FACTORS INFLUENCING ICT ADOPTION AMONG INCUBATED SMALL BUSINESSES IN SIDO MWANZA

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ABSTRACT

Purpose: This study aimed at gaining a deeper understanding of what influences the adoption and use of Information Communication Technology (ICT) by incubating small businesses in SIDO (Small Industries Development Organization) Mwanza.

Design/Methodology/Approach: The researchers used a mixed research design (triangulation). The study used questionnaires and Key Informants Interviews to obtain data from participants in the study. The study used the census to obtain respondents for the questionnaire who are 57 owners of incubated small businesses at SIDO Mwanza and two incubator leaders and purposive sampling to identify KIIs. Multiple linear regression was utilized to analyze data.

Findings: The study found that there is a positive effect of the perceived usefulness of ICT by incubated SBEs on its adoption and use. Small business enterprises (SBEs) are likely to adopt and use ICT when they can easily quantify their benefits to their businesses, improve productivity and lower their operation cost. It was also established that perceived ease of use has a positive influence on ICT adoption and use by incubated SBEs at SIDO Mwanza.

Research Limitation: The participants selected for the study may not be representative of the population of incubated small businesses in Sido Mwanza. The sample may be biased towards businesses that have already adopted ICT or have a positive attitude towards it, which may not be reflective of the overall population.

Practical implication: When SBEs perceived usefulness increases it will literally increase the benefits and reduce the perceived cost. Also, the government should provide funding support to the SBEs.

Policy implication: ICT adoption among incubated small businesses requires a coordinated effort among policymakers, incubators, universities, and other stakeholders to promote the development of effective strategies that can improve the access and use of ICTs among incubated small businesses and promote their growth and success.

Originality / Value: The novelty of ICT adoption among incubated small businesses lies in its potential to transform the traditional model of business incubation by leveraging the power of digital technologies. While business incubation has traditionally focused on providing physical infrastructure, technical assistance, and access to financing, ICT adoption offers a new dimension of support that can enhance the competitiveness and sustainability of incubated small businesses.

Keywords: Adoption. incubation. ICT. small business enterprises. Tanzania

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INTRODUCTION

Information and communication technology (ICT) adoption is crucial for the growth and sustainability of small businesses in developing countries. ICT has the potential to improve business operations, increase productivity, and access new markets. However, despite the benefits of ICT, adoption rates among small businesses in developing countries remain low due to various factors such as lack of resources, inadequate training, and inadequate infrastructure (Afrifa, 2021).

Business incubation programmes have emerged as a strategy to support small businesses in developing countries. Incubation programs provide resources such as mentorship, training, access to financing, and networking opportunities, aimed at helping small businesses to overcome challenges and grow their businesses. However, the effectiveness of incubation programs in promoting ICT adoption among small businesses in developing countries remains unclear (Munir, Lui, & Griffiths, 2018).

According to Donge (2020), incubation programmes are typically recognized as sources of employment, wealth creation at the local and national levels, and poverty reduction. By assisting an entrepreneur in lowering startup expenses, incubation programs create a favourable atmosphere for entrepreneurs in the early stage of launching an enterprise. Additionally, incubation boosts capacity and confidence while connecting the entrepreneur to the resources needed to launch a business.

Incubators can offer users access to all business services by utilizing ICT tools. As a result, these tools and services can assist incubator personnel and entrepreneurs in setting up their business models and procedures in a professional manner. (Alzaghal & Mukhtar, 2017). By improving all activities and services for the incubates, the adoption of ICT tools by a business incubator might, therefore, improve global competitiveness and enhance product quality. It could also assist these enterprises in providing more thorough customer service (Alzaghal & Mukhtar, 2017).

Both Small business enterprises (SBEs) and Medium business enterprises (MBEs) play a key role in the Tanzanian economy. They are essential for employment and poverty reduction. However, despite the important role of SMEs in the development of the Tanzanian economy, they experience a high death rate of about 54.6% for the survival of not more than three years (Mmasi, 2019). These enterprises cite a lack of finance low technology adoption, lack of business skills, poor business network, poor market access and poor management skills as the main causes for the collapse of businesses (ESRF, 2015).

The government of Tanzania has provided many interventions to support Micro, Small and Medium Enterprises (MSMEs). Such interventions are geared to address challenges that MSMEs are facing so as to rescue their survival. One of the major interventions that were done is the establishment of incubation programs so as to improve the survival and performance level of MSMEs in the country (ESRF, 2015).

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Information and communication technology (ICT) is defined as a method of gaining access to information via telecommunications, which is similar to the definition of IT but additionally, it takes into account communication technology. Information and communication technology is seen as a crucial instrument for the development of new businesses (Mukhtar, 2017).

Despite this, the role of ICT in promoting new ventures in Tanzania is an undeniable fact. However, the adoption of ICT by incubated businesses is still low and this has hindered their performance and competitiveness (Nikundiwe, 2022). There is limited research on the effectiveness of ICT adoption in enhancing the competitiveness and sustainability of incubated small businesses, especially in the context of emerging and developing economies. (Rajesh & Rehman, 2020; Sahu & Gupta, 2020). This study aims to identify the factors influencing ICT adoption among incubated small businesses in Sido Mwanza. Sido Mwanza is one of the largest cities in Tanzania and is home to several small businesses. The study will focus on small businesses enrolled in incubation programs within the city, as they are likely to have access to resources that may facilitate ICT adoption. The findings of this study will contribute to the understanding of the effectiveness of incubation programs in promoting ICT adoption among small businesses in developing countries.

The study's findings would make a practical contribution by offering a basis to solve the problem of low ICT adoption by incubating small businesses. Furthermore, Incubator managers, governments, universities, centres of excellence, funding organizations, policy-makers, academics, and other stakeholders will gain insights into the major hindrances to ICT adoption by the incubated SBEs.

LITERATURE REVIEW

Theory Applied

The Technology Acceptance Model (TAM) examines how people embrace and use technology. It determines if an information system or other communication technology is acceptable. TAM assists us in comprehending human-technology interaction.

The Technology Acceptance Model (Davis, 1989), one of the most significant models of technology adoption, asserts that two crucial aspects affect a person's desire to utilize new technology. Elderly folks are less likely to use game technology if they find it frustrating or a waste of time.

You will want to learn how to use them as a result. The TAM has been criticized for a number of reasons, but overall, it provides a valuable framework that is congruent with a number of research looking at the elements that influence older individuals' readiness to embrace new technology (Braun, 2013).

The model forecasts how the technology will be received and highlights any changes that will be required to make the system user-friendly (Durodolu, 2016). TAM states that perceived usefulness

and perceived ease of use are what determine a person's intention to use or not to use a system. The intention to utilize the system mediates its actual use, but perceived usefulness is thought to be directly driven by perceived usability (Durodolu, 2016).

Related Literature

Early-stage Small and Medium Enterprises (SMEs) can expand with the help of physical or virtual incubators, which provide temporary business support services aimed at starting a successful independent business (Department Trade and Industry, 2017). The goal of the business incubation process is to help scale, growth-oriented, and early-stage businesses. Entrepreneurs are given a supportive environment during the process at the starting stage of development (Donge, 2020). By improving all activities and services for the incubates, the adoption of ICT tools by a business incubator might, therefore, improve global competitiveness and enhance product quality. It could also assist these enterprises in providing more thorough customer service (Alzaghal & Mukhtar, 2017).

To increase SMEs competitiveness, it is necessary to involve the government in running business incubators. Government involvement in business incubation should take the form of financing business incubation facilities and facilitating other organizations' participation in the incubation programs (Mmasi, 2019). This participation will boost ICT adoption by funding or subsidizing such facilities.

According to Donge (2020), incubation programs are typically recognized as sources of employment, wealth creation at the local and national levels, and poverty reduction. By assisting an entrepreneur in lowering startup expenses, incubation programs create a favourable atmosphere for entrepreneurs in the early stage of launching an enterprise. Additionally, incubation boosts capacity and confidence while connecting the entrepreneur to the resources needed to launch a business.

In developing nations like Tanzania, SMEs adopting ICT face obstacles like a lack of telecommunications infrastructure, a lack of qualified staff, a lack of or limited Internet literacy among clients and business partners, a lack of prompt and dependable systems for the delivery of tangible goods, a low bank account and credit card penetration rate, low income, and a low computer and Internet penetration rate (Kabanda & Brown, 2015).

Nikundiwe (2022) found that, while many SMEs have email addresses, a sizable portion of them still conduct business in the old-fashioned method. Citing the primary obstacle to the institutionalization of e-commerce is to be the lack of dependable, easily accessible Internet services. Most SMEs do not use the internet, which facilitates electronic commerce, for commercial purposes; instead, it is mostly used for e-mail, a common form of communication, and is rarely used for looking for products, suppliers, or market prospects.

Barriers to adoption and use can be broadly classified as internal or external (Khouja & Liu, 2020). An organization has internal hurdles, which it may also overcome because it has influence over the environment. Organizational culture, a shortage of resources, opinions on e-commerce, and

employee training levels are a few of the usual ones. The absence of telecommunications infrastructure, poor Internet connectivity, a lack of fixed telephone lines for dial-up access, and insufficient Internet Service Provider (ISP) infrastructure are examples of external impediments that are outside the organization's direct control.

METHODOLOGY

This study used a mixed methodology that included a quantitative survey and a semi-structured qualitative interview that was controlled by an interview protocol. The choice of mixed approach is based on the synergy it brings in data collection and analysis when put together. (Creswell et al, 2011). The study is guided by convergent parallel where data were concurrently collected. The researchers used a descriptive survey. The study used questionnaires and interviews to obtain data from participants of the study. The questionnaire comprised open-ended and closed-ended questions, as well as organized and unstructured questions. For the closed-ended questions, a Five-point Likert Scale was used which included the following scales: (1) Strongly Disagree, (2) Disagree, (3) Uncertain, (4) Agree and (5) Strongly Agree. The study used the census to obtain respondents who are owners of incubated small businesses at SIDO Mwanza.

Interviews were conducted to gather qualitative data from incubator managers. The interview guide was used for this purpose. Adopting an interview guide is that it establishes a systematic approach (Kothari,2008). The researchers ensured the instrument's validity in this study by involving both content and constructions or face validity. Reliability was checked using the Cronbach Alpha formula through the computer program (SPSS) coefficient correlation which determines the internal consistency of the item questions in the questionnaires collected during the pilot testing. The results of the pilot research were cross-checked to determine the instruments' flaws. Cronbach's alpha was 0.88 indicating that the instrument was valid and reliable for data collection. The triangulation technique was used to ensure that qualitative data are reliable. The researcher used both questionnaires and an in-depth interview guide to collect data. The information was triangulated to ensure its existence of information.

Quantitative data analysis was carried out in four stages, as is customary in many research studies. Data cleaning, reduction, distinction, and explanation are some of them. Data clean-up involves editing, coding and tabulation to detect any anomalies. The Statistical Package for Social Scientists (SPSS) version 21 was used to enter all of the data, with the proper codes and variable specifications. Statistics were used to analyze the information obtained from the self-administered questionnaire. Multiple regression was used to obtain the relationship between variables using r-square.

Qualitative data were analyzed using qualitative content analysis. This method determined the presence of the certain word, themes or concepts. The richness of the data acquired in qualitative research is an advantage, but such data must be understood and coded in a legitimate and reliable manner. By utilizing content analysis, researchers can quantify and examine the occurrence,

significance, and connections of particular words, themes, or concepts. Content analysis is really dependable. This is because other individuals can use your coding system to investigate the same artefact. This is referred to as inter-rater dependability. It is a mixed-methods approach in which categories are assigned to text as a qualitative phase, and then several text passages are worked through and the frequency of the categories is analyzed as a quantitative step (Mayring, 2014).

RESULTS AND DISCUSSION

The results are provided, examined, and analyzed in this part in light of the study's objective. The questionnaire's primary focus was on the variables that influence incubated SBEs' adoption of ICT. A total of 10 respondents were targeted for this study. A total of 57 questionnaires were distributed to owners/ managers of incubated SBEs at SIDO Mwanza. Of the respondents, fifty-one (51) returned the questionnaires which are equal to 90%. This is considered a reasonable response rate because it is above 50% (Mugenda & Mugenda, 2003). Table 1 summarizes the response rate.

Demographic Information

Table 1: *Questionnaire Response Rate*

Nature of Response	Frequency	Percentage
Response	51	90%
Non Response	6	10%
Total	57	100%

Source: Field Data 2022

From the field, data researchers were interested to know other general information regarding the incubated SBEs at SIDO Mwanza. Table 2 and Table 3 present information regarding the type of ownership and the industry to which these SBEs belong respectively. Type of ownership and industry are established to guide in establishing any pattern that would influence ICT adoption. Future researchers will have a comparison point if these two items have an influence on the adoption and use of ICT.

Table 2: Type of Ownership

Type of Ownership	Frequency	Percentage
Sole proprietorship	11	21.6%
Partnership	23	45.1%
Limited liability company	6	11.7%
NGO	11	21.6%
Society	-	-
Other	-	-
Total	**51**	**100%**

Source: Field Data 2022

From Table 2 it is established that 45.1% of the incubated SBEs at SIDO Mwanza are partnerships. Other forms include sole proprietorship (21.6%), NGOs (21.6%) and Limited liability Companies (11.7%).

Table 3: *Type of Industry*

Type of Industry	Frequency	Percentage
Manufacturing	37	72.5%
ICT	5	9.8%
Banking and Financial Services	-	-
Education	2	3.9%
Health	1	2%
Hospitality	-	-
If Other	6	11.8%
Total	**51**	**100%**

Source: Field Data 2022

Perceived Usefulness and ICT adoption

Regarding how perceived usefulness influences the adoption of ICT by the incubated SBEs. Respondents were required to provide their views on how perceived usefulness related to improved productivity, business processes, internal communication, profitability and external communication influences ICT adoption. Results are presented in Table 4.

Table 4: Perceived Usefulness and ICT adoption

Perceived Usefulness Aspect	Pearson Correlation	Sig. (2-tailed)
ICT systems improve productivity	.711**	.000
ICT systems improve business processes	.291**	.003
ICT systems improve communication within the organization	.293**	.003
ICT systems improve communication with customers	.422**	.002
ICT systems improve companies' profitability	.672**	.000

**Correlation significant at 0.01 level (2 -tailed)

N=51

Source: Field Data 2022

Results in Table 4 above indicates that when it is perceived that ICT System would improve productivity then ICT adoption by SBEs are encouraged (r= 0.711, p< 0.000). Also if the ICT system is perceived to impact business processes positively then its adoption will increase (r= 0.291, p< 0.003). Furthermore, it is found that when the perception that ICT systems improve internal and external communication its adoption will increase (r= 0.293, p< 0.003 and r= 0.422, p< 0.002) respectively. It is also found that when ICT system is perceived to improve profitability then its adoption is enhanced. Nikundiwe (2022) had similar results to this. In his study, he investigated Challenges that limit SMEs from adopting e-commerce in Tanzania. Respondents agreed that ICT is able to improve performance and communication (both internal and external). However, it was stated that most SMEs do not utilize such facilities for business purposes. This also aligns with the Technological Acceptance Model of Davis 1989 which states that an individual's intention to use or not use a system is determined by perceived usefulness.

Perceived Ease of Use and ICT adoption

Regarding how perceived ease of use influences the adoption of ICT by the incubated SBEs. Respondents were required to provide their views how perceived ease of use related to: availability, access, ease of use and reliability influences ICT adoption. Results are presented in Table 5 below.

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Table 5: Perceived Ease of Use and ICT adoption

Perceived Ease of Use Aspect	Pearson Correlation	Sig. (2-tailed)
ICT systems within the organization are always available	.282**	.000
ICT systems in your organization are easily accessible	.241**	.000
ICT systems in the organization are easy to use for employees to carry out their tasks	.262**	.000
ICT systems in your organization are reliable.	.280**	.000

**Correlation significant at 0.01 level (2 -tailed)

N=51

Source: Field Data 2022

Results in Table 5 indicate that when it is perceived that ICT Systems are available then ICT adoption by SBEs is enhanced (r= 0.282, p< 0.000). Also when the ICT system is perceived to be accessible then its adoption will increase (r= 0.241, p< 0.000). Furthermore, it is found that when the perception that ICT systems are easy for employees to use in performing their duties its adoption increases (r= 0.262, p< 0.000). It is also found that when an ICT system is perceived to be reliable then its adoption is boosted. The results align with that of Kabanda and Brown, (2015) who found that access to ICT systems, reliability and employee competence of use are among the obstacles that hinder SMEs in adopting ICT systems. This also aligns with the Technological Acceptance Model of Davis 1989 which states that an individual's intention to use or not use a system is determined by perceived ease of use.

Perceived Cost and ICT adoption

Regarding how the perceived cost of adoption of use influences the adoption of ICT by the incubated SBEs. Respondents provided their views on how the ICT budget, financial support from the hub and easiness of funding ICT projects influence ICT adoption. Results are presented in Table 6.

Table 6: Perceived Cost of Adoption

Perceived Cost of Adoption	Pearson Correlation	Sig. (2-tailed)
Your organization has ICT budget	.763**	.000
ICT projects are easily funded in your organization	.722**	.000
Your Hub provides financial support for ICT tools/systems	.704**	.000

**Correlation significant at 0.01 level (2 -tailed)

N=51

Source: Field Data 2022

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Results in Table 6 indicate that when it is perceived that when there is a budget for ICT Systems then ICT adoption by SBEs is enhanced (r= 0.763, p< 0.000). Also incubated SBEs perceive that when ICT projects are easily funded then adoption increases (r= 0.722, p< 0.000). Furthermore, it is found that there exists a perception that when Hubs Hub provides financial support for ICT tools/systems its adoption is enhanced (r= 0.704, p< 0.000). This coincides with Mmasi (2019) whom he stated that the main purpose of business incubators/hubs is to provide space and easy access to technology and if this is done SMEs will easily adopt the technology. Similarly, Nikundiwe (2022) investigated the challenges facing SMEs in adopting e-commerce in Tanzania. The study found that the cost of adoption influences the level SMEs utilize ICT in their businesses.

Employees' ICT Knowledge and Skills in ICT adoption

Regarding how Employees' ICT Knowledge and Skills influence the adoption of ICT by the incubated SBEs, results are presented in Table 7 below.

Table 7: Employees' ICT Knowledge and Skills in ICT adoption

Employees' ICT Knowledge And Skills Aspect	Pearson Correlation	Sig. (2-tailed)
Employees in your organization easily adopt new ICT System	-0.243	.019
A number of employees have done basic training in ICT	-0.192	.059
Employees in your organization are technology acuity	-0.186	.119
A number of employees have a technical background in ICT	-0.091	.323
**Correlation significant at 0.01 level (2 -tailed)		
N=51		

Source: Field Data 2022

Results in Table 7 indicate that employees' ability to easily adopt a new ICT System (r= -0.243, p<0.019) has a significant influence on ICT adoption. Similarly, employees' basic training is not perceived to have any significant impact on ICT adoption System (r= -0.192, p<0.059). Furthermore, results show that employees' technology savviness and technical background in the same are not perceived to have a positive impact on ICT adoption (r= -0.186, p<0.119 and r= -0.091, p<0.323) respectively. The P values are all greater than 1 which implies that variables have a significant relationship. The results contradict Kabanda and Brown, (2015) who found that a lack of qualified staff is an obstacle that limits SMEs in adopting ICT.

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Qualitative Data Analysis

The semi-structured interview guide was used to collect qualitative data. The data were collected from two top incubator leaders who are responsible for managing small businesses. The content from their responses is analyzed as hereunder:

Results show that ICT adoption could be rated at an average of forty-five percent 45% considering the activities that are done using ICT systems and applications. Also, it is established that even the available ICT facilities are not fully utilized. This corresponds to what was found by Nikundiwe (2022) that SMEs are reluctant in utilizing ICT facilities and do business in an old fashion.

> **Leader 1:** *"If I were to rate ICT adoption here, out of 100% I would give it not more than 40%. SBEs here do most of their functions that would have been otherwise done using ICT manually".*

> **Leader 2:** *"If I were to rate ICT adoption by SBEs I would say its only 50%. You know this is a problem in many developing countries. We are still behind in terms of technology. Even the facilities that we already have like smartphones and computers are not fully utilized."*

It is further established that adoption is affected by both internal and external factors. This aligns with the findings of (Khouja & Liu, 2020), who found that the use of ICT in doing business in developing countries is hindered by both internal and external factors. Internal factors are within the organization's control while external factors are out of its control. Internal factors mentioned include low ICT knowledge (expertise), lack of full awareness of the usefulness of adopting ICT and preference for short-term profits. When asked what influences ICT adoption interviewee responded:

> **Leader 1:** *"We can't put all the blame on SBEs as some hindrances are not within their control. But there is a lot that can be controlled. Some perceive that ICT adoption would increase operating costs and reduce their profit. Well, that could be true in the short run, but in the long run, the cost will be reduced and profit maximized. We need to change our thinking."*

> **Leader 2:** *"These SBEs are still small, they lack financial muscles, they can't employ technology experts, and they have low manpower so it sometimes becomes difficult for them to deploy or fully utilize technology. Also, funders should create a modality that would help these SBEs deploy technology in an easier fashion. We also need more equipped hubs. Providing space alone may not be enough, we need to support them technologically too whenever budgets allow.*

CONCLUSION AND RECOMMENDATIONS

The study evaluated the influence of perceived usefulness, perceived ease of use, employees' ICT knowledge and cost associated with the deployment of ICT systems on the adoption of ICTs by

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incubated SBEs. From the findings, it is concluded that when users perceive that the ICT system is useful (i.e improves productivity, profitability, communication and business processes) its adoption chances increase. Therefore, entities should be made aware (create positive perception) of the usefulness of these systems by the ICT support companies it is further concluded that when potential users perceive that the ICT system is easy to use its adoption possibility increases. Hence, ICT support companies should provide support to ease the use of these ICT systems and applications. Furthermore, the study concludes that SBEs perceive their ICT adoption behaviour as affected by budget and funding support. This implies that for them to adopt ICT they should be provided with funding support to cover associated adoption costs. Government and business incubators should devise a better way to support the adoption of ICT. Moreover, incubated SBEs should appreciate that employees' ICT knowledge and skills are paramount in the adoption and use of ICT so they invest in increasing such knowledge. This is due to their current perception that employees' knowledge of ICT has no significant influence on the adoption.

Policy Implications:

The policy implications of ICT adoption among incubated small businesses are:
1. Develop policies and regulations that promote the adoption of ICTs among incubated small businesses, such as providing incentives and subsidies for investment in ICT infrastructure and services.
2. Promoting collaboration and partnerships between incubators, universities, and government agencies to provide incubated small businesses with access to ICT training and technical support.
3. Investing in the development and deployment of ICT infrastructure and services that are accessible and affordable for incubated small businesses, especially those in rural and remote areas.
4. Develop policies that promote the use of open-source and proprietary software to reduce the cost of ICT adoption and promote innovation among incubated small businesses.
5. Encouraging the development of ICT solutions that address the unique needs and challenges of incubated small businesses, such as supply chain management, marketing, and financial management.
6. Encouraging the use of ICTs to improve access to markets and customers, including e-commerce platforms, social media, and online advertising.
7. Develop policies that promote the integration of ICTs into the broader business environment and supply chain, including government procurement and export promotion programs.
8. Providing funding and support for research and evaluation to assess the effectiveness of strategies and interventions aimed at promoting ICT adoption among incubated small businesses, and using the findings to inform policy and practice.

Overall, the policy implications of ICT adoption among incubated small businesses require a coordinated effort among policymakers, incubators, universities, and other stakeholders to promote the development of effective strategies that can improve the access and use of ICTs among incubated small businesses and promote their growth and success.

Practical Implications:
The practical implications of ICT adoption among incubated small businesses are as follows:

1. Providing incubated small businesses with access to affordable and reliable ICT infrastructure and services can enhance their competitiveness, productivity, and profitability.
2. Promoting ICT training and technical support for incubated small businesses can improve their digital skills and knowledge, and enable them to leverage the full potential of digital technologies.
3. Encouraging incubated small businesses to adopt ICT solutions that can streamline their business processes, such as cloud-based accounting software, supply chain management systems, and customer relationship management tools.
4. Promoting the use of e-commerce platforms and social media to expand the market reach and customer base of incubated small businesses, especially in rural and remote areas.
5. Fostering collaboration and networking among incubated small businesses, universities, and other stakeholders through the use of digital platforms can promote knowledge-sharing and innovation.
6. Encouraging the development of ICT solutions that address the unique needs and challenges of incubated small businesses, such as financing, marketing, and product development.
7. Providing incubated small businesses with access to digital resources and services that can enhance their resilience and adaptability in the face of disruptive events, such as pandemics and natural disasters.

REFERENCES

Alzaghal, Q. K., & Mukhtar, M. (2017). Factors affecting the success of incubators and the moderating role of information and communication technologies.

Alzaghal, Q. K., & Mukhtar, M. (2018). The moderating effect of information and communication technology tools on the relationship between networking services and incubator success.

Davis, F. (1989). Technology Acceptance Model: Origins. *Working Papers on Information Systems*, 35-59.

Department, Industry and Trade (2017). South Africa Business Incubator Establishment Handbook. Pretoria, South Africa. 36pp.

Donge, H. I. L. D. A. (2020). *The contribution of incubation programmes to youth employment creation: a case of Sokoine University graduates entrepreneurs cooperative, Morogoro, Tanzania* (Doctoral dissertation, Sokoine University of Agriculture).

Economic and Social Research Foundation (ESRF) 2015. Annual Report 2015. Dar es Salaam, Tanzania.

Kabanda, S., & Brown, I. (2015). E-Commerce Enablers and Barriers in Tanzanian Small and Medium Enterprises. The Electronic Journal of Information Systems in Developing Countries.

Khouja, M., & Liu, X. (2020). A retailer's decision to join a promotional event of an e-commerce

platform. *International Journal of Electronic Commerce*, *24*(2), 184-210.

Lose, T., Rens, V., Yakobi, K., & Kwahene, F. (2020). Views from within the incubation ecosystem: discovering the current challenges of technology business incubators. *Journal of Critical Reviews*, *7*(19), 5437-5444.

Mmasi, S. M. (2019). An Investigation of the Impact of Business Incubation In Promoting The Competitiveness Of SMEs: A Case of Business Incubator In Tanzania. *Unpublished Doctoral Dissertation]. University of Tanzania, Tanzania*.

Nani, G. V. (2018). Challenges faced by business incubators in one city council in Zimbabwe: Perceptions of council administrators. *Journal of Contemporary Management*, *15*(1), 344-367.

Nikundiwe, E. A. (2022). Challenges limiting small and medium - scale enterprises from adopting electronic commerce in Tanzania. *Global Journal of Business, Economics and Management: Current Issues*, *12*(2), 180-189.

Tengeh, R. K., & Choto, P. (2015). The relevance and challenges of business incubators that support survivalist entrepreneurs. *Investment Management and Financial Innovations*, (12, Iss. 2 (contin.), 150-161.