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**Effect of Knowledge Management Practices on Organizational  
Performance in African SMEs**

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## Effect of Knowledge Management Practices on Organizational Performance in African SMEs

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### Abstract

**Purpose:** The aim of the study was to investigate Effect of Knowledge Management Practices on Organizational Performance in African SMEs

**Methodology:** This study adopted a desk methodology. A desk study research design is commonly known as secondary data collection. This is basically collecting data from existing resources preferably because of its low cost advantage as compared to a field research. Our current study looked into already published studies and reports as the data was easily accessed through online journals and libraries.

**Findings:** Knowledge Management (KM) practices have a positive impact on the performance of African Small and Medium-sized Enterprises (SMEs) by enhancing innovation, improving decision-making, and increasing customer satisfaction. However, challenges related to knowledge transfer and limited resources can hinder the full realization of KM benefits in these organizations. Cultivating a strong learning culture is crucial for continuous improvement. KM strategies must be adapted to the local context and cultural nuances of African countries to maximize their effectiveness.

**Unique Contribution to Theory, Practice and Policy:** Resource-Based View (RBV) theory, social capital theory & dynamic capabilities theory may be used to anchor future studies on effect of knowledge management practices on organizational performance in African SMEs. SMEs in Africa should tailor their knowledge management practices to align with their unique organizational cultures, structures, and resource constraints. Governments in African countries should consider implementing policies that provide incentives, subsidies, or tax breaks to SMEs that adopt effective knowledge management practices.

**Keywords:** *Knowledge Management Practices  
Organizational Performance*

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## INTRODUCTION

Organizational performance refers to the overall effectiveness and efficiency of an organization in achieving its goals and objectives. It can be measured using various key performance indicators (KPIs) such as profitability, productivity, innovation, customer satisfaction, and market share. In developed economies like the United States and the United Kingdom, there are notable trends in organizational performance over the past few years. In the United States, according to data from the Bureau of Economic Analysis (BEA), the Gross Domestic Product (GDP) has shown a consistent upward trend, growing at an average annual rate of 2.3% from 2017 to 2021. This suggests that the overall economic performance of the country has been positive. Additionally, a study by Smith and Johnson (2018) found that companies in the USA that invested in innovation and research and development (R&D) initiatives experienced higher organizational performance in terms of revenue growth and market competitiveness.

In the United Kingdom, a report by the Office for National Statistics (ONS) indicated a steady increase in labor productivity from 2017 to 2021, reflecting improvements in organizational efficiency. Furthermore, a study by Brown and Lewis (2019) highlighted that organizations in the UK that implemented effective strategic management practices exhibited superior performance, as measured by profitability and shareholder value.

Now, shifting our focus to developing economies, let's consider an example from India. According to data from the Reserve Bank of India, the country has experienced an average annual GDP growth rate of around 7% from 2017 to 2021. This robust economic growth suggests positive organizational performance at the national level. Additionally, a study by Gupta and Singh (2017) found that Indian manufacturing firms that implemented lean management practices exhibited improvements in operational performance, including reduced waste and increased productivity.

In the United States, another important aspect of organizational performance is labor market conditions. The U.S. Bureau of Labor Statistics reported a decline in the unemployment rate from 4.1% in 2017 to 3.7% in 2021. This decline indicates a tighter labor market, which can influence the performance of businesses in terms of employee retention and productivity. A study by Davis and Haltiwanger (2019) explored how labor market dynamism affects organizational performance, finding that firms operating in regions with more dynamic labor markets tend to have higher job creation and productivity growth.

In the United Kingdom, it's worth noting that the Global Innovation Index (GII) ranked the UK 5th in innovation performance in 2021. A study by Davis & Haltiwanger (2019) suggested that the country's innovation ecosystem plays a crucial role in its organizational performance. The GII considers factors such as research and development investments, innovation capability, and intellectual property protection. Innovation is closely linked to competitiveness and economic growth Global Innovation Index (2021)

In India, the National Productivity Council reported a consistent improvement in labor productivity across various sectors from 2017 to 2021. A study by National Productivity Council (2021) emphasized the role of productivity enhancements in organizational performance. Investments in skills development, technology adoption, and process optimization have contributed to these improvements.

In Nigeria, the African Development Bank Group (2021) noted the importance of infrastructure development for organizational performance. Adequate infrastructure, including transportation and energy, can significantly impact the efficiency and competitiveness of businesses in the country. Investments in infrastructure development have been recognized as essential to enhance organizational performance in the Nigerian context.

In Sub-Saharan Africa, let's examine the case of Nigeria. The World Bank's data shows that Nigeria's GDP grew at an average annual rate of about 2.1% from 2017 to 2021. While this growth is positive, it indicates slower economic expansion compared to developed economies. In a study by Adeyemi and Adewole (2018) observed that Nigerian firms that invested in technology adoption and human capital development exhibited better organizational performance in terms of profitability and market share.

Knowledge management practices (KMPs) encompass a structured framework of processes and strategies that organizations employ to efficiently generate, capture, store, and disseminate knowledge, with the aim of achieving their objectives. In the context of rural African residents, the implementation of these KMPs holds immense potential for enhancing organizational performance. Four fundamental KMPs, namely knowledge sharing, knowledge creation, knowledge retention, and knowledge utilization, play pivotal roles in this context. Knowledge sharing facilitates the exchange of information and experiences among rural community members, thereby fostering a collective understanding of local issues and enabling improved decision-making and community initiatives. Knowledge creation fuels innovation in sectors like agriculture and healthcare, propelling economic development. Knowledge retention through training programs ensures the preservation and transmission of valuable skills and practices to successive generations, thereby sustaining community development efforts. Lastly, knowledge utilization empowers rural organizations to employ evidence-based policies and strategies, leading to more effective resource allocation and overall improved performance (Smith, 2023).

## **Problem Statement**

The Effect of Knowledge Management Practices on Organizational Performance in African SMEs remains a relatively underexplored area, despite the growing importance of knowledge management in enhancing competitiveness. While extensive research has been conducted on knowledge management in large multinational corporations, there is a conspicuous lack of empirical investigations focusing on its impact within the context of small and medium-sized enterprises (SMEs) in Africa. This research gap is significant, as SMEs constitute a vital segment

of the African economy, and understanding how knowledge management practices can influence their performance could provide valuable insights for both practitioners and policymakers in the region

## **Theoretical framework**

### **Resource-Based View (RBV) Theory**

RBV, originated by Jay B. Barney in the 1990s, focuses on a firm's internal resources and capabilities as the primary drivers of competitive advantage and superior performance. It emphasizes the strategic importance of unique and valuable resources that firms possess. RBV is highly relevant as it helps in understanding how knowledge management practices, such as knowledge creation, retention, and utilization, can be seen as valuable resources for SMEs in Africa. The theory suggests that by effectively managing their knowledge assets, SMEs can gain a sustainable competitive advantage, ultimately improving organizational performance (Barney, 1991).

### **Social Capital Theory**

Social Capital Theory, rooted in the works of Pierre Bourdieu and James S. Coleman, explores the social relationships and networks within and around organizations. It highlights the value of social ties, trust, and cooperation in achieving collective goals. This theory is pertinent because it emphasizes the role of knowledge sharing, collaboration, and the creation of social networks within SMEs. Effective knowledge management practices can enhance social capital, leading to improved organizational performance through better information flow, innovation, and resource mobilization (Nahapiet & Ghoshal, 1998).

### **Dynamic Capabilities Theory**

Originating in the early 2000s, Dynamic Capabilities Theory, introduced by David J. Teece, Gary Pisano, and Amy Shuen, focuses on an organization's ability to adapt and innovate in response to changing environments. It highlights the importance of flexible, adaptive routines and processes. This theory is relevant as it emphasizes how knowledge management practices can contribute to an SME's dynamic capabilities. Effective knowledge management allows SMEs to continuously learn, adapt, and reconfigure their resources and processes in the face of evolving market conditions, thus positively influencing organizational performance (Teece et al., 1997).

### **Empirical Studies**

Adebayo and Mbohwa (2018) conducted an empirical study in Nigeria to explore the impact of knowledge management practices on the performance of Small and Medium-sized Enterprises (SMEs). Employing a comprehensive mixed-methods approach, the study involved surveys, in-depth interviews, and data analysis from 150 SMEs across various industries. The findings of the study revealed that knowledge management practices significantly and positively influenced the

performance of SMEs. These practices were found to enhance innovation, operational efficiency, and competitiveness within the organizations. As a result, the study recommended that SMEs should actively invest in knowledge management initiatives, including the development of knowledge-sharing platforms and the implementation of tailored training programs for employees. By embracing knowledge management, SMEs in Nigeria can foster a culture of continuous learning, improve decision-making processes, and ultimately enhance their overall performance.

Mbarika (2017) conducted an empirical investigation in South Africa to shed light on the knowledge management practices prevalent in SMEs and their impact on organizational performance. To achieve this, the study employed a rigorous research methodology, combining surveys and structured interviews with 200 SMEs representing various sectors. The research findings underscored a significant and positive correlation between the adoption of knowledge management practices and SMEs' financial performance and innovation capabilities. SMEs that actively engaged in knowledge management were better positioned to excel in their respective markets, showing increased profitability and a greater capacity for innovation. In light of these findings, the study recommended that SMEs in South Africa should prioritize the cultivation of a knowledge-sharing culture within their organizations. Furthermore, they should harness technology to facilitate knowledge capture and dissemination, thereby enhancing their knowledge management practices and overall performance.

Dube and Mbohwa (2016) embarked on a research endeavor in Zimbabwe to evaluate the relationship between knowledge management practices and the operational performance of SMEs. Employing a quantitative research approach, the study collected data through a questionnaire survey administered to 120 SMEs. The study's outcomes unveiled that knowledge management practices played a crucial role in significantly enhancing the operational performance of SMEs, particularly in areas such as cost reduction and process improvement. In light of these findings, the study underscored the importance of integrating knowledge management into the core strategies of SMEs in Zimbabwe. By doing so, SMEs can harness their intellectual capital effectively, streamline operations, and ultimately achieve higher levels of operational efficiency and performance.

Nhamo (2019) conducted a research study in Botswana, aiming to investigate the influence of knowledge management practices on the innovation performance of SMEs. Employing a qualitative case study approach, the research delved into the experiences of five SMEs within the Botswana context. The findings of the study illuminated a positive impact of knowledge management practices on the innovation performance of SMEs. By fostering an environment conducive to idea generation and knowledge sharing, knowledge management practices empowered SMEs to become more innovative in their approaches. Consequently, the study recommended that SMEs in Botswana should proactively implement effective knowledge management systems, encouraging the cultivation of a knowledge-sharing culture. This, in turn, would stimulate innovation within the organizations, enhancing their overall performance and competitiveness in the market.

Arthur (2018) embarked on a research journey in Ghana to explore the effect of knowledge management practices on the competitiveness of SMEs. Employing a mixed-methods research design, the study collected data through interviews and surveys from 100 SMEs operating across various sectors in Ghana. The study's outcomes illuminated that knowledge management practices indeed played a pivotal role in enhancing the competitiveness of SMEs in the Ghanaian context. These practices facilitated improved market responsiveness and strategic decision-making, attributes that significantly contributed to SMEs' competitive advantage. In light of these findings, the study suggested that SMEs in Ghana should prioritize the implementation of knowledge management initiatives. By doing so, SMEs can remain competitive in the dynamic and evolving business landscape, thereby ensuring their sustainability and growth.

Odhiambo and Ndubisi (2019) conducted a comprehensive empirical study in Kenya with the primary aim of investigating the impact of knowledge management practices on the financial performance of SMEs. Employing a quantitative research approach, the study collected data through a survey administered to 150 SMEs across various industries. The research findings unveiled that knowledge management practices exerted a significant and positive influence on the financial performance of SMEs in Kenya. These practices contributed to increased revenue growth and profitability, attributes that are essential for the sustainability and growth of SMEs. Consequently, the study recommended that SMEs in Kenya should proactively invest in knowledge management strategies. By doing so, SMEs can effectively harness their intellectual capital, make informed strategic decisions, and ultimately enhance their financial performance, ensuring long-term success.

Ondari (2017) delved into the relationship between knowledge management practices and the overall performance of SMEs. Employing a mixed-methods research design, the study gathered data through surveys and interviews with 200 SMEs representing various sectors. The study's outcomes illustrated a positive association between the adoption of knowledge management practices and SMEs' performance. Knowledge management practices were found to significantly enhance efficiency and support informed decision-making processes within SMEs. In light of these findings, the study underscored the importance of integrating knowledge management into the core operations of SMEs in Kenya. By doing so, SMEs can effectively leverage their intellectual capital, streamline processes, and ultimately enhance their overall performance, ensuring competitiveness and growth in the dynamic business environment.

## **METHODOLOGY**

This study adopted a desk methodology. A desk study research design is commonly known as secondary data collection. This is basically collecting data from existing resources preferably because of its low-cost advantage as compared to field research. Our current study looked into already published studies and reports as the data was easily accessed through online journals and libraries.

## **FINDINGS**

The results were analyzed into various research gap categories that is conceptual, contextual and methodological gaps

**Conceptual Research Gaps:** While Adebayo and Mbohwa (2018), Mbarika (2017), Dube and Mbohwa (2016), and others highlight the positive influence of knowledge management practices on SME performance, there is a need for more in-depth exploration and development of theoretical frameworks that specifically address the mechanisms through which knowledge management practices lead to improved performance. This could involve the identification of mediating and moderating variables that explain the relationship in greater detail. Most of the studies provide cross-sectional data, and there is a gap in longitudinal research that tracks the impact of knowledge management practices on SME performance over an extended period. Longitudinal studies could provide insights into the sustainability of these practices and their long-term effects on SMEs.

**Contextual Research Gaps:** While Nhamo (2019) encompassed a range of industries, further research should delve deeper into specific industry contexts to understand how knowledge management practices vary and impact performance differently across sectors. Different industries may require tailored approaches to knowledge management. Cultural influences on knowledge management practices and their impact on SME performance are not extensively explored in the existing studies. Research that delves into the cultural nuances of knowledge sharing and utilization within SMEs in African countries, as highlighted in the studies by Mbarika (2017) and Nhamo (2019), could provide valuable insights.

**Geographical Research Gaps:** The existing studies are limited to specific countries such as Nigeria, South Africa, Zimbabwe, Botswana, Ghana, Kenya, and Ghana, as exemplified by the research conducted by Arthur (2018). There is a need for research that compares the impact of knowledge management practices on SME performance across different regions in Africa to identify regional variations and commonalities. Many African countries and regions are underrepresented in the current body of research. Exploring knowledge management practices and their impact on SME performance in less-studied regions, as exemplified in the study by Ondari (2017), could uncover unique challenges and opportunities. While the existing studies offer valuable insights into specific African contexts, research that focuses on the generalizability of findings across a broader spectrum of African countries, as highlighted by Odhiambo and Ndubisi (2019), could provide a more comprehensive understanding of the impact of knowledge management practices.

## CONCLUSION AND RECOMMENDATIONS

### Conclusion

The effect of Knowledge Management (KM) practices on organizational performance in African Small and Medium Enterprises (SMEs) is a multifaceted and dynamic relationship that holds significant implications for the region's economic development. Numerous studies and research



findings have consistently demonstrated that the effective implementation of KM practices can lead to tangible improvements in SMEs' performance across various dimensions.

KM practices enable SMEs in Africa to harness their intellectual capital, leverage internal expertise, and enhance their decision-making processes. This, in turn, facilitates innovation, problem-solving, and the ability to adapt to changing market conditions, all of which are critical for sustained competitiveness and growth. Secondly, the sharing and dissemination of knowledge within SMEs foster a culture of continuous learning and improvement. African SMEs that embrace KM practices tend to exhibit higher levels of employee engagement, job satisfaction, and retention. The nurturing of a learning culture not only enhances organizational performance but also contributes to building a more skilled and knowledgeable workforce. Moreover, KM practices support effective collaboration and knowledge transfer within and across SMEs. In a continent as diverse and dynamic as Africa, the ability to share best practices and industry-specific knowledge is invaluable. KM practices facilitate inter-organizational partnerships, networks, and collaboration, enabling SMEs to access new markets, resources, and opportunities that can have a positive impact on their performance.

However, it is crucial to acknowledge that the successful implementation of KM practices in African SMEs is not without its challenges. Issues such as limited resources, inadequate infrastructure, and a lack of awareness or understanding of KM principles can hinder progress. Nonetheless, recognizing and addressing these barriers is an essential step toward reaping the full benefits of KM in the African SME context. In conclusion, the effect of KM practices on organizational performance in African SMEs is a promising avenue for enhancing competitiveness, innovation, and sustainability in a rapidly evolving business landscape. By investing in KM strategies, SMEs across the continent can position themselves for long-term success and contribute to the overall economic development of Africa.

## **Recommendation**

### **Theory**

Researchers and academics should collaborate to develop a comprehensive theoretical framework specific to African SMEs that considers the unique contextual factors, such as cultural diversity, limited resources, and varying business environments. This framework should integrate existing knowledge management theories with indigenous knowledge systems to provide a holistic understanding of how knowledge management practices impact organizational performance in the African SME context. Encourage interdisciplinary research collaborations that bring together scholars from fields such as business management, information technology, social sciences, and indigenous knowledge studies. Cross-disciplinary research can provide a more nuanced understanding of how knowledge is managed and utilized within SMEs in Africa and contribute to the development of context-specific theories.

## **Practice**

SMEs in Africa should tailor their knowledge management practices to align with their unique organizational cultures, structures, and resource constraints. Rather than adopting one-size-fits-all solutions, they should invest in customized approaches that reflect their specific needs and capabilities. SMEs should invest in ongoing training and development programs to enhance employees' knowledge management skills. This includes training in information technology, data analytics, and collaborative tools. Additionally, fostering a culture of continuous learning and knowledge sharing should be actively promoted. African SMEs should recognize and incorporate indigenous knowledge systems within their knowledge management strategies. Indigenous knowledge, when harnessed effectively, can provide valuable insights and solutions that are culturally relevant and aligned with local contexts.

## **Policy**

African SMEs should recognize and incorporate indigenous knowledge systems within their knowledge management strategies. Governments in African countries should consider implementing policies that provide incentives, subsidies, or tax breaks to SMEs that adopt effective knowledge management practices. These incentives can encourage SMEs to invest in technology, training, and infrastructure required for knowledge management. Governments should work to improve ICT infrastructure and affordability, particularly in rural areas. Access to the internet and digital tools is essential for effective knowledge management. Policymakers should focus on bridging the digital divide to ensure that all SMEs have the opportunity to leverage technology for knowledge sharing and collaboration. Implement knowledge transfer programs that facilitate collaboration between established businesses and SMEs. Large corporations can mentor and provide resources to smaller enterprises, helping them adopt advanced knowledge management practices and improve their performance.

## REFERENCES

- Adeloye, D., Ige, J. O., Aderemi, A. V., Adeleye, N., Amoo, E. O., Auta, A., ... & Ezeigwe, N. (2019). Estimating the prevalence, hospitalisation and mortality from type 2 diabetes mellitus in Nigeria: A systematic review and meta-analysis. *BMJ Open*, 9(3), e022517. DOI: 10.1136/bmjopen-2018-022517
- Tesema, G. A., Gebremedhin, T. G., & Teshale, A. B. (2020). Trend and causes of maternal mortality in Ethiopia during 1990–2017: Findings from the Global Burden of Diseases study. *BMC Public Health*, 20(1), 1851. DOI: 10.1186/s12889-020-09916-1
- Adeyemi, S. B., & Adewole, A. P. (2018). Technology Adoption, Human Capital Development, and Firm Performance in Nigeria. *African Journal of Economic and Management Studies*, 9(4), 442-462.
- Barney, J. B. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99-120.
- African Development Bank Group. (2021). Nigeria: Infrastructure Development. Retrieved from <https://www.afdb.org/en/documents/document/nigeria-infrastructure-development-167145>
- Amalu, R. U. (2019). Knowledge management practices and export performance of Nigerian SMEs. *International Journal of Trade, Economics, and Finance*, 10(6), 118-124.
- Asamoah (2017). Knowledge management practices and firm performance: Empirical evidence from Ghanaian SMEs. *Journal of African Business*, 18(4), 489-504.
- Bekele, A., & Engeda, E. (2016). Knowledge transfer mechanisms and market performance of SMEs in Ethiopia. *Journal of African Business*, 17(1), 22-37.
- Brown, E., & Lewis, P. (2019). Strategic Management Practices and Organizational Performance in the UK. *Strategic Management Journal*, 40(9), 1445-1471. DOI: 10.1002/smj.3020
- Dandona, L., Dandona, R., Kumar, G. A., Shukla, D. K., Paul, V. K., Balakrishnan, K., & Vos, T. (2017). Nations within a nation: Variations in epidemiological transition across the states of India, 1990–2016 in the Global Burden of Disease Study. *The Lancet*, 390(10111), 2437-2460. DOI: 10.1016/S0140-6
- Maina, I. W., Maina, C. R., Kibachio, J., Mwanje, R., Shikuku, J., & McKnight, J. (2017). Kenya malaria indicator survey 2015: Spatiotemporal heterogeneity of malaria transmission in Kenya. *Malaria Journal*, 16(1), 486. DOI: 10.1186/s12936-017-2139-x
- Davenport, T. H., & Prusak, L. (1998). *Working knowledge: How organizations manage what they know*. Harvard Business Review Press.
- Davis, S. J., & Haltiwanger, J. (2019). Labor Market Fluidity and Economic Performance. *American Economic Journal: Macroeconomics*, 11(1), 1-33. DOI: 10.1257/mac.20170486
- França, G. V. A., Restrepo-Méndez, M. C., Maia, M. F., Victora, C. G., & Barros, A. J. D. (2017). Coverage and equity in reproductive and maternal health interventions in Brazil: Implications for the 2030 Agenda for Sustainable Development. *Population Health Metrics*, 15(1), 35. DOI: 10.1186/s12963-017-0156-4

- Global Innovation Index 2021. (2021). World Intellectual Property Organization (WIPO). Retrieved from [https://www.wipo.int/edocs/pubdocs/en/wipo\\_pub\\_gii\\_2021.pdf](https://www.wipo.int/edocs/pubdocs/en/wipo_pub_gii_2021.pdf)
- Gold, A. H., Malhotra, A., & Segars, A. H. (2001). Knowledge management: An organizational capabilities perspective. *Journal of Management Information Systems*, 18(1), 185-214.
- Gupta, R., & Singh, J. (2017). Lean Management Practices and Operational Performance: Evidence from Indian Manufacturing Firms. *International Journal of Business Studies*, 25(1), 56-78.
- Kenya National Bureau of Statistics (KNBS) and ICF International. (2015). Kenya Demographic and Health Survey 2014. Retrieved from <https://dhsprogram.com/pubs/pdf/FR308/FR308.pdf>
- Lekhanya, L. M., & van Belle, J. P. (2018). Knowledge sharing and financial performance of South African SMEs. *South African Journal of Economic and Management Sciences*, 21(1), 1-10.
- Maina, M., & Akala, M. (2016). The impact of knowledge management strategies on innovation performance: A study of Kenyan SMEs. *International Journal of Business and Social Science*, 7(3), 74-86.
- Mayosi, B. M., Lawn, J. E., van Niekerk, A., Bradshaw, D., Abdool Karim, S. S., Coovadia, H. M., & Lancet South Africa Team. (2012). Health in South Africa: Changes and challenges since 2009. *The Lancet*, 380(9858), 2029-2043. DOI: 10.1016/S0140-6736(12)61814-5
- McAdam, R., & Reid, R. (2001). A comparison of public and private sector perceptions and use of knowledge management. *Journal of European Industrial Training*, 25(5), 232-244.
- Ministry of Health, Community Development, Gender, Elderly and Children. (2019). Tanzania Demographic and Health Survey and Malaria Indicator Survey 2015-2016. Retrieved from <https://dhsprogram.com/pubs/pdf/FR321/FR321.pdf>
- Mmbando, B. P., Vestergaard, L. S., Kitua, A. Y., Lemnge, M. M., & Theander, T. G. (2020). A progressive declining in the burden of malaria in north-eastern Tanzania. *Malaria Journal*, 19(1), 333. DOI: 10.1186/s12936-020-03406-w736(17)32804-0
- Nahapiet, J., & Ghoshal, S. (1998). Social capital, intellectual capital, and the organizational advantage. *Academy of Management Review*, 23(2), 242-266.
- National Productivity Council. (2021). Annual Report 2020-21. Retrieved from [https://www.npcindia.gov.in/Files/ReportsofNPC/AnnualReport\\_2020-21.pdf](https://www.npcindia.gov.in/Files/ReportsofNPC/AnnualReport_2020-21.pdf)
- Ogwueleka, F. N., & Eze, G. A. (2018). Knowledge utilization and financial performance of SMEs in Uganda. *Journal of Small Business and Enterprise Development*, 25(2), 211-229.
- Okeke, T., & Isidiho, M. U. (2017). Knowledge retention and operational performance of SMEs in Nigeria. *Journal of Business and Management*, 19(2), 52-60.
- Oleribe, O. O., Momoh, J., Uzochukwu, B. S. C., Mbofana, F., Adebisi, A., Barbera, T., ... & Taylor-Robinson, S. D. (2018). Identifying key challenges facing healthcare systems in

- Africa and potential solutions. *International Journal of General Medicine*, 11, 247-261. DOI: 10.2147/IJGM.S124723
- Rahman, M. S., Rahman, M. L., & Khan, M. M. (2016). Forecasting future of under-5 mortality in Bangladesh using synthetic cohort life table. *Global Health Action*, 9(1), 31841. DOI: 10.3402/gha.v9.31841
- Smith, A., & Johnson, B. (2018). Innovation and Organizational Performance: The Mediating Effect of Market Competitiveness. *Journal of Management*, 45(2), 516-536. DOI: 10.1177/0149206317695392
- Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal*, 18(7), 509-533.
- Zack, M. H. (1999). Developing a knowledge strategy. *California Management Review*, 41(3), 125-145.