

Zayed, Nurul Mohammad et al.

Article

An investigation into the effect of knowledge management on employee retention in the telecom sector

Administrative Sciences

Provided in Cooperation with:

MDPI – Multidisciplinary Digital Publishing Institute, Basel

Suggested Citation: Zayed, Nurul Mohammad et al. (2022) : An investigation into the effect of knowledge management on employee retention in the telecom sector, Administrative Sciences, ISSN 2076-3387, MDPI, Basel, Vol. 12, Iss. 4, pp. 1-14,
<https://doi.org/10.3390/admsci12040138>

This Version is available at:

<https://hdl.handle.net/10419/275408>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.



<https://creativecommons.org/licenses/by/4.0/>

Article

An Investigation into the Effect of Knowledge Management on Employee Retention in the Telecom Sector

Nurul Mohammad Zayed ¹, Friday Ogbu Edeh ², Khan Mohammad Anwarul Islam ³, Vitalii Nitsenko ^{4,5,*}, Tetiana Dubovyk ⁶ and Hanna Doroshuk ^{7,8}

¹ Department of Business Administration, Faculty of Business & Entrepreneurship, Daffodil International University, Dhaka 1341, Bangladesh

² Department of Business Administration, Faculty of Management Sciences, Alex Ekwueme Federal University, Abakaliki P.M.B 1010, Nigeria

³ Department of Business Administration, The Millennium University, Dhaka 1217, Bangladesh

⁴ Department of Entrepreneurship and Marketing, Institute of Economics and Management, Ivano-Frankivsk National Technical Oil and Gas University, 76019 Ivano-Frankivsk, Ukraine

⁵ SCIRE Foundation, 00867 Warsaw, Poland

⁶ Department of Journalism and Advertising, State University of Trade and Economics, 02156 Kyiv, Ukraine

⁷ Department of Management, Odesa Polytechnic National University, 65044 Odesa, Ukraine

⁸ Munich School of Management, Institute for Strategy, Technology and Organization, Ludwig-Maximilians-Universität München, Geschwister-Scholl-Platz 1, 80539 München, Germany

* Correspondence: vitaliinitenko@onu.edu.ua; Tel.: +380-939983073



Citation: Zayed, Nurul Mohammad, Friday Ogbu Edeh, Khan Mohammad Anwarul Islam, Vitalii Nitsenko, Tetiana Dubovyk, and Hanna Doroshuk. 2022. An Investigation into the Effect of Knowledge Management on Employee Retention in the Telecom Sector. *Administrative Sciences* 12: 138. <https://doi.org/10.3390/admsci12040138>

Received: 6 September 2022

Accepted: 11 October 2022

Published: 17 October 2022

Publisher's Note: MDPI stays neutral with regard to jurisdictional claims in published maps and institutional affiliations.



Copyright: © 2022 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

Abstract: Employees in the telecom sector are knowledge workers and, thus, managers, HR professionals, and policymakers in the industry need to retain them through knowledge management policies. It is against this premise that this study investigated the effect of knowledge management on employee retention in the telecom sector. Research design employed in this study is a cross-sectional survey with an accessible population of thirty telecom companies in the southeastern region of Nigeria using a simple random sampling technique. The sample size was determined with the Krejcie and Morgan sample size determination table. A questionnaire was used as an instrument for data collection. Respondents' profiles were analysed with frequency distribution while the formulated hypotheses were analysed with linear regression. The study found that knowledge management dimensions have a significant effect on the measures of employee retention. The study concludes that knowledge management measured in terms of knowledge acquisition, knowledge storage, and knowledge sharing predicted employee retention that is measured by supervisor support, coworkers support, and flexible working arrangements. One of the implications of this study is that managers of telecom companies should liaise with their board of directors to make funds available that would be used to train employees to acquire relevant knowledge that is needed in the telecom industry.

Keywords: knowledge management; employee retention; telecom; flexible working arrangements; supervisor support; coworker support

1. Introduction

Employee retention has been a major issue facing both small and multinational corporations across the globe (Edeh et al. 2021b; Kularathne and Senevirathne 2020; Biason 2020; Fukui et al. 2019; Nagabhaskar 2014; Aguenza and Som 2012). This is caused by changing demographics, need for achievement, entrepreneurial intention, entrepreneurial orientation, job insecurity, technological uncertainty, unhealthy working environment, lack of management skills, insufficient knowledge of leadership typologies, absence of resilience mechanism, as well as the lack of knowledge management strategies (Edeh et al. 2022; Edeh and Ukpe 2019; Sawaneh and Kamara 2019). On the other hand, recent evidence from developed economies revealed that high employee turnover was caused by non-material factors (Kuzior et al. 2022). It is based on the above contentions that

scholars have challenged business practitioners to employ sustainable retention strategies, such as supervisor support, internal promotion, coworker support, working environment, flexible working arrangements, career advancement, and training and development, which would prevent their employees from leaving for other organisations (Edeh et al. 2021a; Sishuwa and Phiri 2020; Edeh et al. 2020; Ohunakin et al. 2019; Choi 2019). In addition, studies have shown that for employees to remain with their organisation, especially in a digital economy dispensation, managers, supervisors, and human resource professionals must deploy knowledge management as a strategic tool for retaining their employees; otherwise, they could leave unannounced thereby incurring more expenditure for the organisation to recruit new individuals that would take their place (Edeh et al. 2022).

However, in a knowledge-based work environment such as the telecom sector, managers and human resource professionals had been advised to employ knowledge management as an instrument to foster the retention of their valued employees (Enyioko and Ikoro 2018; Serenko 2022). Knowledge management is a human resource policy that is geared toward the prevention of employee turnover, social loafing, and other counterproductive work behaviours in most organisations (Algaribeh 2018). Prior studies have shown that knowledge management engenders employee effectiveness, innovation capability, discretionary work behaviour, corporate sustainability, employee job satisfaction, firm survival, and entrepreneurial performance (Edeh et al. 2022; Edeh and Ukpe 2019; Mustafa et al. 2021; Kassaneh et al. 2021; Li et al. 2020; Okafor et al. 2019; Valmohammadi et al. 2019; Alias et al. 2018; Nwaiwu and Imafidon 2017).

The aforementioned studies have revealed that some of the major problems facing telecom companies in sub-Saharan Africa, especially in Nigeria, is their inability to implement effective retention plans that would discourage talented employees from leaving (Enyioko and Ikoro 2018; Zakariya and Shuaibu 2021). Research has shown that the management of telecom firms has not fully implemented flexible working periods for their employees and thus, prevents them from having their time and improving their wellbeing (Okafor et al. 2019; IBN 2022; Magaji et al. 2021). It was also discovered that top-level managers in most telecom firms fail to provide support to their subordinates when there is a need for assistance, and also some coworkers that are more knowledgeable than others sometimes do not want to share their knowledge with their colleagues (Zakariya and Shuaibu 2021; Baridula and Mekuri-Ndimele 2020). These are the major reasons why this study is necessary, especially in the telecom work environment where retention policies such as supervisor support, coworker support, and flexible working arrangements are relevant, as drawn from the preceding literature.

Drawing from the above, prior studies by Edeh et al. (2022); Edeh and Ukpe (2019); Li et al. (2020); Okafor et al. (2019); Valmohammadi et al. (2019); and Alias et al. (2018) had investigated the predictability of knowledge management on other criterion variables other than employee retention with a specific focus on telecom companies in sub-Saharan Africa work environments. This has created a research gap that this study has filled. It was this vacuum that motivated the researchers to embark on this study by investigating the effect of knowledge management on employee retention in the telecom sector within the sub-Saharan work setting with human capital theory and social exchange theory as the baseline theories. Meanwhile, what necessitated the choice of the telecom sector in this study is because of its contribution to the economic development of the world at large. Research has shown that in 2021 alone, the telecom industry contributed about USD 4.5 trillion to the global GDP (O'Dea). It was further projected that by 2025 the sector would have added USD 4.9 trillion to the global GDP (O'Dea). In Nigeria, the telecom sector contributed about 7.7% of the country's GDP in 2012; it dropped in 2013 by 7.4%; and it increased to 7.6%, 8.5%, 9.13%, 8.7%, 9.9%, 10.6%, and 17.5% in 2014, 2015, 2016, 2017, 2018, 2019, and 2020, respectively (Osuagwu 2021).

2. Literature Review

2.1. Knowledge Management

The concept of knowledge management was popularized by [Nonaka and Takeuchi \(1995\)](#) in their writing “knowledge-creating company”. The authors were provoked by the constant technological changes in the organisation and advocated that the essence of organisational existence is to constantly create knowledge that would assist them in the competitive business environment ([Scarborough and Carter 2000](#)). Nonaka and Takeuchi ([Nonaka and Takeuchi 1995](#)) went further to opine that any organisation that wants to remain relevant in the digital economy must create knowledge that would provoke its employees to learn and discourage them from leaving. It is on this note that human resource scholars such as [Armstrong \(2009\)](#), [Edeh et al. \(2022\)](#), and [Sayyadi \(2009\)](#) argued that the new business economy revolves around knowledge management. However, knowledge management has received much attention because of its meaning and benefits. Early scholars of knowledge management defined knowledge management as any organisation process that has to do with creating, attracting, storing, sharing, and utilizing knowledge to promote learning and high performance ([Scarborough and Carter 2000](#); [Scarborough et al. 1999](#)). Using different binoculars, [Mustafa et al. \(2021\)](#) accentuate that knowledge management is concerned with the process of selecting qualified individuals with the required knowledge that is needed by a particular business or an organisation. In contrast to the above definition, [Sayyadi \(2009\)](#) asserts that knowledge management is a new human resource management policy that is designed to produce quality and comprehensive knowledge in the workplace. Deviating from the above submission, [Kassaneh et al. \(2021\)](#) and [Perevozova et al. \(2019\)](#) suggested that knowledge management is not only domiciled with human resource professionals but it is a tool that can be used to attract new ideas or innovations from within or outside the organisation. Still, in the search for what knowledge management represents, [Ogunbanwo et al. \(2021\)](#) argued that knowledge management refers to a process of acquiring new knowledge, keeping it in databases as storage, and utilizing it for the benefit of the organisation. Simplifying it further, [Edeh et al. \(2022\)](#) contended that knowledge management is human resource nomenclature that is concerned with knowledge acquisition, knowledge storage, and knowledge sharing or distribution amongst coworkers to achieve formulated goals.

Drawing from the above contentions, it appears that most of the authors focused their satellite on already acquired knowledge, leaving the employee who is the vehicle through which knowledge is driven to the stakeholders of the organisation. It is based on this premise that [Nurdin and Yusuf \(2020\)](#) elucidated that knowledge management represents organisational strategies for sieving knowledge from its employees and sharing it to other members of the organisation. Supporting the position above, [Favoretto and Carvalho \(2021\)](#) believe that any policy that encourages employees to release any information capable of solving the problems facing the organisation is termed knowledge management. In congruence with the above, [Ogunbanwo et al. \(2021\)](#) argued that employees may possess accurate knowledge that can be used to tackle the organisational problem but the implementation is domiciled with the managers. What this implies is that an employee can have knowledge that would turn around the future of the business but sometimes managers may not give them that opportunity because of the fear of losing their position ([Sayyadi 2009](#); [Favoretto and Carvalho 2021](#)). To salvage these challenges, [Kassaneh et al. \(2021\)](#) suggested that effective knowledge management involves every member of the organisation. [Li et al. \(2020\)](#) admitted that the essence of knowledge management is to prevent talented employees from leaving the organisation. [Nurdin and Yusuf \(2020\)](#) concurred with [Li et al. \(2020\)](#) and advised human resource professionals or management teams to harvest knowledge from their subordinates by creating a friendly work atmosphere that would motivate the subordinates to share their idea concerning a particular issue.

Prior research has shown that knowledge management predicted innovation capability ([Edeh et al. 2022](#)). [Kotwal and Gupta \(2021\)](#) examined the role that knowledge management plays in the telecom sector of Jammu and discovered that knowledge management

significantly impacted the competitive advantage of the firms. [Alrefaai and Khalil's \(2019\)](#) empirical investigation on knowledge management and learning organisation, which was conducted in telecom enterprises in Damascus, shows that the dimensions of the predictor variable correlated with a learning organisation. [Okafor et al. \(2019\)](#) investigated knowledge management strategies and firm performance in telecom firms in Port Harcourt and discovered that knowledge creation, knowledge storage, knowledge sharing, and knowledge application have a significant positive correlation with corporate performance. [Algaribeh \(2018\)](#) conducted a study on the influence of knowledge management on firm performance in Jordan telecom companies and found knowledge acquisition, knowledge sharing, knowledge interpretation, as well as organisational memory predicts the performance of telecom firms. [Nwaiwu and Imafidon \(2017\)](#) investigated the relationship between knowledge management and organisational survival in telecom firms in Nigeria and found that knowledge acquisition, knowledge storage, knowledge sharing, and knowledge utilisation correlated with the survival of telecom enterprises.

From the existing knowledge management literature above, it was shown that the three validated dimensions of knowledge management include knowledge acquisition, knowledge storage, and knowledge sharing ([Edeh et al. 2022](#); [Algaribeh 2018](#); [Okafor et al. 2019](#); [Nwaiwu and Imafidon 2017](#); [Nina et al. 2021](#)). Knowledge acquisition refers to the process of obtaining relevant knowledge that would be useful to the organisation ([Edeh et al. 2022](#)). Examples include suggestions and ideas from the subordinates during board meetings, and sending members of staff to attend conferences, workshops, and other training that is considered beneficial for the growth of the organisation ([Mustafa et al. 2021](#)). Knowledge storage is concerned with the process or systems of keeping acquired knowledge so that whenever it is needed to solve problems in the organisation, it can be called up at any time ([Okafor et al. 2019](#)). Examples include storages such as databases, office files, and computer memory cards, to mention but a few ([Li et al. 2020](#); [Perevozova et al. 2019](#)). Knowledge sharing is concerned with the process of disseminating or distributing knowledge amongst members of the organisation ([Nwaiwu and Imafidon 2017](#)).

2.2. Employee Retention

Employee retention is still a very serious issue facing managers in different organisations and in every sector of the economy across the globe. This is due to inadequate managerial skills on the part of the leadership of many businesses across the world ([Mahadi et al. 2020](#); [Diah et al. 2020](#); [Malik et al. 2020](#)). However, scholars had advocated that retaining employees depends on the business environment where the organisation is located ([Diah et al. 2020](#); [Adedeji and Ugwumadu 2018](#)). This may be true especially in sub-Saharan Africa work settings where employees are encouraged to notify their management before leaving ([Adedeji and Ugwumadu 2018](#)). Employee retention refers to the procedure of ensuring that employees are not allowed to leave the organization in an unplanned manner ([Ohunakin et al. 2019](#); [Adedeji and Ugwumadu 2018](#)). [Ibrahim \(2019\)](#) has a different view regarding employee retention. He contended that any plan, strategy, or policy that is designed by the human resource department to encourage employees to stay is termed employee retention. While considering the above assertion, [Mahadi et al. \(2020\)](#) opined that the reasons why organisations strive to retain their employees are to avoid leaking their business secrets to competitors. This is very crucial and must be avoidable by telecom managers, especially as the industry is intensely occupied with competitiveness. In addition, researchers were of the view that when it comes to retaining employees, management should look beyond cultural affiliation and focus on providing support to their subordinates as they value it more than rewards ([Magaji et al. 2021](#); [Diah et al. 2020](#); [Serenko 2022](#)). The above argument may be true in the telecom industry where employees prefer to acquire new knowledge that would give them a competitive edge in the future. In line with the above, [Naz et al. \(2020\)](#) stressed that employees that do not receive support from their supervisors or coworkers are usually tempted to engage in social loafing at work. Adding to the statement above, [Mahadi et al. \(2020\)](#) admitted that

social loafing engagement has the capacity of generating conflict amongst team members and thereafter fosters mistrust in the workplace.

However, [Sija \(2022\)](#) asserts that the process of retaining employees varies from one country to another. Hence, employee retention is also dependent on the type of business or industry. [Malik et al. \(2020\)](#) contended that the policies used for retaining employees in the oil and gas industry cannot be used in the telecom industry. [Kigathi and Waiganjo \(2017\)](#) also added that to retain employees in the telecom industry, managers and human resource professionals should consider the deployment of flexible working arrangements, coworker support, supervisor support, and working environments. In addition, [Kundu and Gahlawat \(2016\)](#) posited that due to the competitive nature of telecom sector, employees in the industry do not necessarily pay attention to financial motivation but prefer a work environment that provides them with the opportunity to work from the comfort of their homes. Some authors have linked employee retention to management's ability to compensate workers in terms of injury, economic disruption, and other factors that may lead to changes in their living standards.

Nevertheless, studies have shown that employee retention is the function of the human resource department ([Naz et al. 2020](#); [Chatzoudes and Chatzoglou 2022](#); [Eguchi et al. 2019](#)). This may be the reason why [Ashton \(2017\)](#) elucidated that the major responsibility of the human resource department is to ensure that recruited employees do not leave the organisation due to management deficiencies. Therefore, to retain employees in the telecom sector, [Kumari \(2018\)](#) strongly advocated for the implementation of a flexible working period and support from supervisors and colleagues. Corroborating with the above submission, [Magaji et al. \(2021\)](#) contended that every industry has its peculiarity when it comes to employee retention and, hence, suggested that managers of telecom businesses should provide supervisory support to their subordinates to avoid high employee turnover. Drifting away from the various arguments about employee retention, [Ashton \(2017\)](#) clarifies that employee retention refers to a process of ensuring that employees are provided with necessary policies that would make them happy to stay with their enterprise rather than allowing them to quit. In this manner, what inspires employees to stay in the organisation depends on the industry and not necessarily the amount of money they receive at the end of the day. Drawing from the review above, it is pertinent to note that in the telecom sector, especially those operating in sub-Saharan Africa, employees prefer to remain with their employers if they are supported by their supervisors separate from their coworkers, including the provision of working from their homes ([Enyioko and Ikoro 2018](#); [Gajendra et al. 2021](#)). This position is in line with the submission of [Zakariya and Shuaibu \(2021\)](#), who posited that telecom companies in Nigeria now encourage their employees with the opportunity to work from home.

Nonetheless, validated dimensions of employee retention from the various literature includes working environment, job satisfaction, performance appraisal, career opportunities, training and development, empowerment, fringe benefits, pay, work-life balance, coworker support, supervisor support, employee recognition, remunerations, flexible working arrangements ([Sawaneh and Kamara 2019](#); [Choi 2019](#); [Sija 2022](#); [Chatzoudes and Chatzoglou 2022](#)), working experience, training and development, job satisfaction, management support, prompt payment of salary, coworker support, supervisor support, provision of the good working environment ([Kularathne and Senevirathne 2020](#); [Jayaswal 2021](#); [Edeh and Udensi 2017](#)), financial rewards, management, recognition, psychological contract, work-life balance, career development, job security and job characteristics ([Nagabhaskar 2014](#); [Aguenza and Som 2012](#); [Sishuwa and Phiri 2020](#)). In line with the review of the literature above, this research would adapt supervisor support, coworker support, and flexible working arrangements as dimensions of employee retention because of their reliability and validity in many studies ([Edeh et al. 2021a, 2021b](#); [Eguchi et al. 2019](#); [Kumari 2018](#); [Pap et al. 2021](#); [Campbell 2015](#)). Supervisor support refers to the assistance from managers or supervisors to their subordinates within and outside the workplace ([Eguchi et al. 2019](#)). It can also be a formal work relationship between any top-level managers and their subor-

dinates (Pap et al. 2021). Coworker support is helping behaviour from colleagues in the same organisation (Kumari 2018). Edeh et al. (2021a) asserts that any organisation in which coworkers support each other to achieve organisational objectives would never be defeated by any competitor. A flexible working arrangement is an organisation policy that allows employees to work from the comfort of their homes or work shift hours, which would help employees take care of their family needs (Campbell 2015; Omondi and K'Obonyo 2018). Hayman (2009) accentuates that most telecom firms across the globe are adopting flexible working arrangements as a competitive strategic advantage and also to improve the wellbeing of their employees.

2.2.1. Knowledge Acquisition and Flexible Working Arrangements

Knowledge acquisition is the process through which knowledge is acquired or attracted to utilize it for organisational prosperity. In this regard, the acquired knowledge is expected to enhance the effectiveness of workers in the telecom sector, which would equip them to work at their homes according to the specified objective (Okafor et al. 2019). It is against this backdrop that Omondi and K'Obonyo (2018) opined that a flexible working arrangement goes a long way in reducing organizational traffic and stated that it was a result of new technological knowledge that necessitated flexible working schedules in most firms. Going by the assertion above, it can be deduced that knowledge acquired without being utilized has not solved any problem in the organisation. Therefore, Aligaribeh (2018) posited that it behoves managers of telecom companies to ensure that acquired knowledge is effectively utilized by employees wherever they are working. Research has shown that a flexible working arrangement is one of the major instruments for retaining employees in the workplace (Idowu 2020). Renard et al. (2021) discovered that in the new normal business environment, employees prefer to work in organisations that provide flexible working schedules and support knowledge creation. In addition, it was also found that flexible working arrangements policy in the workplace avails employees with the opportunity to acquire more knowledge that could be used to solve organisational problems (Austin-Egole et al. 2020). Meanwhile, Baridula and Mekuri-Ndimele (2020) contended that the retention of employees in the telecom sector is highly dependent on the knowledge acquired through training, discussions, and contributions during meetings. It is against this backdrop that the first research hypothesis is formulated.

H1: *Knowledge acquisition has a significant effect on flexible working arrangements.*

2.2.2. Knowledge Storage and Supervisor Support

To store relevant knowledge in the formal organisation is to preserve wisdom that could be used in the future and, hence, management support is very necessary for retaining employees. On the other hand, knowledge storage is based on acquired wisdom and thus, retrieving from wherever it is stored requires the approval of the managers responsible for knowledge management in the telecom industry (Okafor et al. 2019). Supervisor support engenders employees' job satisfaction which fosters their emotional stability to stay with their firms instead of moving to another (Kularathne and Senevirathne 2020). Again, stored knowledge in databases or office files when approved for use by top management provides a harmonious atmosphere between the employee and the supervisor (Kumari 2018). It is this relationship that promotes employee retention because it was revealed that employees prefer a work environment that is free from initiating structure but they would prefer a consideration relationship with management (Zakariya and Shuaibu 2021). This study, however, advocates that knowledge storage is very essential to retaining telecom employees, which is the function of supervisors. Based on this argument, the second research hypothesis is formulated.

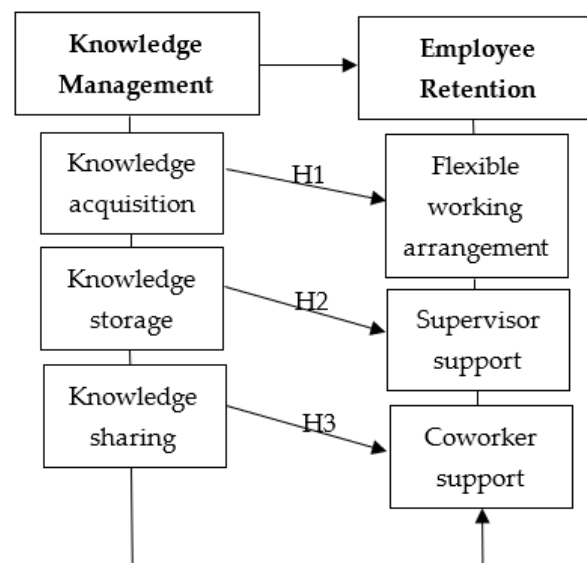
H2: *Knowledge storage has a significant effect on supervisor support.*

2.2.3. Knowledge Sharing and Coworker Support

Sharing knowledge in the workplace is very significant when it comes to employee retention in every organisation, including telecom enterprises. Scholars have argued that when an employee shares ideas or suggestions that could solve problems in the organisation, it goes a long way to motivating other colleagues to provide support to each other (Hayman 2009; Liu et al. 2020). This was proven by Zakariya and Shuaibu (2021) when they contended that coworker support is a relationship that goes with altruism. Therefore, knowledge sharing promotes coworker support in the workplace as a result of previous exchanges exhibited by one of the employees during working hours (Castaneda and Cuellar 2020). Nwaiwu and Imafidon (2017) elucidated that employees in the telecom industry provide support to each other by sharing knowledge that could assist one another when needed. On the one hand, Castaneda and Cuellar (2020) maintained that the issue of knowledge sharing is considered as a factor to stimulate employees to support each other in the workplace and also strengthens their morale to remain within their organisation. Drawing from the contention, the third hypothesis is formulated.

H3: *Knowledge sharing has a significant effect on coworker support.*

Figure 1 below shows the conceptual framework of the study indicating how research assumptions were developed. In the framework, the predictor variable is knowledge management with its dimensions: knowledge acquisition, knowledge storage, and knowledge sharing. On the right-hand side is the criterion variable (employee retention) with its indicators: flexible working arrangement, supervisor support, and coworker support.



Source: Authors' conceptualization

Figure 1. Conceptual framework.

2.3. Theoretical Underpinning

In line with the review of literature, the theories that underpinned this study are the human capital theory by Becker (1964), and the social exchange theory by Homans (1958). Human capital represents the skills, abilities, and knowledge of individuals employed in the organisation (Jason and Ramsden 2021). The tenet of human capital theory in this study is that employees are assets to the organisation that must be provided with relevant knowledge that would enable them to accomplish their task; otherwise, when the old knowledge fades, they would be tempted to leave the organisation in search of greener pasture elsewhere. Social exchange theory, on the other hand, is a relationship based on costs and benefits (Ogbonna and Mbah 2022). The premise of the social exchange theory in

this study is that employee retention is dependent on the amount of knowledge acquired from the inception of joining the organisation.

2.4. Research Objectives

The main objective of this study is to investigate the effect of knowledge management on employee retention in the telecom sector. However, drawing from the literature review, the study enumerated the following specific objectives:

- (1) To investigate the significant effect of knowledge acquisition on flexible working arrangements
- (2) To examine the significant effect of knowledge storage on supervisor support
- (3) To determine the significant effect of knowledge sharing on coworker support

3. Research Methods

The research method used in this research is quantitative because it involves the use of a questionnaire for data collection (Sreejesh et al. 2014), while the research design is a cross-sectional survey which is a snapshot of the representative population with an equal chance and also supports the use of a questionnaire for data collection within a short period (Saunders et al. 2009; Bryman and Bell 2007). The target population for this study consists of fifty telecom companies that are registered with the Enugu State Ministry of Science and Technology with head offices in the southeast region of Nigeria.

3.1. Sampling and Data Collection

A purposive sampling technique was used to select thirty major telecom companies with head offices in Enugu state, which is considered the largest city in the region. One of the authors that resides in Nigeria was assigned to collect the data relating to knowledge management and employee retention. Informed consent of the participants was sought through the general managers of each of the telecom companies. The authors of this study explained to the participants that the essence of the study is to find out the effect of knowledge management on employee retention in the telecom sector. In addition, the participants were duly informed that their participation in the study would not harm them. They were further informed that their identities (information) would not be reported in the research. The general managers of each telecom firm were also informed that the names of their enterprises would not be mentioned in the research. Lastly, the researchers informed the participants that the research is purely an academic exercise carried out by a group of academics from different institutions across the world and that the study was not in any way funded by any organisation. It was after the fulfilment of ethical conditions by both parties that the general managers instructed the authors to submit copies of the questionnaire and promised that it would be distributed to every member of the organisation. Thereafter, the general managers informed the researchers to return within two months to collect the instrument. It was discovered that the thirty selected telecom companies have a staff strength of one thousand, two hundred (1200) employees (sample frame) at the time this research was carried out. To draw the sample size from the sample frame, the researchers employed the Krejcie and Morgan (1970) sample size determination table and the result was two hundred and ninety-one (291). The researchers administered two hundred and ninety-one (291) copies of the questionnaire and when the feedback was received, it was discovered that about two hundred and forty-two (242) copies of the questionnaire were correctly filled and marked valid for analysis while the remaining forty-nine (49) copies were wrongly filled and marked invalid.

3.2. Measures

A validated Knowledge Management Questionnaire (KMQ) containing knowledge acquisition, knowledge storage, and knowledge sharing was adapted from Valmohammadi and Ahmadi (2015) and Biasutti and EL-Deghaidy (2012). The instrument was confirmed to be valid and reliable by other knowledge management scholars (Edeh et al. 2022; Mustafa et al.

2021; Valmohammadi et al. 2019; Alias et al. 2018; Nina et al. 2021; Tadesse 2020). On the other hand, a validated Employee Retention Questionnaire (ERQ) containing supervisor support, coworker support, and flexible working arrangements was adapted from Dileep and Normala (2014) and confirmed in the studies of Campbell (2015), Kumari (2018), Eguchi et al. (2019), Pap et al. (2021), and Edeh et al. (2021a, 2021b).

3.3. Data Analysis Technique

Frequency distribution was used to analyse participants' demographic profiles such as gender, age, working experience and, education. On the other hand, linear regression was employed as a statistical tool to analyse the three formulated research hypotheses. Statistical software used to analyse the data is IBM Statistical Package for Social Sciences (21.0).

4. Results

This section covers the analysis of demographic characteristics as well as the formulated research hypotheses. Table 1 results on demographics of participants show that 87 participants, representing 36.0%, fall within 18–35 years; 97 respondents, representing 40.1%, fall within 36–45 years; and 58 participants, representing 24.0%, fall within 46 years and above. Demographic results of the participants indicate that the majority of the participants are still keen to provide relevant information associated with knowledge management and employee retention. Gender results indicated that 64 participants, representing 26.4%, are females while 178 participants, representing 73.6%, are males. This implies that the number of males that took part in the current research are greater compared to the females. Work experience results revealed that 52 participants, representing 21.5%, have worked in the telecom sector for about 1–6 years; 96 respondents, representing 39.7%, have worked in the telecom sector for about 7–12 years, and 94 respondents, representing 38.8%, have worked in telecom sector for about 13 years and above. This indicates that the majority of the participants have worked in the telecom sector for about 7–13 years and above. Education qualification result shows that 27 participants, representing 11.2%, hold other educational qualifications other than the ones stated in the instrument; 63 respondents, representing 26.0%, hold diploma certificates; 141 participants, representing 58.3%, hold a bachelor's degree; and 11 participants, representing 4.5%, hold a master's degree. These results suggest that the majority of the respondents are educated up to tertiary institutions, which implies that they were capable of answering the research questions in the instrument without any interpreter.

Table 1. Demographic characteristics.

Variables	Frequency	(%)
Age (years)		
18–35	87	36.0
36–45	97	40.1
46 and above	58	24.0
Gender		
Male	178	73.6
Female	64	26.4
Work experience (years)		
1–6	52	21.5
7–12	96	39.7
13 and above	94	38.8
Education		
Others	27	11.2
Diploma certificate	63	26.0
Bachelor's degree	141	58.3
Master's degree	11	4.5

Table 2 below shows the results of the analysed hypotheses. From the table, it was revealed that knowledge management dimensions have a significant effect on employee retention measures. In specific terms, hypothesis one result indicated that knowledge acquisition has a significant positive effect on flexible working arrangements with a moderate coefficient determination of 0.613^a, and a 0.000 level of significance, which is less than 0.001 ($p < 0.001$). The hypothesis two result shows that knowledge storage has a significant positive effect on supervisor support with a high coefficient of determination of 0.777^a, and a 0.000 significance level, which is less than 0.001 ($p < 0.001$). Hypothesis three results also indicated that knowledge sharing has a significant positive effect on coworker support, having the highest coefficient determination of 0.809^a and a 0.000 level of significance, which is less than 0.001 ($p < 0.001$). The decision to reject or accept the null hypotheses is based on the three model results of calculated F values which are greater than the tabulated values (144.605; 365.820; 453.358 > 3.89). Lastly, the R² of the models revealed that 38%, 60%, and 65% of the total variation in knowledge management can be explained by employee retention. In line with the calculated values of F, the study therefore rejects the null hypotheses and accepts the alternate hypotheses.

Table 2. Hypotheses results.

R	R ²	Adjusted R ²	T-Stat.	β	Df	N	F Stat.	Std. Error	Sig.
0.613 ^a	0.376	0.373	12.025	0.613 *	3.89	242	144.605	0.046	0.000
0.777 ^a	0.604	0.602	19.126	0.777 *	3.89	242	365.820	0.041	0.000
0.809 ^a	0.654	0.652	21.292	0.809 *	3.89	242	453.358	0.034	0.000

Predictors: knowledge acquisition, knowledge storage, knowledge sharing. *Criterion:* flexible working arrangements, supervisor support, coworker support. *Note:* ^a (Coefficient of determination); * (standard coefficient).

5. Discussion

The results of the study revealed that knowledge management dimensions (knowledge acquisition, knowledge storage, knowledge sharing) have a significant effect on the measures of employee retention (flexible working arrangement, supervisor support, coworker support) in the telecom sector. The findings of this research were backed mostly with empirical investigations on knowledge management in the telecom industries drawn from the literature review. Specifically, the result of hypothesis one shows that knowledge acquisition predicted flexible working arrangements. Drawing from the empirical evidences in the literature, it was discovered that the results from [Edeh et al. \(2022\)](#) and [Okafor et al. \(2019\)](#) corroborated with hypothesis one results. [Edeh et al.'s \(2022\)](#) finding revealed that knowledge acquisition predicted the innovation capability of banks in Nigeria while [Okafor et al.'s \(2019\)](#) result shows that knowledge acquisition has a significant effect on organisational performance. The corroboration of the above results maybe due to the fact that the business environment in which the investigations were carried out is Nigeria, implying that other business environments could yield a different result. It was also shown that the retention of workers in the telecom sector is largely dependent on the level of knowledge acquisition ([Baridula and Mekuri-Ndimele 2020](#)). The second hypothesis result indicated that knowledge storage has significant positive effects on supervisor support. This corresponds with the findings of [Algaribeh \(2018\)](#) and [Nwaiwu and Imafidon \(2017\)](#), as shown in the literature. The [Algaribeh \(2018\)](#) result on knowledge management and corporate performance of telecom firms revealed that knowledge storage predicted the performance of selected telecom firms in Jordan. On the other hand, [Nwaiwu and Imafidon's \(2017\)](#) finding on knowledge management and organisational survival of telecom companies in Nigeria shows that knowledge storage has a significant effect on the survival of selected telecom enterprises. In support of [Algaribeh \(2018\)](#) and [Nwaiwu and Imafidon \(2017\)](#), research in the telecom industry has shown that employees prefer to stay in an organisation that fosters consideration orientation, especially with the supervisor ([Zakariya and Shuaibu 2021](#)).

Lastly, hypothesis three results revealed that knowledge sharing has a significant positive effect on coworker support. The empirical results of [Alrefaai and Khalil \(2019\)](#) and [Kotwal and Gupta \(2021\)](#), as shown in the literature, are in line with the finding above. [Alrefaai and Khalil \(2019\)](#) found that knowledge sharing strongly predicted the learning organisation dimension in telecommunication companies in Damascus. In the same manner, [Kotwal and Gupta \(2021\)](#) results show that knowledge sharing has a significant positive effect on the competitive advantage of telecommunication organisations in Jammu. In addition, it was discovered that knowledge sharing in the telecom industry is an altruistic behaviour that stimulates cohesiveness amongst coworkers and prevents them from leaving the organisation ([Zakariya and Shuaibu 2021](#)).

6. Conclusions

Based on the findings, the study concludes that knowledge management that is measured in terms of knowledge acquisition, knowledge storage, and knowledge sharing predicted employee retention is anchored on retention policies such as supervisor support, coworkers support, and flexible working arrangement. The findings of this study have contributed to knowledge management body of knowledge through the confirmation of its positive effect on employee retention. Thus, it behoves scholars to leverage the dimensions of knowledge management used in this study to advance the course of their research by utilizing the same research approach or other methodologies. One of the implications of this study is that managers of telecom companies should liaise with their board of directors to make funds available that would be used to train employees with the aim of acquiring relevant knowledge that is needed in the telecom industry. Secondly, business practitioners in the telecom sector should organise on-the-job workshops or conferences for the sensitization of workers on the need to support each other whenever there is a need which would later translate to high productivity, high profitability, customer satisfaction, and customer loyalty. In addition, the study also recommends that telecom policymakers in different countries should adopt the findings of this study and use it as a policymaking instrument for improving employer–employee working relationships in the telecom industry. Regarding limitations of the study, this study was limited to quantitate approach only. Thus, other scholars can incorporate both qualitative and quantitative methodologies in order to make comparison on the findings. Another limitation of the study is the geographical scope which is the sub-Saharan Africa work environment with Nigeria as specific focus. Subsequent scholars in other continent need to dissect knowledge management and employee retention in telecom sector before findings across the globe can be generalized. Concerning the suggestion for future study, this study suggests that further research with regard to knowledge management should be examined in other industries other than the telecom sector to increase the body of knowledge in the research area. Secondly, other validated and reliable indicators of employee retention should be used to investigate how knowledge management could influence the retention of employees in their industry. Again, future research should examine the effect of knowledge management on employee retention with a moderating variable.

Author Contributions: Conceptualization, F.O.E., N.M.Z., and V.N.; methodology, F.O.E., V.N., and H.D.; software, N.M.Z. and F.O.E.; validation, K.M.A.I., T.D., and H.D.; formal analysis, N.M.Z., V.N., and H.D.; investigation, F.O.E., N.M.Z., and T.D.; data curation, N.M.Z., H.D., and K.M.A.I.; writing—original draft preparation, F.O.E., N.M.Z., and K.M.A.I.; writing—review and editing, V.N., H.D., and K.M.A.I.; visualization, N.M.Z. and T.D.; supervision, V.N. All authors have read and agreed to the published version of the manuscript.

Funding: This research received no external funding.

Institutional Review Board Statement: Not applicable.

Informed Consent Statement: Not applicable.

Data Availability Statement: Data sharing not applicable.

Conflicts of Interest: The authors declare no conflict of interest.

References

- Adedeji, Abosede O., and Obianuju C. Ugwumadu. 2018. Factors motivating employee loyalty and employee retention in deposit money banks in Nigeria. *International Journal of Human Resource Studies* 8: 300–13.
- Aguenza, Benjamin Balbuena, and Ahmad Puad Mat Som. 2012. Motivational factors of employee retention and engagement in organizations. *International Journal of Advances in Management and Economics* 1: 88–95.
- Algaribeh, Khaled M. 2018. Influence of knowledge management process on organizational performance: Case study of Jordan Telecom Group Orange. *International Journal of Management Sciences and Business Research* 7: 40–45.
- Alias, Nor Khadijah, Nazri Manso Ahmad, Ab Rahman Azmi, Rahman Ahmad Abdul, and Zam Hariro Samsudin Ahmad. 2018. The impact of knowledge management towards employee's job satisfaction. *International Journal of Academic Research in Business and Social Sciences* 8: 245–65. [\[CrossRef\]](#)
- Alrefaai, Mohammad Reda, and Abdul Hamid A. L. Khalil. 2019. The impact of knowledge management on the learning organization: An empirical study on the telecommunications sector in Damascus city. *International Journal of Academic Research in Business and Social Sciences* 9: 760–69.
- Armstrong, Michael. 2009. *Armstrong's Handbook of Human Resource Management Practice*, 11th ed. London and Philadelphia: Kogan Page.
- Ashton, Ann Suwaree. 2017. How human resources management best practice influence employee satisfaction and job retention in the Thai hotel industry. *Journal of Human Resources in Hospitality & Tourism* 17: 1–25. [\[CrossRef\]](#)
- Austin-Egole, Ifeyinwa Stella, Ekeoma B. J. Iheriohanma, and Chinedu Nwokorie. 2020. Flexible working arrangements and organizational performance: An overview. *IOSR Journal of Humanities and Social Science* 25: 50–59.
- Baridula, Vito, and Joy Adanma Mekuri-Ndimele. 2020. Organizational trust and employee commitment of telecommunication companies in Port Harcourt, Nigeria. *American Journal of Humanities and Social Sciences Research* 4: 57–65.
- Becker, Gary S. 1964. *Human Capital: A Theoretical and Empirical Analysis, with Special Reference to Education*. New York: Colombia University Press.
- Biason, Ricardo S. 2020. The effect of job satisfaction on employee retention. *International Journal of Economics, Commerce and Management* 3: 405–13.
- Biasutti, Michelle, and Heba EL-Deghaidy. 2012. Using Wiki in teacher education: Impact on knowledge management processes and student satisfaction. *Computers & Education* 59: 861–72.
- Bryman, Alan, and Emma Bell. 2007. *Business Research Methods*, 2nd ed. New York: Oxford University Press.
- Campbell, Kelley Marie. 2015. Flexible Work Schedules, Virtual Work Programs, and Employee Productivity. Ph.D. dissertation, College of Management and Technology, Walden University, Minneapolis, MN, USA.
- Castaneda, Delio Ignacio, and Sergio Cuellar. 2020. Knowledge sharing and innovation: A systematic review. *Knowledge Process Management* 27: 159–73. [\[CrossRef\]](#)
- Chatzoudes, Dimitrios, and Prodromos Chatzoglou. 2022. Factors affecting employee retention: Proposing an original conceptual framework. *International Journal of Economics and Business Administration* 10: 49–76. [\[CrossRef\]](#)
- Choi, Sungjoo. 2019. Flexible work arrangements and employee retention: A longitudinal analysis of the federal workforces. *Public Personnel Management* 49: 1–26. [\[CrossRef\]](#)
- Diah, Ahyar Muhammad, La Ode Hasiara, and Ramli Irwan. 2020. Employee retention of pharmaceutical firms in Indonesia: Taking investment in employee development and social and economic exchange as predictors. *Systematic Review Pharmacy* 11: 564–72.
- Dileep, Kumar M., and Govindarajo S. Normala. 2014. Instrument development "intention to stay instrument" (ISI). *Asian Social Science* 10: 149–69.
- Edeh, Friday Ogbu, Agnes Ugboego Chukwu, Ukamaka Azubuike Ngozi, and Felicitas Onwuegbule Obiageri. 2020. Knowledge management and extra-role behaviour: The role of organisational culture. *Journal of Business and Management Studies* 2: 1–10.
- Edeh, Friday Ogbu, and Chukwu E. Udensi. 2017. Human resource management practices and lecturers' retention in Nigerian universities. *International Journal of Management and Marketing Systems* 13: 1–15.
- Edeh, Friday Ogbu, and Edem Blessing Ukpe. 2019. Knowledge management and Employee effectiveness of Nigerian Deposit Money Banks. *International Journal of Management & Entrepreneurship Research* 1: 31–41.
- Edeh, Friday Ogbu, Georgina Edeoga, Chukwu Agnes Ugboego, Linus Adama, Chiamaka Eunice Oketa, and Ngozi Ukamaka Azubuike. 2021a. Organisational justice and human resource retention: Role of leadership consideration. *Gusau International Journal of Management and Social Sciences* 4: 32–45.
- Edeh, Friday Ogbu, Georgina Edeoga, Chukwu Agnes Ugboego, Anthony Chukwuma Nwali, Linus Adama, and Nelson Chibuike Osueke. 2021b. Building organisational resilience through human resource retention. *Journal of the Management Sciences* 57: 88–99.
- Edeh, Friday Ogbu, Nurul Mohammad Zayed, Vitalii Nitsenko, Olha Brezhnieva-Yermolenko, Julia Negovska, and Maryna Shtan. 2022. Predicting innovation capability through knowledge management in the banking sector. *Journal of Risk and Financial Management* 15: 312. [\[CrossRef\]](#)
- Eguchi, Hisashi, Yuko Kachi, Hayami K. Koga, Mariko Sakka, Masahito Tokita, and Akihito Shimazu. 2019. Validation of the Japanese Version of the Multidimensional Measure of Family Supportive Supervisor Behaviors (FSSB-J). *Frontiers in Psychology* 10: 2628. [\[CrossRef\]](#) [\[PubMed\]](#)

- Enyioko, Victoria Uzoamaka, and Emenike Innocent Ikoro. 2018. Effects of compensation plan on employee performance in the telecommunication industry. Study of MTN Nigeria. *IIARD International Journal of Economics and Business Management* 4: 21–34.
- Favoretto, Camila, and Marly Monteiro de Carvalho. 2021. An analysis of the relationship between knowledge management and project performance: Literature review and conceptual framework. *Gestão & Produção* 28: e4888. [CrossRef]
- Fukui, Sadaaki, Wei Wu, and Michelle P. Salyers. 2019. Impact of supervisory support on turnover intention: The mediating role of burnout and job satisfaction in a longitudinal study. *Administration and Policy in Mental Health and Mental Health Services Research* 46: 488–97. [CrossRef]
- Gajendra, Karishma, Gajendra J. Naidu, and Kishan Jatty Gajendra. 2021. A study of employee attrition and retention strategies with special reference to telecom sector in Tamil Nadu. *Asian Journal of Management and Commerce* 2: 1–6.
- Hayman, Jeremy R. 2009. Flexible work arrangements: Exploring the linkages between perceived usability of flexible work schedules and work/life balance. *Community, Work & Family* 12: 327–38. [CrossRef]
- Homans, George C. 1958. Social behavior as exchange. *American Journal of Sociology* 63: 597–606. [CrossRef]
- IBN. 2022. Telecoms Workers Vow to Ground MTN Nigeria-Inside Business Nigeria. Available online: <https://insidebusiness.ng/180470/telecoms-workers-vow-to-ground-mtn-nigeria/> (accessed on 27 July 2022).
- Ibrahim, Medinah Hayatudeen. 2019. Interpersonal relationship and employee retention: An exploration of zinger model. *Ilorin Journal of Administration and Development (IJAD)* 5: 95–102.
- Idowu, Samuel Adebayo. 2020. Role of flexible working hours' arrangement on employee job performance and retention in manufacturing industries in Agbara, Nigeria. *Economic Insights-Trends and Challenges* 3: 23–37.
- Jason, Hung, and Mark Ramsden. 2021. The application of human capital theory and educational signalling theory to explain parental influences on the Chinese population's social mobility opportunities. *Social Sciences* 10: 362. [CrossRef]
- Jayaswal, Abhinay. 2021. Employee retention in Nepalese Hydropower companies. *Journal of Emerging Technologies and Innovative Research* 8: 344–56.
- Kassaneh, Thomas Cherkos, Ettore Bolisani, and Juab-Gabriel Cegarra-Navarro. 2021. Knowledge management practices for sustainable supply chain management: A challenge for business education. *Sustainability* 13: 2956. [CrossRef]
- Kigathi, Patrick Ngure, and Esther Waiganjo. 2017. Factors influencing retention of health workers in the Public Health Sector in Kenya: A case study of Kenyatta National Hospital. *International Journal of Scientific and Research Publications* 7: 2250–3153.
- Kotwal, Sindhu, and Rimpi Gupta. 2021. Role of knowledge management in the telecom sector. *International Journal of Engineering and Management Research* 11: 1–14.
- Krejcie, Robert V., and Daryle W. Morgan. 1970. Determining sample size for research activities. *Educational and Psychological Measurement* 30: 607–10. [CrossRef]
- Kularathne, H. M. R. D., and Y. Y. Senevirathne. 2020. The relationship between co-worker support, supervisor support, organizational support and employee turnover intention of operational level employees in apparel sector, central province, Sri Lanka. *International Journal of Creative and Innovative Research in All Studies* 2: 7–17.
- Kumari, Nancy. 2018. Factors Influencing the Retention of Employees in the it Services Industry in Bengaluru. Ph.D. dissertation, ICAFI University Jharkhand, Ranchi, India.
- Kundu, Subhash C., and Neha Gahlawat. 2016. Effects of employee retention practices on perceived firm and innovation performance. *International Journal of Innovation and Learning* 19: 25. [CrossRef]
- Kuzior, Aleksandra, Karolina Kettler, and Łukasz Rąb. 2022. Great Resignation—Ethical, Cultural, Relational, and Personal Dimensions of Generation Y and Z Employees' Engagement. *Sustainability* 14: 6764. [CrossRef]
- Li, Cai, Sheikh Farhan Ashraf, Fakhar Shahzad, Iram Bashir, Majid Murad, Nausheen Syed, and Madiha Riaz. 2020. Influence of knowledge management practices on entrepreneurial and organizational performance: A mediated-moderation model. *Frontiers in Psychology* 11: 577106. [CrossRef]
- Liu, Feng, Yuduo Lu, and Peng Wang. 2020. Why knowledge sharing in scientific research teams is difficult to sustain: An interpretation from the interactive perspective of knowledge hiding behavior. *Frontiers in Psychology* 11: 537833. [CrossRef] [PubMed]
- Magaji, N., I. J. Ogundiwin, and V. O. Babatope. 2021. Effect of training and compensation on firm profit of selected telecommunication companies in Nigeria. *International Journal of Economics, Commerce and Management* 9: 162–73.
- Mahadi, Nomahaza, Norliyan M. F. Woo, Shathees Baskaran, and Azizu Yadi Yaakop. 2020. Determinant factors for employee retention: Should I stay? *International Journal of Academic Research in Business and Social Sciences* 10: 201–13. [CrossRef]
- Malik, Eiman, Sajjad Baig, and Umair Manzoor. 2020. Effect of HR practices on employee retention: The role of perceived supervisor support. *Journal of Public Value and Administration Insights (JPVAI)* 3: 1–7.
- Mustafa, Rania, Mohamed Wahaba, Alaa El-Gharabawi, and Mohamed A. Ragheb. 2021. The impact of knowledge management on institutional performance through the balanced scorecard—An applied study on ports training institution. *Open Access Library Journal* 8: e6997. [CrossRef]
- Nagabhaskar, Muppuri. 2014. Motivational factors of employee retention and engagement in organizations. *International Journal of Development Research* 4: 221–24.
- Naz, Shumaila, Cai Li, Qasim Ali Nisar, Muhammad Aamir Shafique Khan, Naveed Ahmad, and Farooq Anwar. 2020. A study in the relationship between supportive work environment and employee retention: Role of organizational commitment and person–organization fit as mediators. *SAGE Open* 10: 1–20. [CrossRef]

- Nina, Shashkova, Ilulia Ushkarenko, Andrii Soloviov, Oleksii Osadchyi, and Vitalii Nitsenko. 2021. Behavioral Segmentation of Baby Food Consumers: Risk Areas, Possible Solutions. The Case of Ukraine. *European Journal of Sustainable Development* 10: 349–64.
- Nonaka, Ikujiro, and Hirotaka Takeuchi. 1995. *The Knowledge Creating Company*. New York: Oxford University Press.
- Nurdin, Nurdin, and Khaeruddin Yusuf. 2020. Knowledge management lifecycle in Islamic bank: The case of Syariah banks in Indonesia. *International Journal Knowledge Management Studies* 11: 59–80. [CrossRef]
- Nwaiwu, Joy Chidiebere, and Hulda Chioma Imafidon. 2017. Knowledge management and organisational survival: A study of telecommunication industry in Port Harcourt, Nigeria. *International Journal of Advanced Academic Research Social & Management Sciences* 3: 41–53.
- O'Dea, S. Global Mobile Industry Contribution to GDP Worldwide from 2014 to 2025 (in Trillion U.S Dollars). Available online: <https://www.statista.com/statistics/1100651/worldwide-mobile-industry-contribution-gdp/> (accessed on 29 July 2022).
- Ogbonna, Hyginus Obinna, and Chidi Slessor Mbah. 2022. Examining social exchange theory and social change in the works of George Caspar Homans—Implications for the state and global inequalities in the world economic order. *Mediterranean Journal of Social Sciences* 13: 90–104. [CrossRef]
- Ogunbanwo, Afolakemi, J. O. Okesola, and Buckley Shery. 2021. Knowledge management conceptual framework in Nigeria tertiary institutions. Paper presented at the 4th International Conference on Science and Sustainable Development (ICSSD 2020), Ota, Nigeria, August 3–5.
- Ohunakin, Folakemi, Adenike A. Adeniji, Olumuyiwa A. Oludayo, Adewale O. Osibanjo, and Oluseyi O. Oduyoye. 2019. Employees' retention in Nigeria's hospitality industry: The role of transformational leadership style and job satisfaction. *Journal of Human Resources in Hospitality & Tourism* 18: 441–70. [CrossRef]
- Okafor, Lawrence Chima, Loveday Owate Olaka, and Ebere Florence Okorie. 2019. Knowledge management strategies and firm performance: A survey of telecommunication companies in Port Harcourt. *IOSR Journal of Business and Management* 21: 1–10.
- Omondi, Angeline Akinyi, and Peter K'Obonyo. 2018. Omondi, Angeline Akinyi, and Peter K'Obonyo. 2018. Flexible work schedules: A critical review of literature. *The Strategic Journal of Business & Change Management* 5: 2069–86.
- Osuagwu, Prince. 2021. Why ICT will Remain Nigeria's Top GDP Earner. Available online: <https://www.vanguardngr.com/2021/09/why-ict-will-remain-nigerias-top-gdp-earner/> (accessed on 29 July 2021).
- Pap, Zselyke, Delia Virga, and Guy Notelaers. 2021. Perceptions of customer incivility, job satisfaction, supervisor support, and participative climate: A multi-level approach. *Frontiers in Psychology* 12: 713953. [CrossRef]
- Perevozova, Iryna, Savchenko Maryna, Shkurenko Olga, Obelnytska Khystyna, and Hrechanyk Nataliia. 2019. Formation of entrepreneurship model by innovation activity of industrial enterprises. *Journal of Entrepreneurship Education* 22: 1–6.
- Renard, Karine, Cornu Frederic, Emery Yves, and Giauque David. 2021. The impact of new ways of working on organizations and employees: A systematic review of literature. *Administrative Sciences* 11: 38. [CrossRef]
- Saunders, Mark, Philip Lewis, and Andrian Thornhill. 2009. *Research Methods for Business Students*, 5th ed. London: Pearson Education Limited.
- Sawaneh, Ibrahim Abdulai, and Fatmata Kanko Kamara. 2019. An effective employee retention policies as a way to boost organizational performance. *Journal of Human Resource Management* 7: 41–48. [CrossRef]
- Sayyadi, Mostafa. 2009. How effective leadership of knowledge management impacts organizational performance. *Business Information Review* 36: 30–38. [CrossRef]
- Scarborough, Harry, and Chris Carter. 2000. *Investigating Knowledge Management*. London: Chartered Institute of Personnel and Development.
- Scarborough, Harry, Jacky Swan, and John Preston. 1999. *Knowledge Management: A Literature Review*. London: Institute of Personnel and Development.
- Serenko, Alexander. 2022. The Great Resignation: The great knowledge exodus or the onset of the Great Knowledge Revolution? *Journal of Knowledge Management*. ahead-of-print. [CrossRef]
- Sija, Andrew. 2022. Determinants of employee retention in private healthcare. *European Journal of Human Resource Management Studies* 5: 53–74. [CrossRef]
- Sishuwa, Yvonne, and Jackson Phiri. 2020. Factors influencing employee retention in the transport and logistics industry. *Open Journal of Social Sciences* 8: 145–60. [CrossRef]
- Sreejesh, S., Sanjay Mohapatra, and M. R. Anusree. 2014. *Business Research Methods—An Applied Orientation*. Cham: Springer International Publishing.
- Tadesse, Dereje Kefale. 2020. The impact of knowledge management towards organization performance. *IOSR Journal of Business and Management* 22: 37–48.
- Valmohammadi, Changiz, and Mohsen Ahmadi. 2015. The impact of knowledge management practices on organizational performance: A balanced scorecard approach. *Journal of Enterprise Information Management* 28: 131–59. [CrossRef]
- Valmohammadi, Changiz, Sofiyabadi Javad, and Kolahi Bahare. 2019. How do knowledge management practices affect sustainable balanced performance? Mediating role of innovation practices. *Sustainability* 11: 5129. [CrossRef]
- Zakariya, Rakiya Baba, and Mikaila Shuaibu. 2021. Training, perceived organizational support and employee turnover intention among telecommunication firms in northern Nigeria: Moderating effect of perceived job alternatives. *International Journal of Business & Law Research* 9: 125–36.