

Information And Communication Technology (ICT) Proficiency And Its Role In The Success Of Small And Medium Scale Enterprises (SMEs): A Study In Wa Municipality, Ghana

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Abstract

This research explores how ICT proficiency influences the performance of Small and Medium Enterprises (SMEs) within Wa Municipality in Ghana's Upper West Region. A survey method was utilized, with 411 SME managers participating through a structured questionnaire. The gathered data were processed using SPSS, applying both descriptive and inferential statistical techniques. The results indicate that basic mobile phone usage is the only significant ICT skill positively correlating with SME success ($R = 0.127$, $p = 0.010$), and predicting their success by 7.06% given a regression p-value of 0.0295. In contrast, other ICT tools, including social media, email, and corporate websites, showed no significant relationship with business success. The study emphasizes the limited impact of broader ICT competencies and recommends targeted training to enhance digital literacy among SME managers, thereby improving their overall business performance and competitiveness.

Keywords: ICT proficiency, SMEs, Business performance, Mobile phone usage, Digital literacy

Introduction

The drivers propelling the growth of the Small and Medium Scale Enterprises (SMEs) sector have shifted, with Information and Communication Technologies (ICTs) emerging as key contributors to this transformation (Agboh, 2015). Well-documented evidences including (Molinillo & Japutra, 2017) manifest that ICT positively impacts firms' success, facilitating their performance and enhancing their ability to generate employment, which is vital for poverty reduction. ICT is thus portrayed as an indispensable asset in contemporary business management. A study in the New Juaben Municipality, Ghana, concluded that ICT enhances competitiveness and aids firm survival during challenging times (Nuamah-Gyambrah et al., 2016).

Despite these positive effects, the extent to which ICT skills are crucial to SME success remains unresolved (Mwantimwa, 2019). Additionally, it is unclear whether ICT alone is sufficient for SME success. This study examined the significance of ICT skills for the success and growth of SMEs in Wa Municipality, Ghana, as no prior research has addressed this issue in the area.

The uniqueness of this study lies in the lack of rigorous investigations on SMEs' sustainability in Ghana. Previous studies, such as Fauster, (2015), focused on specific sectors, while others like Kusi et al., (2015) examined regions outside the Upper West Region, where Wa Municipality is located. Therefore, this survey represents the first effort to determine whether ICT skills are primary factors in the success of SMEs in Wa. A review of the literature reveals a limited amount of research on SMEs in the area, with none specifically addressing the impact of ICT skills on their success. This gap underscores the necessity of the current study. The hypotheses tested are:

H1: Skills in ICT are a key factor responsible for SME success.

H2: Skills in ICT are not a key factor responsible for SME success.

From a broader perspective, the importance of this study is rooted in the common recognition that SMEs are economic pillars, providing jobs, ensuring poverty alleviation, and increasing Gross National Output. Unfortunately, many firms in this sector fail early (Gwadabe & Amirah, 2017) limiting their contribution to national development. This study examines the degree to which ICT skills are essential for the success of SMEs, aiming to harness the full benefits of the sector and enhance understanding of factors influencing SME success.

Literature

Conceptualizing SMEs: A Critical Analysis of Definitional Approaches

Small and Medium Enterprises are defined variably. The variations depend on countries, institutions, and even scholars regarding the criteria applied. The definitions of SMEs differ based on the context and the entity providing the definition. Moreover, inconsistencies exist in the composition of the term, along with variations in the standards applied. The International Labour Organization (ILO) identified more than 50 definitions with differing terminology across 75 countries (Pula & Berisha, 2015). It is however noticed that generally, SMEs are categorized based on criteria such as employee count, annual revenue, and asset size. Also, it is found that despite the nomenclatural differences, all definitions aim to encompass the same category of businesses.

Ghanaian SMEs: An Insight

In Ghana, much like the global landscape, there is a lack of consensus regarding the definition of an SME, leading to multiple definitions with differing criteria (Kwaku Amoah, 2018). Citing an example, the definitions provided by the Ghana Statistical Service (GSS) and the Regional Project on Enterprise Development diverge significantly from those of the National Board for Small Scale Industries (NBSSI) and the Venture Capital Trust Fund (VCTF). To establish a clear framework for this study, the NBSSI's definition was chosen, which characterizes an SME as an enterprise with a workforce of up to nine employees and fixed assets not exceeding ten million Ghanaian cedis.

Defining SME Success: A Multifaceted Concept

The notion of success for SMEs is complex and multifaceted. While often associated with victory, achievement, performance, and accomplishment, SME success encompasses various dimensions, including financial and non-financial indicators. Hence, the success of SMEs is largely defined by the business operator, as individual motivations for starting a business often differ, with some driven by social goals, others by economic objectives, or a combination of both.

As a result, there is currently no consensus in the literature on a standardized definition of the concept (Al-Tit et al., 2019). This study adopts a pragmatic approach, considering SME success as survival for at least 2 years together with regular inventory replacement as metrics.

Critical Success Factors (CSFs)

Research highlights numerous factors contributing to SME success. Having ICT skills is one such factors (Busaidi et al., 2019). However, scholars emphasize the importance of identifying CSFs specific to different conditions or firm life cycle stages. It is vital to underscore that CSFs are crucial for positive performance and preventing SME failure (Nyoni & Bonga, 2018). The study also emphasizes that an organization can achieve its long-term objectives by identifying its Critical Success Factors (CSFs). As a result, SMEs success is hinged on the identification of these and taking steps to ensure the fulfillment of the requirements of the factors.

The terminology ICT and its Impact on SMEs

The term ICT lacks a universally accepted definition (Choudhary, 2018), with various researchers offering different interpretations. However, a common theme emerges across these definitions: ICT encompasses any technological resources used to support data collection, processing, dissemination, and utilization. It includes a wide range of tools designed to generate, analyze, manage, distribute, and transmit information.

Research indicates that ICT plays a significant role in the growth and survival of small firms and broader economies (Hoque et al., 2016). As depicted by Busaidi et al., (2019), SMEs benefit greatly from adopting ICT, as it enhances competitiveness in both local and global markets. Effective use of ICT systems is crucial for small firms to thrive, with increased ICT usage linked to higher levels of innovation in products and processes (Diez et al., 2016), and in financial management (Oluwafemi, 2015).

In developed economies, ICT adoption has been shown to drive economic growth, with European SMEs' success often dependent on operators' IT competencies (Nuamah-Gyambrah et al., 2016). Studies have found similar benefits for SMEs in the U.S. (Garcia, 2021), Taiwan (Lin & Lai, 2021), and Singapore (Prasanna et al., 2019). African research especially (Chege et al., 2020) and many others further support the positive impact of ICT on firm performance. However, large firms tend to adopt and integrate ICT faster than smaller ones, often using it to gain a competitive edge (Asunka, 2016). Despite this disparity, aligning ICT with SME operations consistently leads to improved performance.

ICT adoption and SMEs - Theoretical link

This study draws on two key theories to understand ICT adoption in SMEs: Scott and Christensen's Institutional Model (1995) and Everett Rogers' Diffusion of Innovation Theory (1985). These frameworks offer insights into the factors driving ICT adoption at the organizational level, making them relevant for SMEs.

Institutional model of Scott and Christensen (1995)

Scott and Christensen's Institutional Theory (1995) emphasizes that organizations adopt innovations, such as ICT, due to external pressures related to legitimacy and isomorphism. Legitimacy refers to the need for organizations to gain approval from stakeholders by aligning with accepted industry norms, rules, and practices (Glover et al., 2014). For a firm to be viewed as credible and trustworthy in the market, it must adhere to these standards, which influences its decision to espouse new technologies.

Conversely, isomorphic pressures are forces that compel organizations to conform to the broader industry's expectations and behaviors. These pressures often arise from competitors, customer demands, and regulatory bodies (D. Sergon, 2017). As a result, companies tend to emulate the practices of leading firms in their industry to maintain competitiveness. Over time, this creates a level of homogeneity, where firms, including SMEs, adopt similar innovations to keep pace with industry leaders (Lammers & Garcia, 2017).

Thus, the theory suggests that businesses, particularly SMEs, do not adopt innovations solely for their novelty or potential benefits, but often because they are driven by external forces that demand conformity. To be seen as a market leader or remain competitive, a firm must align its behavior and practices with those of established leaders in the industry. This process of emulating larger, more successful firms helps SMEs gain legitimacy and ensures their survival in the market.

Innovation Diffusion theory by Everett Rogers (1985, 1995)

Everett Rogers' Diffusion of Innovation (DOI) theory (1985, 1995) offers a model for comprehending how innovations are adopted and disseminated within organizations, focusing on both sociological and psychological factors rather than just individual behaviors (Díez et al., 2016). The theory explains how new products, practices, or ideas are communicated and gradually accepted by a population over time through specific channels (D. Sergon, 2017). It highlights that the rate and extent of innovation adoption depend on various factors within a social system.

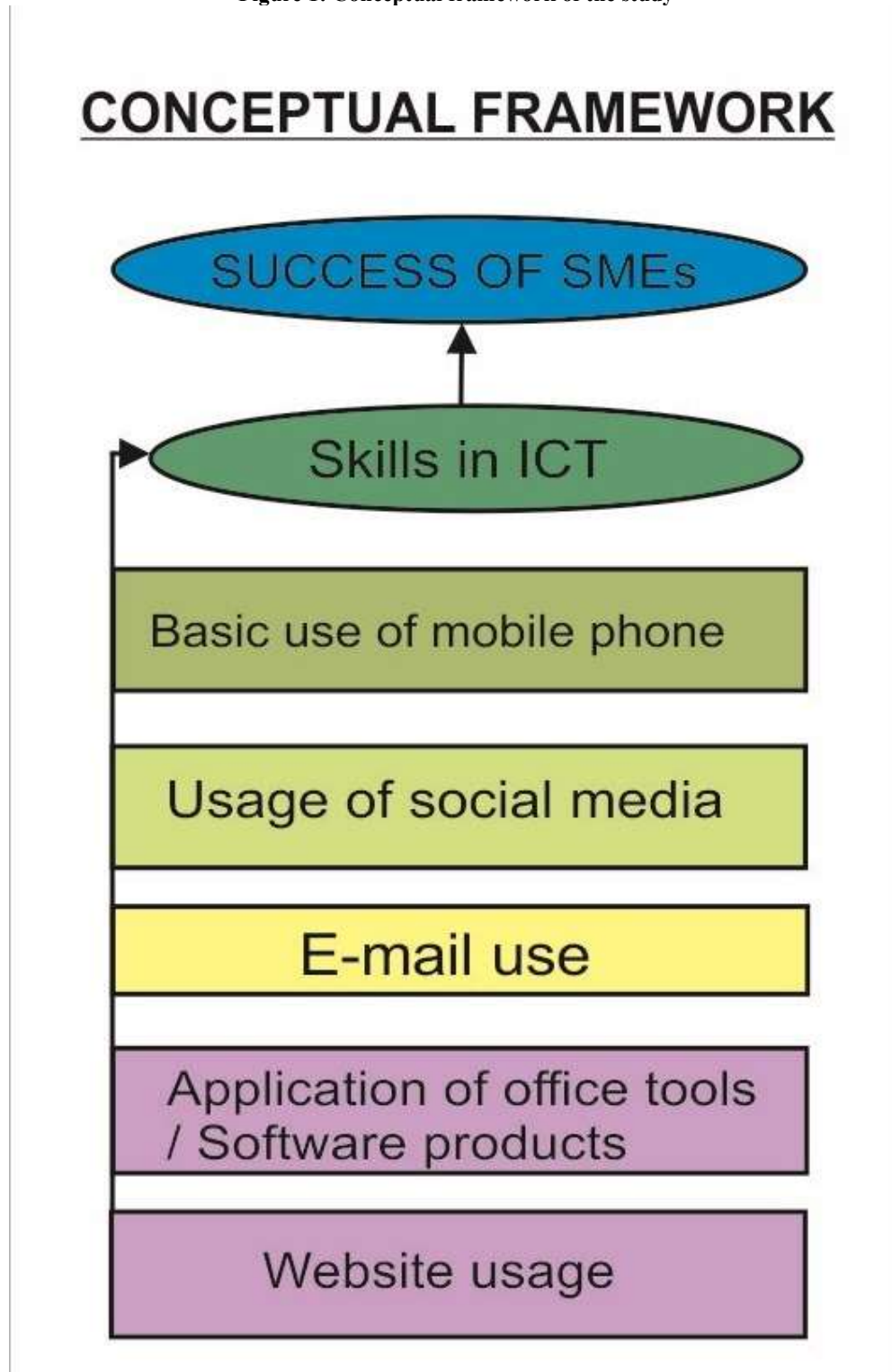
Rogers identified five essential factors that shape the adoption of innovations. These are: perceived benefit (relative advantage), alignment with existing systems (compatibility), ease of use (complexity), ability to test (trialability), and visibility of results (observability) (Chairoel et al., 2015). Relative advantage denotes the perceived superiority of an innovation over the existing option, which accelerates adoption. Compatibility refers to how seamlessly the innovation fits with the current values, practices, and needs of the intended audience. Complexity gauges the level of difficulty in comprehending and utilizing the innovation, with simpler innovations more likely to be adopted quickly. Trialability pertains to the opportunity to experiment with the innovation on a limited scale before full adoption, while observability reflects how easily the benefits of the innovation can be seen, encouraging broader acceptance.

This framework stands out by offering a distinct perspective on the adoption and spread of ICT systems in SMEs. Unlike previous approaches, the DOI theory provides a nuanced understanding of the specific factors that drive or impede SMEs from adopting technological innovations. Its unique focus on the complexities of integration makes it a particularly effective tool for evaluating ICT uptake in small and medium-sized enterprises, setting it apart in the field of technology adoption research.

ICT Skills pertinent to SMEs operations

Information and Communication Technology adoption is associated with firm performance but not adequately exploited due to deficiencies in the competencies and skill gaps among the employees. Lehner and Sundby (2018) indicated that major drawback for SMEs is the absence of skilled IT labor-force. Outlined below in this study model are some common ICT systems that have been recognized to enhance firm performance.

Figure 1: Conceptual framework of the study



Origin: Author's Construct (2024)

Use of mobile phone

The widespread availability of mobile devices and other ICT tools has significantly reshaped how SMEs operate, enhancing their business processes in a positive way (Gbadegeshin et al., 2019). Mobile phones, in particular, have revolutionized communication, enabling businesses to reach large numbers of customers simultaneously (Mwantimwa, 2019). In Bangladesh, a study (Hoque et al., 2016) found that mobile phone usage can boost the survival rates of small businesses, particularly in rural areas. Numerous studies have highlighted the positive impact that mobile phone adoption has on the growth and advancement of SMEs.

Beyond just communication, mobile phones are critical for real-time data access, digital marketing, and mobile payment systems, all of which are essential for modern SMEs. The ability to manage business operations on the go, coupled with access to mobile applications and platforms, allows firms to respond more flexibly to customer demands and market shifts. Enhanced connectivity deepens customer engagement while simultaneously unlocking fresh avenues for expansion and innovation within the competitive SME environment. In the broader sense, mobile technology is viewed as a powerful enabler for digital transformation, especially for small businesses striving to compete globally.

Social media usage

Significant evidence suggests a favorable connection between a company's performance and its use of social media. Research, such as that by Qalati et al., (2021) highlights the advantageous effects of social media on the success of SMEs. As a strategic marketing tool, social media proves to be highly effective. Social media serves as a powerful strategic marketing tool (Rugova & Prenaj, 2016), aids in the internationalization of SMEs (Gbadegeshin et al., 2019), and is cost-effective for businesses (Rugova & Prenaj, 2016). Ainin, Sulaiman, (2015) specifically noted that Facebook adoption significantly affects both the financial and non-financial performance of SMEs.

E-mail use

The use of electronic mail (e-mail) has revolutionized business communication by providing quick and direct access to clients, streamlining interactions (Mwantimwa, 2019). E-mails have reduced the need for physical mail delivery, simplifying processes such as purchasing, marketing, and client correspondence. This shift not only enhances efficiency but also lowers operational costs, making it a cost-effective solution for businesses (Busaidi et al., 2019). Additionally (Toulova, et al., 2015) highlighted that success in international markets can be achieved through the strategic use of e-mail marketing.

Beyond cost savings, e-mail usage enables businesses to engage in personalized, targeted communication, which could boost customer engagement and retention. Automated e-mail campaigns allow firms to nurture leads and build relationships over time, while also providing a platform for data-driven marketing strategies. E-mails are also a powerful tool for tracking customer responses and preferences, giving companies real-time feedback to fine-tune their approach. As businesses grow more digital, the role of e-mail extends beyond just communication, it becomes a strategic channel for fostering loyalty, improving brand visibility, and ultimately driving sales, both locally and globally.

Website usage

The possession of a corporate website plays a crucial role in enhancing firm performance, as highlighted by Chen et al., (2015). Websites are often viewed as essential tools for market positioning, given their central role in communication and brand visibility (Gbadegeshin et al., 2019). For SMEs, websites enable expansion beyond local markets (Gbadegeshin et al., 2019). Furthermore, (AL-Zoubi, 2018) connects website usage to the integration of Enterprise Resource Planning (ERP) systems, implying that websites not only improve a company's market presence but also enhance operational efficiency by facilitating seamless management of electronic resources. Beyond positioning and efficiency, websites serve as a platform for customer engagement, data analytics, and real-time communication, enabling firms to adapt quickly to market changes and improve overall competitiveness. This suggests that effective website usage is a strategic asset that drives both growth and innovation in today's digital economy.

Office tools/Software products

The use of office tools and software products has become increasingly common in modern business management, offering critical support services for firms. These tools are highly valued for their ability to streamline operations and enhance efficiency. For example, Mwantimwa, (2019) notes that computerized databases, such as those created with Microsoft Access, are used to manage business information, highlighting how these tools contribute to improved firm performance. A prominent example is Amazon, which has revolutionized online marketing and facilitated e-commerce activities for both individuals and businesses (Garcia, 2021).

In addition to managing data, office tools and software products improve collaboration, decision-making, and productivity. Cloud-based platforms such as Google Workspace and Microsoft 365 facilitate real-time collaboration, allowing teams to work together seamlessly from any location, allowing teams to work seamlessly from different locations. Advanced software solutions, such as customer relationship management (CRM) systems and enterprise resource planning (ERP) tools, offer insights into customer behavior and streamline business processes, improving overall efficiency. These technologies also provide scalability, enabling businesses to expand their operations without a proportional increase in resources or costs. As digital transformation continues to advance, the integration of office tools and software products is no longer just a trend but appears to be a necessity for firms aiming to remain competitive in the global marketplace.

Methodology

A survey methodology was employed to collect quantitative data for the study. The target population consisted of managers from Small and Medium Enterprises (SMEs) within the Wa Municipality, located in the Upper West Region of Ghana. To gather primary data, a structured questionnaire was developed and converted into an electronic format. The survey tool was piloted on a group of 15 respondents to evaluate its effectiveness. The reliability of the instrument was then assessed with Cronbach's Alpha coefficient, which generated a value of 0.799. A Cronbach's Alpha value exceeding 0.70 is reckoned satisfactory, reflecting strong internal consistency and reliability within the dataset. Thus, the tool was deemed reliable for data collection.

Based on the SME population of 18,716 provided by the NBSSI Wa Business Advisory Center, the sample size for the main study was calculated to be 400 using the Yamane Formula. However, responses were obtained from 411 participants, an increase attributed to the efforts of ten enumerators who were tasked with administering the questionnaires. These enumerators conducted face-to-face interactions with respondents, allowing them to clarify any questions and ensure accurate responses without misunderstandings or skipped items.

The questionnaire extracted information on the age of the business of an SME manager. It also gathered information on how SME operators perceived certain ICT factors as success elements, using a 5-point Likert scale with responses ranging from Strongly Disagree (5) to Strongly Agree (1). Additionally, using a binary data approach, the survey inquired about the firms' capacity to regularly replenish inventory. Data were analyzed through both descriptive and inferential statistical means, using the Statistical Package for Social Sciences (SPSS). Descriptive statistics included percentages, means, frequencies, and standard deviations, while inferential statistics involved correlation and regression analysis to draw more detailed insights from the data.

Results and Discussions

This study aimed to explore the impact of information and communication technology (ICT) usage on the success of SMEs. The key variables examined included mobile phone usage, social media engagement, e-mail utilization, website presence, and office tools/software products within business operations. The metrics used to measure success are presented in Table 1 and Figure 2 below.

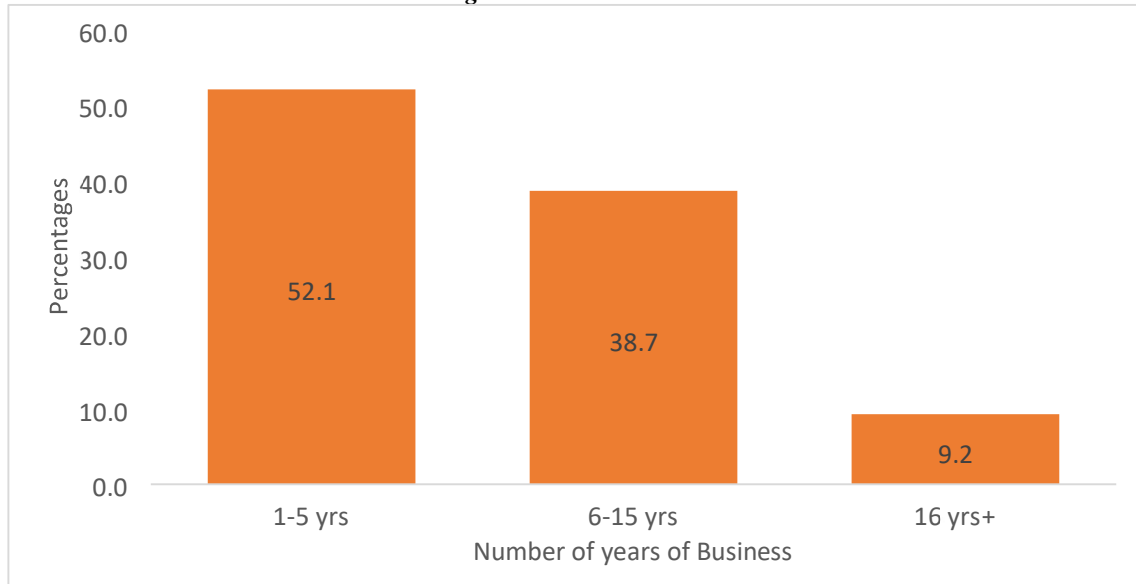
Table 1: Performance of SMEs in Inventory Replacement

Metric for Assessing SME Success (Statements)	Scale	N (%)	Mean Deviation	(St.
Your firm consistently replenishes its inventory	No	91 (22.1)	1.78 (0.416)	
	Yes	320 (77.9)		
Your firm can regularly expand both the quantity and value of its inventory	No	111 (27.0)	1.73 (0.445)	
	Yes	300 (73.0)		
Your business is capable of covering all its labor expenses	No	122 (29.7)	1.70 (0.457)	
	Yes	289 (70.3)		
Your business can meet all its statutory obligations	No	120 (29.2)	1.71 (0.455)	
	Yes	291 (70.8)		
Your firm can cover all other overhead costs as they become due	No	117 (28.5)	1.72 (0.452)	
	Yes	294 (71.5)		
Weighted Average of SMEs Success		411	2.27 (0.27)	

Source: Field Survey (2024)

According to the data, the findings demonstrate that, on the whole, Small and Medium-sized Enterprises (SMEs) performed well (Mean = 2.27, Standard Deviation = 0.27). Notably, over 70% of participants reported that their businesses were consistently able to replenish inventory, increase both the quantity and value of stock, cover all labor expenses, meet statutory obligations, and handle other operational costs as they became due. These outcomes indicate the firms' overall stability. In terms of longevity, the majority of businesses (52.1%) had been operational for 1-5 years, with around 39% in business for 6-15 years. Only 9.2% had been running for over 16 years. Despite showing positive performance, the results also highlight a trend in which many SMEs tend to close within the first five years of operation, aligning with the findings of (Brako, et al., 2016). Figure 2 below illustrates the distribution of SME ages.

Figure 2: Years in business



Source: Field Work (2024)

As we transition to the primary focus of this study - evaluating the impact of ICT skills on the success of SMEs, the study first presented results on use of mobile phone as seen in table 2 below.

Table 2: The extent to which the use of mobile phone influences the success of SMEs

Statements	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree	Mean (Std. deviation)
The use of mobile phones plays a significant role in driving the success of SMEs	21 (5.2)	44 (10.6)	45 (10.9)	201 (48.8)	100 (24.4)	3.62 (0.675)
In modern business management, the ability to make and receive phone calls is essential.	20 (4.9)	41 (9.9)	51 (12.4)	200 (48.5)	99 (24.2)	3.60 (0.699)
Connecting with business partners is a crucial aspect of effective business management	21 (5.2)	44 (10.6)	51 (12.4)	197 (47.9)	98 (23.9)	3.59 (0.700)
The majority of your business transactions are conducted via phone calls.	22 (5.3)	44 (10.8)	52 (12.7)	196 (47.6)	97 (23.7)	3.59 (0.705)
Making phone calls allows you to significantly cut down on operational expenses.	22 (5.4)	45 (10.9)	57 (13.9)	192 (46.6)	95 (23.2)	3.56 (0.725)
In running your business, the phone serves as a vital channel for staying connected with clients and engaging with key stakeholders	21 (5.1)	42 (10.3)	54 (13.1)	196 (47.7)	98 (23.8)	3.58 (0.712)
Phone calls play a crucial role in enhancing both the performance and resilience of your business.	21 (5.1)	42 (10.3)	58 (14.1)	194 (47.1)	96 (23.5)	3.56 (0.728)
Use of mobile phone Weighted Score N = 411 3.59 (0.521)						

Source: Field Survey (2024)

In terms of mobile phone usage, Table 8 reveals that a significant portion (48.8%) of respondents agreed, while 24.4% strongly agreed that the use of mobile phones is pivotal to the success of SMEs. Additionally, 48.5% agreed and 24.2%

strongly agreed that the ability to make and receive calls is essential in managing businesses of late. Furthermore, 47.9% of respondents agreed that the ability to communicate with business partners via mobile phones is vital for effective business management, and 23.9% strongly supported this view. Similarly, 47.6% of respondents preferred conducting most of their business transactions over the phone, with 23.7% strongly agreeing with this preference. A notable 69.8% of respondents indicated that they use phone calls to reduce business operational costs (mean = 3.56, standard deviation = 0.725). This sentiment is echoed by 47.7% of respondents who agreed, and 23.8% who strongly agreed, that they rely on phone calls for communication with customers and stakeholders (mean = 3.58, standard deviation = 0.712). Moreover, 47.1% of respondents agreed, and 23.5% strongly agreed, that frequent phone call usage enhances business performance and resilience (mean = 3.56, standard deviation = 0.728). On a composite scale, mobile phone use was identified as a key contributor to SME success (mean = 2.26, standard deviation = 0.521).

The results of this study are consistent with the wider body of literature emphasizing the pivotal role of mobile technology in boosting the efficiency and performance of small and medium enterprises (SMEs). As indicated by Donner, et al., (2010), mobile phones have significantly improved access to market information, allowing SMEs to communicate in real time with customers and suppliers, thereby streamlining operations and reducing transaction costs. This is consistent with the current study, which highlights that a majority of respondents believe mobile phone usage improves business performance and reduces operational expenses. Additionally, studies such as (Qiang, Christine Z., 2011) further emphasize that mobile phones empower SMEs by providing flexible and cost-effective communication tools, facilitating better market participation and enhancing business resilience. Table 3 presents the results to determine how the use of social media affects the success of SME's.

Table 3: The degree to which social media usage impacts the success of SMEs

Statements	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree	Mean (Std. deviation)
Social media is essential for small business success	24 (5.9)	49 (11.9)	76 (18.5)	175 (42.5)	87 (21.2)	3.45 (0.787)
You utilize social media to conduct your business transactions	22 (5.3)	44 (10.8)	81 (19.7)	176 (64.2)	88 (21.4)	3.45 (0.802)
Social media allows you to connect more quickly with suppliers and clients	25 (6.1)	51 (12.4)	74 (18.0)	174 (42.4)	87 (21.1)	3.45 (0.781)
Social media facilitates affordable and efficient connections with both suppliers and clients	24 (6.0)	50 (12.0)	77 (18.7)	174 (42.2)	86 (21.1)	3.45 (0.789)
Social media serves as a powerful platform for showcasing and promoting your products to a wider audience	23 (5.7)	48 (11.6)	78 (19.0)	175 (42.5)	87 (21.2)	3.45 (0.793)
Your business's survival and success hinge on active participation in social media	24 (6.0)	50 (12.0)	100 (24.3)	158 (38.5)	79 (19.2)	3.33 (0.843)
Usage of social media	Weighted Score N = 411 3.43 (0.587)					

Source: Field Survey (2024)

The findings regarding the use of social media in Small and Medium-sized Enterprises (SMEs) indicate its critical role in business operations. According to Table 3, 42.5% of respondents agreed, and 21.2% strongly agreed, that social media is essential for SME success. Additionally, a significant 85.6% of participants reported using social media to conduct their business transactions, confirming its utility in daily operations (mean = 3.45, St. Deviation = 0.802). A combined figure (63.5%) of respondents acknowledged that social media allows them to engage more quickly with suppliers and customers, while 63.3% highlighted its cost-effectiveness in fostering these connections (mean = 3.45, St. Deviation = 0.789). Moreover, 42.5% agreed, and 21.2% strongly agreed that social media helps SMEs market their products in a cost-efficient manner. Regarding business survival, 57.7% of respondents (38.5% agreeing and 19.2% strongly agreeing) asserted that, in today's business landscape, it is challenging for a business to either survive or flourish without leveraging social media. (mean = 3.33, St. Deviation = 0.843). The overall findings, with an average mean of 2.08 (St. Deviation = 0.587), underscore the significant effect of social media on the success of SMEs

These findings support the broader literature, which highlights social media's transformative impact on business success, especially in SMEs. According to (Kaplan, et al., 2010), social media has become a vital tool for enhancing brand visibility and fostering customer engagement. This parallels the high endorsement from respondents regarding its use in business transactions and marketing. The results also echo research by Taneja, S., & Toombs, (2013) which underscores the effectiveness of social media in facilitating fast communication with suppliers and customers. The emphasis on cost-effectiveness is supported by Harris, L., & Rae, (2009), who argue that social media offers a more affordable alternative to traditional marketing methods. Overall, these results reflect the current consensus in the literature, affirming that social media has become essential for modern SMEs to stay competitive and succeed in an ever-changing business environment.

Table 4: The extent to which e-mail use influences the success of SMEs

Statements	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree	Mean (Std. deviation)
Email has become an essential tool for the success of small businesses	36 (8.7)	72 (17.6)	127 (30.9)	118 (28.6)	58 (14.2)	3.12 (0.851)
An email address has evolved into a fundamental cornerstone of a business's identity	35 (8.5)	70 (17.5)	148 (36.0)	106 (25.6)	52 (12.8)	3.02 (0.864)
Emails play a pivotal role in your business dealings	40 (9.8)	81 (19.6)	138 (33.6)	102 (24.7)	50 (12.3)	3.03 (0.840)
Email allows you to connect more swiftly with suppliers and clients	41 (10.0)	83 (20.2)	149 (36.3)	92 (22.4)	46 (11.2)	1.97 (0.836)
Email facilitates cost-effective connections with suppliers and clients	42 (10.3)	86 (20.8)	137 (33.3)	98 (23.7)	48 (11.8)	3.02 (0.831)
Email assists you in promoting your business products	44 (10.8)	89 (21.6)	143 (34.8)	90 (21.9)	45 (10.9)	1.98 (0.823)
Your business cannot thrive without the integration of email	44 (10.8)	89 (21.6)	154 (37.5)	83 (20.2)	41 (10.0)	1.93 (0.820)
E-Mail use	Weighted Score N = 411 3.76 (0.632)					

Source: Field Survey (2024)

The findings regarding the use of email in SMEs indicate mixed opinions about its significance in business operations. Table 4 reveals that 42.8% of respondents believe email is an important tool for SME success. Additionally, 28.6% agreed, and 14.2% strongly agreed, that email serves as a critical business identity in modern organizations. A moderate proportion of SME operators (24.7% agreed and 12.3% strongly agreed) reported using email in their business transactions, suggesting that email still plays a role in facilitating operations.

However, the data also highlights a significant level of uncertainty among respondents. For instance, 36.3% expressed doubts about email's ability to connect quickly with suppliers and customers. Similarly, only 23.7% agreed and 11.8% strongly agreed that email is a cost-effective method for communication with stakeholders. Additionally, 34.8% of respondents were unsure about email's effectiveness in marketing business products, and its role in the survival of their businesses, with only 20.2% agreeing and 10.0% strongly agreeing that email is essential (Mean = 1.93, St. Deviation = 0.820)

The discussion reveals a shift in the role of email in SMEs, as contemporary research indicates a growing preference for faster, more interactive communication tools. While traditional studies, such as (Leek, et al., 2003), emphasize email's reliability for formal business communication, especially in B2B settings, more recent literature suggests that newer technologies are taking precedence. For example, Rettie, (2002) highlights that instant messaging platforms and social media offer quicker, more dynamic engagement with stakeholders. As a result, while email remains useful, its significance in SME operations may be declining as businesses adopt more efficient communication methods.

Furthermore the study considered the effect of office tools/software products influences on the success of SMEs as showcased in Table 5 below.

Table 5: The extent to which application of office tools/software products influences the success of SMEs

Statements	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree	Mean (Std. deviation)
Office tools like Word and Excel are essential for the success of small businesses	29 (7.1)	59 (14.3)	146 (35.5)	118 (28.8)	59 (14.3)	3.08 (0.884)
Office tools can be used to manage business products and accounts efficiently.	29 (7.0)	58 (14.2)	142 (34.5)	112 (29.6)	60 (14.7)	3.10 (0.884)
Office tools enable the smooth operation of your business	30 (7.4)	62 (15.0)	145 (35.3)	116 (28.2)	58 (14.1)	3.07 (0.879)
You rely on at least one office tool to manage your enterprise's inventory and accounts	31 (7.5)	62 (15.1)	153 (37.2)	110 (26.8)	55 (13.3)	3.03 (0.880)
There are software solutions that streamline and integrate all aspects of a business, enhancing overall efficiency	30 (7.3)	61 (14.8)	150 (36.5)	114 (27.6)	56 (13.8)	3.05 (0.882)
Your firm can operate highly effectively with the help of business software	31 (7.5)	62 (15.1)	150 (36.5)	112 (27.3)	56 (13.6)	3.04 (0.880)
In today's SME landscape, your business's success is jeopardized without the backing of effective ICT software	29 (7.2)	60 (14.5)	158 (38.4)	110 (26.6)	54 (13.3)	3.01 (0.886)
Application of software products	Weighted Score N = 411 3.05 (0.674)					

Source: Field Survey (2024)

In relation to the use of office tools such as Word and Excel, Table 5 indicates that 43.3% of the participants endorsed that these tools contribute to the success of SMEs. Additionally, approximately 29.6% of the respondents agreed and 14.7% strongly concurred that office tools enable efficient management of enterprise products with reduced stress. Similarly, 28.2% agreed and 14.1% strongly agreed that office tools facilitate the successful operation of SMEs. The study also revealed that SME operators utilize software products to manage and integrate various business areas for enhanced efficiency, with 40.9% of participants affirming this use. Moreover, 27.3% agreed and 13.6% strongly agreed that their firms operate more effectively with the aid of business software. Furthermore, 39.9% accepted that the current SME environment's success is vulnerable without the support of ICT software. These findings suggest that the adoption of software products is crucial for the success of SMEs, with an overall mean value of 3.05 and a standard deviation of 0.674. The findings resonate with the broader literature highlighting the importance of information and communication technology (ICT) in driving the success of SMEs. For instance, a study by (Awa, et al., 2011) emphasizes that the integration of office tools and software significantly enhances operational efficiency, decision-making, and overall productivity within SMEs. The study further hinted that the effective use of ICT tools not only streamlines business processes but also fosters innovation and competitiveness among SMEs. The above underscores the critical role of software tools in facilitating business operations and achieving success in the dynamic SME landscape.

Table 6 shows the results of the use of business websites by SMEs and how this affects the success of their businesses.

Table 6: The extent to which use of business Website influences the success of SMEs

Statements	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree	Mean (Std. deviation)
Having a website significantly enhances a firm's ability to promote its presence	42 (10.2)	84 (20.5)	147 (35.8)	92 (22.4)	46 (11.2)	1.98 (0.833)
A website can greatly boost your firm's visibility	40 (9.7)	80 (19.5)	157 (38.2)	90 (21.8)	44 (10.8)	1.94 (0.841)
A website can substantially enhance your firm's market share potential	39 (9.5)	78 (19.0)	164 (39.9)	87 (21.1)	43 (10.5)	1.92 (0.843)
A website can greatly improve your firm's chances of success and longevity	40 (9.8)	81 (19.6)	156 (38.0)	90 (21.8)	44 (10.8)	1.95 (0.839)
Website	Weighted Score N = 411 1.55 (0.621)					

Source: Field Survey (2024)

The findings presented in Table 6 reveal that a considerable portion of respondents (35.8%) expressed uncertainty regarding how a website could enhance their business presence. Furthermore, 38.2% of participants were unsure about the website's potential to boost their business visibility. Similarly, a significant number of respondents (39.9%) indicated uncertainty about the ability of owning a website to expand their market share. Additionally, 38.0% of respondents were unsure of the website's capability to improve the success and survival of their businesses. Overall, the composite results suggest that many SME operators perceive a limited potential impact of website utilization on their business success, with a mean value of 1.55 and a standard deviation of 0.621.

These findings reflect a broader trend in the literature regarding the digital divide among SMEs. While numerous studies have highlighted the benefits of having an online presence, such as increased visibility and market reach, many SMEs still struggle to recognize these advantages. According to (Cacciolatti, et al., 2016), the effective use of websites can significantly enhance an SME's market presence and customer engagement, yet many businesses fail to leverage these tools effectively. Furthermore, a study by Hsu, P.-F., & Tzeng, (2017) emphasizes that a lack of understanding and digital literacy can hinder SMEs from utilizing websites to their full potential, which aligns with the uncertainty expressed by respondents in this study. This indicates a critical need for training and resources to help SME operators appreciate and utilize digital tools to foster growth and success in the modern market landscape.

Going forward, Pearson's correlation and linear regression models, using a 95% confidence interval, were employed to assess the statistical significance of how ICT skills impact SME success. The findings are presented in Table 7.

Table 7: The effect of ICT skills on SMEs' success

ICT Skills	SMS Success (Correlation Model)	SMS Success (Regression Model)	Hypothesis Decision
Basic use of mobile phone	0.127* (0.010)	0.0706** (0.0295)	Reject H ₀
Usage of social media	0.034 (0.496)	-0.0132 (0.0285)	Reject H ₀
E-mail use	0.034 (0.496)	0.0271 (0.0318)	Reject H ₀
Use of Office tools/Software products	-0.021 (0.673)	-0.0461 (0.0334)	Reject H ₀
Use of business website	0.022 (0.656)	0.0180 (0.0313)	Reject H ₀
Constant	-	2.147*** (0.0643)	

Observations	411	411
R-squared	-	0.022
Prob > F	-	0.107

Source: Field Survey (2024): P-values in parentheses in correlation model and Standard errors in parentheses in regression model: * $p < 0.01$, ** $p < 0.05$, * $p < 0.1$**

Using Pearson correlation statistics at a 95% confidence interval, Table 7 indicates that basic mobile phone usage is the only significant ICT skill positively associated with the success of SMEs, with a correlation coefficient of $R = 0.127$ and a p-value of 0.010. In contrast, the usage of social media, email, office tools/software products, and corporate websites did not demonstrate statistically significant relationships with SME success, as indicated by p-values greater than 0.05. Additionally, the regression analysis revealed that ICT skills, in general, were not predictors of SME success within Wa Municipality, with an $R^2 = 0.022$ and a probability greater than F value of 0.107. Although several ICT competency factors were statistically significant at the 95% confidence level, their contributions were minimal. Notably, the use of office tools/software products and corporate websites showed a negative impact on SME success, as highlighted by respondents in Wa Municipality. Ultimately, the basic use of mobile phones by small firm managers was the only factor that significantly enhanced their success by 7.06% (p-value = 0.0295).

Conclusion

In conclusion, this study highlights that while various ICT skills are recognized, only basic mobile phone usage significantly correlates with SME success in Wa Municipality. The limited impact of other ICT tools suggests that many SMEs may not fully harness the potential of more advanced technologies. To improve their success rates, it is crucial for SMEs to bolster their digital literacy and leverage a broader range of ICT tools. A recommendation for stakeholders is to invest in training programs aimed at equipping SME managers with comprehensive ICT skills that go beyond basic mobile usage, thereby enabling them to utilize social media, email, and website functionalities effectively to drive business growth and enhance overall competitiveness.

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