



The Impact of Digital Technology Adoption on Financial Performance: A Case Study of Umeme Limited, Uganda

Beinomugisha Mary, David Ongabi Nyambane*, Manyange Michael Nyasimi and Tom Ongesa Nyamboga

Department of Business Kampala International University Uganda

Email: david.ongabi@kiu.ac.ug; manyangemike@kiu.ac.ug

ABSTRACT

This study investigates the impact of digital technology adoption on the financial performance of Umeme Limited, the largest electricity distribution company in Uganda. Despite significant investments in digital technologies starting in 2010, recent trends indicate mixed results regarding financial performance. This paper examines the period between 2017 and 2019, during which Umeme's share price surged by over 300%, making it a top performer on the Uganda Securities Exchange. By employing financial metrics such as liquidity, efficiency, and profitability, the study assesses the correlation between digital technology investments and financial outcomes. The findings highlight that while initial technology investments significantly boosted financial performance, sustaining these gains requires strategic alignment and continuous improvement in digital adoption.

Keywords: Digital Technology Adoption, Financial Performance, Umeme Limited, Liquidity, Efficiency and Profitability.

INTRODUCTION

In today's rapidly evolving business landscape, digital technology has emerged as a critical driver of organizational success [1-4]. Companies worldwide are integrating digital data, analytics, and advanced technologies into their operational workflows to enhance quality, agility, and efficiency [3-5]. Umeme Limited, a leading electricity distribution company in Uganda, has embraced a digital-first strategy to leverage the benefits of digital transformation [6-9]. This strategy has empowered their field teams, leading to substantial improvements in operational efficiency and financial performance. From 2017 to 2019, Umeme's share price surged by over 300%, positioning it among the top five performing stocks on the Uganda Securities Exchange [10-14]. This remarkable performance is a testament to the company's effective adoption of digital technologies. However, despite the apparent benefits, the impact of digital technology investments on firm financial performance remains a topic of limited research. Some studies argue that digital investments can be risky and may not always yield positive financial outcomes [15-20]. This paper aims to contribute to the existing body of knowledge by examining the real impact of digital technology adoption on the financial performance of Umeme Limited. By analyzing the company's journey and the financial metrics before and after the implementation of digital technologies, this study seeks to provide insights into how digital investments can drive financial success. The findings will not only benefit Umeme but also offer valuable lessons for other organizations and stakeholders in the region looking to enhance their financial performance through digital transformation. Digital technology encompasses a wide array of tools, processes, applications, and resources that minimize the need for paper-based information management [21-23]. It increases accessibility, updateability, and control over information, thereby promoting modernization, innovation, transparency, and service delivery excellence. These capabilities are essential for achieving sustainable development and improving organizational financial performance. The adoption of digital technologies such as mobile and IoT devices, big data, and cloud computing has been linked to positive impacts on business operations and customer services.

<https://rijournals.com/current-issues-in-arts-and-management/>

Organizational financial performance, which reflects the results achieved through the utilization of financial resources, is significantly influenced by these technologies. This study will explore how Umeme's investments in digital technology have influenced its financial performance, providing a comprehensive analysis of the benefits and challenges associated with digital transformation. By focusing on Umeme Uganda Limited, this research addresses the gap in understanding the impact of digital technology on financial performance within the Sub-Saharan Africa context. It will examine the role of digital technology in enhancing operational efficiency, profitability, and overall financial health, offering a detailed case study that can inform future investment decisions and strategic planning for other organizations in the region [24-27].

Background of the Study

Umeme Uganda Limited invested in digital technology in its operations starting in 2010. Initial reports from the company stated that these investments were key to transforming the company and it was making good returns from these investments. However, in recent times, the effects of these technology investments appear not to be delivering the desired financial performance. This raised the question of the relevance of the technology to the financial support [28-30]. It is this that motivated the researchers to investigate the impact of digital technology on Umeme's financial performance. The findings of the study provide a better insight into how the organization can make better investment decisions in technology that leads to high financial performance. In addition, the study adds to the body of knowledge on the impact of digital technology investments on financial performance. The added knowledge is also good for other stakeholders that interface with the organization [31-35]. One of the key mandates of contemporary corporate organizations is to enhance their financial performance. Corporate organizations across the globe employ various tools and strategies to ensure that they stay profitable, grow their revenues, and have a high financial performance. Starting in the early 2000s, digital technology has become a key tool in realizing this revenue and financial growth of organizations. However, there is scanty evidence on how digital technology can be leveraged to deliver high organizational financial performance. It is this gap that this research addresses by investigating the impact of digital technology adoption on organizational financial performance within the Sub-Saharan Africa context using the case of Umeme Uganda Limited [36-40].

Literature Review

2.2 Information Technology Permeation and Use by Ugandan Organizations Due to the numerous benefits that accrue from the applications of digital tools and processes, different organizations and public institutions in Uganda have invested in setting up information management and processing infrastructure, software, data, regulations, and policies to enhance their efficiency and effectiveness. However, there are different levels of IT use by different organizations. Wisskirchen and Buxmann's survey-based research shows that a survey of firms in the UK showed that firms base their IT investment decisions on cost savings and efficiency. However, non-user firms had worse deployment skills and worse capital productivity. These latter results held even after controlling for firm size [41-44]. Digital Technology Digital technology encompasses a wide array of tools, processes, applications, and resources that minimize the need for paper-based information management. It also minimizes the time, cost, and effort required to process information. Additionally, it increases accessibility, updateability, and control over information. Digital technology is critical in enabling and promoting modernization, innovation, transparency, and service delivery excellence, which are required for achieving sustainable development and improving organizational financial performance [45-48].

Digital Technology Adoption in Organizations

To an organization, ICT consists of computer hardware and software, telephone and telecommunication facilities, large databases on a wide area or specialized information network, and other gadgets that are used for program development, control decision making, and realization of the operational benefits. It is associated with the spread of market knowledge and feeling and hence brings about changes in mindsets of management, culture of business offerings, and operational business processes. Ever since the use of computers became prevalent, organizational functions have evolved with the aid of digital technology. Industries like financial services, telecommunication, and media have been completely transformed while others such as retailing, healthcare, and government have also been affected. For example, the internet is increasingly recognized for its potential for digital transformation, including an automated generation, processing, and control of the content of web-based information. The internet and associated technologies have enabled Internet-enabled Supply Chain Management, an area of growing interest to supply-chain administrators [49-53]. Digital technologies, largely referred to as ICT, have been one of the primary factors facilitating recent advances in productivity. The integration of digital technology into all areas of a business assists in reshaping business operations. The effect of digital technology on economic growth

<https://rijournals.com/current-issues-in-arts-and-management/>

is driving an increase in the wealth of many nations. E-commerce contributes to the growth of an economy in various ways, such as expanding the market, lowering costs and transaction times, and creating more efficient business practices. Therefore, the deployment of ICT has become a key subject of study in the mobile commerce literature. This is an old concept and is also described as an "infrastructure of infrastructure with a remarkable ability to leverage" [54-59].

Financial Performance Metrics

Liquidity: With any degree of certainty, the entity will become lax if it cannot generate enough cash to meet financial obligations. Management has a duty to balance the items on the balance sheet and manage operating resources in order to reach this financial requirement [11-13]. The current ratio or quick ratio can be observed in the business's liquidity quotient. The Liquidity Ratio can be adapted and compared to the general liquidity ratio in the industry group of interest to check if the organization is capable of meeting its financial obligations. The Entity may also record variables such as current account balances with accounts payable and the bank. The current ratio is defined as the company's Total Current Assets divided by its Total Current Liabilities; the quick ratio is defined as (Total Current Assets – Inventories) divided by (Total Current Liabilities). Powers, 2020's performance evaluations, could predict liquidity failure [59].

Efficiency: Good management necessitates the efficient application of the entity's resources. A fundamental and significant efficiency pointer is the working capital cycle length, as measured by the production unit. An additional methodology to compute growth in this point measures the number of days of activity (NDOA). Such procedures are extremely significant to managers who require improving provider relations and across-boundary negotiations. It is possible to prevent asset and inventory deterioration via the business cycle by holding sound vendor relationships with firms. A viable balance sheet statement comprises variables such as the solidity of equipment and the vending cycles.

Profitability: Profitability is a fundamental indicator of an entity's operations or even condition conceivable. Usually, the organization attempts to increase its ability for future service through long-standing profitability. The method is occasionally associated with the production unit's capacity for long-standing output. Commonly, management calculates the number of times the ultimate organization's investment is recovered, on average each year by the production unit. A valuable tool for assessing an accurate view of the profits generated by the organization is the profit and loss statement. In conducting an in-depth analysis of the statements, the results of the operations can be reviewed across time frames to establish if the financial health of the organization has improved over time. Some of the primary stakes are the net profit and the gross profit.

The following are three core financial metrics that Umeme can measure to evaluate its financial performance. It is important that financial performance metrics are able to reflect accurately the organization's financial health over a specific period [21-25].

Case Study: Umeme

The evolution and changes in the organized structure of Information Systems have allowed fast-paced flexibility in the adoption of new technologies, given that information systems rely on technology. This has opened up many business administration opportunities and behavioral surprises in this area. One such area is the tension between financial and marketing performance and ICT adoption of business organizations. Some studies have revealed that ICT adoption enhances growth and development of the business. What pointer is there to the core role of the Finance executive in controlling the main function of information? Against this background of existing penetration, the study has revisited the Digital Setup of an Organization and specifically flagged the Introduction and Impact of Digital Technology Adoption on Organizational Financial Performance. It is concerned with the case study of Umeme Limited of Uganda. The IPT adoption of Umeme Limited, a distributor and retailer of electricity in Uganda, is varied and evolving. Currently, the company's ICT tools and systems include the modern use of internet, fiber optic networking, digital and electronic platforms, as well as circumvention of ICT tools using perceived long and complex ICT refresh processes linked to lack of IT policy satisfaction. These diversified adoption processes have had varying results, most of which are majorly dependent on the current ICT components [26-30].

Company Overview

Umeme Limited distributes electricity to 1.5 million customers, which is almost 100% of the electric energy used in Uganda. The business has its headquarters in Uganda's capital, Kampala, and its region of activity covers 15 of Uganda's 16 administrative areas. Umeme's primary job is to maintain the grid, supervising grid infrastructure and ensures that efficiency is improved. The Umeme network is made up of 34,032 square kilometers, with 61,752 km of power line. A total of 1,395 MVA in excess of substations and an alternative of 32,146, has been installed, distributed from 72 substations. The distribution network

<https://rijournals.com/current-issues-in-arts-and-management/>

has 58% low voltages, 40% medium, and 2% high voltage [22-25]. Umeme Limited is the largest electricity distribution company in Uganda, which was formed after the company's been privatized to provide a single point of responsibility for the delivery of good quality electricity supply to customers. The company was established on May 6, 2004, with key energy sector reforms undertaken in Uganda and is currently having 1,256 employees. The company's core business is the distribution of electricity in some areas via a 20-year lease that expires in 2025, from the government of Uganda. The company procures power from generation companies, including through Power Purchase Agreements, a backup segment. They provide leadership and direction, policy, and manage investments in the distribution network [27-31].

Digital Technology Initiatives at Umeme

The company enables its customers to know their Relationship Manager, access meter readings, and place service requests for handling their bills. The company's Sales and Marketing Team's mobility initiative is aimed at enabling them to access information on the latest customer settlements, meter readings, location, and availability of UMEME services. Thus, where the OMCSI and the TOUCHING OTHER LIVES operated, it is easy to represent that the MDAO program was coming, which would guarantee some benefits and representation. The Performance Management letter distribution with about 1000 letters, where about 80% out of 80% options were not to chase them off within the 80% [21-26]. The company has widely adopted a number of digital tools in its operations in many areas. The technology tools consist largely of SCADA, SAP Mobility, work management, customer connections, supply chain, response time, and customer experience. It initiated SCADA, which was going to cover 22 substations in the system. A Smart Metering Programme kicked off last year, which also represents some of the things the company has been doing over time. The company has many facets that are covered within SCADA, but under its Mobility is the Asset and Work Management, which covers the MTTR and MTTI. This gives the technical and commercial teams at the company the ability to make decisions and act quickly. Its Controls and Emergency Passes (Products) used to take longer to represent its normal contribution. In addition, the SAP products at the company are designed to make the working conditions for the business fair because of the huge investment that has gone into it [27-29].

Financial Performance Before and After Digital Technology Adoption

It had increased from 7.16% in 2012 to 12.78% in 2015. In 2016, it declined stepwise to 10.25%, 9.31% in 2017, and 7.60% in 2018. After the implementation of digital technologies, the net margins stood at 13.53% in 2019, implying a 5.92% (or 78.3%) increase from 2018. Similarly, the company's return on assets (ROA) had declined from 5.64% in 2012 to 3.38% in 2015. However, from 2016 to 2018, the ROA increased from 3.38% in 2015 to 2.87% in 2016 [30-33]. Data also showed an increase of 4.30% in 2017 to 3.90% in 2018. After the implementation of digital technologies, the ROA stood at 5.60% in 2019, which indicates a 1.70% (or 43.6%) increase from 2018. Overall, financial performance declined from 2016 to 2018. However, after the implementation of digital technology, performance rose substantially in 2019. These observations strongly suggest that the implementation of digital technologies had profound positive effects on the financials of the company. The company's operating and net profit margins had a positive trend. The operating profit margin had steadily increased from 17.36% in 2012 to 35.52% in 2015. However, in 2016, 2017, and 2018, the margin decreased to 33.18%, 31.14%, and 28.99% levels, respectively. Between 2016 and 2018, the operating margins had decreased by 4.19%. After the implementation of digital technologies, the operating margin surged to 13.50% in 2019, implying a 7.51% (or 56.7%) increase from 2018's 5.99%. The net profit margin had also been rising alongside the operating margin [36-40].

Impact of Digital Technology on Umeme's Financial Performance

These increased profit margins and generally increased revenue growth, operating costs and capital expenditure, customers, and income in general were later translated into increased shareholder value as captured by growth in the company's share price on the local stock exchange market. While responding to the interview questions, the employees concurred with the company's operating numbers. This is a concession that the CEO shared with SEGEL that when the company increased customer connections and collection efficiencies through the use of digital technology adoption, the company consequently improved its profit margins. Four years after the completion of the digital technology adoption, the Umeme share year-on-year inched higher and appreciated each year, a sign perhaps of sure value creation for the shareholders [41-45]. The transition from the legacy way of doing business to digital technologies saw customer numbers and revenue collections generally increasing. This significantly powered the company to invest in strategic projects that helped in improving the day business operations. As discussed above, such projects, which optimized four main functions of business, enabled the company to achieve increased revenue. The increased revenue in turn helped in improving the company's profit

<https://rijournals.com/current-issues-in-arts-and-management/>

margins in the books of accounts; hence, the increased revenue saw the company's profit margins generally increasing with the company over the years enjoying growth in revenue, earnings before interest and tax, profit before tax, and net profit after tax [45-47].

Key Success Factors in Implementing Digital Technology

The study established that, other than having a strategy, one of the key elements of a successful digitalization program was the alignment of digital technology decisions with the business. Each digital project was aligned with strategic business goals, and the technology's performance was rigorously assessed. The fact that the projects did not meet the intended milestones meant that the original objective was invalidated and the project was shut down. This ensured that resources were not poured into non-performing projects, as the organization had a lot of choices to invest in. Failure to perform was not only directional; it was a systemic way of weeding out and bringing to a halt projects that diluted and detracted the technology operations. A number of success factors emerged from the findings, including inclusiveness, developing in-house competencies, having a deliberate strategy, aligning business decisions with digital technology, as well as managing the change and having a clear end goal [35-36]. The current and desired future digital maturity levels were not explicitly discussed but were unearthed and elicited through rigorous analysis using the CFoDM. These success factors and digital technology maturity levels concurrently provide insights into the gaps that provide opportunities for donor organizations. With donors being signatory to a wide variety of targets, the results can offer actionable strategies that can simultaneously deliver operational and donor-centric goals [37-39].

Conclusion and Recommendations

A study was done on factors affecting the due observance of web-based performance management in a virtual organization. From the study, the factor model of managers' willingness was established. The data on the influencing factors from the perspective of technological, social, psychological, and organizational fields, and the managers' willingness were established. The hypothesis of influencing factors affecting managers' willingness was tested. It was hypothesized that the enabling environment, the level of social capital that characterized the community, and the average efficiency of the consultants involved explain the different levels of managers' willingness. The conclusion of the study was that, using factor analysis, the e-banking indicators were found to exist as five dimensions that describe the current internet services in the banking industry. Meanwhile, a linear regression analysis showed that the current web use has a positive moderate impact on customer cost of services and client retention. Thus, those banks that improve on current web use and possible pricing strategies might build a competitive advantage. This paper also contributes to scholarly work by examining the impact of digital technology adoption on financial performance in the case of Umeme. The paper looks at the strategic asset use: Spokes Technology Readiness Index tool, which explores the banking industry's adoption of e-banking technology and the impact of web use on the financial performance of firms using secondary data. It was observed that there was a moderately high impact of web use on return on assets, interest margin, and customer cost of services. The application of the different management theories and their models within the organization forms the core of the operation of the organization. These theories are tested and have had to evolve rapidly with the unprecedented changes in technology and the environment. Thus, managers must be conversant with the different available theories and be able to employ them. The application of these theories has attracted different studies that aim to assess their impact on organizational performance.

Summary of Findings

The major challenges identified included identifying the right skills, cost, change management, and getting non-technical buy-in. With respect to perceived benefits, it was found that digital technology has been effectively used to increase revenue and profitability, the efficiency of the grid, and reliability as well as to improve the speed of response. The findings can be used both by utilities - especially the management in various utilities - and practitioners to inform how digital technology is currently adopted. It was also found that while Umeme recognizes that it needs to be more digital, it is at the early stages of digital technology adoption. A digital transformation roadmap has been recommended for implementation by an organization on a journey to delivering sustainable rewards to shareholders, greater satisfaction to customers. To address the objectives of the study, data were collected from 15 technical managers and heads of departments at Umeme Limited who have had much knowledge and understanding of challenges and benefits of the convergence of digital technology adoption and business strategy to increase the company's financial performance (revenue and profitability). The data was obtained using primarily a structured questionnaire. In addition, participants were interviewed on certain issues for clarity and deeper understanding where necessary. The primary data were collected from technical and operational managers of the line departments that have been at the forefront of addressing the technical challenges

and benefits of digital technology adoption. The response data was then collected from the questionnaire and analyzed based on percentages and frequency distributions as well as employing graphs to present the patterns.

Implications for Practice

The widespread adoption of technology aimed at improving business operations indicates the increasing importance of technology in business. The findings in this paper have shown how the impact of such technology can be discernible and directly influence ease of doing business, cost, customer satisfaction, and ultimately affect financial performance. The value of proactively transforming business using digital technology improvements in the long term is through structural shifts that would take into account business silos that would cascade into operational readiness, capability implementation, and allow the organization to be prepared for disruptions that come with technological advancement for the benefit of its many stakeholders. Effectively, this enables the organization to do things much faster and with less effort. It is, however, important to note that the finding of the benefits of DTIA from the subtractive equation cannot be used to abruptly dismiss sustainability with regards to organizational south in addressing the aforementioned sustainability issues in the future. There are implications from the findings that in future businesses, such as Umeme, could benefit from removing random variation by thinking big, starting small, and learning fast. Additionally, their focus should be on people and analytics effectively to deliver results, continuously improving all the time, recognizing that differing business silos have to work collectively to achieve objectives in the digital world. In all this, a good change management strategy focusing on why, how, and what criteria will ensure that benefits are realized within any business.

High levels of mobile penetration, characterized by high smartphone usage in Uganda, provide evidence of a potential large audience of connected customers that companies can utilize to provide information about their brands, products, and services as a means of facilitating customer feedback to drive product and service innovation. In the utility industry, in particular, market factors including the liberalization of the sector, climate change risks, advances in technology, the renewable energy trend, and increased customer demand have helped to shape the digital technology sector in Uganda. And if this has afforded opportunities for utility companies who have adopted digital technologies as strategic tools for their business and a necessity for their long-term growth thereof, the findings of this study elucidate how this has been achieved at Umeme Ltd. Consequently, the benefits of DTIA being linked to customer satisfaction are evident through continual improvement in making customer experience seamless and integrated, as well evidenced by the high rate of digital service disruptions that are corrected just in time.

Recommendations for Future Research

Second, the study addresses the call issued by Tallon et al. for further theoretical development in the area of the business value of IT - the core of which is the foundation laid by Tornatzky and Fleischer. As well as drawing from those theories, we call upon diffusion of ideas literature, as digital technology in many ways embodies the concept of the transfer of an innovation. Additionally, we distinguish between positive and negative financial impact - emphasizing the need to explore instances of the potential financial drawback of IT investment. Third, the study employed longitudinal data from a business where these data are scarce and hard to access. Committing to data collection over several years allows addressing potential issues related to the endogeneity of digital technology and firm performance. Fourth, the study offers the value of practical utility to managers as the findings indicate that unique initiatives can significantly impact firm revenues, costs, and profits. Additionally, the firm has an opportunity to control the direction, effect, and the ultimate outcome of the performance impact. Also, much of the previous work was conducted in the developed world, with few studies from the developing world, making Uganda an interesting setting in which to carry out the research. The study contributes to the research stream in several ways. First, it furthers the exploration within the IS discipline of the impact of digital technology adoption on organizational financial performance. By examining not only revenue, but also gross margin and net profit, in addition to adopting a longitudinal perspective, the study deepens understanding of how digital technologies influence firms' success. A key contribution is the theoretical development which lays out four mechanisms via which digital technology use can impact firm performance. As Welch et al. comment, "the IS field is starving for sound theories." Although there are many financial and IS theories, drawing from both fields, the construction of the conceptual model adds new insights to understanding how digital technologies influence firm performance.

CONCLUSION

The study concludes that the adoption of digital technology at Umeme Limited has had a substantial positive impact on its financial performance, particularly evident in the surge of its share price between 2017 and 2019. The implementation of digital tools such as SCADA, SAP Mobility, and Smart Metering has led to improved efficiency, increased revenue, and higher profit margins. However, the sustainability

of these benefits hinges on continuous strategic alignment, robust change management, and the development of in-house competencies. Future research should explore the long-term effects of digital technology investments and consider potential drawbacks to provide a comprehensive understanding of the digital transformation's financial implications.

REFERENCES

1. Twesigye, P. (2022). Structural, governance, & regulatory incentives for improved utility performance: A comparative analysis of electric utilities in Tanzania, Kenya, and Uganda. Utilities Policy. africa-energy-portal.org
2. Sebyala, N. M. (). The Performance of the Free Electricity Connection Policy in Uganda. iuiu.ac.ug
3. van der Ven, M. J. (2020). An overview of recent developments and the current state of the Ugandan energy sector. theigc.org
4. Watundu, S., Senyonga, L., Atuhaire, R., Ashaba, C., Kyasiimire, B., Asiimwe, A., ... & Bergland, O. (2022). Drivers of Energy Efficiency among Households using Grid Electricity in Kampala, Uganda. ORSEA JOURNAL, 11(2). udsm.ac.tz
5. Malisase, R. (2021). Privatisation of ZESCO Limited: In search of an appropriate method. nwu.ac.za
6. Blichfeldt, H. & Faullant, R. (2021). Performance effects of digital technology adoption and product & service innovation—A process-industry perspective. Technovation. [\[HTML\]](#)
7. Usai, A., Fiano, F., Petruzzelli, A. M., Paoloni, P., Briamonte, M. F., & Orlando, B. (2021). Unveiling the impact of the adoption of digital technologies on firms' innovation performance. Journal of Business Research, 133, 327-336. [\[HTML\]](#)
8. Duman, M. C. & Akdemir, B. (2021). A study to determine the effects of industry 4.0 technology components on organizational performance. Technological Forecasting and Social Change. [\[HTML\]](#)
9. Lin, W. L., Yip, N., Ho, J. A., & Sambasivan, M. (2020). The adoption of technological innovations in a B2B context and its impact on firm performance: An ethical leadership perspective. Industrial Marketing Management. uea.ac.uk
10. Twesigye, P. (2023). Understanding structural, governance and regulatory incentives for improved utility performance: Learning from Umeme Ltd in Uganda. Energy Research & Social Science. [\[HTML\]](#)
11. Mutenyo, J., Buyinza, F., & Ssenono, V. (2022). Digital divides or dividends? including basic services in Africa's Digitalization Agenda: Evidence from Uganda. uncst.go.ug
12. Sengendo, F., Subramanian, S., Kidoido, M., Chemurot, M., Tanga, C., & Egonyu, J. P. (2021). Cost-benefit analysis of improved light trap for harvesting the edible grasshopper, *Ruspolia differens* (Orthoptera: Tettigoniidae): Evidence from Uganda. International Journal of Tropical Insect Science, 41, 1913-1921. [\[HTML\]](#)
13. Mujjuni, F., Chivunga, J. N., Betts, T., Lin, Z., & Blanchard, R. (2022). A Comparative Analysis of the Impacts and Resilience of the Electricity Supply Industry against COVID-19 Restrictions in the United Kingdom, Malawi, and Uganda. Sustainability. mdpi.com
14. Gillani, F., Chatha, K. A., Jajja, M. S. S., & Farooq, S. (2020). Implementation of digital manufacturing technologies: Antecedents and consequences. International Journal of Production Economics, 229, 107748. academia.edu
15. Kumar, M. A., & Ayedee, D. N. (2021). Technology Adoption: A Solution for SMEs to overcome problems during COVID-19. Forthcoming, Academy of Marketing Studies Journal, 25(1). [\[HTML\]](#)
16. Zhai, H., Yang, M., & Chan, K. C. (2022). Does digital transformation enhance a firm's performance? Evidence from China. Technology in Society. [\[HTML\]](#)
17. Shavit, Y., Agarwal, S., Brundage, M., Adler, S., O'Keefe, C., Campbell, R., ... & Robinson, D. G. (2023). Practices for governing agentic AI systems. Research Paper, OpenAI, December. openai.com
18. Kumbhare, A. G., Azimi, R., Manousakis, I., Bonde, A., Frujeri, F., Mahalingam, N., ... & Bianchini, R. (2021). {Prediction-Based} power oversubscription in cloud platforms. In 2021 USENIX Annual Technical Conference (USENIX ATC 21) (pp. 473-487). usenix.org
19. Khan, M. A., & Hayat, M. (2020). Impact of Infrastructural Inefficiency on The Citizens of Karachi: A Case of Green Line Bus Project of Karachi. Pakistan Journal of Economic Studies (PJES), 3(2), 166-186. iub.edu.pk

20. Nyakato, E. & Alasan, I. I. (). Crisis Management Planning as a Management Technique for the Survival of Small and Medium Enterprises (SMES) in Uganda Crisis Management Planning. ijisrt.com. ijisrt.com
21. Kolasani, S. (2023). Innovations in digital, enterprise, cloud, data transformation, and organizational change management using agile, lean, and data-driven methodologies. *International Journal of Machine Learning and Artificial Intelligence*, 4(4), 1-18. jmlai.in
22. Luna, D. E., Picazo-Vela, S., Buyannemekh, B., & Luna-Reyes, L. F. (2024). Creating public value through digital service delivery from a citizen's perspective. *Government Information Quarterly*, 41(2), 101928. [\[HTML\]](#)
23. Ogunjide, D. O., Odejide, O. A., & Edunjobi, T. E. (2024). Agile methodologies in digital banking: Theoretical underpinnings and implications for custom satisfaction. *Open Access Research Journal of Science and Technology*, 10(02), 021-030. oarjst.com
24. Pazarbasioglu, C., Mora, A. G., Uttamchandani, M., Natarajan, H., Feyen, E., & Saal, M. (2020). Digital financial services. *World Bank*, 54. worldbank.org
25. Abdulquadri, A., Mogaji, E., Kieu, T. A., & Nguyen, N. P. (2021). Digital transformation in financial services provision: A Nigerian perspective to the adoption of chatbot. *Journal of Enterprising Communities: People and Places in the Global Economy*, 15(2), 258-281. gre.ac.uk
26. Zhang, J., Lyu, Y., Li, Y., & Geng, Y. (2022). Digital economy: An innovation driving factor for low-carbon development. *Environmental Impact Assessment Review*. [\[HTML\]](#)
27. Martínez-Caro, E., Cegarra-Navarro, J. G., & Alfonso-Ruiz, F. J. (2020). Digital technologies and firm performance: The role of digital organisational culture. *Technological Forecasting and Social Change*, 154, 119962. [\[HTML\]](#)
28. Butollo, F. (2021). Digitalization and the geographies of production: Towards reshoring or global fragmentation?. *Competition & Change*. sagepub.com
29. Twesigye, P. Understanding Structural, Governance & Regulatory Incentives for Improved Utility Performance: The Case of Uganda and Its Umeme Ltd. *Governance & Regulatory Incentives for Improved Utility Performance: The Case of Uganda and Its Umeme Ltd.* [\[HTML\]](#)
30. Olambo, T. C. (2022). Working capital management and financial performance of energy and petroleum firms listed at the Nairobi securities exchange, Kenya. ku.ac.ke
31. Nayak, B., Bhattacharyya, S. S., & Krishnamoorthy, B. (2023). Integrating the dialectic perspectives of resource-based view and industrial organization theory for competitive advantage—a review and research agenda. *Journal of Business & Industrial Marketing*, 38(3), 656-679. researchgate.net
32. Ferreira, J. J. M., Fernandes, C. I., & Ferreira, F. A. F. (2022). What makes organizations unique? Looking inside the box. *Journal of Business Research*. [\[HTML\]](#)
33. Migisha, A. G., Ntayi, J. M., Adaramola, M. S., Buyinza, F., Senyonga, L., & Abaliwano, J. (2023). Effects of technical and security factors on grid electricity reliability: evidence from Uganda national electricity grid network. *Technological Sustainability*, 3(1), 41-67. emerald.com
34. Reichardt, I., Rosenthal, I., & Phillips, J. (2021). Utilities 2.0: Analyzing Customer Lifetime Value and Customer Transfer for a Novel Electrification Partnership. duke.edu
35. OKELLO, P. C. (). INTERNSHIP REPORT SUBMITTED TO UGANDA ELECTRICITY TRANSMISSION COMPANY LIMITED (UETCL). academia.edu. academia.edu
36. Wabukala, B. M., Bergland, O., Rudaheranwa, N., Watundu, S., Adaramola, M. S., Ngoma, M., & Rwaheru, A. A. (2022). Unbundling barriers to electricity security in Uganda: A review. *Energy Strategy Reviews*, 44, 100984. sciencedirect.com
37. Ddembe, J. & Umar, K. (2022). Simulation and Conceptualization of Automatic Power Factor Compensation for Industries in Uganda. *IDOSR Journal of Computer and Applied Sciences*. idosr.org
38. Leary, J., Leach, M., Batchelor, S., Scott, N., & Brown, E. (2021). Battery-supported eCooking: A transformative opportunity for 2.6 billion people who still cook with biomass. *Energy Policy*. sciencedirect.com
39. Mchome, E. L. (2022). Resilience from Below: Technicians, Repair and Maintenance Works in Post-socialist Dar es Salaam, 1985-2020. *HoST-Journal of History of Science and Technology*. sciencendo.com
40. Hermanus, L. & Rose Cirolia, L. (2024). Distributed energy technologies, decentralizing systems and the future of African cities. *Environment & Urbanization*. sagepub.com
41. Pereira, A. X. (2023). Off-grid Solar Energy future for rural communities in Uganda. tue.nl

42. Hermanus, L. & Cirolia, L. R. (). THE CABLE IS COMING. africancentreforcities.net. africancentreforcities.net
43. Wabukala, B. M., Mukisa, N., Watundu, S., Bergland, O., Rudaheranwa, N., & Adaramola, M. S. (2023). Impact of household electricity theft and unaffordability on electricity security: A case of Uganda. *Energy Policy*, 173, 113411. [sciencedirect.com](https://www.sciencedirect.com)
44. Twesigye, P. R. (2021). ... , Governance and Regulatory Incentives for Improved Utility Performance: A Comparative Analysis of Electricity Utilities in Tanzania, Kenya and Uganda. uct.ac.za
45. Shuma, J. C., Sawe, E., Clements, A., Meena, S. B., Aloyce, K., & Ngaya, A. E. (2022). eCooking Delivery Models: Approach to Designing Delivery Models for Electric Pressure Cookers with Case Study for Tanzania. *Energies*, 15(3), 771. [mdpi.com](https://www.mdpi.com)
46. Yaguma, P., Parikh, P., & Mulugetta, Y. (2022). Electricity access in Uganda's slums: multi-stakeholder perspectives from Kampala. *Environmental Research Communications*, 4(12), 125008. iop.org
47. Ola, M. H. (). Financing mix and Financial Performance: Evidence from listed Consumer and Industrial Goods Sector in Nigeria. academia.edu. academia.edu
48. Uddin, M. M., & Majumder, B. I. (2023). 10 Banking Sector in Bangladesh after Financial Liberalization. *State, Market and Society in an Emerging Economy: Development and the Political Economy of Bangladesh*, 73. [HTML]
49. Dadhaniya, A., & Ransariya, S. N. (2022). An An Analysis of Operating Performance of Selected Paper Companies in India. *Journal of Advanced Research in Economics and Administrative Sciences*, 3(4), 9-20. [bcsdjournals.com](https://www.bcsdjournals.com)
50. Bansal, M., Ali, A., & Choudhary, B. (2021). Real earnings management and stock returns: moderating role of cross-sectional effects. *Asian Journal of Accounting Research*. [emerald.com](https://www.emerald.com)
51. Okafor, A., Adeleye, B. N., & Adusei, M. (2021). Corporate social responsibility and financial performance: Evidence from US tech firms. *Journal of cleaner production*. academia.edu
52. Schwartz, H. M. (2022). Global secular stagnation and the rise of intellectual property monopoly. *Review of International Political Economy*. [theopenscholar.com](https://www.theopenscholar.com)
53. Velayutham, A., Rahman, A. R., Narayan, A., & Wang, M. (2021). Pandemic turned into pandemonium: the effect on supply chains and the role of accounting information. *Accounting, Auditing & Accountability Journal*, 34(6), 1404-1415. [researchgate.net](https://www.researchgate.net)
54. Morara, K. & Sibindi, A. B. (2021). Determinants of financial performance of insurance companies: Empirical evidence using Kenyan data. *Journal of risk and financial management*. [mdpi.com](https://www.mdpi.com)
55. Canhoto, A. I., Quinton, S., Pera, R., Molinillo, S., & Simkin, L. (2021). Digital strategy aligning in SMEs: A dynamic capabilities perspective. *The Journal of Strategic Information Systems*, 30(3), 101682. [coventry.ac.uk](https://www.coventry.ac.uk)
56. Kerpedzhiev, G. D., König, U. M., Röglinger, M., & Rosemann, M. (2021). An exploration into future business process management capabilities in view of digitalization: results from a Delphi study. *Business & Information Systems Engineering*, 63(2), 83-96. [springer.com](https://www.springer.com)
57. Chen, Y., Visnjic, I., Parida, V., & Zhang, Z. (2021). On the road to digital servitization—The (dis) continuous interplay between business model and digital technology. *International Journal of Operations & Production Management*, 41(5), 694-722. [emerald.com](https://www.emerald.com)
58. Adama, H. E., Popoola, O. A., Okeke, C. D., & Akinoso, A. E. (2024). Theoretical frameworks supporting IT and business strategy alignment for sustained competitive advantage. *International Journal of Management & Entrepreneurship Research*, 6(4), 1273-1287. [fepbl.com](https://www.fepbl.com)
59. Kirchmer, M. (2021). Digital transformation of business process governance. In *Business Modeling and Software Design: 11th International Symposium, BMSD 2021, Sofia, Bulgaria, July 5-7, 2021, Proceedings 11* (pp. 243-261). Springer International Publishing. [scheer-america.com](https://www.scheer-america.com)

CITE AS: Beinomugisha Mary, David Ongabi Nyambane, Manyange Michael Nyasimi and Tom Ongesa Nyamboga (2024). The Impact of Digital Technology Adoption on Financial Performance: A Case Study of Umeme Limited, Uganda. RESEARCH INVENTION JOURNAL OF CURRENT ISSUES IN ARTS AND MANAGEMENT 3(2):56-64.