Maximizing productivity, harnessing the power of portable gadgets for SMTE business communication in Eastern Cape peri-urban areas

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ABSTRACT

This study examines attitudes towards the use of portable devices for Information and Communication Technology (ICT) adoption in Small and Medium-sized Tourism Enterprises (SMTEs) in peri-urban areas of the South African Eastern Cape province. A comprehensive examination of portable gadgets in business ICT and their impact on SMTEs in Eastern Cape peri-urban areas was performed using a non-probability purposive sampling technique to select eight SMTEs, with a quantitative methodology approach adopted, using a structured questionnaire for an in-depth interview. Data captured from structured interview sessions were deductively coded with the aid of software (NVivo version 12), with the transcribed interview data divided into different meaningful codes in this process; developed based on the difference, similarities, and meanings that emerged. The findings suggest a positive attitude towards portable digital devices and technology use in SMTEs in the tourism sector in Eastern Cape peri-urban areas. Smartphones were found to play a crucial role as essential business tools, particularly favored in rural settings, while laptops were indicated as valued for their portability, serving as indispensable tools for daily business activities, while tablets hold less significance. The result highlights participant reliance on smartphones for business operations as critical, since these devices streamline numerous tasks, improve convenience, and enable seamless connectivity while mobile. The use of tablets in the tourism and hospitality sectors appears to be limited. The finding’s additionally indicated participants are heavily reliant on laptops for routine business activities, due to their portability and convenience. Desktop computers were, furthermore, found to primarily be used as backup systems, indicating a diverse, portable ICT gadget usage pattern among participants.

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Introduction

SMTEs now have a competitive advantage over larger companies on a global scale, attributed by Kabanda and Brown (2014) to the newest "anywhere-anytime" capabilities of smartphones and tablets. A serious risk is, however, posed to the security of SME customer and enterprise information, as well as personal employee information. A moderate uptake of portable/mobile ICT gadgets/tools was attributed to the lack of ICT knowledge, a clear plan to promote ICT adoption, and an SME legal ICT framework, along with expensive employee training costs, difficulties hiring suitable candidates, as well as high ICT maintenance costs, and insufficient ICT understanding by staff members (Cao, 2021). Adopting ICT technologies can help businesses be more productive, complete more work, introduce new ideas, and create opportunities for a more effective method of conducting business. The dynamic nature of ICT adoption has accelerated due to modern society's constantly changing business environment, making access to ICT increasingly necessary to participate in and engage with society (Otache, 2020).

In the opinion of Affum (2022), more companies are now providing smartphones to their employees, thereby enabling them to respond to emails from anywhere. These mobile phones are primarily used by SMEs for voice communications and short messaging services (SMS). According to Harris and Patten (2014), the fast acceptance and use of smartphones and tablets is driving changes in the way small businesses compete, with these new technologies transforming the competitive landscape in a variety of ways. Changes to how small businesses compete may include, for instance, assisting SME employees to increase their individual productivity at
lower service costs, where these new services make technology more accessible to small businesses (Harris and Patten, 2014). Smartphones and tablets, for instance, aid SME employees in increasing personal productivity, while lowering the expenses involved with procuring such services. Laptops and desktops play critical roles in business operations, as evidenced from their widespread use by most participants. These computing devices are indispensable tools for a variety of business-related tasks and functions, as these products and services essentially make technology more affordable and accessible to small enterprises, particularly those enterprises that operate in peri-urban areas.

A thorough investigation of business ICT and portable gadgets and their impact on SMTE communication in Eastern Cape peri-urban areas using a qualitative methodology approach, with a structured questionnaire employed for an in-depth interview with eight SMTEs, selected using a non-probability purposive snowball sampling technique. Structured interview session data were deductively coded by means of NVivo software (version 12), allowing transcribed interview data to be divided into various meaningful codes; created from the emerging differences, consistencies, and connotations.

The study posed questions to participant SMTEs from the rural-urban fringe of the Eastern Cape province of South Africa, with regard to how productivity can be maximized for SMTE business communication, using portable gadgets (smartphone, tablet, desktop computer), which included the following:

i. What are the preferred gadgets used by SMEs in urban and peri-urban areas of the Eastern Cape in South Africa for better business performance?

ii. Which gadgets are utilized more effectively in these peri-urban areas?

iii. What can be recommended in terms technological advancement for development in peri-urban areas?

The next part of the paper presents a literature review, as well as the theoretical and conceptual framework. After this, the paper sets out the research methodology, followed by the analysis and discussion of the study findings. To conclude, this paper offers recommendations, future research directions and outlines the study limitations.

Literature review

Morris et al. (2022) find rural-based SMEs have lower levels of internet connectivity due to the digital divide, which may make it difficult for these enterprises to conduct ordinary business operations or engage in diversification strategies. Due to a perceived lack of opportunity, the disadvantages seen in rural areas frequently cause a "brain drain" of skilled persons from rural to metropolitan areas, which is also witnessed in the peri-urban landscape. Furthermore, while diversified business ventures are said to present firms with the opportunity to navigate challenging times, such as the recent Corona virus outbreak, internet connectivity remains a challenge. In addition, although the internet is available in a few peri-urban and rural regions, SMEs face significant network connection difficulty, which makes it challenging for more business units to adopt mobile payment technology. All the mobile payment partners face difficulties in their ability to connect and provide high-quality payment services (Cao, 2021).

According to Modimogale and Krooee (2009), while the cities in South Africa have sophisticated ICT infrastructure, small towns and rural areas have relatively outdated infrastructure that restricts access to the Internet and web-based applications. This prevents corporate entities from participating in the information economy and e-commerce. Rahayu and Day (2017) and Okundaye et al. (2018) concur, when compared to large businesses, inhibitors of ICT adoption among SMEs include organizational, financial, infrastructural, and technological, as well as infrastructural factors. These factors included a lack of skilled personnel and a coherent ICT strategy, along with high investment costs, access to power, internet bandwidth, and reliable internet connections.

E-commerce is more established in cities than in small towns, because of reliable Internet service providers (ISPs), financial services, and connectivity with other organizations in many economic sectors. Eze et al. (2019) emphasize the significance of SMEs embracing technology as a crucial step to leverage and harness it as a competitive tool. This approach becomes essential in navigating the evolving dynamics of the new e-economy, which is characterized by its dynamic and rapidly changing nature.

In the opinion of Lertpiromsuk et al. (2022), there is a talent and skills gap in the workforce across many industrial sectors, due to the fast-paced development of modern technology. The term "skills gap" describes a discrepancy between an individual's existing talents and those needed to secure a successful job. According to the employer, the skills gap is the absence of the necessary abilities for effective participation in the labour market, which prevents gaining a competitive edge. In other words, the existing workforce cannot fulfill the needs of the business when it lacks the necessary capabilities; this leads to a skills gap, particularly in the technical area.

Theoretical and conceptual framework

The Technology Acceptance Model (TAM) and Theory of Planned Behavior (TPB) were utilized in this study, showing the congruence between aims and objectives, the reviewed literature, and the development of research questions for this study. The aim was to examine the attitude of SMTEs towards using portable ICT devices with the purpose to determine the impact on business performance in Eastern Cape peri-urban areas. In the opinion of Seth et al., 2019, TAM and TPB have been cutting edge theory in determining the power level of adopting technology and allowing comprehension of user purpose to accept definite technology. Irrespective of the recognized theories, Seth et al. (2019) have not distinguished a tangible forecast of user behavior concerning
adoption, with these results emphasized by Taylor and Todd in their 1995 IT usage assessments regarding the role of prior experience and competing models (1995a, b).

In the view of (Lin et al., 2019), TAM is not only the theory utilized in studying the acceptance level for new technology but has also been the operative vehicle in explaining an individual’s intention to utilize, for new technology and information. Furthermore, according to Ju et al. (2018), TPB deals with attitudes, norms, and perceived behavioral mechanisms; almost a precise behavior, forming a function to envisage individual behavior, particularly for behaviors that must be premeditated and planned. TAM and TPB are, therefore, theories that provide the foundation for the relationships between the independent and dependent variables in the conceptual framework, based on the theories. In the empirical portion of this study, the theories were used to develop hypotheses and guide data analysis.

SMEs on ICT adoption

As a result of the newest “anywhere-anytime” smartphone and tablet capabilities, SMEs now have a competitive advantage over larger companies, globally, with Kabanda and Brown (2014) stating this advantage may threaten the security of information regarding the SME, its customers, and personal employee details. Although Kabanda and Brown (2014) found adoption is influenced by government assistance, external impacts, and ICT knowledge, (Mukamanzi & Ndikubwimana, 2018) determined ICT adoption was significantly influenced by perceived benefits and ICT knowledge, but not by external variables. According to Taruté and Gatautis (2014), ICT affects the improvement of external and internal communication, and is critical to align ICT investments with internal capabilities and organizational processes for the best results. Majumdar et al. (2019), maintain the SME’s age and experience have a nonlinear effect on technology adoption means, in other words, the relationship between SMEs’ age/experience and technology adoption is not strictly linear; other factors may also influence the adoption process.

Furthermore, ICT-based competitive advantages may be accomplished by tourism and hospitality enterprises through distinctive internet marketing campaigns, continuing effective communication with several organizational stakeholders and through several other methods (Mihalić et al., 2015). The reality is technology has become ingrained in business and is ever-changing as it evolves; the best SMEs can do is to gain and maintain this competitive edge.

In the opinion of Elkhwesky and Elkhwesky (2023) Internet of Things (IoT) has both advantages and challenges for the hotel industry. The IoT has led to more flexible and innovative strategies through increased service automation. However, they concluded that research on IoT applications in the hotel industry is limited and requires further investigation (Gomes et al., 2024). Tam and Jong-Nam (2019) note that social media platforms such as Facebook, Instagram, and Twitter are increasingly restricting third-party access to their data, making it challenging to use Social Media Analytics (SMA). These systems cannot accurately collect and interpret visual data, such as images and videos. The study found that 86% of respondents face challenges in adopting SMA applications due to infrastructure failure, 35% due to lack of knowledge of social media platforms, and 29% citing platform acceptance as a challenge for tourism SMEs using SMA in their activities (Ponera & Madila, 2024). The study found that on technological aspects, most of the tourism SMEs are facing challenges associated with analytical skills, large volumes of data, and a variety of data. This implies that the large amount of data that tourism SMEs are receiving for SMA from different social media, such as pictures, voice, and text, has caused challenges for tourism SMEs to conduct analysis to get insight from social media data because of their inadequate analytical skills. These findings are in line with the study conducted by Stiegitz et al. (2018), which found that the volume of data and variety of those data are the main technological challenges for using the SMA tool. The findings of the study suggest that for tourism SMEs in Tanzania to remain sustainable in their business, they should harness the use of technology, such as the use of SMA tools, which may help them perform proper analysis, which may in turn enable business managers to make the right decisions. The study recommends that stakeholders in tourism SMEs, including the government, NGOs, and other organizations, provide knowledge about Social Media Analytics (SMA) to tourism SMEs and enhance ICT infrastructure to improve the application of ICT services within the tourism sector (Ponera & Madila, 2024).

Rasoolimamesh et al. (2024) posit that adapting to technological innovations, fostering stakeholder collaboration, and aligning with global sustainability goals are complex challenges (Fennell, 2021). The evolving global political landscape, technological advancements, and shifting socio-environmental priorities pose significant challenges to existing frameworks. According to Skinner (2019), government support and infrastructure issues substantially influence perceptions of sustainable tourism. Consequently, businesses’ sustainability strategies, which incorporate technology and prioritize socio-cultural and environmental impacts, require updated measurement tools. The integration of modern business operations and technological sustainability tools, such as interactive platforms and e-complaint systems, highlights the importance of incorporating contemporary strategies into measurement scales (Rasoolimamesh et al., 2024).

Mobile Phones and Tablets

As per a report from Gillwald et al. (2018), broadband has a positive impact on job creation and its use stimulates economic growth. Even though different impact studies indicate the aspects of the contribution that arise in broadband diffusion led to economic growth, Gillwald et al (2018) state there is mounting evidence in support of claims broadband use has increased GDP, aided with job creation, the broadening of educational opportunities, enhanced public service delivery, as well as rural development, and more.
Attitude of entrepreneurs on adopting ICT

Norms, and attitudes views, as Knight et al. (2017) advised, can establish a positive or negative perception in the organization behaviours and discovery that could direct to the strength or weaknesses of the organization’s strategy operation. It is, therefore, crucial to examine the psychological characteristics of SME decision-makers to act as mediator of the relationship between a firm’s resources and the organization’s behaviour and disclosure. Chege et al. (2019) advised ICT acceptance and submission depend on individual factors such as entrepreneurship innovation and the business environment, which impact the correlation between information technology (IT) and innovation and organizational performance.

Research Methodology

Research design

The research in this study used a quantitative approach to collect information from eight SMTE participants within the Eastern Cape Province, focusing on East London, Umtata and Gqeberha, as these cities that serve as the economic hub in the landscape of the province. The population in this study consists of SMTE owners/managers. These owners/managers are based within the province of the Eastern Cape province, with the tourism establishments that participated in this study including, travel agents, tour operators, accommodation, and hospitality. Akusoba (2024) indicates the Eastern Cape Province, known for its cultural diversity and economic complexities, provides a unique context for immigrant entrepreneurs to navigate a variety of factors, such as economic policies, cultural dynamics, and regulatory frameworks.

Sampling

The study employed a non-probability sample as it is practical, particularly in small-scale studies. The non-probability sampling technique, specifically snowball sampling, was employed. This method facilitated the careful selection of participants, with only SMEs in the tourism sector of the Eastern Cape included for study purposes. Participants were identified through referrals from one business owner to another, within the same sector. The target was to include 12 SMTE owners/managers; however, eight were considered sufficient and agreed to participate from the targeted population. According to Bergman (2008), non-probability sampling is a sampling technique that does not provide a basis for calculating the likelihood that each item in the population will be included in the sample.

Data collection

A quantitative methodology approach was adopted using a structured questionnaire for an in-depth interview. This approach aimed to gather the requisite data needed to fulfill the study objectives, with eight SMTEs selected through a non-probability, purposive, snowball sampling technique. Data for the structured in-depth interviews were collected using an online interview schedule via platforms such as Microsoft Teams and Zoom. Participant responses were recorded to allow the researcher to further investigate and explore their reactions. Replies were noted in a notebook during the interview sessions, guaranteeing accurate recording of respondent feedback. Furthermore, recordings served as a backup to assure data integrity. Standard survey questions, with regard to socio demographics, and structured interviews were used to collect data aligned with the research aims, which was to determine the impact of portable gadgets for SMTE business communication in maximizing productivity; this facilitated the systematic collection of pertinent information.

Data analysis

Data coding was done by assigning a number to each participant’s responses, with responses stored in a database. Nvivo version 12 software was used toductively code the data acquired during the structured interview sessions. The transcribed data were methodically separated into distinct and relevant codes using this coding technique, which was designed based on observed differences, similarities, and emergent themes. This strategy made it easier to organize data into useful themes and subthemes. Verbatim transcriptions of the structured interviews were carefully evaluated during the analysis phase, and significant quotes were extracted to complement the discussion on identified themes. The identity of participants was not revealed in the study to protect their anonymity. The use of NVivo 12 allowed for the thorough examination and interpretation of non-numerical data, contributing to a comprehensive understanding of the research subject. The utilization of a quantitative method with purposive sampling allowed the researcher to systematically obtain relevant data most pertinent to the research objectives from the selected SMTEs.

Trustworthiness and credibility

A pilot study tested problems with the instrument and its compatibility with the overall study, using five colleagues. Five colleagues from the Entrepreneurial studies department, who were unfamiliar with the study. The pilot study was useful in clarifying the effectiveness and relevance of questions in the structured questionnaire, performing a similar function for the proposed interviews. It also permitted the researcher to develop a series of questions that maximized opportunities for securing respondent views. In addition, according to Riley and Love (2000), a pilot study is an easy way to examine whether the circulation of the method(s) intended to be used in a research program meets the research objectives. The pilot study was carried out as a pre-test before doing fieldwork, to determine whether the instrument was error-free, and complied with the applicable ethics.
Ethical considerations

The Durban University of Technology Faculty Research Ethics Committee granted an Ethical Clearance Certificate to conduct the study, with permission from the Eastern Cape Department of Economic Development and Environmental Affairs (DEDEAT) to carry out the research. The survey questionnaire was accompanied by a covering letter from DUT, which presented the ethical clearance certificate, required signed consent to participate voluntarily, assured confidentiality, and explained the study aims and its importance, while also stressing the data would be used for the benefit of small business entrepreneurs.

Findings and Discussions

Socio demographic information

Table 1 presents the general information of the eight participants interviewed on the adoption of ICT in SMEs in the Eastern Cape province tourism sector. The data indicates most participants are in accommodation business (lodge, B&B, and guest house). Other businesses mentioned include tour operators, catering services, private dinner, and consulting. Participants’ companies were found to operate mostly in the lodging and accommodation spheres of the tourism industry, while their ages range from 34 to 56 years, and the length of operating their business from three to 19 years. The years in business indicate their resiliency in terms of business for both genders, where the enterprise in existence was the longest was almost 20 years. The age profile implies there is a greater level of maturity in commercial acumen among those between the ages of 30 and 50 years. Most participants are women; this suggests there are more women in these small tourism enterprises than men and more women are occupying leadership positions in their companies. The business ownership includes sole proprietorship, private ownership, and close corporation. The highest education level of the participants includes B-Tech, National Diploma, Postgraduate, and Honours; this implies they have the necessary credentials and are not illiterate in terms of education.

<table>
<thead>
<tr>
<th>Participants</th>
<th>Type of business</th>
<th>Gender</th>
<th>Age</th>
<th>Years in business</th>
<th>Highest education level</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Tour operator</td>
<td>Male</td>
<td>34</td>
<td>7</td>
<td>B-Tech Tourism Management</td>
</tr>
<tr>
<td>2.</td>
<td>Tour operator</td>
<td>Male</td>
<td>49</td>
<td>19</td>
<td>National Diploma Travel and Tourism</td>
</tr>
<tr>
<td>3.</td>
<td>Catering services, private dinner, and consulting</td>
<td>Female</td>
<td>37</td>
<td>8</td>
<td>Diploma Public Management plus Diploma Culinary Arts</td>
</tr>
<tr>
<td>4.</td>
<td>Accommodation, Guest house</td>
<td>Female</td>
<td>48</td>
<td>6</td>
<td>Postgraduate</td>
</tr>
<tr>
<td>5.</td>
<td>Accommodation, Lodge and Conference</td>
<td>Female</td>
<td>45</td>
<td>10</td>
<td>Bachelor of Arts</td>
</tr>
<tr>
<td>6.</td>
<td>Guest House</td>
<td>Female</td>
<td>54</td>
<td>12</td>
<td>Postgraduate Diploma Financial planning</td>
</tr>
<tr>
<td>7.</td>
<td>Accommodation, Lodge</td>
<td>Female</td>
<td>56</td>
<td>11</td>
<td>BCom Honours</td>
</tr>
<tr>
<td>8.</td>
<td>B&amp;B</td>
<td>Female</td>
<td>54</td>
<td>3</td>
<td>Diploma Education</td>
</tr>
</tbody>
</table>

Source: Author

Theme 1: Use of smartphones for business

Different subthemes were uncovered in theme 1, as detailed below.

Subtheme 1: The Use of Smartphone as Communication Tool

Participants were asked the following question “Do you use your smartphone or mobile as a business tool to communicate with your clients?” From the responses, except for participant 5 (Accommodation, lodge, and conference), all participants use their smartphones or mobile as business tools to communicate with clients.

Participant 1, Tour operator: “Yes”  
Participant 2, Tour operator: “Yes”  
Participant 3, Catering services: “Yes”  
Participant 4, Accommodation: “Yes”  
Participant 5, Lodge-Accommodation: “No”  
Participant 6, Guest house-Accommodation: “Yes”  
Participant 7, Lodge-Accommodation: “Yes”  
Participant 8, B&B-Accommodation: “Yes”
The findings indicate all participants admit to using smartphones for work purposes, except participant 5.

**Subtheme 2: The Convenience of Using Smartphones for Business**

Considering almost all participants agreed to using mobile devices (smartphones) to communicate with their clients, it was critical to know what they are using the smartphone for, in terms of business. It was gathered that the top managers rely on their smartphones as a critical tool for managing their businesses, using the device for email communication, marketing, booking, and invoicing, as well as banking. Interestingly, some participants mentioned they cannot survive or manage their business without a smartphone, with comments further elaborated below.

**Mobile Communication**

Participants use their smartphones for email communication, video calls, and WhatsApp communication with clients.

*Participant 2, Tour operator: “I can do video calls and record”.*

*Participant 3, Catering services: “I work onsite most of the time and need smartphone due to the nature of the business and when am in the kitchen use my phone.”*

*Participant 4, Accommodation: “Most customers use WhatsApp when they want to book”.*

**Marketing and Advertising**

Participants use their smartphones for marketing their business through social media platforms such as Facebook and WhatsApp.

*Participant 1, Tour operator: “I use for marketing”.*

*Participant 8, B&B: “I use Facebook to advertise and WhatsApp my clients”.

*Participant 3, Catering services: “Use smartphones for marketing and all social media platforms, including WhatsApp, such as e-commerce, e-marketing, and e-business”.*

**Booking Management**

Participants use their smartphones to manage and check bookings and reply to booking requests.

*Participant 6, Guest house: “I use smart phone to check the bookings done”.*

**Invoicing and Banking**

Participants use their smartphones for invoicing and handling financial transactions.

*Participant 7, Lodge: “I cannot manage without smartphone, ..... using it for banking...”.*

**Essential and Convenient Tool**

Participants consider their smartphones as an essential tool for managing their business that is also convenient and mention they cannot survive without it.

*Participant 3, Catering services: “I use smart phone more convenient has everything as opposed to laptop”.*

*Participant 4, Accommodation: “It is easy to use for me, I can use it whenever I am ..... I cannot survive without a phone” jokingly indicating “my husband knows that I need to do the business before sleeping and is jealous of us doing business on the smartphone”.*

*Participant 7, Lodge: “… I use it for everything, ..... and I cannot survive without”.*

*Participant 6, Guest house: “I cannot manage my business without, and it helps to control the business”.*

**Use for Design and Creation**

The evidence from the findings indicates participants use smartphones for design and creation in their business.

*Participant 1, Tour operator: “I can design anywhere can check”.*

*Participant 2, Tour operator: “I can receive emails, design Flyers using my phone”.*

*Participant 3, “use smartphones for video calls and content production”.*

**Subtheme 3: Dependence on Smartphone for Business**

When the convenience of using smartphones, as mentioned above, is taken into account, it was essential to know whether the participants can manage without their smartphone. The following question, “Can you manage without your smartphone for business?” elicited a response from most participants (7 of 8) that they cannot manage their business without a smartphone; thereby indicating the importance of and reliance on smartphones in conducting business activities. Only one participant, who runs an Accommodation, Lodge and Conference business, stated they can manage without it, due to a complicated system.

*Participant 1, Tour operator: “No”*

*Participant 2, Tour operator: “No, I cannot give my service for my business without smartphone.”*
Participant 3, Catering services. “No, I cannot be able to survive with it.
Participant 4, Accommodation, Guest house: “No, I cannot survive without a phone.”
Participant 5, Accommodation, Lodge and Conference: “Yes, not using my phone, cannot use it as complicated system cannot use a phone.”
Participant 6, Guest house: “I cannot manage my business without, and it helps to control the business.”
Participant 7, Lodge: “I cannot manage without smart phone, it for everything using it for banking and I cannot survive without.”
Participant 8, B&B: “I cannot survive without it.”

Theme 2: Use of Tablets for Business

In this theme, participants were asked regarding the use of tablets for business. The responses indicated most participants do not use tablets in their businesses. A few participants mentioned they had used tablets in the past but found them less convenient than smartphones for certain tasks, such as taking photos, making notes, and showing images to clients. They also mentioned their preference for one advanced phone, instead of multiple devices such as tablets, phones, and laptops. One participant mentioned they have considered buying a tablet for their business but wanted to buy a quality gadget that will last longer. Overall, the use of tablets in small and medium tourism and hospitality businesses appears to be limited. These uses are further elaborated in the subthemes below.

Subtheme 1: The Use of Tablet Communication Tool

When asked: “Do you use tablet as a business tool to communicate with your clients?” it was found most participants do not use a tablet as a business tool to communicate with clients. Participant 3, however, uses a tablet.

Participant 1, Tour operator: “No, considering one, want to buy quality gadget that will last longer”.
Participant 2, Tour operator: “No, I don’t but used to have and use it when am fetching clients from the airport for name tags, however it was stolen”.
Participant 3, Catering services, private dinner, and consulting: “Yes”.
Participant 4, Accommodation, Guest house: “I do not use it”.
Participant 5, Accommodation, Lodge and Conference: “No”.
Participant 6, Guest House: “No tablet”.
Participant 7, Lodge: “No tablet, no need to have many gadgets”.
Participant 8, B&B: “No tablet”.

Subtheme 2: Use of Tablets for Specific Business Tasks

When asked what participants use tablets for in terms of business, it was found, only one (participant 3) of the eight participants uses tablets regularly for business, while participant 2 used to but no longer does, as the tablet was stolen. The rest of the participants do not use a tablet, either because they feel a phone is sufficient or they prefer not to have multiple devices. Some participants mentioned the inconvenience of carrying a tablet around and others felt they do not need it, because their phone can perform the necessary tasks.

Participant 1, Tour operator: “No, considering one, want to buy quality gadget that will last longer.”
Participant 2, Tour operator: “Yes, used to have and use it when am fetching clients from the airport for name tags, however it was stolen.”
Participant 3, Catering services, private dinner, and consulting: “Yes and no, we do not so much maybe onsite need take pictures and take notes, a phone proven more convenient, tablet is limited cannot put tablet in your pocket and sometimes have lot of people can’t carry a tablet bag, we do use a tablet but not so much only for showing pictures to the client. Had a tablet and a phone and a laptop but decided that I needed one advanced phone so that cannot swap and change between tablet and laptop and smart phone. If I am meeting a client, I use tablet so that I can take notes and show the customer the pics whatever stuff that they want to see although phones can do that.”
Participant 4, Accommodation, Guest house: “I do not know why I should use it if I have a phone see everything, so I don’t need it.”
Participant 5, Accommodation, Lodge and Conference: “No, no need while have a computer.”
Participant 6, Guest House: “My phone is like a tablet so I can see everything.”
Participant 7, Lodge: “No need to have many gadgets only need laptop.”
Participant 8, B&B: “There is no need.”

In terms of the responses on the use of tablets, it appears not to be popular in these responses, with only participant 3 that uses a tablet, while the comment by Participant 8, B&B: “There is no need,” summarises the other respondents’ views.

When participants were simultaneously asked whether they could cope without their tablet for work, the responses were as follow:

Participant 1, Tour operator: “Yes, want to buy quality gadget that will last longer.”
Participant 2, Tour operator: “Yes”.
Participant 3, Catering services, private dinner, and consulting: “Yes”.
Participant 4, Accommodation, Guest house: “Yes”.
Participant 5, Accommodation, Lodge and Conference: “Yes”.
Participant 6, Guest House: “Yes”.
Participant 7, Lodge: “Yes”.
Participant 8, B&B: “Yes”.

The data provide a convincing justification why most people can function without their tablet, as seen from responses to the statement. Thus, it suggests participants do not view tablets as necessary or beneficial to their line of work.

**Theme 3: The Use of Laptops for Business**

This theme explores the use of laptops by the tourism and hospitality industry enterprises in their business operations and communication. All participants use laptops in their businesses, for tasks such as work on business documents, communication, and financial management. It was revealed the participants cannot manage without their laptops, as they rely on these tools for their day-to-day business operations and find it convenient for its portability. These are further elaborated in the subthemes below.

**Subtheme 1: The use of laptop as a communication tool**

When asked whether the participants use a laptop to communicate with their clients, all agreed to using a laptop as a communication tool.

Participant 1, Tour operator: “Yes”.
Participant 2, Tour operator: “Yes”.
Participant 3, Catering services, private dinner, and consulting: “Yes”.
Participant 4, Accommodation, Guest house: “Yes”.
Participant 5, Accommodation, Lodge and Conference Laptop: “Yes”.
Participant 6, Guest House: “Yes”.
Participant 7, Lodge: “Yes”.
Participant 8, B &B: “Yes”.

**Theme 4: Application of desktop computers in tourism business**

This theme explores the application of desktop computers in tourism and hospitality businesses. The theme is discussed under the subthemes below.

**Subtheme 1: Desktop Usage in Tourism Business**

When participants were asked “do you use a Desktop?”, four of the eight participants mentioned they use a desktop computer for their business, with the rest of the participants stating they do not. Among those who use desktops, it was uncovered this use varies from being a backup system to being used for all the reservation system and mail. Participant 8 noted they once had a desktop computer, but it was stolen.

Participant 1, Tour operator: “No, had it before, but it’s not necessary.”
Participant 2, Tour operator: “No desktop”.
Participant 3, Catering services, private dinner, and consulting: “No desktop”.
Participant 4, Accommodation, Guest house: “Yes, I had desktop, it was my first computer, and use it as a backup system.”
Participant 5, Accommodation, Lodge and Conference: “Yes, 2 desktops, I use for all the reservations system and mails.”
Participant 6, Guest House: “Yes, desktop we use most for booking and invoices capture, when the desktop is broken don’t wait for the insurance for payout should buy same time.”
Participant 7, Lodge: “Yes, I have one, but it’s an alternative, otherwise I do not need it.”
Participant 8, B &B: “Yes, I use, 1 to have it before, but it was stolen.”

**Discussion**

The discussions of the study results follow, based on the study objectives.

According to the findings, laptops, desktops, smartphones, and tablets have all helped SMEs by serving as indispensable tools for conducting critical business operations. The widespread use of laptops and desktop computers has simplified tasks, increased productivity, and enabled effective management of business processes. Similarly, smartphones and tablets have enabled mobility, flexibility, and convenience in communication, information access, and task management while on the go. Their portability and ease of use have allowed for seamless integration into various aspects of SME operations, increasing efficiency, responsiveness, and overall effectiveness in business ventures.
Smartphone convenience, portability, and productivity as tools for business operations

The findings indicate participants cannot survive without their smartphones for their businesses, as it makes many tasks more convenient and allows SME owners/managers to stay connected while on the go. Some participants also mentioned considering or using tablets for their businesses but found smartphones were more convenient and useful overall. The evidence of the findings indicates participants utilize smartphones for business purposes, with smartphones usage as critical business tools particularly popular in rural and peri-urban areas, exceeding that of urban peers. In contrast, urban SMEs use laptops and tablets frequently for client interactions, with desktop computers playing a crucial role as supplemental security measures for their business operations.

This is in line with findings of Muriuki and Sankat (2022) that indicate mobile phone applications are one of the important components of ever-changing ICT that have played a big role in redefining the way business is done in today's globalized and fiercely competitive corporate climate. There has been a steady growth of mobile phone usage, which, when managed correctly, would have a substantial positive impact on SME performance. In addition, Affum (2022) advises more companies are now making smart phones available to their employees, to allow their response to emails from anywhere. These mobile phones are primarily used by SMEs for voice communications and short messaging services (SMS). Harris and Patten (2014) posit the quick adoption of smartphones and tablets is, once more, altering the way small businesses compete, such as helping to increase SME employee productivity at decreased service costs, with small businesses thus better able to access technology.

SMEs rely heavily on smartphones. The findings are in line with Kabanda and Brown (2014), who advise SMEs have gained a competitive advantage over larger companies, on a global scale, thanks to the newest “anywhere - anytime” capabilities of smartphones and tablets. Nonetheless, this comes at a serious risk to the security of the SMEs' customer and enterprise information, as well as personal employee information. Furthermore, Ameji et al. (2020) suggested SMEs may perform better by utilizing online-based platforms to market and sell their products during the Covid-19 pandemic, with their performance potentially improved by using online-based platforms. Considering the pivotal responsibilities ICT carries in boosting business ability to generate more revenue and scale up operations, it has emerged as a key factor in the long-term success of any enterprise (big or small).

Adopting ICT technologies can help businesses be more productive, complete more work, introduce new ideas, and create opportunities for a more effective method of conducting business; a reflection that smartphones are a vital tool for participants. Based on the study findings, the mobile phone is regarded as one of the tools convenient for business as, from managers to employees, they can use their smartphones for business. Respondents were asked whether they use smartphones as a business tool to communicate with their clients. Most respondents were found to use their smartphones as business tools to communicate with clients, except for participant 5 (Accommodation, lodge, and Conference). The findings are in line with Otache (2020), who states that adopting ICT technologies can help businesses be more productive, complete more work, introduce new ideas, and create opportunities for a more effective method of conducting business. The dynamic nature of ICT adoption has, furthermore, accelerated due to modern society's constantly changing business environment and having access to ICT is increasingly necessary to participate in and engage in this society.

Therefore, it is evident that smartphones have gained significant popularity among SMEs in the tourism sector in Eastern Cape. According to Etim et al. (2023), the features available in smartphones, which make these devices effective for mobile money services, include mobile payments, transfers, and wallets. These services can be accessed and used through mobile devices such as credit or debit cards, phones, or other portable devices, representing the convergence of telecommunications and banking services. This system involves various stakeholders, including financial service providers and mobile phone operators, facilitating electronic money accounts accessed via mobile phones.

According to Etim et al. (2023), smartphones have gained significant popularity among SMEs in the tourism sector in Eastern Cape. Okundeyie et al. (2019) define ICTs as internet-based tools, devices, systems, software, and hardware that improve productivity and reduce effort. ICTs enhance business efficiency and profitability in today's digital world (Shettima & Sharma, 2020; Anyadighibe et al., 2021; Etuk et al., 2021), and MSMEs are no exception. In the competitive global economy, MSMEs rely heavily on ICTs. Kamau et al. (2023) highlight that mobile phone technology for banking and remittance is one of the newest innovations in the SME sector (Mararo, 2018). The technology of mobile phone networks has advanced dramatically in recent years, allowing users to communicate from any location within a serviced geographic area. Mobile phone network customers use the short message service (SMS) feature to exchange information, including stock prices and bank account details. SMS has numerous commercial and industrial applications, such as enabling businesses to communicate indirectly with staff members (Vakilifard & Khorramin, 2015). Hassan et al. (2023) notes that with the help of mobile devices, suitable mobile applications can be created to meet user needs and enhance process performance. Kamau et al. (2023) further state that the widespread use of smartphones and internet accessibility among the public and SMEs offers an opportunity for small and medium-sized businesses to implement mobile accounting apps, simplifying bookkeeping. Numerous factors influence the use of mobile applications in Kenya, including the app's credibility, which can be extended through user ratings and assessments. While Kenyans search for loans via mobile phone applications, they do not typically use these apps to track the credit obtained. It was observed that managers primarily relied on email correspondence, cellphones, and other electronic forms of communication to transmit and receive information from key officers. Despite having access to other communication channels, most managers preferred emails due to their flexibility in terms of time and location for sending internal memos and stock requisitions.
More than seven billion people use mobile phones worldwide (Telegeography, 2019). Over the last decade, the development of smartphones with advanced features such as web browsers, games, cameras, video players, e-banking, and navigational systems has significantly increased mobile phone usage (Cordella et al., 2021). These features are particularly beneficial for SMEs in the tourism sector of Eastern Cape, proving vital for business operations. According to Mushi (2022), SMEs rely heavily on mobile phone technology due to limited desktop computing capabilities. Mobile phones and the internet have enhanced access to high-quality information, underscoring the importance of entrepreneurship in fostering innovation (Gomes & Lopes, 2022). Gupta et al. (2013) highlights that less powerful device, such as smartphones and netbooks, can access a company's backend IT systems through simple web-based interfaces like the AWS Management Console (Marston et al., 2011). Utilizing cloud computing approaches for SMEs reduces administrative overhead and provides access from any location, device, or organization (McAfee, 2011).

In African economies, the adoption of technology is crucial for small business growth strategies (Berg, 2020; Prikhno, Kuksa, & Mihaylov, 2021). Digital tools significantly enhance productivity, expand clientele, and streamline business operations. Governments, companies, and stakeholders must collaborate to create an environment that enables SMEs to fully utilize technology, thereby fostering economic development and addressing the challenges of a rapidly evolving business landscape (Ekechi et al., 2024).

**Merits of Implementing Tablets in the Business**

It is evident in this study that most participants were neutral regarding the use of a tablet to communicate with their client. It thus implies some participants use both their mobile smartphones or tablets for ICT with clients. This is an indication that those SMEs in peri-urban areas are more prone to use tablets with their clients as compared to those in more rural areas.

The findings are in agreement with Harris and Patten (2014), who posit that how small businesses compete is once more changing, due to the quick smartphone and tablet adoption. Increased acceptance and implementation could be achieved through helping SME employees, expanding individual output at diminished service overheads, thereby facilitating technology access for small businesses. According to Pitt et al. (2011), smartphones and tablets continue to outperform laptops in several ways. These devices are commonly used as GPS tools for navigating traffic and tracking friends and family through social networking apps, making them popular due to their convenience and the features they offer businesses. Tablets provide distinct user advantages. They do not require a keyboard, mouse, or other pointing devices, relying solely on touch, which makes them accessible to individuals of all ages and literacy levels. Users can perform various tasks by simply pointing and touching with their fingers, eliminating the need for keyboard input or mouse clicks. Tablets are also extremely portable, more so than even the smallest and lightest laptops. Understanding the factors that lead to tablet adoption can help media practitioners integrate these devices into their product portfolios, as tablets can deliver media content previously unavailable through other platforms. Furthermore, the use of tablets by tourism SMEs in Eastern Cape depends on the specific type of business, as these devices can enhance operational efficiency and customer engagement.

**Intensive utilization of laptops as a communication tool**

The findings overwhelming indicate the majority participants use laptops. The finding coincides with that of Özşahin et al. (2022), which advises that Internet and basic computer usage are both present in the company. Furthermore, Alma et al. (2018) stress the importance of fundamental communication tools, desktop or laptop computers with restricted use, and limited Internet use with basic communication features. The introduction of communication tools and the Internet begins with the development of ICTs. Although desktop PCs and laptops are also available, they are rarely used for business. The use of PCs with networking hardware/software solutions and security services was recommended for all employees. By adopting these viewpoints, SMEs at this stage have attained the following objectives: supplied all employees with access to PCs with ERP (Enterprise Resource Planning), networking hardware/software solutions, and security services, as well as internal communication and information flow through an Intranet, along with automated internal processes through ERP deployment.

**Desktops offer superior security features**

The findings indicate the participants use desktops. Participant 5, Accommodation, Lodge and Conference: “Yes, 2 desktops, I use for all the reservations system and emails.” The findings are in line with Diyaolu and Oso (2023), whose study indicates the most used gadgets among SMEs are smartphones, desktop computers, and laptops, indicating SME owners/managers derive some level of satisfaction and confidence from their use, but it is also possible to obtain more such services, should they (SMEs) adopt other electronics such as Personal Digital Assistant (PDAs), tablets, and a variety of server-based applications. This, furthermore, implies they have the necessary tools to run the business. Desktop computers are used for better security, while smartphones, laptops, and tablets are essential business tools, although, desktop computers should not be overlooked, particularly in urban areas. Desktop computers should be considered as additional security measures to protect sensitive business data and operations.

**Digital divide on SMEs in rural areas**

According to Mhlongo et al. (2024) access to technology varies greatly across regions and demographics, creating a significant challenge. Access to reliable internet and technology devices is often limited in rural areas due to infrastructure challenges. Entrepreneurs in these regions may face challenges acquiring the necessary skills to engage with digital platforms. Bridging the digital divide between rural and urban areas is crucial to ensure equal opportunities for entrepreneurs (Nquimkeu & Okou, 2021; Taura, Bolat & Madichie, 2019). Therefore, in this study the SMEs in rural areas experience more barriers than those in urban areas.
due the geographical areas they operate their business, as in some instances in rural area will lack network and moreover in South Africa load shedding make things unbearable for businesses to function properly.

In the opinion of Achieng and Malatji (2022) disparities in digital infrastructure, self-efficacy, perceived usefulness, and challenges with digital skills and literacy all contribute to this phenomenon. SMEs often struggle to use digital tools and technology effectively. Small and medium-sized enterprises (SMEs) in areas without mobile network connectivity struggle to access essential infrastructure resources due to the digital divide. The digital divide encompasses more than just having access to the Internet through smartphones. This includes individual usage, technical access, and digital literacy and skills. Subsequently to this, SMEs in Eastern in rural areas are affected by due to digital divide and other technicalities. In comparison a study done in Zambia found out that SMEs particularly in the tourism industry, struggle to implement e-marketing strategies due to limited digital skills, resource constraints, and inadequate infrastructure (Chicha & Phiri, 2023). Another study of Achieng and Malatji (2022) indicate that successful digital transformation requires adequate financial, human capital, infrastructure, and resources. SMEs in Sub-Saharan Africa (SSA) often struggle to access necessary resources to fully leverage digital technologies. So, then this is an indication that there is a similar trend in terms of digital divide which affect the businesses in certain regions in Africa. In Thailand study, even though digital technology is a valuable tool for giving entrepreneurs and SMEs a competitive edge, there are still issues and challenges with its application (Anyanitha & Orapan, 2022). The findings of this study suggest that there is evidence of a digital divide among SMEs in the Eastern Cape, and that there are commonalities among SMEs in various African regions, including Kenya, Sub-Saharan Africa, and Asia in Thailand, as well as challenges related to digital technology for SMEs. In contrast, a study conducted in Germany, a developed country, reveals that rural regions possess a high concentration of innovative SMEs, specifically Mittelstand firms. Consequently, the findings suggest that concerns regarding the digital divide between urban and rural areas may be overstated.

According to Thomä (2023) businesses in remote rural areas may require additional support to begin their digital transformation journey. Research suggests that small rural firms may fall behind in digital transformation due to an urban-rural divide, particularly in broadband connectivity and online marketing (Richmond et al., 2017; Palmer-Abbs et al., 2021; Thonipara et al., 2022) Hence, the SMEs in Eastern Cape due to the infrastructure and network issues. The findings from Germany study reveals that adopting digital ICTs may provide greater net benefits for some small rural businesses than for others. According to this perspective, a small business’s rural location could be a sign of an urban-rural digital divide (Thomä, 2023). The finding of the study done in Morocco reveal that while ICT is a necessary tool for tourism companies, it may not be sufficient. Tourism websites and social media for Souss Massa are often outdated (Loux, 2023). Moreover, the success of these businesses’ web strategies is ensured by the owners of rural tourism businesses who are members of the Rural Tourism Development Network utilizing ICT. Therefore, different regions have different challenges as the developed countries are far different than the developing countries on the adoption of the developed countries. Aydogan et al. (2024) highlight that the degree of technology and ICT adoption emerged as a characteristic of organizations that are crisis resilient in the hospitality industry. These systems assist tourism organizations in social distancing measures in addition to providing various efficiencies (e.g., cost) and reliability (e.g., preventing human errors) (Seyitoglu and Ivanov, 2021).

Conclusions

The recommendations presented provide a comprehensive strategy to maximize the benefits of laptop, tablet, and desktop use in SMEs. By prioritizing investment in laptop infrastructure, providing extensive training and support, and implementing strong security measures, SMTEs can improve laptop performance, efficiency, and security. They can maximize the benefits of tablet use by promoting access to them, providing training programs to improve proficiency, and implementing strong security measures. Finally, businesses can maximize the benefits of desktop usage by prioritizing regular maintenance and upgrades, providing extensive training, with strong security measures implemented. These proactive measures ensure that laptop computers, tablets, and desktop computers remain indispensable tools for SMEs, promoting their growth and success in today’s dynamic business environment, while these measures also help to improve productivity, efficiency, and flexibility in SME business operations, along with security, which also ensures these devices remain essential communication tools for SMEs in their day-to-day business operations.

Recommendations

Encourage further smartphone integration: considering their widespread use and popularity, particularly in rural areas, SMEs should continue to use smartphones as essential business tools. Businesses can provide training and support to ensure employees make the most of smartphones for various business purposes.

Enhance access to laptops and tablets in rural areas: with the prevalence of smartphones in rural areas, efforts should be made to improve SME access to laptops and tablets. Subsidies, financing programs, and partnerships with technology providers can all help rural businesses gain access to these devices.

Invest in digital skills training: to maximize the use of smartphones, laptops, tablets, and desktop computers, SMEs should invest in digital skills training programs for their employees. Training sessions can cover topics such as cybersecurity best practices, software proficiency, and the effective use of digital devices for business purposes.
Monitor technology trends: in view of the ever-changing nature of technology, SMEs should be aware of emerging trends and innovations in digital devices. Continuous monitoring of technological advancements can help SMEs adapt their technology strategies to remain competitive and efficient in the changing business landscape.

The study findings show SMTE participants primarily rely on laptops for business activities. To capitalize on this trend, organizations should prioritize investment in laptop infrastructure, while also providing training and support to improve employee proficiency. Regular maintenance and upgrades are essential to ensure peak laptop performance and reducing downtime. To reap the most benefits from laptop use, it is critical to promote flexible work arrangements and implement strong security measures. Continuous monitoring and analysis of usage patterns will also help identify areas for improvement. Implementing these recommendations allows organizations to use laptops as essential tools for SME operations, increasing productivity, efficiency, and security to support their growth and success in the business landscape. Based on the findings regarding participants' use of desktops, it is recommended these devices be regularly maintained and upgraded to optimize performance. Furthermore, organizations should provide training to improve proficiency in desktop use for a variety of business tasks. In addition, implementing strong security measures is critical for protecting sensitive data accessed via desktop computers.

Limitation

The recommendations are based on the specific findings and conclusions drawn from the research study, which may have limitations in terms of sample size, geographical coverage, or industry focus, limiting their generalizability to a larger SME population.

Areas for Further research

There are several avenues for further research in the field of technology adoption among SMEs. Future research could investigate strategies to promote deeper smartphone integration, particularly in peri-urban and rural areas where they are widely used. Furthermore, research is needed to determine effective methods to increase access to laptops and tablets in rural areas, possibly through subsidies or partnerships. Moreover, further research can investigate the long-term effects of ICT adoption on business performance, especially considering the rapidly changing technology landscape. Evaluating the effectiveness of digital skills training programs and developing frameworks to track technological trends are also important research areas. Further studies could explore the longitudinal impacts of ICT adoption on business performance over time, considering the rapidly evolving technology landscape. Investigating the barriers to the more widespread adoption of tablets and other less-utilized technologies could help in developing targeted interventions to enhance their utility. Finally, comparative analyses of tablet usage between rural and urban SMEs, along with longitudinal studies tracking the impact of implemented recommendations, can provide valuable insights into optimizing SME technology adoption and use.

Acknowledgement

All authors have read and agreed to the published version of the manuscript.

Author Contributions: Conceptualization, B.M., and B.M.; methodology, B.M.; validation, B.M.; formal analysis, B.M.; investigation, B.M.; resources, B.M.; writing—original draft preparation, B.M.; writing—review and editing, B.M.

Funding: No funding provided for this article.

Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

Data Availability Statement: The data presented in this study are available on request from the corresponding author. The data are not publicly available due to restrictions.

Conflicts of Interest: The authors declare no conflict of interest.

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