



Interdisciplinary Journal of Information, Knowledge, and Management

An Official Publication
of the Informing Science Institute
InformingScience.org

IJIKM.org

Volume 16, 2021

MEDIATING EFFECT OF LEADERS' BEHAVIOUR ON ORGANISATIONAL KNOWLEDGE SHARING AND MANUFACTURING FIRMS' COMPETITIVENESS

Adeline Chinonye Ugo-Agharanya	University of Nigeria, Nsukka, Nigeria	adnwaneri@yahoo.co.uk
Rev. Fr. Anthony Igwe	University of Nigeria, Nsukka, Nigeria	anthonyigwe121@yahoo.com
Ejikeme Emmanuel Isichei*	Federal University Wukari, Nigeria	isichei_ejike@yahoo.com

* Corresponding author

ABSTRACT

Aim/Purpose	The need to explore leaders' role as a mediating factor between knowledge sharing and firms' competitiveness was the focus of this paper. Further, gaps related to knowledge sharing influence on firms' competitiveness from an emerging economy perspective was a major driver of this study.
Background	The relevance of knowledge sharing is today crucial for firms that seek to harness internal resource innovation towards ensuring increased competitiveness. The link between the actions of leaders and outcomes from sharing knowledge towards increased competitiveness would further advance theory on knowledge sharing and provide managerial implication that is instrumental for an improved organisational outcome.
Methodology	The study sample was 282 participants and Partial least square structural equation model was used for the analysis of the data obtained through a questionnaire survey with the aid of SmartPLS3.9.
Contribution	The study contributes to knowledge management literature through advancing leadership as a mediating factor that accounts for the link between knowledge sharing and firms' competitiveness, most especially from an emerging economy perspective.

Accepting Editor Maureen Tanner | Received: October 19, 2020 | Revised: January 7, January 19, January 25, 2021 | Accepted: January 26, 2021.

Cite as: Ugo-Agharanya, A. C., Igwe, A., & Isichei, E. E. (2021). Mediating effect of leaders' behaviour on organisational knowledge sharing and manufacturing firms' competitiveness. *Interdisciplinary Journal of Information, Knowledge, and Management*, 16, 55-75. <https://doi.org/10.28945/4693>

(CC BY-NC 4.0) This article is licensed to you under a [Creative Commons Attribution-NonCommercial 4.0 International License](https://creativecommons.org/licenses/by-nc/4.0/). When you copy and redistribute this paper in full or in part, you need to provide proper attribution to it to ensure that others can later locate this work (and to ensure that others do not accuse you of plagiarism). You may (and we encourage you to) adapt, remix, transform, and build upon the material for any non-commercial purposes. This license does not permit you to use this material for commercial purposes.

Findings	Knowledge sharing was found to have a positive effect on firms' competitiveness. The study found that leadership behaviour mediates the relationship between knowledge sharing and a firm's competitiveness.
Recommendations for Practitioners	The study recommends that, when supported with the right attitude from leaders in the organisation, knowledge sharing will be beneficial towards the firm gaining competitiveness most especially.
Future Research	Future studies should be carried out in other sectors aside from the manufacturing sector using the same measures used to measure knowledge sharing. Also, a comparative analysis of knowledge sharing and firms' competitiveness using leaders' behaviour as a mediator should be researched in other developing economies.
Keywords	leaders' behaviour, knowledge sharing, competitiveness, Nigeria manufacturing firms

INTRODUCTION

Knowledge sharing is instrumental in ensuring that an organisation continuously maintains an edge over its rivals (Suppiah & Sandhu, 2010). Effective knowledge sharing system in an organisation does not only involve the free flow of information among workers but that this knowledge is properly utilised, thereby resulting in increased and enhanced skills and expertise, improved job processes, individual and organisational performance (Kim et al., 2013). There have been varying studies and measures on knowledge sharing with varying outcomes, which has accounted for the diverse views on the construct (Azema & Jafari, 2016; Doronin et al., 2020; J. Lee, 2018).

Mouna and Salem (2012) made an effort to operationalise the construct of knowledge sharing and four major abstraction levels were provided, which are the conceptual, organisational, logical, and physical level of abstraction. The conceptual is concerned with the nature of knowledge in the organisation, as it captures the extent of articulation, specialization, and diversity of knowledge sources (Mouna & Salem, 2012). The organisational level is concerned with the individuals in the organisations and the activities in the organisation. In this level assessing the knowledge sharing process is through the individual, the social factors, the leaders, the cultural dimension, and the structural dimension (Mouna & Salem, 2012).

The logical is centred around the actions taken to advance knowledge sharing in the organisation and this can be assessed through the way the work is organised, communication, and the reward system provided to support knowledge sharing. The physical level is concerned with the process of implementing knowledge sharing within the organisation, as the emphasis is on physical, communicating and monitoring resources (Mouna & Salem, 2012). This paper aligns with the logical abstraction level of assessing knowledge sharing. This is because past literature seems to align more with the organisational, conceptual, and physical dimensions with few studies related to the logical (Chiekezie et al., 2016; Men et al., 2019; Son et al., 2017). Further, the logical level of abstraction could best explain the phenomenon of knowledge sharing and its antecedent challenges in the Nigerian manufacturing sector.

Moreover, for knowledge sharing to thrive, there is a need for structural adjustment in the form of job design to ensure its smooth operation (Karim & Majid, 2018). The arrangement of tasks must be clearly and orderly synchronised to give room for smooth operation (Skaik & Othman, 2014). Also, employees who are the main participants in this process have to be motivated for them to buy into the idea and willingly engage in the knowledge sharing or receiving knowledge shared (Pee & Lee, 2015).

However, since the entire knowledge sharing process involves a broad organisational component interaction (Azema & Jafari, 2016), it is likely to stimulate changes in leaders' behaviour, which could

account for the sustenance of the knowledge sharing process in the organisation and resultantly lead to increased firms' competitiveness. Leaders play important role in the mix, as they bear the burden of coordinating the employees towards the actualisation of the goals and objectives of an organisation (Bradshaw et al., 2015). A leaders' role is to ensure the employees are proficient and to create an environment that enhances their productivity (Schaubroeck et al., 2011). The behaviour and style of leadership determine the existence of knowledge sharing and the degree of its intensity in the organisation (Bradshaw et al., 2015).

Manufacturing firms in most developing economies, most especially in Nigeria, are faced with recurring challenges in both their internal and external environment (Akinmulegun & Oluwole, 2014; Kalu et al., 2019); however, most confronting is the competition from the foreign market, as consumers tend to show more preference for foreign goods to locally made ones (Akinmulegun & Oluwole, 2014). Despite the obvious advantage of knowledge sharing, many organisations, most especially manufacturing firms in Nigeria, are yet to fully maximize its potential. This could be because of the non-existence of a logical structure that facilitates knowledge sharing and failures of leaders to maximize the value of knowledge sharing.

Consequently, it is obvious that for manufacturing firms in Nigeria to gain competitiveness they must be innovative in their operations and processes. Skaik and Othman (2014) held that knowledge sharing allows employees to develop the right innovative behaviour that will allow the firm to gain competitiveness. Hence, the need to assess the extent to which knowledge sharing through supportive leadership behaviour is sufficient towards ensuring increased competitiveness.

Furthermore, there has been an expanded body of literature on knowledge sharing (Birasnav, 2014; Giampaoli et al., 2017), its influence on organisational performance (Jones, 2017; Z. Wang et al., 2016), innovation (J. Lee, 2018; Z. Wang & Wang, 2012), resilience (Godwin & Amah, 2013) and organisational learning (Antunes & Pinheiro, 2019; Yang, 2007), with varying results; however, there are limited studies that have accounted for knowledge sharing influence on firms competitiveness, most especially manufacturing firms from an emerging economy. This has become necessary given the focus of most developing economies to engage in manufacturing activities as a medium to increase employment and gross domestic product. It is this gap that we seek to close.

The central objective of this study was assessing the mediating role of leaders' behaviours on knowledge sharing and manufacturing firms' competitiveness. The research questions are to what extent does knowledge sharing influence manufacturing firms' competitiveness and to what extent does leaders' behaviour mediate the relationship between knowledge sharing and manufacturing firms' competitiveness. Hence, the paper provides new insight into the role of leadership in advancing knowledge sharing, which in turn increases the firms' competitiveness. The paper further presents a review of extant literature, the methodology, the results, and a discussion, followed by the conclusion with implications, recommendations, and limitations.

LITERATURE REVIEW

THEORETICAL FRAMEWORK AND HYPOTHESES DEVELOPMENT

The resource-based theory was used to underpin this study. The choice of the theory is because it provides a better explanation on the relevance of knowledge sharing as an antecedent to gaining competitiveness and provides evidence that leaders' ability to effectively manage and encourage the intangible resources in the organisation towards knowledge sharing would ultimately lead to increased organisational performance.

The theory holds that competitive advantage is gained when the organisation's valuable internal resources that are limited in supply are effectively put to use in the interest of the organisation (Barney, 2012; Fossas, 1999). The major premise of the theory is that resources that an organisation possess

that are valuable, scarce, difficult to substitute, and imitate form the foundation for gaining a competitive edge in its operating industry (Peteraf, 1993). In application to this study, we propose that when leaders of manufacturing firms are able to use and support their employees (who are fundamental internal resources) to engage in knowledge sharing, it will lead to the firm to gain increased competitiveness.

Mills et al. (2003) stated that organisational resources are both tangible and intangible. The tangible resources are the physical resources that are within the control of the organisation, which can be deployed to gain competitiveness (Hitt et al., 2016). The intangible resources are the non-physical resources, which is linked to the human resources activities, image, and brand of the organisation (Hitt et al., 2016). Knowledge and innovative actions are all part of the non-physical resources and when properly managed can lead to firm gaining competitiveness.

LEADERS' BEHAVIOUR

Leaders coordinate and inspire their teams towards attaining desired goals set by the organisation, which means that the quality of a leader determines the productivity of the team. Consequently, leaders' behaviour is a key ingredient to team success (Schaubroeck et al., 2011). Leaders' behaviour determines the working environment of the organisation; their attitude either promotes or suppresses a conducive working environment, which eventually affects the productivity of the workforce (Lambert, 2002; Popli & Rizvi, 2017). Therefore, leaders are expected to practice effective communicative and response system with their workforce to ensure professionalism, smooth work process and conducive environment for team success (Valentine & Prater, 2011).

Followers perspective on their leaders' behaviour affects managerial success and advancement of the organisation (Elangovan & Xie, 2000; Ohemeng et al., 2018). Effective leadership behaviour is not based on how well it is being executed but on the perception of the subordinates. If the subordinate views the leaders' behaviour as being desirable, it will yield a positive impact; however, if it is in the negative, it will negatively affect the morale of the staff and their performance.

Einarsen et al. (2007) opined that there are four types of leadership behaviour: tyrannical, derailed, supportive-disloyal, and constructive. A tyrannical leader is supportive and attentive only to the goals of the corporation but displays anti-team behaviour especially to workers at a lower level. A derailed leader is neither supportive nor cooperative towards the goals of the cooperation and employees at the lower level of the organisational hierarchy. A supportive-disloyal leader is supportive and attentive to workers but unsupportive to the laid down conduct of the corporation, while the constructive leader is supportive of both team and corporate conduct.

From this differentiation, a supportive-disloyal and constructive leader are favourable to the team; however, for an organisation to have competitive edge and advance, constructive leadership behaviour is the most suitable as it is both favourable for the organisation and the workforce (Obuobisa-Darko, 2019). Consequently, this paper is interested in constructive leadership as a derivative of knowledge sharing and its influence on firms' competitiveness.

ORGANISATIONAL KNOWLEDGE SHARING

One of the essential ingredients that facilitates an organisation maintaining an edge over its rival is knowledge (Suppiah & Sandhu, 2010). Knowledge is different from data and information; knowledge is unique and higher than data and information because it is embedded in the consciousness of an individual. Also, Alavi and Leidner (2001) opined that information becomes knowledge after it has been sorted out in the mind of a person; knowledge then becomes information after it has been interpreted and conveyed in form of words, transcripts, and other figurative forms.

Knowledge sharing is essential in corporate sceneries, group work, or programme to achieve a competitive and excellent result (Evwierhurhoma & Onouha, 2020). An organisation benefits from

knowledge possessed by individuals within its setting by creating an environment that allows knowledge sharing and using the shared knowledge to advance its competitiveness. Argote (2012) maintained that the capability to use prevailing knowledge is an essential tool that will result in the achievement of corporate desired goals and objective.

There seems to be no generally accepted definition of knowledge sharing; however, scholars agree that knowledge sharing involves providing, sending, and distributing valuable ideas to groups, which helps in improving the process of things in the organisation (Azema & Jafari, 2016; Igwe & Ononye, 2020). However, we adopted the conceptualisation of Mouna and Salem (2012) in defining and operationalising knowledge sharing with specific emphases on the logical structural process. This abstraction of knowledge sharing is concerned with explaining knowledge sharing through the stimulating factors that drives knowledge sharing in the organisation, such as, work design, communication, and reward system (Mouna & Salem, 2012).

Knowledge sharing is not just sharing information, as it is an embodiment of the entirety of the activities that occur in the organisation in terms of the information that drives the operation of the organisation (Akosile & Olatokun, 2020). This explains the views of Foss and Pedersen (2002) that knowledge sharing is an internal resource that drives organisations' competitiveness. Further, on what accounts for knowledge sharing in the organisation, the study by Igwe and Onoye (2020) found a link between social media and knowledge sharing. Also, social settings affect knowledge sharing as people within the same social cluster share information within themselves more easily than with those who are not identified with the group (McPherson et al., 2001).

WORK DESIGN

Work design is concerned about how activities are systematically arranged to become full jobs in an organisation, as it is a strategic arrangement of jobs, obligations, and accountabilities to accomplish desired ends (Isichei & Ayandele, 2017; Nielsen & Momeni, 2016). It consists of work elements that form the interior and exterior corporate features, the arrangement of responsibilities, the activities of employees, and work processes (Campion et al., 2005).

Work design encompasses certain work elements such as tasks, work processes, supervision, communication flow, and span of control. Work design ought to be carried out in such a way as to enhance workers' autonomy, well-being, and elasticity (Xue et al., 2011; Walczak, 2005). When this is in place, it facilitates easy and free flow of knowledge sharing among employees, which can lead to improved skills, work processes, and innovation that in turn would account for improved organisational competitiveness.

Hence, the effect of work design on knowledge sharing cannot be overemphasized; when jobs are poorly designed, it negatively impacts on knowledge sharing, which will adversely affect creativity, flexibility, and performance of workers (Walczak, 2005). A systematic job design that enhances knowledge sharing will recognise work activities inherent in a job, set up the obligation connected to the work, give room for autonomy, involve workers in administration, boost the desires of the workers in their work, give a quick response on worker's performance, acknowledgement, and backing of workers, ensure cordial rapport, and provide a communication medium for active responses from workers (Xue et al., 2011).

REWARD SYSTEM

One of the factors governing the continuous existence and advancement of an organisation is the reward system for its staff (Lawler, 2003). Consequently, managers need to note activities that stimulate proficiency to act along that line (Covington & Mueller, 2001). An attractive reward system promotes positive behaviour towards the job and boosts mutuality among workers resulting in exceptional success and advancement of workers and the organisation as a whole (Bucklin et al., 2004). It is a known

fact that the reward system used in an organisation determines the quality of the human resources available to it (Osibanjo et al., 2012).

Rewards are utilised by organisations to serve as an incentive and to encourage productive workers. It can be monetary and non-monetary compensation given to workers to motivate them into putting in more work for the overall and continuous success of the organisation. A financial reward system is one of the ways organisations can retain their highly productive workers, and rewards are offered as wages, salary, indemnity, superannuation design, distribution of revenue, shares and other forms of benefits (Pattanayak, 2005), while non-financial rewards include recognition, prizes, advancement, more conducive atmosphere, commemorations, official banquets, and events (Chaing & Birtch, 2008).

It is a stimulus that influences the attitude of workers motivating them to exert more efforts (Griffin, 2002). Hence, reward system should be deliberately designed to elicit the best performance from workers while aiding the preservation of efficient employees in the organisation (Andreson, 2013). However, to avoid negative notions and conflicts, workers should be given a clear understanding of the reward system practised in the organisation (Isichei et al., 2020). Moreover, a reward system should be properly planned for employees, as it will help them develop positive feelings towards their job to ensure organisational performance (Armstrong, 2007).

INFORMATION COMMUNICATION

Nissen et al. (2000) held that information communication can be used to boost interactive progression or flow in an organisation through the ease of obtaining facts while promoting openness. Information communication helps in promoting access to facts and figures through channels of choice. Currently, as a result of innovation in technology, individuals and organisations utilise technologies in communication, known as information communication technology (ICT).

ICT is essential in knowledge management as it helps gather information from existing information banks (Chaing & Birtch, 2008). The use of ICT has turned the world to a global village where people who live far apart from each other are able to interact as though they live nearby. With the increased use of ICT, knowledge sharing becomes easy using technologies such as the internet, cell phones, wireless networks, and other channels (Mallmann et al., 2016). ICT has helped in remodelling organisations and exposing them to useful information that is capable of improving their performance and success while ensuring they are way ahead of their rival (Tan, 2016).

The use of ICT in knowledge sharing lessens obstacles and promotes innovative idea generation. It also improves the speed of communication and ensures convenient and less expensive sharing of relevant information (Murray, 2006). However, despite its usefulness, effectively adopting it to drive increased knowledge sharing remains a fundamental issue that has attracted scholars' attention (Bhatt, 2001; Han & Anantatmula, 2007).

COMPETITIVENESS

Competitiveness is the edge an organisation has over rival organisation through the provision of a product of superior quality at a reduced price and provision of a product with higher benefit (Hosseini et al., 2018). It is a situation where consumers esteem the product of an organisation above its rivals; therefore, for an organisation to be ahead of competitors, the organisation must add value to processes fostering its accomplishment and advancement. Also, Saloner et al. (2001) opined that competitiveness is when the products of an organisation are worth more than the products of its rival.

Competitiveness can also be seen as anything that escalates profits above overheads (Rumelt, 2003). This was supported by Besanko et al. (2000) who asserted that an organisation can be said to have an edge above its competitors when the monetary returns are above proportional returns of its rival.

Also, Hakkah and Ghodsi (2015) agreed that an organisation has gained competitiveness when it generates higher profits compared to its rival. Invariably, competitiveness is defined based on dominance and advantage an organisation has in terms of the value of products, prices, and returns resulting from dominant competence, expertise, and assets (L. Wang et al., 2011).

RELATIONSHIP BETWEEN WORK DESIGN AND COMPETITIVENESS

Organisations' work structure has been found to be fundamental to knowledge sharing (Hall, 2001; Karim & Majid, 2018; Xue et al., 2011). Effective knowledge sharing is only possible when there is a smooth flow of interaction among employee's in the organisation (Skaik & Othman, 2014). Knowledge sharing has been proven to be possible in a work design that allows for sharing (Foss et al., 2009; Karim & Majid, 2018). The study of Foss et al. (2009) found work design as a component of knowledge sharing to have a direct link to the performance of the firms. Similarly, the study by Z. Wang et al. (2016) found knowledge sharing can drive increased performance when there is an enabling environment that supports knowledge sharing. The firm can gain increased competitiveness when they design the work to be supportive and encourage the sharing of valuable ideas that relate with the work, as it would make for a more innovative and time-saving outcome that could predict increased competitiveness. Hence, we propose that:

H_{1a}: Work design affects firms' competitiveness.

Organisations' leadership, not the employees, have the responsibility to design employees' work structure. Knowledge sharing success starts with leaders' willingness to constructively engage employees in the organisational work design process, thereby allowing them to contribute to the design of a work structure that supports knowledge sharing in the organisation (Foss, 2007). Sheehan (2016) found that leaders' behaviour is essential in driving increased knowledge sharing in the organisation. Similarly, Pee and Lee (2015) also showed that the extent of leaders' supports manifest through the way the job is designed, and it directly influences the extent the employees are willing to share knowledge in the organisation. The leaders' behaviour in knowledge sharing is first profound in the way the work is designed because an organisation cannot say they support and encourage knowledge sharing when the nature of the work is a discouraging factor. Hence we propose that:

H_{1b}: Leaders behaviour mediates the relationship between work design and firms' competitiveness.

RELATIONSHIP BETWEEN ORGANISATIONAL REWARD AND COMPETITIVENESS

The monetary incentives are extrinsic motivation while non-monetary incentives satisfy the internal aspiration of employees (Alfandi & Alkhsawneh, 2014). Employees are fundamental in the organisational knowledge sharing theory (Mohajan, 2019; Muhammed & Zaim, 2020) and the extent to which they perceive the organisation is willing to appreciate their knowledge sharing efforts, the more willing they will be towards engaging in knowledge sharing that would improve the firms' performance (Dzenopoljac et al., 2018). Reward and incentives have been found to predict employees' willingness to share information (Hall, 2001; Lin, 2007a; Von Krogh, 1998). Reward stimulates employees to act more, as it is perceived as an encouragement, which could trigger renewed effort in sharing knowledge that would help the organisation gain increased competitiveness (Mat et al., 2016). Hence we propose that:

H_{2a}: Organisational reward affects the firms' competitiveness

The leaders determine the reward that employees get in the organisation, and the reward system has been shown to have a direct influence on employees' behaviour towards knowledge sharing in the organisation (Intezari et al., 2017; Yang, 2007). When employees feel the leaders have the disposition to reward them when they share knowledge, they will be motivated to share it (McDermott &

O'Dell, 2001), and when this knowledge is shared, it can be either accepted in that form or modified, thus, leading to new venture creation, product modification, or increased market share, which are elements of increased competitiveness (Park & Kim, 2018). We thus propose that:

H_{2b}: Leaders behaviour mediates organisational reward influence on firms' competitiveness

RELATIONSHIP BETWEEN INFORMATION COMMUNICATION AND COMPETITIVENESS

The role of information communication in knowledge sharing has been established in literature (Bond et al., 2007; Jones, 2017; Ngozi et al., 2014). The adoption of ICT allows for a quick and timely process in sharing knowledge in the organisation (Mallmann et al., 2016; Tan, 2016). The adoption of ICT in knowledge sharing reduces the challenges associated with human communication and supports a smooth flow of communication to the benefit of employees and the organisation. Kabah and Ramaiah (2019) stated that ICT as a tool for knowledge sharing facilitates ease in the work process and supports innovativeness. Kettinger et al. (2015) found that the adoption of information communication increased the possibility of knowledge sharing in an organisation, as it allows for ease in sharing information, ideas, and innovation, which impacts the performance of the organisation favourably. Thus, we propose that:

H_{3a}: Information communication as knowledge sharing dimension affects firms' competitiveness

V. H. Lee et al. (2016) found that knowledge management activities help improve a firms' competitiveness, and Edwards (2017) stated that knowledge sharing is fundamental to organisational knowledge management activities. Hence, the willingness of the leaders to invest in information communication and encourage employees to adopt this measure towards sharing knowledge would improve the firms' competitiveness, and this is an area that has been well researched (Islam, Ikeda, & Islam, 2013). However, when the leaders can manage and effectively ensure a balance between the extent of ICT adoption and knowledge sharing, there could be a better possibility of ensuring that ICT leads to knowledge sharing, which in turn supports the organisations increased competitiveness goal. AlShamsi and Ajmal (2018) found that organisational leadership is the most important in the knowledge sharing drive of an organisation, most especially, when the firm is ICT driven. Hence, we propose that:

H_{3b}: Leaders' behaviour mediates the relationship between information communication and firms' competitiveness

METHODOLOGY

Figure 1 shows the tested theoretical relationship between knowledge sharing, leaders' behaviour, and firms' competitiveness. A cross-sectional survey method was used, based on the need to gather information from a large sample at a time. The sample size was 282 employees from 18 manufacturing firms from the six geopolitical zones in Nigeria. The study adopted stratified sampling technique, and the choice of this technique was based on the need to ensure that the study covered firms in the different manufacturing sectors in the country. The criteria for selection of the firms were based on the number of years of operation, which should not be minimum of 3 years, and having an operational facility within the state. A questionnaire was the primary source of data collection and was distributed using the personal and mailing approach. Partial least square structural equation model was used for data analysis with the aid of SmartPls v3.9. The choice of this technique is because it is suitable with models that have higher-order construct and allows you determine the extent the first level order accounts for the higher-order constructs (Hair, Risher, et al., 2018).

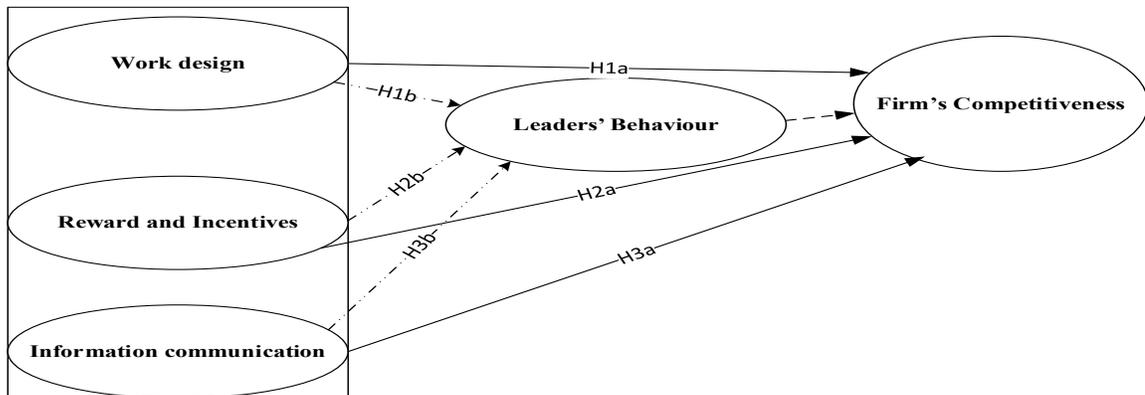


Figure 1. Theoretical relationship on knowledge sharing, leaders' behaviour, and firm's competitiveness.

MEASURES

This paper relied on the definition of knowledge sharing by Centobelli et al. (2017), where the constructs are seen as a set of practices and effort undertaking in the organisation to support and encourage knowledge sharing. As such, we operationalised knowledge sharing using the factors that literature has identified as the logical dimensions of knowledge sharing (Mouna & Salem, 2012) or seen as the stimulating factors of knowledge sharing (H. Lee & Choi, 2003). The choice of this measure is because the focus is to illustrate what role leadership behaviour has in ensuring work design, information communication, and reward systems are sufficient to drive knowledge sharing that will lead to increased competitiveness for manufacturing firms in developing economies giving the challenges they face from foreign goods importations, most especially in Nigeria. Harman's one-factor test was conducted for method variance. The result showed that none of the items accounts for more than 50% the variance (Podsakoff & Organ, 1986).

Work design

The measure of work design was adapted from the study of Nicolai et al. (2009) who adopted the measures designed by Sims et al. (1976). The scale had 15 items that used a Likert scale format that ranged from very little extent (1) to very large extent (5). Sample items from the scale are the following: "My job allows me to share news ideas," "My job supports team discussions before task are carried out in the organisation." The scale was subjected to content analysis and principal component analysis (PCA) from the data gathered from the pilot study conducted using some staff of selected manufacturing. This was done to ensure that there were no interpretation problems and the clarity of the language. The PCA result from the pilot study showed that all items loaded on one factor; however, the items were reduced from 10 items to 6 items, as items with a rotation score less than 0.70 were excluded (Pallant, 2011).

Organisational reward

The scale for measuring organisational reward was adapted from the studies of Lin (2007b) and Haradon (1998). The initial scale had eight (8) items that used a Likert scale format that ranged from very little extent (1) to very large extent (5). Samples of the items are "Sharing ideas with my colleagues should be compensated with promotion" and "Incentives offered to me will drive my willingness to share my knowledge in my organisation." The scale was subjected to content analysis and principal component analysis from the data gathered from the pilot study using some staff of selected manufacturing. This was done to ensure that there were no interpretation problems and the clarity of

the language. The PCA result from the pilot study showed that all items loaded on one factor; however, 2 items were removed from the scale because factor loadings less than 0.70 was obtained (Pallant, 2011). Hence, the number of items in the scale was reduced to 6 items.

Information communication

The scale of information communication capability for knowledge sharing was measured by adapting items from the scale of Lin (2007b) and H. Lee and Choi (2003). The scale originally had 8 items that used a Likert scale format that ranged from very little extent (1) to very large extent (5). The content and PCA led to the reduction of the final instrument to 5 items.

Leadership behaviour

The scale for leadership behaviour was measured from a self-designed instrument that was adapted from the study of Phong et al. (2018). The scale originally had 7 items that used a Likert scale format that ranged from very little extent (1) to very large extent (5). The content and PCA led to the reduction of the final instrument to 5 items.

Competitiveness

The scale was self-designed; however, items were adapted from the study by Rao and Holt (2005). The scale originally had 6 items that used a Likert scale format that ranged from very little extent (1) to very large extent (5). The content and PCA led to the reduction of the final instrument to 5 items.

RESULT

The pre-analysis led to identifying only two hundred and fifty (250) usable retrieved responses from the two hundred and eighty-two distributed, which is about 88% of the total sample. The demographic distribution showed that male participants were one hundred and sixty-six (166), which is 66% while the female participants were eighty-four (84), which is 44% of the participants. Investigation showed that lower-level managers were eighty-nine (89), which is 36% of the participants; middle level were one hundred and eleven (111), which is 44% of the participants, and top-level managers were fifty (50), which is 20% of the participants. The number of years of experience of the participants shows that participants that have spent 1-5years in the firms were seventy-three (73), which is 29% of the participants; 6-10years were one hundred and two (102), which is 41% of the participants and 10years, and above were seventy-five (75), which is 30% of the participants. G-power analysis indicates that the minimum sample required was 187 and given the sample size determined using Taro Yamane (1967) was above the required, the usable instrument was sustained and used for further analysis.

ASSESSMENT OF THE STUDY MEASUREMENT INSTRUMENT MODEL

The initial result obtained showed that some of the items had below the threshold of 0.60 suggested by Hair, Sarstedt et al. (2018) to determine factor significance, and the need to further strengthen the reliability of the scale as suggested by Becker et al. (2018) led to the removal of the items, thus, ensuring that the measurements presented below are in line with literature recommendations. In the scale of work design, 2 items were dropped, and the final scale had 4 items measuring the variable. Organisational reward had 3 items removed, 3 items were removed from information communication, 2 items from leadership behaviour, and 1 item from competitiveness. The variance inflation factor (VIF) was used to assess for multicollinearity and the result in Table 1 indicates that there is no collinearity problem based on the recommendation of Latan and Noonan (2017). The reliability criteria were satisfied as the Cronbach alpha, rho_A, composite reliability result and Average Variance Extracted (AVE) were within the recommended threshold (Diamantopoulos & Winklhofer, 2001). Convergent and discriminant validity was satisfied as the AVE result were greater than the correlations

and HTMT inference ratio was less than 1 from the Fornell-Larcker Criterion result (Fornell & Larcker, 1981; Franke & Sarstedt, 2019).

Table 1. Measurement result on knowledge sharing, leaders' behaviour and competitiveness of manufacturing firms.

Variables	Factor Loadings	rho_A	Composite Reliability	Average Variance Extracted (AVE)	Cronbach's Alpha	VIF
Work Design		0.708	0.790	0.638	0.700	
WDS1	0.786					1.340
WDS2	0.793					1.490
WDS3	0.719					1.224
WDS4	0.889					1.302
Organisational Reward		0.767	0.701	0.635	0.766	
ORD1	0.810					1.568
ORD2	0.741					1.761
ORD3	0.837					1.462
Information Communication		0.707	0.789	0.771	0.704	
ICN1	0.868					1.418
ICN2	0.888					1.418
Leaders Behaviour		0.869	0.723	0.793	0.869	
LDB1	0.895					2.972
LDB2	0.924					3.409
LDB3	0.850					1.801
Competitiveness		0.799	0.738	0.761	0.765	
CAG1	0.873					1.850
CAG2	0.886					1.505
CAG3	0.871					2.012
CAG4	0.859					1.238

ASSESSMENT OF STRUCTURAL PATH MODEL

The result of the path analysis, as shown in Figure 2, indicates the entire paths are positive, which indicates that there is a positive relationship between knowledge sharing, leaders' behaviour, and competitiveness of the firms. The paths between the proxies of knowledge sharing and competitiveness that is mediated by leaders' behaviour showed the strongest of the relationships, which is next followed by information communication mediated by leaders' behaviour. Following the recommendations of Henseler and Chin (2010), it can be stated that the coefficient of determination between knowledge sharing and leadership behaviour is weak, but when leaders' behaviour mediates the relationship, the relationship is more strengthened. 62.9% of changes in competitiveness is accounted for by the share contribution of activities in knowledge sharing and leadership behaviour as depicted in Figure 2.

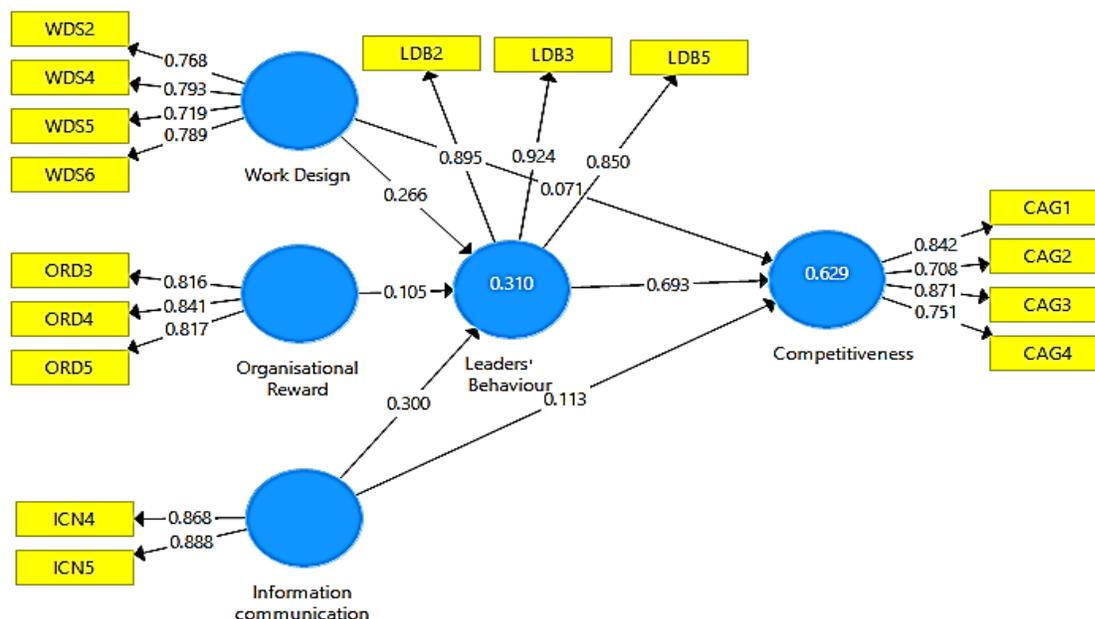


Figure 2. Path result on knowledge sharing, leader's behaviour and firms' competitiveness

The result indicates that all the paths were significant, as the t-value and p-value for all the paths show conformity with recommendations with literature (Hair, Sarstedt, et al., 2018). The paths are significant as they fall within the threshold for the t-values 1.96 and above and the p-values less than 0.05 (See Table 2 for a detailed result). The hypothesis (H_{1a}) proved significant as the t-value (1.960) falls within the threshold and given the p-value is less than 0.05, the hypothesis is accepted. The hypothesis (H_{1b}) proved significant as the t-value (4.344) falls within the threshold and given the p-value is less than 0.05, the hypothesis is accepted. The hypothesis (H_{2a}) proved significant as the t-value (2.132) falls within the threshold and given the p-value is less than 0.05, the hypothesis is accepted. The hypothesis (H_{2b}) proved significant as the t-value (1.989) falls within the threshold and given the p-value is less than 0.05, the hypothesis is accepted. The hypothesis (H_{3a}) proved significant as the t-value (2.078) falls within the threshold and given the p-value is less than 0.05, the hypothesis is accepted. The hypothesis (H_{3b}) proved significant as the t-value (4.559) falls within the threshold and given the p-value is less than 0.05, the hypothesis is accepted.

Table 2. Direct significance on the relationship between leaders' behaviour, knowledge sharing and competitiveness of manufacturing firms in Nigeria

	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values	Hypothesis Decision
Work design -> Competitiveness	0.057	1.960	0.003	Accept H_{1a}
Work design -> Leaders behaviour -> Competitiveness	0.042	4.344	0.000	Accept H_{1b}
Organisational Reward -> Competitiveness	0.060	2.132	0.002	Accept H_{2a}
Organisational Reward -> Leaders behaviour -> Competitiveness	0.043	1.989	0.001	Accept H_{2b}
Information Communication -> Competitiveness	0.055	2.078	0.038	Accept H_{3a}
Information Communication -> Leaders behaviour -> Competitiveness	0.046	4.559	0.000	Accept H_{3b}

Finally, the model was assessed for goodness of fit and the study used chi-square as Hair, Sarstedt, et al., (2018) recommended as one of the methods for model fit assessment. Sequel to the result obtained from the analysis, it is worthy to state that the model is fit, as the chi-square value (497.772) is greater than 0.05 as Benitez et al. (2019) recommended.

DISCUSSION

This paper focused on the mediating role of leaders' behaviour on the link between knowledge sharing and organisational performance of manufacturing firms. The result also addressed specific research questions, which were to unravel the extent work design, organisational reward, and information communication, as proxies of knowledge sharing, affects manufacturing firms' competitiveness. The analysis provided a vivid answer to our study question, as it was confirmed that work design is useful towards knowledge sharing, which is in agreement with the position of Z. Wang et al. (2016).

The result is consistent with the study of Foss et al. (2009) and Karim and Majid (2018) that also found that work design as a knowledge sharing measure is a major driver for competitiveness. The leadership behaviour mediates the relationship between work design and competitiveness from the result of the analysis. The result agrees with the study of Pee and Lee (2015) that shows that top management ability to design the work environment that supports knowledge sharing would be useful to gain competitiveness.

Organisational reward influence on firms' competitiveness also proved significant as the t-value was within the threshold. The result is consistent with the outcome from the studies of Lin (2007a) and Hall (2001) that also found that reward as a dimension of knowledge sharing significantly predicts competitiveness. The result also shows that leadership behaviour mediates organisational reward for knowledge sharing and firms' competitiveness relationship. The result is consistent with the study of Intezari et al. (2017) that stated that leaders' support is useful towards ensuring knowledge sharing leads to increased performance.

Further, information communication also proved significant as the t-value was within the threshold. The result agrees with the study of Jones (2017) and Kettinger et al. (2015), which also shows that information communication as a measure of knowledge sharing significantly predicts competitiveness. Also, the result showed that leadership behaviour mediates information communication adoption towards knowledge sharing and gaining competitiveness. The result also agrees with the finding of Mohamed et al. (2006).

Finally, the result confirms that leadership behaviour mediates the relationship between knowledge sharing and competitiveness. Though the mediating relationship is partial, as the direct relationship was confirmed significant; however, it thus means that leaders' behaviour is a cogent factor for consideration in assessing the link between knowledge sharing and firms' competitiveness. The result is consistent with the outcome of the study of Muhammed & Zaim (2020) that found that leaders' supports are fundamental in knowledge sharing behaviour, which in turn would lead to increased performance. The result confirms the position of Skaik and Othman (2014) that management support is critical towards driving knowledge sharing that would lead to increased competitiveness for an organisation.

CONCLUSION AND RECOMMENDATION

This paper was on the mediating effect of leaders' behaviour on knowledge sharing and competitiveness of manufacturing firms. The study relied on a sample of 282 participants from 18 manufacturing firms in Nigeria. The study concludes that knowledge sharing significantly affects the competitiveness of firms. The study also concludes that leadership behaviour partially mediates knowledge sharing and firms' competitiveness. The study advances the need for knowledge sharing in manufacturing firms from an emerging economy perspective and proposed an integrative model that would help

manufacturing firms ensure increased employment opportunity for the society and contribute favourably to the country's gross domestic product.

Hence, the study recommends that (i) the work design should be able to support knowledge sharing, as it will ensure the firm gains increased competitiveness, (ii) effort should be made to drive knowledge sharing through increased reward for employees for willingly sharing innovative ideas that will allow the firms gain competitiveness, and (iii) the leaders should support the adoption of information communication techniques for knowledge sharing, as it will help the firm gain competitiveness.

RESEARCH IMPLICATION

This paper reemphasises the relevance of knowledge sharing in advancing organisational competitiveness. Taking into cognizance the theoretical modelling and operational limitations, this paper advances specific implication for firms in their adoption of knowledge sharing as a tool to drive increased competitiveness. Manufacturing firms should place more emphasis on the factors that support knowledge sharing such as reward systems, information technology, and work design, as our findings show that they are fundamental to drive increased competitiveness. There should be an effective reward system that encourages employees to engage in sharing knowledge in the organisation, as it will be beneficial to improve the competitiveness of the firm. Firms should consider designing employees work to support them in knowledge sharing since it has the capacity to drive the firms' competitiveness. Also, firms are encouraged to adopt information communication to support knowledge sharing given the result from our paper have shown that it supports increased firms' competitiveness. Further, the role of leadership is emphasised in this study, as it is fundamental in improving knowledge sharing in the organisation, as such, leaders in organisations are reminded of their role in encouraging knowledge sharing.

LIMITATIONS AND FUTURE RESEARCH

The study is limited to a survey design. Since knowledge sharing is not a one-off set of activities, as it is continuous, future research should consider a longitudinal study approach. Further, as the study was limited to manufacturing firms in Nigeria, there is a need for future studies to capture other sectors. The understanding and modelling of knowledge sharing in this paper is limited to a logical layer (one of four layers) based on Mouna and Salem (2012) dimensional abstraction, future studies can consider testing all four layers. Despite the limitations, the study offers quite interesting findings for readership and scholarship.

REFERENCES

- Akinmulegun, S.O., & Oluwole, F.O. (2014). An assessment of the Nigerian manufacturing sector in the era of globalization. *American Journal of Social and Management Sciences*, 5(1), 27-32. <https://www.scihub.org/AJSMS/PDF/2014/1/AJSMS-5-1-27-32.pdf>
- Akosile, A., & Olatokun, W. (2020). Factors influencing knowledge sharing among academics in Bowen university, Nigeria. *Journal of Librarianship and Information Science*, 52(2), 410-427. <https://doi.org/10.1177/0961000618820926>
- Alavi, M., & Leidner, D. (2001). Knowledge management and knowledge management systems: Conceptual foundations and research issues. *MIS Quarterly*, 25(1), 107-136. <https://doi.org/10.2307/3250961>
- Alfandi, A. M., & Alkhasawneh, M. (2014). The role of the incentives and reward system in enhancing employee's performance: A case of Jordanian travel and tourism institutions. *International Journal of Academic Research in Business and Social Sciences*, 4(4), 326-341. <https://doi.org/10.6007/IJARBS/v4-i4/788>
- AlShamsi, O., & Ajmal, M. (2018). Critical factors for knowledge sharing in technology-intensive organizations: Evidence from UAE service sector. *Journal of Knowledge Management*, 22(2), 384-412. <https://doi.org/10.1108/jkm-05-2017-0181>

- Andreson, A., (2013). The Best Employee Incentives; Demand Media, Houston Chronicles.
- Antunes, H. de J. G., & Pinheiro, P. G. (2019). Linking knowledge management, organisational learning and memory. *Journal of Innovation & Knowledge*, 4(2), 1-10. <https://doi.org/10.1016/j.jik.2019.04.002>
- Argote, L. (2012). *Organisational learning: Creating, retaining and transferring knowledge*. Springer.
- Armstrong, M. (2007). *A handbook of employee reward management and practice*. Kogan Page.
- Azema, P., & Jafari, M. (2016). The effect of dimensions of knowledge sharing on a variety of strategic mind map of managers and employees. *Independent Journal of Management & Production*. 7(4), 1256-1283. <https://doi.org/10.14807/ijmp.v7i4.502>
- Barney, J. B. (2012). Purchasing, supply chain management and sustained competitive advantage: The relevance of resource-based theory. *Journal of Supply Chain Management*, 4(8), 3-6. <https://doi.org/10.1111/j.1745-493X.2012.03265.x>
- Becker, J. M., Ringle, C. M., & Sarstedt, M. (2018). Estimating moderating effects in PLS-SEM and PLS-SEM: Interaction term generation data treatment. *Journal of Applied Structural Equation Modeling*, 2(2), 1-21. [https://doi.org/10.47263/jasem.2\(2\)01](https://doi.org/10.47263/jasem.2(2)01)
- Benitez, J., Henseler, J., Castillo, A., & Schuberth, F. (2019). How to perform and report an impactful analysis using partial least squares: Guidelines for confirmatory and explanatory IS research. *Information & Management*, 57(2), 1-16. <https://doi.org/10.1016/j.im.2019.05.003>
- Besanko, D., Dranove, D., & Shanley, M. (2000). *Economics of strategy*. John Wiley & Sons
- Bhatt, G. (2001). Knowledge management in organisations: Examining the integration between technologies, techniques, and people. *Journal of Knowledge Management*, 5(1), 68-75. doi: 10.1108/13673270110384419
- Birasnav, M. (2014). Knowledge management and organisational performance in the service industry: The role of transformational leadership beyond the effects of transactional leadership. *Journal of Business Research*, 67(8), 1622-1629. <https://doi.org/10.1016/j.jbusres.2013.09.006>
- Bond, C., Shipton, Z., Jones, R., Butler, R., & Gibbs, A. (2007). Knowledge transfer in a digital world: Field data acquisition, uncertainty, visualization, and data management. *Geosphere*, 3(6), 568–576. <https://doi.org/10.1130/ges00094.1>
- Bradshaw, R., Chebbi, M., & Oztel, H. (2015). Leadership and knowledge sharing. *Asian Journal of Business Research*, Special Issue 2015. <https://magscholar.com/asian-journal-of-business-research/archived-issues/ajbr-special-issue-2015/doi-10-14707ajbr-150001/>
- Bucklin, B. R., McGee, H. M., & Dickinson, A. M. (2004). The effect of individual monetary incentives with and without feedback. *Journal of Organisational Behavior Management*, 23(2-3), 65-94. https://doi.org/10.1300/J075v23n02_05
- Campion, M. A., Mumford, T. V., Morgeson, F. P. & Nahrgang, J. D. (2005). Work redesign: Eight obstacles and opportunities. *Human Resource Management*, 44(4), 367-390. <https://doi.org/10.1002/hrm.20080>
- Centobelli, P., Cerchione, R., & Esposito, E. (2017). Knowledge management in start-ups: Systematic literature review and future research agenda. *Sustainability*, 9(4), 361-380. <https://doi.org/10.3390/su9030361>
- Chiang, F. F., & Birtch, T. (2008). Achieving task and extra-task-related behaviors: A case of gender and position differences in the perceived role of rewards in the hotel industry. *International Journal of Hospitality Management*, 27(4), 491-503. <https://doi.org/10.1016/j.ijhm.2007.08.009>
- Chiekezie, O., Dibua, E., & Chinenye, I. (2016). Knowledge sharing and competitiveness of selected pharmaceutical manufacturing companies in Anambra State, Nigeria. *European Journal of Business, Economics and Accountancy*, 4(7), 42-56. <https://www.idpublications.org/wp-content/uploads/2016/09/.pdf>
- Covington, M. V., & Müeller, K. J. (2001). Intrinsic versus extrinsic motivation: An approach/avoidance reformulation. *Educational Psychology Review*, 13(2), 157–176. <https://doi.org/10.1023/A:1009009219144>
- Diamantopoulos, A., & Winklhofer, H. M. (2001). Index construction with formative indicators: An alternative to scale development. *Journal of Marketing Research*, 38(2), 269-277. <https://doi.org/10.1509/jmkr.38.2.269.18845>

- Doronin, D., Lei, S. & Shah, S. H. H. (2020). Reconsidering concept of knowledge sharing: Search for quality dimensions. *Kybernetes*, Advance print. <https://doi.org/10.1108/K-11-2019-0767>
- Dzenopoljac, V., Alasadi, R., Zaim, H., & Bontis, N. (2018). Impact of knowledge management processes on business performance: Evidence from Kuwait. *Knowledge and Process Management*, 25(2), 77-87. <https://doi.org/10.1002/kpm.1562>
- Edwards, J. S. (2017). Knowledge sharing: At the heart of knowledge management. In P. Jain & N. Mnjama (Eds.), *Managing knowledge resources and records in modern organizations* (pp. 1-14). IGI Global. <https://www.igi-global.com/gateway/book/169503>
- Einarsen, S., Aasland, M. S., & Skogstad, T. (2007). Destructive leadership behaviour: A definition and conceptual model. *The Leadership Quarterly*, 18(3), 207-216. <https://doi.org/10.1016/j.leaqua.2007.03.002>
- Elangovan, A. R., & XIE, J. L. (2000). Effects of perceived power of supervisor on subordinate work attitudes. *Leadership & Organisation Development Journal*, 21(1), 319-328. <https://doi.org/10.1108/01437730010343095>
- Evwierhurhoma, D. E., & Onouha, B. C. (2020). Knowledge management tools applications and organizational performance of manufacturing firms in rivers state, Nigeria. *International Journal of Knowledge and Dynamic Systems*, 13(2), 1-16. <http://www.arcnjournals.org/images/NRDA-IJKDS-13-2-1.pdf>
- Fornell, C. G., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39-50. <https://doi.org/10.1177/002224378101800104>
- Foss, N. J. (2007). Strategic belief management. *Strategic Organization*, 5(3), 249-258. <https://doi.org/10.1177/1476127007079977>
- Foss, N. J., & Pedersen, T. (2002). Transferring knowledge in MNCs: The role of sources of subsidiary knowledge and organizational context. *Journal of International Management*, 8(1), 49-67. [https://doi.org/10.1016/s1075-4253\(01\)00054-0](https://doi.org/10.1016/s1075-4253(01)00054-0)
- Foss, N. J., Minbaeva, D., Pedersen, T., & Reinholt, M. (2009). Encouraging knowledge sharing among employees: How job design matters. *Human Resource Management*, 48(6), 871-893. <https://doi.org/10.1002/hrm.20320>
- Fossas, O. M. (1999). The resource-based theory and human resources. *International Advances in Economic Research*, 5(1), 84-92. <https://doi.org/10.1007/BF02295034>
- Franke, G. R., & Sarstedt, M. (2019). Heuristics versus statistics in discriminant validity testing: A comparison of four procedures. *Internet Research*, 29(3), 430-447. <https://doi.org/10.1108/intr-12-2017-0515>
- Giampaoli, D., Ciambotti, M., & Bontis, N. (2017). Knowledge management, problem solving and performance in top Italian firms. *Journal of Knowledge Management*, 21(2), 355-375. <https://doi.org/10.1108/jkm-03-2016-0113>
- Godwin, I., & Amah, E. (2013). Knowledge management and organizational resilience in Nigerian manufacturing organizations. *Developing Country Studies*, 3(9), 104-120. <https://www.iiste.org/Journals/index.php/DCS/article/view/7609/7704>
- Griffin, R. (2002). *Management*. Houghton Mifflin Co.
- Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2018). When to use and how to report the results of PLS-SEM. *European Business Review*, 31(1), 2-24. <https://doi.org/10.1108/eb-11-2018-0203>
- Hair, J. F., Sarstedt, M., Ringle, C. M., & Gudergan, S. P. (2018). *Advanced issues in partial least squares structural equation modeling (PLS-SEM)*. Sage.
- Hakkah, M., & Ghodsi, M. (2015). Development of a sustainable competitive advantage model based on balanced scorecard. *International Journal of Asian Social Science*. 5(5), 298-308. <https://doi.org/10.18488/journal.1/2015.5.5/1.5.298.308>
- Hall, H. (2001). Input-friendliness: Motivating knowledge sharing across intranets. *Journal of Information Science*, 27(3), 139-146. <https://doi.org/10.1177/016555150102700303>

- Han, B., & Anantatmula, V. (2007). Knowledge sharing in large IT organisations: A case study. *The Journal of Information and Knowledge Management Systems*, 37(4), 421-439, doi: 10.1108/03055720710838506
- Hargadon, A. B. (1998). Firms as knowledge brokers: Lessons in pursuing continuous innovation. *California Management Review*, 40(3), 209-27. <https://doi.org/10.2307/41165951>
- Henseler, J., & Chin, W. W. (2010). A comparison of approaches for the analysis of interaction effects between latent variables using partial least squares path modeling. *Structural Equation Modeling: A Multidisciplinary Journal*, 17(1), 82–109. <https://doi.org/10.1080/10705510903439003>
- Hitt, M. A., Xu, K., & Carnes, C. M. (2016). Resource based theory in operations management research. *Journal of Operations Management*, 41(1), 77-94. <https://doi.org/10.1016/j.jom.2015.11.002>
- Hosseini, A. S., Soltani, S., & Mehdizadeh, M. (2018). Competitive advantage and its impact on new product development strategy: A case study of Toos Nirro Technical Firm. *Journal of Open Innovation*, 4(17), 1-12. <https://doi.org/10.3390/joitmc4020017>
- Igwe, A., & Ononye, U. H. (2020). Social media use and its effect on knowledge sharing: Evidence from public organisations in Delta State, Nigeria. *Interdisciplinary Journal of Information, Knowledge, and Management*, 15, 25-37. <https://doi.org/10.28945/4503>
- Intezari, A., Taskin, N., & Pauleen, D. J. (2017). Looking beyond knowledge sharing: An integrative approach to knowledge management culture. *Journal of Knowledge Management*, 21(2), 492–515. <https://doi.org/10.1108/jkm-06-2016-0216>
- Isichei, E. E., & Ayandele, I. A. (2017). Operational work system design and staff performance in the Nigerian construction industry. *Entrepreneurial Business and Economics Review*, 5(1), 187-200. <https://doi.org/10.15678/eber.2017.050111>
- Isichei, E. E., Agbaeze, K. E., & Odiba, M. O. (2020). Entrepreneurial orientation and performance in SMEs: The mediating role of structural infrastructure capability. *International Journal of Emerging Markets*, 15(6), 1219–1241. <https://doi.org/10.1108/IJOEM-08-2019-0671>
- Islam, M. A., Ikeda, M., & Islam, M. M. (2013). Knowledge sharing behaviour influences: A study of information science and library management faculties in Bangladesh. *IFLA Journal*, 39(3), 221-234. <https://doi.org/10.1177/0340035213497674>
- Jones, G. E., III. (2017). Knowledge sharing and technological innovation: The effectiveness of trust, training, and good communication. *Cogent Business & Management*, 4(1). <https://doi.org/10.1080/23311975.2017.1387958>
- Kabah, A., & Ramaiah, C. K. (2019). Investigating the use of ICT tools for knowledge sharing among faculty members in UAE. *International Journal of Knowledge Management Studies*, 10(4), 365-380. <https://doi.org/10.1504/ijkms.2019.10024996>
- Kalu, E. U., Obidike, P. C., Chukwu, C. O., Kanu, C., Ogbuagu, R.A., Foluso. O. C., & Ndubuisi, O. P. (2019). Revamping the Nigerian manufacturing sub-sector as a panacea for economic progress: Lessons from South Korea. *Mediterranean Journal of Social Sciences*, 10(4), 111-123. <https://doi.org/10.2478/mjss-2019-0057>
- Karim, D. N., & Majid, A. H. B. (2018). Autonomous job design and knowledge sharing behaviour: The mediating role of public service motivation. *International Journal of Economics, Commerce and Management*, 6(4), 607-626. <http://ijecm.co.uk/wp-content/uploads/2018/04/6441a.pdf>
- Kettinger, W. J., Li, Y., Davis, J. M., & Kettinger, L. (2015). The roles of psychological climate, information management capabilities, and IT support on knowledge-sharing: An MOA perspective. *European Journal of Information Systems*, 24(1), 59-75. <https://doi.org/10.1057/ejis.2013.25>
- Kim, T., Lee, G., Paek, S., & Lee, S. (2013). Social capital, knowledge sharing and organisational performance. *International Journal of Contemporary Hospitality Management*, 25(5), 683–704. <https://doi.org/10.1108/ijchm-jan-2012-0010>
- Lambert, L. (2002). A framework for shared leadership. *Educational Leadership*, 59(8), 37-40. <http://www.ascd.org/publications/educational-leadership/may02/vol59/num08/A-Framework-for-Shared-Leadership.aspx>

- Latan, H., & Noonan, R. (Eds.). (2017). *Partial least squares path modeling*. Springer.
<https://doi.org/10.1007/978-3-319-64069-3>
- Lawler, A. (2003). *Treat people right! How organizations and individuals can propel each other into a virtuous spiral of success*. Jossey-Bass.
- Lee, H., & Choi, B. (2003). Knowledge management enablers, processes, and organisational performance: An integrative view and empirical examination. *Journal of Management Information Systems*, 20(1), 179-228.
<https://doi.org/10.1080/07421222.2003.11045756>
- Lee, J. (2018). The effects of knowledge sharing on individual creativity in higher education institutions: Socio-technical view. *Administrative Sciences*, 8(2), 21. <https://doi.org/10.3390/admsci8020021>
- Lee, V.-H., Foo, A. T. L., Leong, L. Y., & Ooi, K. B. (2016). Can competitive advantage be achieved through knowledge management? A case study on SMEs. *Expert Systems with Applications*, 65, 136–151.
<https://doi.org/10.1016/j.eswa.2016.08.042>
- Lin, H. F. (2007a). Effects of extrinsic and intrinsic motivation on employee knowledge sharing intentions. *Journal of Information Science*, 33(2), 135-149. <https://doi.org/10.1177/0165551506068174>
- Lin, H. F. (2007b). Knowledge sharing and firm innovation capability: An empirical study. *International Journal of Manpower*, 28(3/4), 315-332. <https://doi.org/10.1108/01437720710755272>
- Mallmann, G. L., Macada, A. C. G., & Oliveira, M. (2016). Can shadow IT facilitate knowledge sharing in organizations? An exploratory study. *Proceedings of the European Conference on Knowledge Management*, ECKM, 550–558.
- Mat, N., Alias, J., & Muslim, N. (2016). Individual factors on knowledge sharing among academicians at Universiti Kebangsaan Malaysia (UKM). *The Social Sciences*, 11(19), 4771-4775.
<https://doi.org/10.5901/mjss.2016.v7n6p181>
- McDermott, R., & O'Dell, C. (2001). Overcoming cultural barriers to sharing knowledge. *Journal of Knowledge Management*, 5(1), 76–85. <https://doi.org/10.1108/13673270110384428>
- McPherson, M., Smith, L., & Cook, J. (2001). Birds of a feather: Homophiles in social networks. *Annual Review of Sociology*, 27(1), 415-444. <https://doi.org/10.1146/annurev.soc.27.1.415>
- Men, C., Fong, P. S. W., Luo, J., Zhong, J., & Huo, W. (2019). When and how knowledge sharing benefits team creativity: The importance of cognitive team diversity. *Journal of Management & Organization*, 25(6), 807-824.
<https://doi.org/10.1017/jmo.2017.47>
- Mills, J., Platts, K., & Bourne, M. (2003). Applying resource-based theory. *International Journal of Operations & Production Management*, 23(2), 148–166. <https://doi.org/10.1108/01443570310458429>
- Mohajan, H. K. (2019). Knowledge sharing among employees in organizations. *Journal of Economic Development, Environment and People*, 8(1), 52-61. <https://doi.org/10.26458/jedep.v8i1.612>
- Mohamed, M., Stankosky, M., & Murray, A. (2006). Knowledge management and information technology: can they work in perfect harmony? *Journal of Knowledge Management*, 10(3), 103–116.
<http://doi.org/10.1108/13673270610670885>
- Mouna, B. C., & Salem, B. D. D. (2012). The dimensions of knowledge sharing. *MCIIS Conference Proceedings*.
<http://aisel.aisnet.org/mcis2012/16>
- Muhammed, S., & Zaim, H. (2020). Peer knowledge sharing and organizational performance: The role of leadership support and knowledge management success. *Journal of Knowledge Management*, 24(10), 2455-2489.
<https://doi.org/10.1108/JKM-03-2020-0227>
- Murray, P. (2002). Knowledge management as a sustained competitive advantage. *Ivey Business Journal*, 66(4), 71-77. <https://iveybusinessjournal.com/publication/knowledge-management-as-a-sustained-competitive-advantage/>
- Ngozi, I., Anasi, S. J., Akpan, I., & Adedokun, T. (2014). Information and communication technologies and knowledge sharing among academic librarians in south-west Nigeria: Implications for professional development. *Library Review*, 63(4/5), 352-369. <https://doi.org/10.1108/lr-10-2013-0124>

- Nicolai, J. F., Minbaeva, D. B., Pedersen, T., & Reinhold, M. (2009). Encouraging knowledge sharing among employees: How job design matters. *Human Resource Management, 48*(6), 871-893. <https://doi.org/10.1002/hrm.20320>
- Nielsen, S. B., & Momeni, M. (2016). Impact of personnel capabilities on organisational innovation capability. *Journal of Management and Innovation, 2*(2), 1-24. <http://orbit.dtu.dk>
- Nissen, M., Kamel, M., & Sen Gupta, K. (2000). Integrated analysis and design of knowledge systems and processes. *Information Resources Management Journal, 1*(3), 20-40. <https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.111.2122&rep=rep1&type=pdf>
- Obuobisa-Darko, T. (2019). Leaders' behaviour as a determinant of employee performance in Ghana: The mediating role of employee engagement. *Public Organization Review, 20*, 597-611. <https://doi.org/10.1007/s11115-019-00460-6>
- Ohemeng, F. L. K., Amoako Asiedu, E., & Obuobisa-Darko, T. (2018). The relationship between leadership style and employee performance: An exploratory study of the Ghanaian public service. *International Journal of Public Leadership, 14*(4), 274-296. <https://doi.org/10.1108/IJPL-06-2017-0025>
- Osibanjo, A., Abiodun, A., & Fadugba, A. (2012). Executive perception of the impact of flexitime on organisational performance: Evidence from the Nigerian private sector. *International Journal of Applied Behavioural Economics, 1*(3), 234-244. <https://doi.org/10.4018/ijabe.2012070102>
- Pallant, J. (2011). *SPSS survival manual: A step by step guide to data analysis using the SPSS program* (4th ed.) Allen & Unwin.
- Park, S., & Kim, E. (2018). Fostering organizational learning through leadership and knowledge sharing. *Journal of Knowledge Management, 22*(6), 1408-1423. <https://doi.org/10.1108/jkm-10-2017-0467>
- Pattanayak, B. (2005). *Human resource management*. Prentice-Hall.
- Pee, L., & Lee, J. (2015). Intrinsically motivating employees' online knowledge sharing: Understanding the effects of job design. *International Journal of Information Management, 35*(6), 679-690. <https://doi.org/10.1016/j.ijinfomgt.2015.08.002>
- Peteraf, M. A. (1993). The cornerstones of competitive advantage: A resource-based view. *Strategic Management Journal, 14*, 179-191. <https://doi.org/10.1002/smj.4250140303>
- Phong, L. B., Hui, L., & Son, T. T. (2018). How leadership and trust in leaders foster employees' behavior toward knowledge sharing. *Social Behavior and Personality: An International Journal, 46*, 705-720. <https://doi.org/10.2224/sbp.6711>
- Podsakoff, P. M., & Organ, D. W. (1986). Self-reports in organizational research: Problems and prospects. *Journal of Management, 12*(4), 531-544. <https://doi.org/10.1177/014920638601200408>
- Popli, S., & Rizvi, I. A. (2017). Leadership style and service orientation: The catalytic role of employee engagement. *Journal of Service Theory and Practice, 27*(1), 292-310. <https://doi.org/10.1108/JSTP-07-2015-0151>
- Rao, P., & Holt, D. (2005). Do green supply chains lead to competitiveness and economic performance? *International Journal of Operations and Production Management, 25*(9), 898-916. <https://doi.org/10.1108/01443570510613956>
- Rumelt, P. (2003). What in the world is competitive advantage? *Policy Working Paper, 105*(3), 1-5. [http://nts2.ximb.ac.in/users/fac/Amar/Am-arNayak.nsf/dd5cab6801f1723585256474005327e8/0d8bebc68d654f43e652578bc003d582a/\\$FILE/What%20is%20C%20A.pdf](http://nts2.ximb.ac.in/users/fac/Amar/Am-arNayak.nsf/dd5cab6801f1723585256474005327e8/0d8bebc68d654f43e652578bc003d582a/$FILE/What%20is%20C%20A.pdf)
- Saloner, G., Shepard, A., & Podolny, J. (2001). *Strategic management*. John Wiley & Sons.
- Schaubroeck, J., Lam, S., & Peng, A. (2011). Cognition-based and affect-based trust as mediators of leader behaviour influences on team performance. *Journal of Applied Psychology, 96*(4), 863-871. <https://doi.org/10.1037/a0022625>
- Sheehan, M. (2016) Leadership style and behaviour, employee knowledge-sharing and innovation probability. In H. Shipton, P. Budhwar, P. Sparrow, A. Brown (Eds), *Human resource management, innovation and performance*. Palgrave Macmillan. https://doi.org/10.1057/9781137465191_12

- Sims, H., Szilagyi, A., & Keller, R. (1976). The measurement of job characteristics. *Academy of Management Journal*, 19(2), 195–212. <https://journals.aom.org/toc/amj/19/2>
- Skaik, H. A., & Othman, R. (2014). Determinants of knowledge sharing behavior among academics in United Arab Emirates. *International Journal of Knowledge and Systems Science*, 5(3), 54-70. <https://doi.org/10.4018/ijkss.2014070105>
- Son, S. Y., Cho, D. H., & Kang, S. (2017). The impact of close monitoring on creativity and knowledge sharing: The mediating role of leader-member exchange. *Creativity and Innovation Management*, 26(1), 256–65. <https://doi.org/10.1111/caim.12219>
- Suppiah, V., & Sandhu, M. S. (2010). Organisational culture's influence on tacit knowledge- sharing behavior. *Journal of Knowledge Management*, 15(3), 462–477. <https://doi.org/10.1108/13673271111137439>
- Tan, C. N. L. (2016). Enhancing knowledge sharing and research collaboration among academics: The role of knowledge management. *Higher Education*, 71(4), 525–556. <https://doi.org/10.1007/s10734-015-9922-6>
- Valentine, J., & Prater, M. (2011). Instructional, transformational, and managerial leadership and student achievement: High school principals make a difference. *National Association of Secondary School Principals, NAASSP Bulletin*, 95(1), 5-30. <https://doi.org/10.1177%2F0192636511404062>
- Von Krogh, G. (1998). Care in knowledge creation. *California Management Review*, 40(3), 133–153. <https://doi.org/10.2307/41165947>
- Walczak, S. (2005). Organisational knowledge management structure. *Learning Organisation*, 12(4), 330-339. <https://doi.org/10.1108/09696470510599118>
- Wang, W-C., Lin, C-H., & Chu, Y-C. (2011). Types of competitive advantage and analysis. *International Journal of Business and Management*, 6(5), 100-120. <https://doi.org/10.5539/ijbm.v6n5p100>
- Wang, Z., & Wang, N. (2012). Knowledge sharing, innovation and firm performance. *Expert Systems with Applications*, 39(1), 8899-8908. <https://doi.org/10.1016/j.eswa.2012.02.017>
- Wang, Z., Sharma, P. N., & Cao, J. (2016). From knowledge sharing to firm performance: A predictive model comparison. *Journal of Business Research*, 69(10), 4650-4658. <https://doi.org/10.1016/j.jbusres.2016.03.055>
- Xue, Y., Bradley, J., & Liang, H. (2011). Team climate, empowering leadership, and knowledge sharing. *Journal of Knowledge Management*, 15(2), 299-312. <https://doi.org/10.1108/13673271111119709>
- Yamane, T. (1967). *Elementary sampling theory*. Prentice Inc.
- Yang, J. (2007). The impact of knowledge sharing on organisational learning and effectiveness. *Journal of Knowledge Management*, 11(2), 83-90. <https://doi.org/10.1108/13673270710738933>

AUTHORS



Adeline Chinonye Ugo-Agharanya is a financial analyst and compliance expert with several years in the banking sector. She is a doctoral candidate in the Department of Management, University of Nigeria, Enugu Campus. Organizational behaviour and knowledge management are her research focus.



Rev. Fr. Anthony Igwe (PhD) is a doctoral candidate in the Institute of Development Studies, University of Nigeria, Enugu, Nigeria. He has Ph.Ds. in Management, Philosophy and Economics respectively. His research interests are in the areas of knowledge management, conflict and diversity management, and hospital management. He is currently a Roman Catholic Priest and senior lecturer in the Department of Management, Faculty of Business Administration, University of Nigeria, Enugu, Nigeria.



Ejikeme Emmanuel Isichei is a lecturer in the Department of Business Administration, Federal University Wukari, Taraba State, Nigeria. He is a doctoral candidate in the Department of Management, University of Nigeria, Enugu Campus. His research interests are operations research and strategic management.