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Article

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KMS Infrastructure for KM Practice in Two Mobile Telecommunication Companies in Namibia

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ABSTRACT

Knowledge management system infrastructure is at the forefront of knowledge management practice. Knowledge must be identified, captured, and shared to improve KM practices; however, little is known about the successful implementation of KMS infrastructure by Namibian mobile telecommunications companies. This mixed-methods research study employed a convergent parallel design and parallel sampling techniques. Three hundred and nine online questionnaires were distributed to a representative sample, with a response rate of 57%. Computer software packages were used to analyse quantitative data quantitatively, and qualitative data from interviews with 11 participants and analysis of documents were analysed thematically. Findings showed that infrastructure, management support, and employee participation were necessary for a successful KMS infrastructure implementation for effective and efficient KM practices. The study provides MT companies with a foundational understanding of how the infrastructure for KMS is essential for effective and efficient KM practice.

KEYWORDS

Employee Perception, Knowledge Management, Mobile Telecommunication Companies, Namibia, Organisational Knowledge, Senior Management

INTRODUCTION

In a knowledge-based society, organisations are knowledge-intensive (Ekambaram et al., 2018; Tounkara, 2019; Ullah, 2020). Knowledge management systems (KMS) for knowledge management (KM) are essential for the growth of the global economy and society. Information and organisational knowledge (OK) are critical assets for creating organisational value. Al-Khouri (2014) and Abubakar et al. (2019) suggested that an organisation's competitive advantage and decision-making largely depend on its capacity to manage information and organisational knowledge (OK) effectively. In essence, the knowledge management (KM) approach has emerged as a source of firm heterogeneity that underpins

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competitive advantage, thereby enhancing their performance (Becerra-Fernandez & Sabherwal, 2015; Kianto et al., 2018; Rhem, 2017; Tounkara, 2019; Ngulube, 2019). The organisational KMS method supports a choice of OK systems practicability to drive KM projects from an organisational KMS perspective (Jennex, 2008; Tounkara, 2019). Namibian mobile telecommunications (MT) companies can also benefit from managing their knowledge using KMS infrastructure and contribute to the Namibian economy.

Telecommunications companies can improve their innovation capabilities by investing in KMS infrastructure for effective and efficient KM practices to maintain a long-term competitive advantage. The contribution of the telecommunications industry to socio-economic development is evident in the demand for quality services and products and the ever-increasing number of users. In Namibia, the telecommunications industry is divided into two categories, namely mobile and fixed network operators. Telecom Namibia Mobile (TN Mobile), Mobile Telecommunication Company Limited Company (MTC), and Telecom Namibia Limited (TN) are the dominant telecommunications companies. TN Mobile was established in 2007 as Telecom Namibia's brainchild. MTC was formed in 1995, and Telecom Namibia, the only fixed network operator in Namibia, was formed by an Act of Parliament in 1992. These sectors cover the telecommunication needs of the Namibian population, currently projected at 2.5 million (Namibia Statistic Agency, 2011).

MT companies are systems comprising networks of employees and working groups as the first step to capacity expansion to induce innovation (Al-Mawali & Al-Busaidi, 2022). Thus, employees and departments have the knowledge and should be recognised and managed well for the overall benefit of these organisations. For this reason, it is essential to know where acute OK could be located within the MT companies to be captured, transferred, and stored in the KMS infrastructure to induce innovation for a competitive edge. As TN Mobile and MTC keep adding new services and improving their infrastructure to meet customer demand, KMS becomes essential. MT companies in Namibia opened their operations to a global, competitive technological market making KMS for KM necessary. Their growth, product, and service demands define their success, and they need KM with a focus on KMS infrastructure. . Al-Mawali and Al-Busaidi (2022) noted that in an economy that relies on knowledge, KM is essential in the telecommunications industry and is regarded as a competitive instrument that enables enterprises to stay afloat and prosper.

In today's fast-paced and ever-changing business landscape, effective KM through a KMS infrastructure is crucial for MT companies to bring innovation to their services. Taking note of the increasing number of mobile service users and opening to a high-tech competitive world, understanding the challenges that come with the use of KMS infrastructure to leverage OK to meet customer demand is critical and worth exploring. The success of KMS seems to depend on the infrastructure of these systems, the level of support from senior managers, and how employees perceive this infrastructure. Therefore, this paper aims to investigate these issues in MT companies in Namibia to provide a descriptive understanding of a suitable KMS infrastructure for successful KM practices.

PROBLEM STATEMENT

In today's fiercely competitive world, MT companies must adopt a knowledge-intensive approach to thrive. The effectiveness of their KMS for KM practices is crucial to determining their success. According to Yuan et al. (2020) and Ullah (2020), the ability to implement organisational KM practices is the primary advantage of having a robust KMS in place. Therefore, MT companies must leverage the potential of their knowledge by using infrastructure, support from senior managers, and employees to induce efficient KMS for KM practices to gain a competitive edge. A well-structured and organised KMS infrastructure catalyses innovation, enhances employee productivity, and provides a competitive advantage to organisations. By leveraging a KMS, MT companies can effectively capture, store, and disseminate OK across the organisation, enabling employees to access critical information and insights in a timely and efficient manner. This, in turn, can lead to faster decision-

making, improved problem-solving, and increased collaboration among teams. Therefore, investing in a robust KMS infrastructure is a strategic move for MT companies looking to stay ahead of the curve in today's fast-paced and ever-changing business landscape. As Mohiuddin et al. (2022) suggested, KMS can provide valuable learning opportunities and improve performance. Wolverton and Lanier (2019) argued that previous research has focused on voluntary decisions made by adoptive companies rather than institutional pressure, and companies are pressured to implement new operating practices due to competition and consumer demands but have yet to investigate technologies prescribed by a third-party entity. Although organisational KMS infrastructure is essential because it facilitates organisational KM practice, little is known about how Namibian MT companies use organisational KMS to improve or strengthen OK. This article delves into the significance of KMS infrastructure in facilitating KM practices that drive competitive advantage for two MT companies operating in Namibia. The study highlights the importance of a robust KMS infrastructure in enhancing the efficiency and effectiveness of KM practices, which, in turn, can lead to a competitive edge in the market, in particular knowledge based society (KBS) and fourth industrial revolution (4IRs). The findings of this study can be of assistance for MT companies, senior management operating in the telecommunication industry in Namibia, and other similar contexts, as they provide insights into the role of KMS infrastructure in driving organisational success.

PURPOSE OF THE STUDY

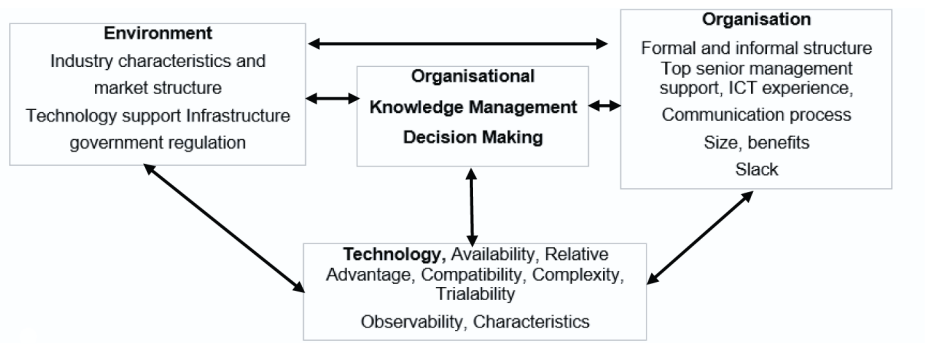
The study sought to investigate the organisational KMS infrastructure in MT companies in Namibia. The study is designed to accomplish specific research objectives identified as follows:

- Establish organisational KMS infrastructure in the mobile telecommunication companies in Namibia
- Assess the level of support by senior managers towards organisational KMS infrastructure in mobile telecommunication companies in Namibia
- Determine employees' perception towards organisational KMS infrastructure at mobile telecommunication companies in Namibia

CONCEPTUAL FRAMEWORK

This study examines the organisational KMS infrastructure in selected MT companies in Namibia guided by concepts from the Technology, Organization, and Environment (TOE) framework, shown in Figure 1. This framework assumes that concepts such astechnology and

Figure 1. TOE Framework



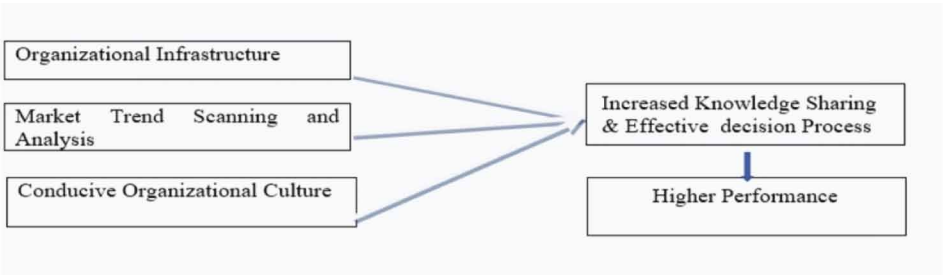
Note. Reprinted from Wolverton & Lanier, 2019, p. 403

organisation add value to required information, respond to fluctuations, facilitate interfaces and collaboration among interested parties, and identify the nondeterministic nature of organisational KMS infrastructure acceptance. It also emphasises that KMS infrastructure aims at employee responsibilities and acknowledges that employees must still replace KM practice with KM operations components. The idea that this perspective adequately addressed the essential factors influencing infrastructure adoption in the context of KMS infrastructure acceptance persuaded researchers to adopt it. However, pressure from selected MT companies could alter the outcome of KMS infrastructure implementation. Macro-level factors like organisational and technological concerns significantly influence micro-level decisions, such as innovation-level perceptions (Wolverton & Lanier, 2019). Therefore, it is crucial to consider these variables when analysing and making decisions based on micro-level concerns. Failure could lead to suboptimal decision-making and undermine the effectiveness of the KMS infrastructure implementation. Therefore, evaluating and weighing the impact of macro-level variables on micro-level decision-making processes for optimal outcomes is crucial for KMS infrastructure implementation. .

The researchers propose that senior management and employees must understand the importance of each element, but the focus should be on two distinct kinds of assessment: organisation and technology about KMS infrastructures. Senior management and operational employees view the technical circumstances as micro-level. In contrast, the organisation views macro-level perceptions outside the scope of the technology that influences the KMS infrastructure implementation decision for KM practices (Wolverton & Lanier, 2019). The technological context was conceived with KMS infrastructure accessibility for KM practice in mind (Al Bar & Hoque, 2015; Wolverton & Lanier, 2019). The organisational context for KMS looked at different KM evaluations about formalisation, centralisation, the complexity of its managerial structure, the number of employees, and its available resources. Figure 2 illustrates the organisation's KMS infrastructure. KMS infrastructure in knowledge-intensive MT companies must foster trust and collaboration to enable participants to share and cooperate in providing better services for greater performance (Mohiuddin et al., 2022, p. 9). Eze et al. (2019) suggested that it is vital to investigate these contexts, including internal organisational decision-making and communication, as well as mechanisms for external environments. Lian, et al., (2014), Cruz-Jesus et al., (2019) and Agrawal and Mukti, (2020) pointed out that organisational measurement characterises diverse organisational circumstances, including but not limited to sub-concepts such as top management support, adequate resources, and benefits for organisational KMS.

Senior-management support is as crucial for a proper KMS infrastructure implementation as a sound financial plan, practical human resources support, and adequate time. It has been observed that the behaviour of senior management or leadership is critical to implementing KMS infrastructure since the manager's behaviour underlies planning and communication. Prior knowledge was required to investigate how infrastructure, management support, and operational employees were required for

Figure 2. Organisation Context



Note. Reprinted from Mohiuddin et al., 2022, p.10

organisational KMS infrastructure implementation for effective and efficient KM practice in Namibia. Al-Hujran et al. (2019) suggested that senior management support is crucial for mitigating performance variability, reducing organisational KM-goal conflicts, and promoting organisation-wide behaviour. This study utilised organisational and technology concepts to understand KMS infrastructure, management support, and employee perceptions as vital elements towards KMS infrastructure for effective and efficient KM practice in two selected MT companies in Namibia.

LITERATURE REVIEW

KMS infrastructure, managerial support, and employee perception are critical for managing the company's knowledge. KMS infrastructure supports the timely generation, preservation, capture, storage, and retrieval of knowledge using collaborative technologies for improved innovation and decision-making (Jennex, 2008; Jain, 2017; Aslamiyah et al., 2019). KMS's responsive infrastructure includes data processing, storage, communication technologies, and systems for organisational innovation, enabling a KM approach (Tsetim et al., 2020). Abualoush et al. (2018) claimed that KMS infrastructure promotes KM practices but not necessarily organisational performance. From the perspective above, organisational culture and employee participation in KMS implementation are essential for effective KM and responsive KM practices. Mobile telecommunications providers are knowledge-intensive institutions putting in place KMS infrastructure for organisational efficiency, innovation, and competitiveness. KMS infrastructure is an essential facilitator of KM practices, such as web-based storage, virtual communities, the internet, an intranet, groupware, video conferencing, a group support system, online group discussion, portal technology, instant messaging, and email support infrastructure. Using a browser-based content management system, users can store, edit, share, retrieve, archive, and work together on data from anywhere (Okere, 2017). Online storage or distribution of explicit OK in electronic format makes it easier to put in and find required documents or OK temporarily (Demir et al., 2021).

Knowledge Management System Infrastructure

According to Donate and de Pablo (2015) and Naqshbandi and Jasimuddin (2018), KMS infrastructure should have formal and informal communication channels driven and supported by organisational culture, allowing new information and organisational knowledge to outperform their competitors. Nguyen et al. (2019) also stated that procedures should consider extrinsic and internal aspects. That is the case because motivators are essential for employee participation and using KMS infrastructure for effective KM practices. As noted by Donate and de Pablo (2015) and Naqshbandi and Jasimuddin (2018), top management should assist in this process to discover and utilise organisational knowledge by supporting infrastructure that considers employee requirements. Employee acceptance of altering organisational knowledge underlies the architecture of the organisational KMS (Inkinen et al., 2015; Rhem, 2017; Willman et al., 2022). Investment in KMS infrastructure assures effective KM practices only if employee desire, commitment, and engagement are considered (Razak et al., 2016). Employees and developers must engage with MT companies to build unique KM practices, settings, and technologies that allow individuals to communicate, collaborate, create, and exchange information digitally. According to Tounkara (2019) and Ullah (2020), top management in MT organisations must get familiar with the advantages of organisational KMS infrastructure to strengthen support for KM practice. KMS infrastructure is an extension of the person who should utilise it for organisational goals, and perceived relevance, system accessibility and acceptance (favourably accepting KMS), and implementation are all essential aspects that informed this research. Adequate infrastructure for collaborative KMS is characterised by employees' proficiency and satisfaction when networking with the system (Castro, et al., 2020; Al-Mawali & AlBusaidi, 2022).

Employees' Perception Towards Knowledge Management Systems Infrastructure

An organisation's KMS is ineffective and unviable for managing online OKRs if employees do not use it. Individual employee traits, job scheme or assignment traits, technological differences, organisational systems, and cultural factors (Alghafis et al., 2020; Liang, 2020) all contribute to a successful KMS implementation. Willman et al., (2022) and Veeravalli and Vijayalakshmi (2022) asserted that employees are intrinsically motivated to acquire information when they believe the quality of the knowledge accessible through KMS is substantial, and senior management does not influence a person's decision to look for knowledge. To understand how MT companies in Namibia have a KMS infrastructure that enables KM, looking into the pros and cons of organisational KMS infrastructure is essential for advancing efficient and effective KM of knowledge. Employee-centred and senior management implementation principles and initiatives will aid in implementing fundamental principles based on active employee participation and the proper allocation of functional systems (Sardjono et al., 2020). The usability of an organisation's KMS is determined by how each employee uses systems to reach their goals effectively, efficiently, and satisfactorily (Nurdin & Yusuf, 2020; Friedrich et al., 2020). Niese and Sasidharan (2022) proposed that knowledge collected from other end-users should be based on their specific areas of competence, as knowledge derived from those with lower levels of expertise may mislead and misinform end-users. These authors continue to state that knowledge actors such as technological advances, supporters, and assistance staff can serve as authentic, reliable, and fully responsible sources of high-quality information that adds, validates, and corrects information acquired from other system end-users.

Management's Support for KMS Infrastructure

Senior management's support for KMS infrastructure is critical because it supports KM practices via KMS by establishing an appropriate environment for cultivating positive attitudes towards KMS (Abualoush et al., 2018; Naqshbandi & Jasimuddin, 2018). Senior management must adopt a knowledge-oriented leadership strategy based on transformational and transactional management techniques to integrate KMS infrastructure for effective KM practices successfully (Abualoush et al., 2018; Ghosh et al., 2022). Transformational and transactional leadership styles are examples of traditional leadership approaches that have been extensively acknowledged for their importance in delivering various individual and organisational-level objectives (Rehman & Iqbal, 2020). In relation to the TOE framework, this study adheres to Naqshbandi and Jasimuddin's (2018) understanding of knowledge-oriented leadership as decision-making to be implemented by senior management in relation to identified approaches or steps, driving KM practices to induce new knowledge in a manner that appears to result in an improvement in conceptualisation and collaborative outcomes". Management promotes KM effectiveness mutually beneficially, resulting in effective and efficient KM practice and knowledge leadership (Ghosh et al., 2022). Management's support should instil support for employees utilising organisational KMS infrastructure that affects their internet usage, intranet, browsers, data warehouses, data filters, and software applications crucial to firm-wide OK management (Oliva & Kotabe, 2019). The complex nature of OK infrastructure composites is enabled and contextualised by these IT infrastructures. This helps the process and makes managing OK easier; document-management systems, search engines, and visualisation technologies should all be employed. This is relevant when electronic documents, content management systems, knowledge map systems, electronic knowledge portals, electronic communities of practice, groupware systems, and data mining systems are used as essential components of KMS. KMS infrastructure from the perspective of senior management and employees is sought to improve corporate knowledge capture and sharing procedures.

The KMS infrastructure depends on workers and senior management in a knowledge-based society that is also influenced by the Fourth Industrial Revolution (4IR). Organisations are primarily technical and social systems for managing organisational information. Thus, KMS infrastructure is the infrastructure that supports technical and social platforms that provide access to organisational

knowledge through digital media, computer storage, networks, and other information technology tools (Tan, 2015). Employees place a premium on the availability, reliability, accuracy, and relevance of organisational knowledge. Hence, the KMS infrastructure must be highly qualified to provide exceptional KM services. This research investigates KMS infrastructure from the viewpoints of senior management support and employee perceptions. It uses the TOE framework to demonstrate the impact of orientations on KMS infrastructure and guide the study's execution.

METHODOLOGY

The study utilised a mixed-methods approach through convergent parallel design to gain insights into the KMS infrastructure used in Namibia's MT companies. The understanding is that the results of an organisational KMS infrastructure study are influenced in three ways: qualitatively, quantitatively, and through a mixed-methods approach. According to Hashemi and Babaii (2013), mixed-methods research is based on synthesising nomothetic and idiographic methods, facilitating a twofold commitment to generalizability and in-depth understanding of a given phenomenon. Researchers employed the methods to provide a more nuanced and comprehensive understanding of the subject matter. They aimed to comprehensively understand KMS infrastructure by combining two methods, ensuring their findings apply to a broader population. The selection of institutions under investigation— namely, Mobile Telecommunications Limited and Telecom Namibia—was purposive due to the understanding that researchers would learn a great deal and possess critical information essential for comprehending the concept of KMS infrastructure in MT companies in Namibia. The significance of this information cannot be overstated, as it forms the foundation of the KMS infrastructure framework and was necessary to pursue a comprehensive understanding of the KMS infrastructure concept in Namibia. In this regard, the study investigated organisational KMS infrastructure in selected Namibian mobile telecommunications companies using a convergent MM design. To comprehensively understand the KMS infrastructure in MT companies in Namibia, researchers have employed a convergent parallel design. Researchers collected data concurrently through survey questionnaires, interviews, and document analysis. With the help of this approach, researchers analyse data from two distinct databases, one quantitative and the other qualitative, before combining the results (Creswell & Plano Clark, 2018; Creswell & Creswell, 2018; Ngulube, 2019; Miller et al., 2020).

Throughout the investigation, institutions were invited to participate in the study; however, Paratus Namibia opted not to participate, while Mobile Telecommunications Limited and Telecom Namibia, formed part of the study. The researchers gathered data and analysed quantitative and qualitative results to gain insight into employees' logical inferences regarding the KMS infrastructure at two MT companies in Namibia. Subsequently, they merged the data from the two distinct databases and arranged it for evaluation and assessment within the framework of the KMS infrastructure. Given the descriptive nature of the study, it was not feasible to investigate the correlation between KMS infrastructure and other variables. The study's design precluded the examination of such relationships, and as such, the findings should be interpreted within the context of this limitation. It is important to note that while the study could not establish causality, it provides valuable insights descriptively into the factors that influence KMS infrastructure for a successful KM practice in MT companies in Namibia.

Prior to collecting data, the researcher conducted virtual meetings with two distinguished representatives from MTC and TN Mobile. These individuals acted as intermediaries for disseminating the survey questionnaire and online meeting arrangements. They demonstrated a clear understanding of the purpose of the investigation and expressed their willingness to participate in the study (Creswell & Plano Clark, 2018). Online questionnaires were emailed to each research respondent anonymously to ensure confidentiality. Written informed consent was obtained from the participants. During the study, all respondents and participants were asked the same questions and treated the same way. One hundred seventy-six responses or answers were received online from the 309 online questionnaires

distributed, representing a 57% response rate. Eleven out of 20 planned, structured interviews were conducted online, representing a 55% response rate. Interviews lasted an average of 30 to 45 minutes, for a total of 495 interview minutes. Documents, such as strategic plans and policies, were analysed. Probability sampling was used for quantitative research to obtain a sample representing the entire population. Purposive sampling was primarily used in qualitative research.

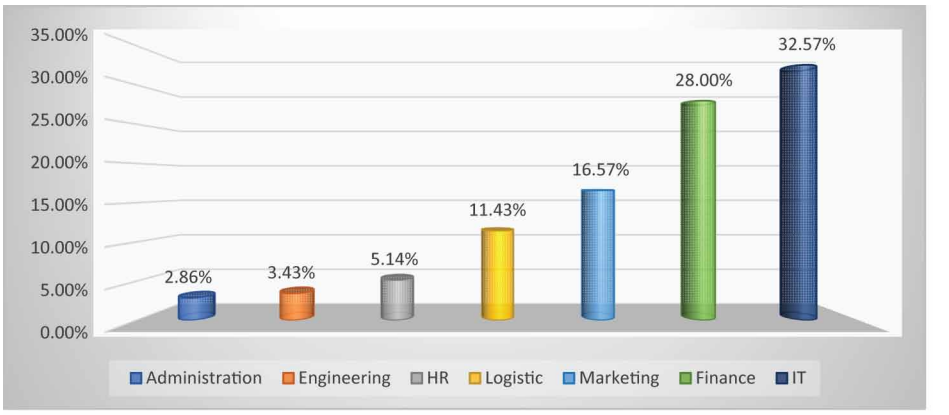
Quantitative data were analysed using the Statistical Package for the Social Sciences (SPSS) 22.0 to generate descriptive statistics. ATLAS.ti 22 was used to extract, categorise, and link data segments from 11 interviews and documents to discover patterns and themes on KMS infrastructure in two MT companies in Namibia. The identification of key themes was accomplished through a thorough analysis of transcribed recordings and direct quotations. In order to preserve the competitive nature of the institutions under study and to protect the privacy of individuals, their names, institutions, and roles were deliberately omitted from the data presentation. This decision was made after thoughtful deliberation and in adherence to ethical principles. The University of South Africa provided an ethical clearance certificate for the study.

FINDINGS OF THE STUDY

The study utilised a questionnaire to gather detailed information on the age range of the respondents. According to the findings, 135 (77%) respondents were female, while only 41 (23%) were male. This information sheds light on the demographics of the study population and provides a valuable foundation for further analysis and interpretation of the study results. The study analysed the departments to which the respondents belonged within their organisations. According to the study's findings, which can be observed in Figure 3, the quantitative respondents were from diverse departments of MT companies in Namibia. The information technology department had the highest representation with 32.4% (57) of the respondents, followed by the finance department with 28% (49) of respondents. The marketing department represented 16.57% (29) of the respondents, while logistics had 11.43% (20). The human resources department had only 5.14% (9) of the respondents, the engineering department had 3.4% (6), and the administration department had 3.3% (5).

The study further sought to gather information about respondents' employment duration in selected Namibian MT companies. The study found that the most common year range of employment was between 2–5 years, followed by 11–15 years (40.8%), 5–10 years (18.3%), and 0–12 months (6%). Respondents and participants had extensive job experiences, which provided sufficient quantitative

Figure 3. Respondents by Departments



Note. N = 176

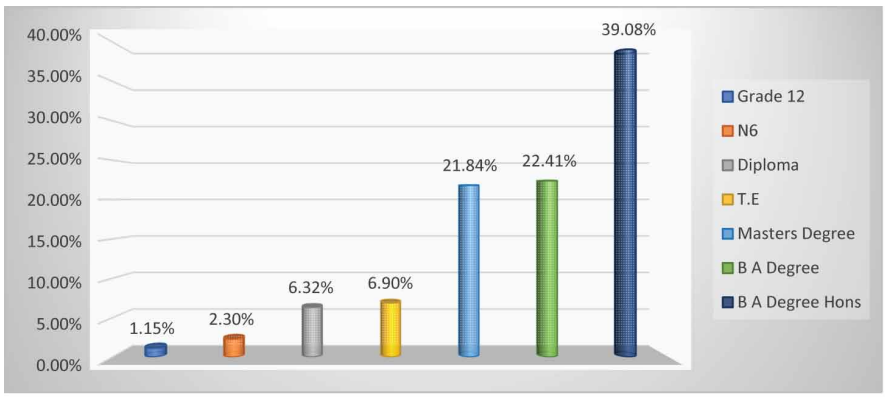
and qualitative data to draw plausible conclusions. Additionally, the study aimed to establish the academic or professional qualifications of the respondents. Figure 4 below illustrates the distribution of respondents' academic or professional qualifications: 68 (39.1%) had a bachelor's honours degree, 39 (22.41%) had a bachelor's degree, 38 (22%) had a master's degree, 12 (7%) had a technical electrical certificate, 11 (6%) had a diploma, and the two lowest (1.4%) had a grade 12 education. The data analysis revealed that the individuals who participated in the study possessed the required educational and employment background to comprehend the intricacies of the question related to the infrastructure of KMS in MT companies in Namibia.

The highest number of respondents had 2–5 years of experience, while the lowest had 0–12 months. The study revealed that individuals working in MT companies for 11–15 years were the most experienced respondents and participants. These findings suggest that education and experience could be key factors in determining the success of KMS infrastructure in MT companies in Namibia.

Knowledge Management System Infrastructure

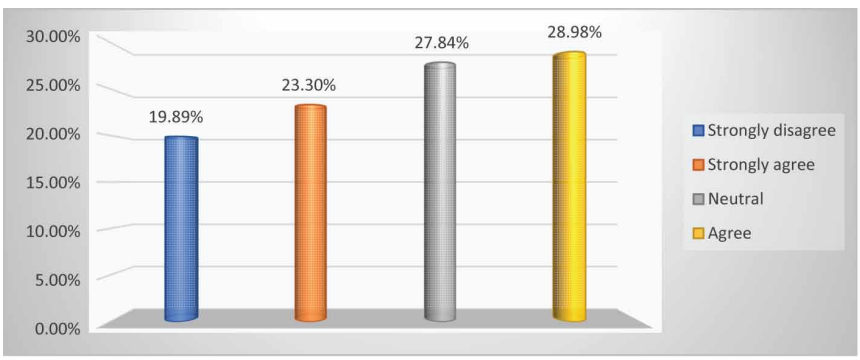
The findings in Figure 5 indicate that 92 respondents (52.3%) strongly agreed and agreed that MT companies had the necessary ICT infrastructure for organisational KMS. This suggests that these

Figure 4. Respondents per Qualifications



Note. N = 176

Figure 5. Organisational KMS Infrastructure



Note. N = 176

companies have the technological capabilities to support KM practices within their organisations. However, a significant proportion of the respondents (19.89%) strongly disagreed with this statement, while 27.84% remained neutral. The quantitative findings also revealed that most respondents, 142 (81.1%), strongly agreed and agreed that MT companies used organisational KM infrastructure to collaborate within and across departments and employees. This highlights the importance of collaboration in KMS infrastructure, as it can facilitate knowledge sharing and improve organisational performance. The qualitative findings further support the quantitative results, indicating that the selected MT companies had appropriate organisational KMS infrastructure, such as intranets, cloud databases, electronic reports, emails, and e-manuals. These infrastructure elements could enhance employee performance and support organisational knowledge practices by providing easy access to relevant information and facilitating communication and collaboration among employees.

According to the study, the key to successfully implementing a KMS lies in having an infrastructure that is both accessible and user-friendly. The study found that 116 (64.2%) respondents of the MT company accessed and utilised online documents from online storage repositories, indicating that MT companies can enhance their KMS by sharing knowledge from different sources or areas of expertise. This means the system should be designed to make it easy for users to access and navigate while providing the necessary tools and resources to manage and share knowledge effectively. By prioritising accessibility and usability, MT companies in Namibia can ensure that their KMS is adopted and utilised by employees, leading to improved knowledge sharing and collaboration across the organisation. However, the study also found some challenges; 63 (35.7%) respondents indicated they encountered duplicate online documents, which needed to be found mostly in qualitative data. This finding suggests a need for better organisation and management of online documents. The study also found that the organisational KMS infrastructure can manage and secure knowledge and form the basis for KM practice in MT companies. This highlights the importance of having a robust KMS infrastructure to ensure the success of KM practices. The following selected responses were received:

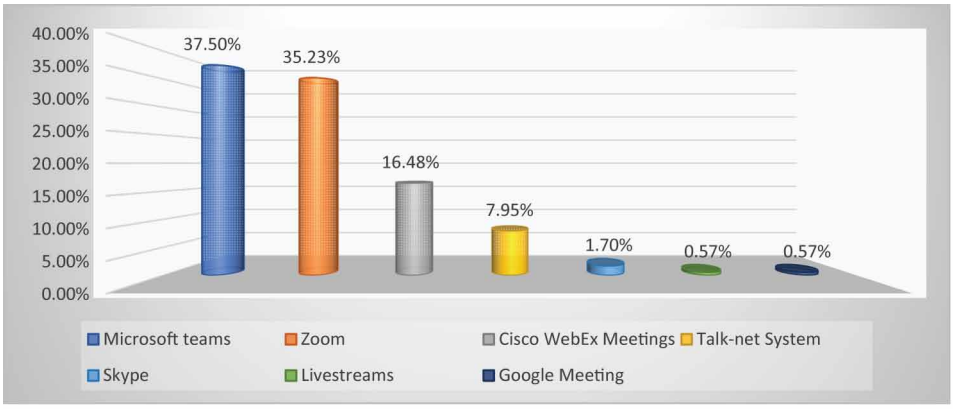
- Participant 1 lamented, "our organisation is a technological leader in Namibia, or that is who we are, the industry we find ourselves in makes extensive use of cutting-edge technologies. There is no way we could miss it."
- Participant 3 expressed, "we have made significant investments in technology. They (employees) should have faith (or have shown faith, let me put it that way) in technology and save their data in databases so that others may utilize it to improve organisational involvement via improved processes and cost savings."
- Participant 5 commented, "I would want to point out that increased online communication within our company translates into greater storage, communication skills, branding, service, and item value to customers. This means that we must seek proper groupings and finally retrieve the information. The advantages of our online statistics and information depend on how excellent information management is and looks like now, critical for our company."
- Participant 7 said, "most of our managerial decisions are discussed online, and these decisions are kept online per subdivision and specialty with specific people who have access to them."
- Participant 9 emphasised, "we do not have difficulty obtaining data because we create data per department or specialty. For example, for advertisements and marketing or for IT operations, based on available and valid data."
- Participant 8 added another dimension by mentioning that "we look for information by entering our requests into an online search window, which returns results quickly."
- Participant 11 said, "after reading about your research topic, the first thing I did was check our intranet, the key document centre for internet information and YouTube. I discovered a wealth of information (or what you call knowledge), but it needs restructuring. YouTube helped me to understand more organisational KM and systems."

The qualitative research findings have shed light on the various technologies employed to support KMS infrastructure for KM practices in MT companies in Namibia. These technologies include customer relationship management, learning management, customer and employee portals, and document management systems. Interestingly, MT companies conduct their training and learning online through KMS tools on the web, using either an intranet or the internet. This approach facilitates the company's sharing, transfer, and utilization of organizational knowledge. Furthermore, using electronic records management systems has been discussed, and some challenges have been identified. These challenges include issues related to data security, data privacy, and data accessibility. Despite these challenges, the benefits of electronic records management systems are significant, and they are widely used in MT companies in Namibia to manage their records efficiently and effectively. The following are selected responses made about the use of electronic records management systems and challenges faced:

- Participant 5 said, "our training are conducted online and face-to-face in the conference. Information or reports are stored in the online cloud, and we have a backup saver for this type of information."
- Participant 6 lamented, "with our online learning and training system, I occasionally feel like I am back in a lecture hall because it is so intensive, but we learn so much. It is similar to onboarding in that we are provided with electronic training materials, which I refer to frequently."
- Participant 7 stated, "we implemented a learning management system that is self-hosted online. Employees enrol in various courses, and following training, they are required to submit reports; these reports are stored online, and we occasionally hold information-sharing sessions. Our training is usually delivered online, and our training content is created and conducted by subject matter experts."
- Participant 9 stated, "we put in place systems that address online training, learning, and customers. Our system is responsive enough to customer assistance to speed up the delivery of the appropriate support to clients. Since all our call agents have the same data, clients appreciate our reliable networking regardless of whom they contact."
- Participant 11 lamented, "but you can still find that others still prefer paper, but most of the time we scan them (documents) and digitalize them for easy accessibility. It's a process that takes a little time to achieve in the organisation. In relation to your questions, I think it's important to have an information or knowledge creation and storage policy for a successful organisational KM."

The study reveals that Namibian MT companies use KMS tools to sustain knowledge. The qualitative findings indicate that these companies use KMS tools to implement effective KMS for KM practice. However, the study found that emails are often used for discussions and are stored in personal email account database files instead of workspaces. Email has been identified as a knowledge-sharing facilitator in Namibian MT companies. According to the quantitative findings, most respondents (71.6%) always use email as a tool for KMS, while 15.9% use it occasionally, and 27.8% are unsure. The study also aimed to determine whether KMS technologies offer multimedia conferences and brainstorming applications for KM practice in selected MT companies in Namibia. Respondents cited teleconferencing as a crucial application. The findings presented in Figure 6 provide insight into the usage of KMS solutions in the surveyed MT companies in Namibia. The most prevalent KMS technologies among the selected companies were Zoom, Microsoft Teams, and Cisco WebEx Meetings, with 33.14%, 37.71%, and 16.57% of respondents choosing these as their primary KMS solutions, respectively. In contrast, the surveyed companies did not use Google Hangouts, True-Conference Online, Skype, or YouTube Live as KMS technologies. The research findings shed light on the effective ways to utilize KMS infrastructure to improve operational efficiency through KM practices. This can help MT companies streamline their processes, enhance employee collaboration, and facilitate knowledge sharing, leading to improved performance and better decision-making.

Figure 6. Tools Used for Online Conference



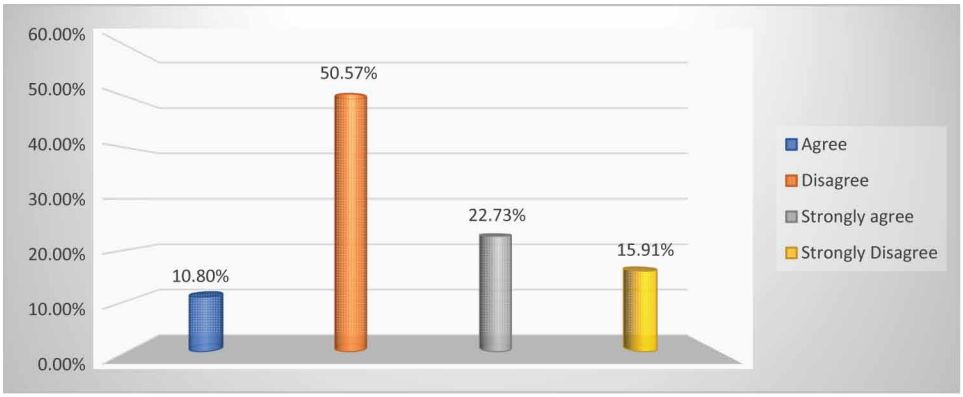
Note. $N = 176$

Amidst the COVID-19 pandemic, this study's findings show MT companies in Namibia had concerns regarding the future of online learning with their KMS infrastructure usage. The study's qualitative findings provide valuable insights into the companies' perspectives on the current popularity of online learning and KMS infrastructure usage. Participants were curious whether this trend will continue and how it will impact their online learning strategies. The study's results offer a glimpse into the challenges and opportunities for these companies in online learning. The findings suggest that the companies are actively seeking ways to adapt to the changing landscape of online learning and are looking for ways to ensure that their online learning programmes remain effective and efficient. The following selected responses are presented:

- Participant 6 said, "it has turned into the new normal that we have accepted to learn and train ourselves online."
- Participant 7 highlighted that "in the midst of the COVID-19 pandemic, who are we without communication tools such as Zoom, Microsoft Teams and Skype, to name a few. These are essential tools for, among other things, arranging or attending conferences, meetings, and carrying out our duties."
- Participant 8 stated, "because of the COVID-19 pandemic that has pushed us to work from home, online learning, or e-learning, enables us to construct customised training courses and lessons that take place while at home."
- Participant 7 further stated that "learning or training face-to-face is very important for us, in particular when dealing with system installation training as well as understanding fault findings on an installed system."

The study results indicate that 125 respondents (73.4%) strongly agreed and agreed that MT companies in Namibia lacked clear e-learning guidelines and instructions for KM practice from the perspective of KMS. Although two selected MT companies had ICT policies providing the technical and software infrastructure to support formal KM practice, they required a detailed outline of the KMS's creation, storage, capture, sharing, and dissemination processes for effective and efficient KM practice. This highlights the importance of involving users and management from the early stages of designing a KMS for KM practice within MT companies. Findings indicate that MT companies utilise OK portals and data warehouses as practical KM practice tools, primarily for managing

Figure 7. Time Allocation on KMS Training



Note. $N = 176$

financial records, data mining, groupware, and online communities. They are crucial enablers for these companies to enhance their KM practices and optimise their overall performance.

The study's quantitative findings indicate that 66.5% of the respondents strongly disagreed and disagreed that sufficient resources were allocated to train all department employees on KMS. Findings highlight the significance of providing comprehensive and targeted employee training to effectively implement KMS within the departments, necessitating adequate resources and a complete training plan to enhance employees' abilities and expertise. On the other hand, 33.5% of the respondents agreed or strongly agreed that enough resources were allocated for the training. Moreover, the findings also revealed that 43.8% of the respondents needed more time for KMS training. This suggests that employees may need additional time to learn and comprehend the KMS to use it effectively. This could include hands-on training sessions, online tutorials, and user online manuals. By doing so, the employees will be able to leverage the KMS infrastructure to its fullest extent, which will not only enhance their productivity but also improve the organisation's overall KM practices efficiently. However, 39.2% of the respondents disagreed with this statement, suggesting they felt enough time was given for the training. These findings highlight the need for organisations to allocate sufficient resources and time for training employees on KMS infrastructure to ensure that they can effectively use it to improve their work performance.

Senior Managers' Support for Knowledge Management System

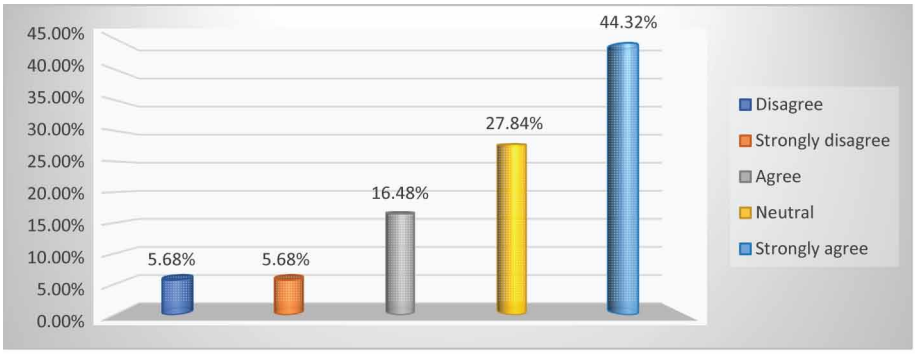
This section sought to understand senior managers' support for organisational KMS infrastructure. Results indicate that most of the respondents, 84.1%, strongly agreed and agreed that the management in selected MT companies provided the necessary infrastructure to support the improvement of KMS infrastructure. However, a small number of the respondents, 14.7%, strongly disagreed and disagreed with this statement, while only 1.14% remained neutral. Furthermore, the findings revealed that 80.1% of the respondents strongly agreed and agreed that the investment in information management systems for effective knowledge sharing depends on the senior management and employees support in selected MT companies. The central organisational repository, which includes online report sharing and online meetings, was identified as an excellent example of senior management's valuable assistance and help for organisational KMS in selected MT companies in Namibia. The following selected responses deserve special mention in relation to management support for the organisational KMS:

- Participant 5 claimed that "available or cutting-edge technologies enable us to streamline our ideas, link our knowledge, and enhance our continuous learning."
- Participant 2 stated, "our current information systems allow experienced workers to communicate their knowledge online in discussion or in writing, which may be recorded online for novice staff to view on our talk-net system."
- Participant 8 emphasised that "technology is an important entity in our company. Our organisation's activities rely heavily on information technology. Technology may be inventive enough since it delivers new changes, such as computers, which play a vital part in understanding what IT has to offer."
- Participant 9 stated, "high-tech tools are seen as accelerators and standard methods of organisational and documentation in our organisation. The use of technology to support documentation, among other things, is essential and unquestionable in our company."

Data presented in Figure 8 sheds light on the importance of management support for implementing a KMS infrastructure in an organisation. Findings point out that most of the respondents, 133 (75.6%), believed that senior management support for KMS infrastructure should include the development of an organisational KM strategy or review of the organisation's existing ICT policy to ensure successful KMS infrastructure for KM practice. This highlights management's critical role in promoting KMS as an essential aspect that induces learning in selected MT companies and encourages employees to view learning as a crucial aspect of stimulating innovation. The study also revealed that employees often might retire with expertise, so MT companies ought to prioritise knowledge capture through modern KMS infrastructure to avoid downtime and workforce shortages. Therefore, prioritising the development of a robust KMS infrastructure and ensuring that senior management is fully committed to supporting it is essential.

The survey results show that 137 (77.8%) respondents believe senior management should use connectivity technology tools to facilitate information access, promote innovation, and utilise knowledge through collaboration. KMS tools are used for online document management, videos, and decision-making systems. However, 39 (22.2%) respondents need clarification on best practices for maximising the effectiveness of KMS tools. Qualitative findings show that employees should understand the importance of proactively managing knowledge assets before using KMS tools for collaboration. This highlights the need for clear guidelines and training on KMS for Namibian MT companies. The following selected responses deserve special mention:

Figure 8. Improvement of Organisational KMS



Note. N = 176

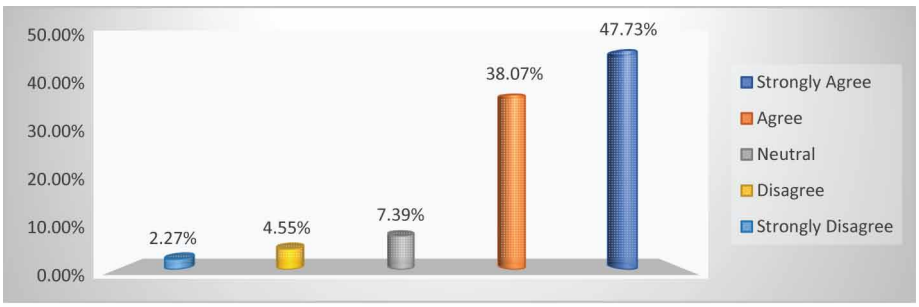
- Participant 4 commented, "this Company will continue to exist on technology. Indeed, we supply the newest technologies to our organisation, in Namibia. Hence, our adopted technology speaks to integrating issues of management of information with business processes and information systems as important elements. Furthermore, we continue to encourage employees to continuously use, share, reuse, and transfer data or information under our senior management commitment."
- Participant 7 said, "trust me, this organisation has a huge volume of data that is kept and organised utilising technology through semi-structuring and organizing content that is preserved in a number of diverse data forms."
- Participant 8 emphasised that "accessibility of internet, intranet, documents, or PDFs enable easy interaction and linkage with several file types. For example, the annotations generated in our PDF tagging programme are immediately connected in an organisation's dataset."
- Participant 9 said, "we have virtual teams, with different people from different departments. As a result, virtual workers have mechanisms in place to minimize different types of workflow interruption. Periodic responses are indeed an effective instrument for evaluating workplace performance and making appropriate amendments."

The findings presented in Figure 9 emphasize the importance of organizational KMS infrastructure in promoting teamwork. A significant majority of the respondents, 151 (86%), agreed that the use of such systems encourages collaboration and cooperation among team members. However, 12 (7%) respondents strongly disagreed with this assertion, while 13 (7.4%) remained neutral. These results suggest that organizational KMS can play a crucial role in fostering a culture of teamwork and collaboration within MT companies in Namibia.

The study reveals that 117 (66.5%) respondents believe their senior management is interested in implementing KMS, indicating a positive attitude towards enhancing organisational KM practices. However, only 59 respondents (33.5%) believe their managers are not interested in implementing KMS. This raises questions about the reasons behind the need for more interest in KMS among senior managers in Namibia's MT sector. Further investigation is needed to understand why senior management is less interested in KMS implementation, as management is crucial for its success. Qualitative results show that MT companies supported setting up and using KMS. The following qualitative answers were chosen from senior managers:

- Participant 4 indicated, "our available computer technology assists us in gaining access to various types of materials, communicating, or participating in activities. We are an engaging organisation that believes in cutting-edge information and communication technology."

Figure 9. KMS Encourage Teamwork



Note. N = 176

- Participant 6 acknowledged that "during this COVID-19 epidemic where employees and managers are required to work from home, we need to adapt to a new technological infrastructure to lead our office workers and organisational operations. In that situation, the company provided us with the required technological devices and software to fulfil business duties and tasks from home. This, I feel, results in the establishment and distribution of information inside our department."
- Participant 10 observed that "we store and encourage sharing of documents either online or in hard copy. From this vantage point, we develop ideas and innovate after reading those files and discussions. I believe it has aided in the growth of this organisation and, in particular, improved our performance."

The study's quantitative results indicate that employees must manage and share information in their organisation's repository more effectively despite senior management's encouragement. Findings reveal that employees have mixed opinions about senior management's current support for KM assets and acceptable sharing procedures, particularly online, as specific reports are challenging to analyse. The content on wiki sites could be more easily searchable, adding to employees' challenges. The qualitative findings highlight the need for more significant employee commitment in selected MT organisations to acquire and deposit organisational knowledge, exchange information, and solve problems. The study suggests that management should have involved employees in initiatives to share knowledge and implement organisational KMS infrastructure, as indicated by 112 respondents (63.6% of the quantitative findings). Despite the challenges, some participants (ranging from 1 to 11) reported encouraging their staff to store, share, and transmit organisational knowledge due to the potential benefits of excellent information and KM. These findings emphasise the importance of practical KM practices and the need for greater employee involvement and commitment in sharing and acquiring organisational knowledge. The following responses in the qualitative category are notable:

- Participant 3 noted, "although workers exchanged information in online databases, they relied on individual dialogue that is, approaching the right person who possessed pertinent acquired information, which they would be working towards."
- Participant 4 said that "without information or KM, the accessibility of pertinent, suitable expertise at the opportune moment is restricted or non-existent. So, in our organisation, information or data assets are deposited into the department database and website."
- Participant 8 stated, "I assumed we could utilise wikis or portals to collaborate and prevent communication problems. However, it has occasionally proven to be problematic. Occasionally, staff do not want to use them, and the material is weak, but it has improved since we began."

Qualitative findings show that an organisation's KMS significantly impacts employee performance. The study revealed that the senior management acknowledged the importance of developing and sharing organisational knowledge, particularly in the KMS, for enhancing understanding and employee performance. On the other hand, quantitative findings revealed that a significant number of respondents, 61 (34.7%), disagreed that a wide KMS improves employee performance. In contrast, most respondents, 115 (65.3%), agreed that having a broad KMS can improve employee performance. The study also highlighted that employee trust is a significant concern regarding knowledge sharing in some Namibian MT companies. Although motivation and reward systems for sharing tacit organisational knowledge were partially encouraged, the study suggests that further improvements are required. The study's findings underscore the importance of developing organisational knowledge and implementing effective KMS. By doing so, organisations can significantly enhance their employees' understanding of KMS's importance to employee performance. The selected qualitative responses received were as follows:

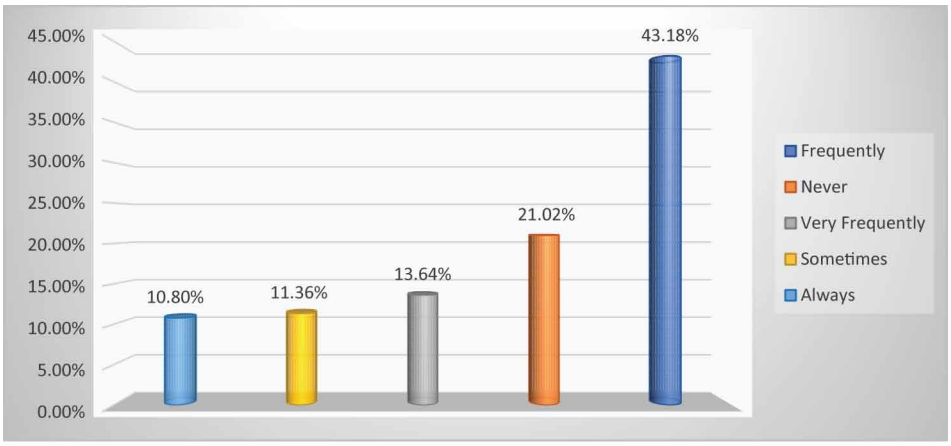
- Participant 1 emphasised, "we probably need to properly address KM concerns as it is important, as per this discussion, so that employees have access to information that will help them perform better."
- Participant 3 indicated that "they found that the personality component is the most important when it comes to information exchange."
- Participant 5 lamented that "there was no employee incentive programme in place. But we had it before. Maybe it's time to bring it back. But we encourage employees to put their ideas in the suggestion box, and even if they don't get paid for it, I always appreciate positive feedback from them."

Employees Perception of Knowledge Management System

The study sought respondents' insights on how Namibian MT companies utilise KMS for KM practices. Findings indicate that most of the respondents, 156 (88.5%), strongly agreed and agreed that the KMS encouraged organisational knowledge sharing and positively influenced workers' attitudes towards knowledge sharing. Among the respondents aged between 22 and 35 years, 135 (76.7%) agreed that an organisation's KMS should be designed to promote KM practices. In comparison, 102 (58%) female respondents rated their supervisors' system-use skills as excellent on use of KMS infrastructure. Findings also revealed that the organisational KMS for KM procedures is perceived to be provided consistently and efficiently.

The study explored how respondents stored data in three distinct iCloud structures (databases). The results show that 73 respondents (41.7%) were pleased with how they stored data, while 46 (26.3%) said they did so occasionally, 29 (16.6%) never, and 27 (15.3%) very rarely. Figure 10 shows that 76 respondents (43.1%) usually use department databases to store easily accessible information, . In comparison, 37 respondents (21%) had no opinion on the quality of KMS in selected MT companies in Namibia. The qualitative findings suggest that employee preferences, such as willingness to use social networking, limit employee attitudes toward using KMS in their organization. However, the qualitative participants cited required content on the systems and incentive and reward systems as factors that could facilitate a positive perception of utilising knowledge in the organisation's KMS. Encouraging KMS use through reward systems and relevant content can improve efficiency in MT companies, leading to enhanced data storage capabilities, improved performance, and increased profitability despite challenges in employee attitudes.

Figure 10. Utilisation of Department Databases



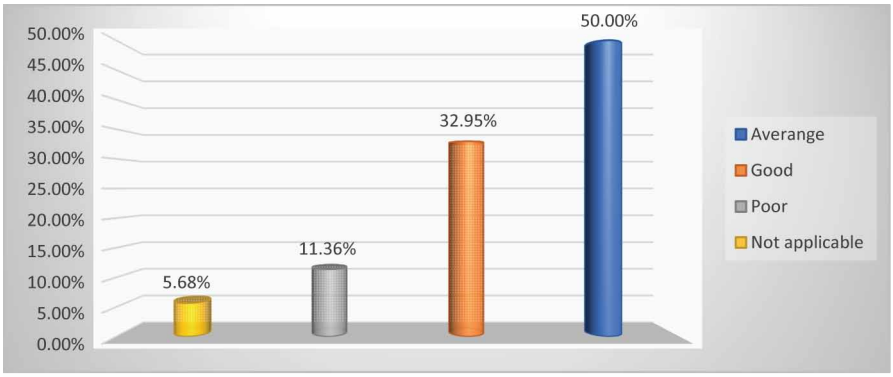
Note. N = 176

The study's quantitative findings revealed that most respondents, 97 (55.1%), believe that organisational knowledge from traditional sources such as repositories and internal and external experts is necessary. This indicates that these companies value the importance of KMS in their organizational structure. However, 39 (22.2%) of the companies disagreed with this statement, indicating they may prioritise KMS less than others. Meanwhile, 40 respondents (22.7%) remained neutral, suggesting they may not have a clear stance. The study also found that a significant number of respondents, 99 (56.3%), strongly agreed that trust was built to improve positive behaviour, promote network relations, foster good relationships, and mitigate conflicts and costs associated with implemented organizational KMS. This indicates that these employees recognize the importance of trust in building a positive work environment and promoting effective communication. However, 67 (38.1%) of the survey participants strongly disagreed with this statement, suggesting that they may not see the value in building trust in the workplace. Furthermore, the quantitative respondents were asked to rate how well they thought their supervisors could use the KMS. The results were almost evenly distributed, with 23 (50%) of the results rated as average, 58 (32.9%) as good, 20 (11.4%) as poor, and 10 (5.7%) as not applicable. This indicates that while some supervisors are proficient in using the systems, others may need more training or support to utilize them effectively. Figure 11 illustrates these results.

The results of the qualitative analysis indicate that the organisation's KMS faces several challenges that impede its practical use. These challenges include a need for more trust among employees, inadequate technology skills, and insufficient organisational motivation. The study also revealed a significant difference in trust levels between formal and informal online and in-person interactions. Employees tend to participate in formal online gatherings to exchange personal and organisational knowledge, indicating that the KMS is primarily used for temporary purposes rather than online idea exchange. These findings suggest that the organisation needs to address the trust issues among employees and provide them with the necessary technology skills and motivation to use the KMS effectively. Additionally, the organisation should promote informal online interactions to encourage idea exchange and foster a culture of knowledge sharing. In light of that, selected responses are important to note:

- Participant 5 said, "I have noticed that employees are much more reserved during online discussions compared to face-to-face."
- Participant 7 commented, "everyone should stress the importance of cultivating trust and strengthening coordination and collaboration."

Figure 11. Perception of Supervisors' Abilities to Use the KMS



Note. N = 176

- Participant 7 added, "you know what I mean? Trust is critical in everything in the organisation, and it positively influences from sharing information in group endeavours to everything in most parts of this organisation."
- Participant 10 elaborated, saying "we need to improve coordination and collaboration among employees and directorates to learn about each other's problems, which appear to prevent employees from trusting each other during online discussions. I believe that by doing so, we will assist each other in gaining knowledge, which will facilitate decision making."

The study reveals that employees actively involved in multiple stages of an organisation's infrastructure for a KMS tend to have a more favourable view of it. However, the study also highlights that a lack of trust among employees and insufficient organisational motivation to promote acceptable behaviour can hinder the successful implementation of a KMS. This suggests that MT companies need to understand the potential benefits of KMS better and promote it more effectively. MT companies must recognise the significance of understanding employees' perceptions throughout the development and implementation processes to ensure the successful adoption of KMS.

DISCUSSION OF FINDINGS

MT companies in Namibia have implemented advanced ICT infrastructure that fosters innovation and enhances employee performance. Employees of these companies describe the KMS infrastructure in glowing terms, highlighting its organisational repository and online decision-making concepts as its most significant strengths. The KMS infrastructure, which includes intranets, cloud databases, electronic reports, emails, and e-manuals, has the potential to improve employee performance and support organisational knowledge practices significantly if formalised with KM processes. These advanced tools assist in creating, storing, and sharing knowledge within the MT companies in Namibia, thereby promoting the overall growth of the business. Abualoush et al. (2018), Dlamini (2020) and Mohiuddin et al. (2022) suggested that modern technology not only facilitates cooperative learning but also has the potential to archive and retrieve information through databases designed for that purpose. This highlights the importance of an organisation's KMS, especially its infrastructure, in promoting employee satisfaction. Once these infrastructures are formalised, they could support organisational knowledge practices such as creation, capture, sharing, and storage in a collaborative environment and limit the challenges of data duplication.

Moreover, KMS infrastructure, such as multimedia conferences and online brainstorming applications, including teleconferencing, Zoom, Microsoft Teams, Cisco WebEx Meetings, Google Hangouts, True-Conference Online, Skype, and YouTube Live, enable employees to interact and acquire, share, and disseminate organisational knowledge more efficiently. This indicates that Namibia's MT companies recognise the economic advantages of KMS infrastructure for KM practices, which is essential in a knowledge-based society and the Fourth Industrial Revolution. However, the ineffective management of organisational KMS infrastructure in MT companies is a significant concern. In light of that, Shehata (2015) and Mohiuddin et al. (2022) asserted that the organisational KMS infrastructure is critical because it facilitates the capture, storage, and sharing of organisational knowledge, promoting organisational learning. Aviv et al. (2021) pointed out that incorporating real-time KM techniques into OK-intensive business processes would improve the efficiency of organisational KMS. Consequently, MT companies in Namibia could use KMS infrastructure to gain a competitive advantage through organisational KM practices. Tsetim et al. (2020) and Mzwinila et al. (2022) emphasised that organisational KMS capabilities are rooted in KMS infrastructure and processes that are rooted in a collaborative environment, taking into account the essential elements of technology, culture, and structure through implementation. Therefore, the effective management of KMS infrastructure is crucial for improving organisational performance and ensuring the long-term success of MT companies in Namibia.

According to the findings, all employees in the department have received training on KMS, but the time allocated for KMS training needed to be substantial. Heavin and Adam (2014) emphasised that a formal KM program can enhance employee capabilities, customer service, and decision-making. Razzaque et al. (2012) claimed that KM technologies, such as infrastructure, online databases, extranets, and intranets, are essential for creating a KM prerequisite environment, hence training is essential. Aviv et al. (2021) stated that KM at all stages bridges information silos among experts, allowing them to gain knowledge from each other and exchange experiences, avoid previous mistakes, collaborate across departments, eliminate medical errors, and communicate processes and viewpoints.. It is important to note that while selected MT companies have organisation-wide KMS infrastructure, senior management and employees must be educated/trained on the significance of organisational KM, mainly using KMS.

Senior management has shown support for improving KMS by investing in information management systems. The central organisational repository, which includes online report sharing and online meetings, is an example of senior management's valuable assistance and help for organisational KMS in selected MT companies in Namibia. KMS supports process management through online document management, videos, and decision-making systems. Mobile telecommunication companies in Namibia must use modern KMSs to harvest expertise from retired employees to avoid downtime and workforce deficiencies. Garcia-Sanches et al. (2017) suggested that top management support for organisational KMS has positive consequences for KM practices as it mediates mechanisms concerning top management support via ICT. Abualoush et al. (2018) and Agrawal and Mukti (2020) stated that organisational KMS should be implemented with an understanding centred on how senior managers should eliminate all potential barriers, especially knowledge creation and sharing, and promote collaboration and networking for knowledge transfer. Wolverton and Lanier (2019) pointed out that examining the macro-level in organisational KMS management decisions is based on a formal and informal linking structure, communication processes, and size. It is essential to note that using organisational KMS encourages teamwork, as top management provides the necessary resources and re-engineers the organisation's processes.

MT companies increasingly seek ways to enhance employee knowledge sharing in the present age of rapid technological advancements. Many organisations are implementing KMS infrastructure to achieve this goal. In MT companies, KMS ought to be seen as a tool that promotes a collaborative work culture by facilitating the sharing of knowledge and expertise among employees. It also provides a platform for improving the system-use skills of employees and supervisors through effective KM practices. By cultivating an environment that encourages knowledge sharing, the KMS within MT companies would grant employees the ability to generate novel ideas and solutions, fostering innovative practices and enhancing business outcomes. Through sharing management's knowledge with other managers and operational employees, trust can be established, leading to consistent use of efficient KMS for KM procedures. The architecture and culture of MT companies must encourage broad employee participation during implementation and use, creating opportunities for others to acquire and apply organisational knowledge. One way to encourage a workplace knowledge-sharing culture is to establish an environment that empowers employees to express their expertise and insights freely and confidently with their colleagues. This can involve implementing collaborative spaces, organising regular team meetings, and fostering an open-door policy encouraging communication and information exchange among all team members. By promoting a knowledge-sharing culture, organisations can leverage their employees' collective knowledge and skills to foster innovation, enhance productivity, and attain organisational objectives. Notably, employees have expressed satisfaction with the data storage capabilities of three distinct iCloud structures. However, their willingness to use social networking may influence their perception of adopting a KMS. In order to address this particular challenge, it is recommended that content and incentive systems be implemented to promote trust in the KMS. These measures can be crucial in establishing sound relationships, mitigating potential conflicts, and reducing the costs associated with implementing an organisational KMS.

The use of KMS infrastructure by senior management in Namibian telecommunications companies is a positive development. However, the successful implementation of KMS infrastructure is beset by several challenges, including employee mistrust, inadequate technology skills, and lack of motivation to use the system. Management must address these critical challenges to ensure that KMS infrastructure is successfully integrated into the companies mentioned above. It should be noted that levels of trust vary between online and in-person interactions. Therefore, cultivating positive employee perceptions and attitudes towards KMS is crucial in overcoming this challenge in MT companies in Namibia. This can be achieved by creating a user-friendly, controllable, engaging, and interactive experience that promotes positive behaviour and network relations. The efficacy of KMS infrastructure also depends on its ability to satisfy employee needs and preferences. It is vital to note that employees primarily attend formal online gatherings for temporary knowledge exchange. Subsequently, KMS must be tailored to their requirements to foster a positive attitude towards organisational knowledge. In that light, KMS infrastructure must be critical in promoting KM practices in Namibian MT companies and fostering positive attitudes and organisational knowledge. By addressing the challenges confronting KMS infrastructure, senior management's negative employee perception towards KMS infrastructure can guarantee its success and enhance the efficiency of their business operations and KM practices.

CONCLUSION

The research study investigated the state of KMS infrastructure in mobile telecommunication companies operating in Namibia. The study's findings indicate that the current KMS infrastructure needs to be improved and only partially supports KMS practices. To achieve effective and efficient KMS practices, the study concludes that infrastructure, management support, and employee participation are crucial components for a successful KMS implementation. However, several challenges were identified that hinder the KMS procedures in KM practice. These include duplicate online documents, data security and privacy, data accessibility, inadequate technology skills, and insufficient organisational motivation. The study also highlights some promising opportunities for these companies in online learning. However, the research indicates that the content on wiki sites could be more easily searchable, adding to employees' challenges, and more trust among employees is required to encourage participation. The study underscores the need for companies to maintain a robust and reliable KMS infrastructure that supports effective knowledge sharing. This will require companies to invest in the necessary infrastructure, provide management support, and encourage employee participation to implement KMS practices successfully.

RECOMMENDATIONS

To this end, it is imperative that MT companies formalise KMS infrastructure and management, encourage participation, deal with issues of motivation and trust, and provide e-learning opportunities. In the context of MT, companies should develop a KM strategy, which is of the utmost importance, as it plays a pivotal role in shaping workers' attitudes towards sharing information. This includes incentivising platform content, reward systems, and social networking, as well as fostering a positive employee attitude towards KM practices. KMS infrastructure should be equipped with knowledge identification tools for accessing information from traditional sources such as repositories, internal and external experts, and community practices. Therefore, the infrastructure should comprise structures and social arrangements that enable participants to learn and collaborate with an online community of practice, both informally and formally. The study underscores the need for selected MT companies to develop organisational KM infrastructure that maintains substantial and valuable tacit and explicit knowledge in the corporate network. To achieve this, the top management of these companies should establish a support structure through champions to educate and motivate staff members about the advantages of organisational KM use. Moreover, MT companies should strive

to foster positive employee attitudes towards organisational KM to encourage desirable behaviour, build network linkages, and facilitate pleasant interactions associated with KMS deployment. MT companies should integrate real-time knowledge procedures into the operational flow to improve KM infrastructures. Thus, the seamless flow of information within the organisation is ensured, and the company can leverage its vast pool of knowledge to gain a competitive edge in the marketplace.

IMPLICATION OF THIS STUDY FOR THEORY, POLICY, AND PRACTICE

The study provides valuable insights into KM theory, policy, and practice, particularly for Namibia's Vision 2030. It suggests that organisations and policymakers in the mobile telecommunications industry can successfully implement efficient KMS practices. The success of such implementation depends on three critical factors: infrastructure, employee attitudes, and manager support. The research findings are in alignment with the Technology, Organization, and Environment (TOE) framework, which highlights the significance of information, responsiveness to fluctuations, and collaboration in KMS implementation processes. This framework is widely recognised as a comprehensive approach to understanding the key factors that impact the success of KMS implementation for a successful KM practice. The emphasis on information underscores the importance of having a well-organised and structured knowledge repository. At the same time, responsiveness to fluctuations highlights the need for KMS to be adaptable to changing business environments. Collaboration is critical as it facilitates knowledge sharing and cross-functional learning within organisations like MT companies in Namibia. Therefore, organisations that adopt the TOE framework as a guide for KMS implementation can leverage these factors to improve their knowledge-sharing capabilities and enhance their overall performance using KMS infrastructure. Adequate KMS infrastructure requires KM policies that capture, store, identify, and share organisational knowledge and practices.

However, Namibia's KM discourse and practical applications require more attention to ensure successful implementation. Investing in robust and reliable infrastructure is crucial for the successful adoption and eventual success of KMS for KM practices. A well-structured KMS infrastructure can promote a positive workplace culture and engender favourable employee attitudes towards organisational KMS. KMS can significantly enhance an organisation's KM practices, increasing employee productivity and competitiveness. The study holds significance in creating a supportive environment that encourages employees to use KMS and integrate it into their daily work routines. Managers are crucial in creating a supportive culture that encourages the adoption and effective use of KMS. The study's findings hold importance for both the academic and business community, as it provides an in-depth and comprehensive analysis of the current state of the MT sector. The study's findings will aid in developing an effective KMS infrastructure strategy, which can help organisations improve their KM practice and overall operations. Additionally, the study will contribute significantly to the knowledge of KM practices in Namibia's MT industry, thereby guiding businesses in adopting the most effective KM practices to enhance their productivity and efficiency.

Limitation of the Study

The main objective of this research was to investigate how KMS infrastructure in the MT companies in Namibia. The study focused on two MT companies in Namibia, and results may only apply to some companies in the same industry due to different circumstances. The study aimed to provide an understanding of the infrastructure of these companies' KMS and did not establish any relationships between the infrastructure and other variables. The absence constitutes a limitation that must be considered while interpreting the findings. Furthermore, this finding opens an avenue for future research in the field, where connections will be examined in-depth. Despite this limitation, the study offers insights into the factors influencing KMS infrastructure for KM practices in Namibian MT companies.

Although causality was not determined, this study still contributes significantly to theory and practice in the field. Case studies may lead to theory building if more studies are conducted to understand the phenomenon. The current study examined the "how" and "why" behind events, which identified patterns and relationships that may be the basis of testing theories as suggested by Ridder (2017). The use of several case studies can lead to more reliable, generalizable, and testable hypotheses when systematic comparison is performed to identify similarities and differences that impact findings (Eisenhardt & Graebner, 2010). In that light, it is recommended that these findings be considered alongside research on KMS within the MT companies for a comprehensive understanding and as a basis for theory development.

Ethical Considerations

The primary author of this research work complied with all ethical standards, including obtaining an Ethical Clearance Form with DIS Registration numbers Rec-20200724 and 2020-DIS-0021 from the Ethics Review Committee of the University of South Africa (UNISA) before commencing the research. The participants from the selected mobile telecommunications companies provided informed consent to preserve their anonymity, privacy, and confidentiality during the research. Participants had the autonomy to withdraw from the study without providing a rationale for their decision. The data utilized for this research formed a vital component of a more extensive doctoral project submitted to the University of South Africa (UNISA).

CREDIT AUTHORSHIP CONTRIBUTION STATEMENT

Mishake M. Mubuyaeta contributed to the project by providing valuable input during the ideation phase, assisting with the methodology development software tools, curating data, drafting the initial manuscript, and finalizing the manuscript. Patrick Ngulube, on the other hand, oversaw the supervision of the entire project and reviewed and refined the manuscript, resulting in a polished and comprehensive final product.

DECLARATION OF COMPETING INTEREST

The authors of this paper affirm that they have no conflicts of interest pertaining to this study, its writing, publishing, or personal relationships that could have exerted any undue influence upon the work.

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