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Attitude towards the Use of Technology on SMEs' Performance in Buloba, Uganda

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Abstract:

The study utilized a descriptive quantitative design to examine the relationship between attitudes towards technology use and SME performance in Buloba Town, Uganda. Descriptive research design is flexible and allows for a comprehensive exploration of the problem while capturing the characteristics of the target population. Quantitative methods were employed as they offer objectivity and facilitate the investigation of relationships between identified variables. 79 SMEs were considered for the study using nonprobability sampling (purposive). While the analysis indicates a positive relationship between attitudes towards technology and SME performance, the statistical significance is not established. The low R-squared value and non-significant t-value suggest that other factors might play a more prominent role in explaining SME performance. Further research and analysis with a larger sample size or the inclusion of additional variables may be necessary to gain a more comprehensive understanding of the relationship between attitudes towards technology and SME performance. Recommendations were made with regard to the government's role in sensitising and developing infrastructure and taxation that favours adoption and the role of individual owner-manager in learning how to use and adopt ICT to enhance value and improve performance.

Keywords: Attitude, technology, SME's performance

1. Introduction

Small and medium-sized enterprises (SMEs) have long been viewed as an important source of job creation and output growth (Criscuolo et al., 2014). However, as concerns about the persistently weak productivity growth have deepened, attention has increasingly turned to small and medium-sized firms' over-representation within the long tail of low-productivity firms (Aradanaz-Badia et al., 2017). The standpoints towards the utilization of innovation among small and medium-sized businesses (SMEs) in Buloba, Uganda, are presenting huge difficulties to their general presentation. Even though technology has a lot of potential for increasing productivity, streamlining operations, and giving businesses a competitive edge, small and medium-sized businesses (SMEs) in Buloba still do not want to use it (Rollin et al., 2022).

The issue lies in the opposition, doubt, or absence of excitement shown by SME proprietors and representatives towards integrating innovation into their strategic policies (Azam, 2015). This negative attitude could be brought on by a number of different things, such as a fear of change, a perception of the complexity of technology, skepticism regarding its advantages, a lack of awareness or understanding of its potential, and worries about costs and return on investment (Chakraborty & Al Rashdi, 2018; Olusola et al., 2013). As a result, small and medium-sized businesses (SMEs) in Buloba might be reluctant to investigate and make use of technology solutions, which could result in missed opportunities for development and growth (Rollin et al., 2022).

The effect of this issue on SME execution in Buloba is critical and complex. Right off the bat, hesitating to embrace innovation restricts SMEs' capacity to mechanize processes, prompting failures, expanded functional expenses, and a deficiency of seriousness. Manual record-keeping, wasteful stock administration, and work concentrated work processes frustrate SMEs' efficiency, versatility, and capacity to satisfy client needs successfully (Rollin et al., 2022).

According to Rollin et al. (2022), SMEs' market reach and growth potential are limited by a lack of enthusiasm for technology adoption. Businesses and consumers alike rely on technology-driven platforms and online channels for transactions, communication, and information access in a world that is becoming increasingly digital. It may be difficult for small and medium-sized businesses (SMEs) to connect with customers, broaden their customer base, and enter new markets outside of the local community. The long-term viability and success of SMEs may be harmed by their limited market reach and inability to participate in the expanding digital economy (Tarutė & Gatautis, 2014).

SMEs' capacity to utilize data and make informed decisions is impacted by negative attitudes toward technology (Azam, 2015). SME data collection, analysis, and interpretation for strategic planning, customer insights, and performance monitoring are made possible by technology-driven tools and systems. However, the inability of small and medium-sized

businesses (SMEs) to take advantage of data-driven decision-making can be hampered by a lack of enthusiasm for technological advancements (Olusola et al., 2013).

Putri et al. (2020) pointed out that it is essential for the growth and competitiveness of SMEs in to address attitudes toward technology use. Small and medium-sized businesses (SMEs) can unlock the potential of digital tools and solutions to enhance their overall performance, increase operational efficiency, broaden their market reach, and make data-driven decisions by encouraging a culture of technology adoption and cultivating a positive attitude (Azam, 2015). As a result, in order to fully understand the underlying factors that influence SME attitudes toward technology in Buloba, comprehensive research is required.

2. Literature Review

2.1. Attitude to ICT Adoption

Individuals and organizations have different attitudes toward ICT adoption. However, there is a rising awareness of the relevance of ICT (Information and Communication Technology) and its potential advantages in general. Many people and businesses are more accepting of ICT solutions and incorporating them into their everyday lives and activities. Several factors influence ICT adoption. Technological improvements have made ICT more accessible, inexpensive, and user-friendly (Kayisire & Wei, 2016). This has contributed to a favourable attitude towards the use of ICT tools and applications. Similarly, widespread usage of the internet and mobile devices has generated a digital culture in which people are more at ease and familiar with technology, resulting in higher acceptance of ICT (Kayisire & Wei, 2016). Furthermore, the COVID-19 pandemic has hastened the introduction of ICT. The need for remote work, online learning, and virtual communication has highlighted the importance of ICT infrastructure and tools. This has further shifted attitudes towards embracing ICT solutions to overcome challenges and improve efficiency in various sectors (Kumar & Ayedee, 2021).

Despite these advances on one hand, on the other hand, in many African countries and Uganda inclusive, as we move farther away from the city centre, the level of adoption declines. There are several factors that contribute to the low adoption of ICT in SMEs. Issues such as lack of ICT knowledge (Robinson, Imran & Barlow, 2018) and a limited budget for an ICT investment (Amusan et al., 2018) have been identified as the main barrier for SME owners to adopt ICT. Moreover, individual capabilities have a huge effect on the adoption as well. The unpleasant past experiences in handling ICT (Ukata, Adejola & Okoye, 2018) can also change SME owners' perception to fully adopt ICT. Thus, the existing issues need to be highlighted first by the SME owners and the government in order to increase ICT. Farhoornand et al. (2000) pointed out that the government, the lack of adequate infrastructure, resistance to change, cost of implementation, and cultural and legal issues have slowed down the acceptance of ICT among SMEs. A recent study established that some macro issues related to the societal and organizational environment need to be critically examined to reduce the barrier to ICT adoption, especially in developing countries (Venkatesh et al., 2016).

2.2. SMEs' Performance

There is no universally accepted definition of SMEs. Different countries define SMEs differently depending on their level of development. However, the commonly used criteria in defining SMEs include the total number of employees, the total investment and sales turnover (Njagi, Maina & Kariuki (2017). A majority of the studies consider the degree of innovation in the product, process, and management systems and the survival and competitiveness of SMEs as critical indicators. Numerous studies have examined SME performance from various perspectives, including financial performance, innovation, productivity, and competitiveness (Brem, Kreusel & Neusser, 2008). This study has adopted these indicators.

2.3. Attitude towards the Use (Of Technology) on SMEs' Performance

Large organizations have enough resources to adopt ICT, while on the other hand, SMEs have limited financial and human resources to adopt ICT (Chairoel, Widarto & Pujani, 2015). Duan et al. (2002) identified the lack of ICT skills and knowledge in SMEs as one of the major effects faced by all European countries, particularly in the UK, Poland and Portugal, in their study. (Houghton and Winklhofer 2004) have reported a slow response from SMEs relating to the adoption of ICT. Shiels et al. (2003) found that characteristics of the firm and industry sector are contributory factors to the adoption and exploitation of ICTs by SMEs. Kapurubandara et al. (2006) have categorized internal and external barriers that impede the adoption of ICT by SMEs in a developing country. The internal barriers include owner-manager characteristics, firm characteristics, cost and return on investment, and external barriers include infrastructure, social, cultural, political, legal and regulatory.

Small businesses are still hindered by their lack of technological implementation (due to the nature of SMEs' business and trade model), despite great technological advancements globally. Without this technology, these small businesses find it difficult to neither compete nor grow (Arinaitwe, 2006). For instance, there is evidence that more than half of the world's population does not have access to the internet, which is a clear example of a lack of digital infrastructure and services. Areas with extended network connectivity experience major barriers or effects to maintaining high-speed connectivity, unlike regions in developing countries. The digital divide is widened by infrastructure issues and the need for environmentally friendly energy between urban and rural areas.

Several studies confirm that a significant relationship exists between owner/manager's attitude and ICT adoption (Jaganathan et al., 2018). Higher levels of owner attitudes were normally related to higher ICT adoption. According to Lubbe & Heerden (2003), attitude influences a firm's ability and readiness to adopt new technology. Moreover, if the attitude of the owner is positive-that is, if he or she is well-aware of the intricacies of computers and has some knowledge

of technology and how to reap its benefits-then, the business is likely to adopt it. The attitude factor has been examined in previous studies (Al Moawi & Mahmood, 2011) and they found the management's attitude support or owner's attitudes had a positive relationship with ICT adoption. Several studies confirmed the identification of owner's attitudes and lack of relevant knowledge and skills as problematic issues to ICT adoption and thus resulting in poor performance of the SME. On the contrary, staff attitudes formed a very limited barrier to further adoption of ICT. In the cases of favourable attitude to ICT adoption by Owner-managers was often hindered by harsh business realities of the costs involved in purchasing the required technologies and the levels of complexity that SME owners/managers often associated with those technologies. These impeded the performance of the business despite the owner's attitude to the adoption of ICT (Rozmi et al., 2020).

3. Methodology

The study adopted a descriptive quantitative design. According to Nyaga (2019), a descriptive research design is flexible and it, provides an opportunity to examine all aspects of a problem and it captures all the characteristics of the target population. Creswell (2003). Noted that quantitative methods are more objective and help to investigate the relationships between the identified variables. This study applied qualitative approaches, which involved in-depth probing and application of subjectively interpreted data. 79 SMEs were considered for the study using nonprobability sampling (purposive). The content validity index was 0.8 for attitude towards the use of technology and .86 for SME Performance. While the reliability was tested using the Cronbach alpha coefficient, attitude towards using ($\alpha = 0.68$) and SME performance ($\alpha = 0.81$). To collect quantitative data using questionnaires, which were then analysed using the Statistical Package for Social Scientists (SPSS) method. Frequency, means and standard deviations were computed and bivariate analysis techniques were employed. A regression analysis was conducted to explore the relationship between attitude towards the use of technology and SMEs' Performance.

4. Results

4.1. Demographic Characteristics of Respondents

According to the table, data indicate that the majority of respondents were between the age between 28 to 37 and age group 18 – 27, representing 31.6% and 26.6%, respectively. Male respondents were forty-one, representing 51.9% of the total percentage, and female respondents were thirty-eight, which constituted 48.1% of the total percentage. The majority of a frequency of twenty-four constituted 30.4%, followed by those from Vocational Institutions, representing 25.3%. Moreover, those with secondary levels were nineteen, representing 24.1%. Married respondents were forty-six, constituting 58.2% of the total percentages, followed by the single respondents who were twenty-three carrying 29.1%, while the least were those widowed/ widowers with a frequency of 10 out of the total sample population with only 12.7%, meaning that the highest number of married people are engaged in SMEs to support their family. Businesses that have been in operation for four to six years are the majority. They are thirty, representing 38%, followed by those between one and three years, who were twenty-three at 29.1%.

4.2. Level of SMEs' Performance

Items	Mean	Std. Deviation	Interpretation
Employees increase	2.43	1.195	Low
Return on investment	2.33	1.163	Low
Business Debts Payment	2.30	1.223	Low
Profit Increase	2.05	.918	Low
Sales Increase	2.03	.974	Low
Capital Increase	1.84	.912	Very low
Operational Growth	1.72	.905	Very low
Average	1.80	1.04	Very low

Table 1: Levels of SMEs' Performance

4.3. Levels of Attitude towards the Use of Technology

Items	Mean	Std. Deviation	Interpretation
Technology is good for all	2.20	1.159	Low
Technology will enhance the future	2.08	.764	Low
Technology is the way to go	2.06	.992	Low
Technology is applicable in all areas of life	2.06	1.030	Low
Technology is for all ages	1.89	1.062	Low
Average	2.05	1.00	Low

Table 2: Level of Attitudes towards the Use of Technology

Both tables 1 and 2 show the low level of attitude towards the use of technology (mean = 1.80) and SMEs Performance (Mean =2.05).

4.4. Regression Analysis

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.625	.258		6.310	.000
Attitude	.231	.119	.215	1.936	.057
R = .215					
R Squared = .046					
Adjusted R Square = .034					
Sig = 0.057					
F = 3.747					
Durbin-Watson = 1.954					

Table 3: Attitudes towards the Use of Technology and SMEs' Performance

In table 3, the regression model examines the relationship between attitudes towards the use of technology and SME performance. The Durbin-Watson statistic is 1.954, which is close to the ideal value of 2 and suggests no significant autocorrelation in the model's residuals. The coefficients represent the strength and direction of the relationship. The standardized coefficient (beta) indicates that a one-unit increase in attitudes towards technology is associated with a 0.215 standard deviation increase in SME performance.

The t-value for attitudes towards technology is 1.936, which is not statistically significant at the conventional level of significance ($p > 0.05$). The coefficient of determination (R-squared) is 0.046, indicating that attitudes towards technology explain 4.6% of the variance in SME performance. The adjusted R-squared is 0.034, which takes into account the number of predictors in the model.

The overall model is statistically significant, as indicated by the F-value of 3.747, with a significance level (Sig) of 0.057 (though $p > 0.05$). Since the significance level (Sig) of 0.057 is greater than the conventional threshold of 0.05, we would consider the F-value not statistically significant. Therefore, we fail to reject the null hypothesis, indicating that there is not enough evidence to conclude that there is a significant relationship between attitudes towards the use of technology and SME performance.

5. Discussion and Conclusion

The findings suggested that there was a lack of awareness or education about how to use technology in a way that is accessible to all ages. It is possible that older adults, who may be less familiar with technology, were struggling to adapt to its use during the pandemic. It is also possible that younger people, who are more accustomed to using technology, were less concerned about its accessibility to older individuals. According to Ahmed et al. (2020), the perception and attitude of an individual towards technology lead to acceptance and adoption of new technology.

The findings suggest that the attitude towards technology adoption is an important factor that can impact the growth of SMEs in Buloba. If SMEs in Buloba fail to adopt new technologies and leverage them to enhance their operations and serve their customers better, they may struggle to remain competitive in the market, which could negatively impact their growth prospects, according to a study by Nkwabi and Mboya (2018). Also, the lack of awareness or education about how to use technology in a way that is accessible to all ages could hinder the adoption of new technologies, which could negatively impact growth (Anshari & Almunawar, 2022).

Several factors, as shown in literature, confirm the low level of attitude towards ICT adoption in SMEs. The level of capital available to SMEs in Buloba could also be a limiting factor in their ability to adopt new technologies, as argued by Zhai et al. (2018). For example, if the cost of acquiring and implementing new technologies is too high, SMEs in Buloba might struggle to justify the investment, which could negatively impact their growth prospects. Similarly, if SMEs in Buloba were unable to pay off debts associated with technology investments, it could further limit their ability to grow and remain competitive.

Lastly, according to research by Zamani (2022), the return on investment associated with technology adoption could impact the growth prospects of SMEs. If SMEs in Buloba fail to see a positive return on their technology investments, they might be less likely to continue investing in new technologies, which could limit their ability to remain competitive in the market and grow their businesses. Therefore, it is important for SMEs in Buloba to carefully evaluate the potential return on investment associated with new technology investments and ensure that they are making informed decisions about technology adoption. This, of course, still needs the role of government in sensitising, making the technology affordable (with regard to taxation) and creating the infrastructure that will allow the adoption of technology to thrive at all levels of society, including in rural and small-scale businesses.

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