-32.
Love, J. H., Roper, S., & Du, J. (2009). Innovation, ownership and profitability. *International Journal of Industrial Organization*, *27*(3), 424-434.
Love, James, H. & Roper, Stephen (2013). SME innovation, exporting and growth: A review of existing evidence. *Enterprise Research Centre White Research* No. 5. www.enterpriseresearch.ac.uk.
Martínez-Román, J. A.; Gamero, J. & Tamayo, J. A. (2011). Analysis of innovation in SMEs using an innovative capability-based non-linear model: A study in the province of Seville (Spain). *Technovation*, 31(9), pp. 459-475.
Matejun, M. (2016). Role of technology entrepreneurship in the development of innovativeness of small and medium-sized enterprises. *Managemen*t, 20(1), 167-183.
Matejun, M. (2016). Role of technology entrepreneurship in the development of innovativeness of small and medium-sized enterprises. *Management*, 20(1), 167-183.
Minseo, Kim; Ji-eung, Kim; Yeong-wha, Sawng& Kwang-sun, Lim (2018). Impacts of innovation type SME's R&D capability on patent and new product development. *Asia Pacific Journal of Innovation and Entrepreneurship*, 12(1), 45-61.
MohdNoo, N. A. (2011). Intellectual Property Rights and Agro-based Natural Product: Malaysian Legal Perspective. *Journal of Politics and Law*, 4(1), 138-145.
Ngungi. (2013). Effect of the type of innovation on the growth of small of small and medium enterprises in Kenya: a case of garment enterprises in Jericho, Nairobi. *European Journal of Management sciences and Economics,* 1(2), 49 - 57.
Normann, R. & Ramirez, R. (1993). From value chain to value constellation: Designing interactive strategy. *Harvard business review*, 71(4), 65-77.
Okorie N. et al. (2014). Technopreneurship: an urgent need in the material world for sustainability in Nigeria. *European Scientific Journal October 2014 edition.* 10 (30), 59-73.
Pathak, S.; Xavier-Oliveira, E. & Laplume A. (2013). Influence of intellectual property, foreign investment, and technological adoption on technology entrepreneurship. *Journal of Business Research* 66, 2090–2101.
Petti, C. & Zhang, S. (2011). Factors influencing technological entrepreneurship capabilities: Towards an integrated research framework for Chinese enterprises. *Journal of Technology Management in China*, 6(1), 7-25.
Petti, C. (2012). *Technological Entrepreneurship in China: How Does it Work?* Northampton, M.A.: Edward Elgar Publishing.
Piergiovanni, R., Santarelli, E. &Vivarelli, M. (1997). From which source do small firms derive their innovative inputs? Some evidence from Italian industry. *Review of Industrial Organization*, 12(2), 243-258.
Roper, S.; Du, J., & Love, J. H. (2008). Modelling the innovation value chain. *Research policy*, 37(6-7), 961-977.
Selvarani, A. & Venusamy, K. (2015). A study of technopreneurship in small and medium industry. Technopreneurship as a firm strategy: links to innovation, creation and performance. *Journal Impact Factor*, 6(1), 401-408.
Sukarmijan, S. S. & Sapong, O. D. V. (2014). The importance of intellectual property for SMEs; Challenges and moving forward. *UMK Procedia*, 1, 74-81.
Teece, D. J. (2010). Technological innovation and the theory of the firm: the role of enterprise-level knowledge, complementarities, and (dynamic) capabilities. In *Handbook of the Economics of Innovation*, 1, 679-730. North-Holland.
Venkataraman, S. (2004). Regional transformation through technological entrepreneurship. *Journal of Business venturing*, 19(1), 153-167.

Wiengarten, F.; Humphreys, P.; Cao, G. & McHugh, M. (2013). Exploring the important role of organizational factors in IT business value: Taking a contingency perspective on the resource-based view. *International Journal of Management Reviews*, 15(1), 30-46.

REVIEW OF ARTICLES FOR
KWASU INTERNATIONAL JOURNAL OF EDUCATION
Title of Article: **Research Number: 011**
TECHNOPRENEURSHIP: PATHWAY TO HUMAN RESOURCE MANAGEMENT AND ECONOMIC GROWTH IN NIGERIA.
Guide to the Reviewer: Please indicate 'Yes' or 'No' against the following items. Give a summary of modifications/corrections as appropriate and your recommendations:
Topic: (a) Original and researchable ……YES BUT A POSITION RESEARCH…….
(b) Properly delimited ……. ……NA …….
Abstract: Concise and highlights content not more than 350 word
NOT UP TO 350 and needs restructuring
The abstract is grossly inadequate. Try to include statistical value of your findings
Introduction: (a) Expresses the problem clearly ……FAIRLY……
(b) Integrates significance of the study …NO…….
(c) Explains key variables and shows relationships NO……
Literature: (a) Relevant ……YES (b) Adequate …NO…… (c) Current …FAIR…….
(d) Adequate Referencing …NO (e) APA system adopted …NO
Research Questions: Properly stated ……NOT STATED…
Research Hypothesis: Properly stated …… NOT STATED…
Methods : (a) Well stated under the following headings – Area of the study, Design, Population, Sample, Instrument, Data collection and Analysis ……NOT STATED……
(b) Evidence of Validity ……NOT STATED…….
(a) Evidence of Reliability ……NOT STATED….
(c) Correct tool used to analyze data …YES……
THERE IS NEED TO REWORK METHODOLOGY COMPLETELY.
WHAT IS THE RESEARCH DESIGN?
WHAT IS YOUR POPULATION, SAMPLE SIZE AND SAMPLING TECHNIQUES USED IN THIS STUDY?
NO RESEARCH QUESTIONS
NO RESEARCH HYPOTHESES
Findings: Correspond with: (a) Corresponds with research questions …NOT STATED…….
(b) Corresponds with hypotheses …NOT STATED……
Discussion: Well-articulated with adequate literature support. …..NOT APPLICABLE
Conclusion: Appropriate and adequate based on the findings ……NO……
Recommendations: Appropriate and based on the findings ……NO
References: Well organized based on APA style …NO……
REVIEWER'S RECOMMENDATIONS: (Kindly, check off)

1) Research is publishable as is ……
2) Research is publishable after effecting corrections/modifications as indicated ……√……
3) Research is publishable if revised based on corrections/modifications suggested and re-submitted for a second review ……..
4) Research is un-publishable: (Give reasons) ……

EDITORIAL: (Grammar, spellings, punctuations, etc.) …THERE IS NEED FOR THOROUGH EDITORIAL WORK
SUGGESED CORRECTIONS/MODIFICATIONS
CHECK THE REVIEWED MANUSCRIPT