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Leveraging Information and Communication Technologies for Promoting Tourism Accommodation Establishments

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Abstract

The fast-growing pace of the tourism industry resulted in the introduction of Information and Communication Technologies (ICTs) to enhance accommodation establishment services and management. The purpose of this study was to investigate the utilisation of ICT as a marketing tool in the accommodation establishments of Mpumalanga province. This was done using a quantitative approach by means of questionnaires, which were distributed to different establishments. Descriptive (frequency, tables, and graphs) statistics were performed to determine the usage of ICT marketing tools by accommodation establishments. The study revealed strong ICT adoption among tourism accommodation establishments in the Mpumalanga province, with social media and websites as key marketing tools, that accommodation establishments utilise the most. This is due to the accessibility of these tools and the effective interaction between the accommodation providers and customers. This reflects a growing digital shift, particularly among Small and Medium Enterprises (SMEs). However, some of the respondents lack formal training in tourism or ICT, limiting the strategic use of digital tools. Front-line staff often handle marketing, which may reduce effectiveness. Despite these challenges, ICT is seen as beneficial, improving flexibility, business growth, and branding. Key challenges include data security, resistance to change, technical issues, and poor connectivity. Accommodation establishments should take ICT seriously if they wish to be successful in their businesses, and if they lack skills and knowledge in this regard, it is worthwhile to improve their current knowledge or ask a digital marketing expert to assist in this process. It was clear that accommodation establishments should not underestimate the value of well-planned ICT marketing tools.

Keywords: Tourism; tourism industry; Information and Communication Technology (ICT); marketing; accommodation establishments.

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Introduction

The tourism industry contributes significantly to the global economy and employment opportunities (Willaddara, 2024). Tourism has gained global acknowledgment for its economic upliftment, labour-intensive, and poverty alleviation. The tourism industry's rapid expansion led to the introduction of technologies to improve management and services (Ndlovu & Thwala, 2024). Information and communication technology (ICT) describes the use of desktop computers and mobile devices to store, send, and modify data. ICT plays a crucial role in marketing tourism accommodation establishments in improving operational efficiency and management and enables accommodation establishments to promote themselves at the lowest cost while cutting printing and distribution costs. These technologies also create a new and more competitive worldwide marketplace (Farkhondehzadeh et al., 2013). By facilitating direct communication and making local products marketable to a worldwide audience, ICT opens up several opportunities for growth and bolsters the development of domestic tourism (Adeola & Evans, 2020; Thwala & Slabbert, 2018). ICT offers faster and more efficient methods for carrying out specific tasks, like efficient customer service, marketing, and ads to grow the tourism sector (Thwala & Dube, 2023). Since the advent of ICT, the tourism sector has changed its marketing tactics from traditional forms to digital marketing, which enables direct communication between the seller and the buyer, thus, improving the effectiveness of product inquiries and communications. Through the use of gadgets, televisions, laptops, tablets, and other internet platforms, ICT has created significant breakthroughs in a number of tourism-related sectors, including lodging facilities (Pencarelli, 2020). Furthermore, the accommodation establishments' refusal to implement or adopt digital marketing technologies could make current disparities in competitiveness, accessibility, and service delivery worse (Nosike, 2024). According to Lee et al. (2021), the industry's use of ICTs reduces costs like salaries, streamlines operations, and, most importantly, enhances customer satisfaction and service quality. The primary issue is how less developed destinations, which rely mostly on tourism-related revenue, use technology in the travel and tourism sector (Dwyer et al., 2020). Consequently, Nosike (2024) maintains that even though the value of ICT in the tourism and hospitality industry is becoming more widely acknowledged, but there is still a lack of empirical studies looking specifically at how ICT marketing tools affect accommodation establishments. The literature that is now available focuses on how technology affects the travel and tourism sector as a whole (Gretzel & Stankov, 2021; Sen, 2020). However, it is crucial for accommodation establishments to remain competitive in the global market by interacting and sharing information in a quicker and more efficient way to meet the needs of diverse clients in the tourism and hospitality industry (Chandel & Kamble, 2024). This shows how little research on the accommodation sector in Mpumalanga, particularly in the Mbombela district, is done (Pencarelli, 2020). Thus, this study aims to explore the level of Information and Communication Technologies (ICT) utilisation as an effective

marketing tool by the tourism accommodation establishments in Mbombela. This study advances understanding in this field, adds to the larger conversation about digital transformation in marketing, and provides practical insights for accommodation establishments on effective, relevant product marketing strategies. Moreover, this research will help develop evidence-based strategies to improve customer interaction with the accommodation establishment's product offering and inform a variety of ICT marketing strategies that can be useful for promoting accommodation establishments. Thus, this study can be used to influence an informed decision-making process for the upcoming or new accommodation establishments on how to position marketing strategies to reach wide audiences.

Literature review

The evolution of ICT and its importance in the tourism industry

The growth of socio-technological systems has accelerated since the introduction of ICTs (Gössling, 2021b). By improving consumer communication, reorganising distribution channels, reorganising the marketing process, increasing competitiveness, and optimising input-output efficiency, ICTs play a significant role in the innovation of the tourism sector (Zhou & Sotiriadis, 2021). According to Gössling (2021), the development of ICT in the tourism industry during the mid-1970s was divided into three phases: data processing from 1960 to 1980, information technology from the 1980s to 1995, and the current networking phase. According to Nguyen & Nguyen (2022), ICTs have changed how tourists behave with brands by increasing brand awareness and fostering a higher degree of engagement and satisfaction. Furthermore, Wagaw & Mulugeta (2018) mentioned that ICT is utilised to interact with potential travellers, impact their choices regarding the advertised tourist destination, and convince them to buy tourism products. One of the factors that led to the quick adoption of ICTs was the COVID-19 pandemic. The internet and other online platforms were used to spread knowledge quickly, which caused problems for the tourism industry in terms of efficiency and the presence of spam information (Gretzel & Stankov, 2021). Nguyen et al. (2022) further stated that the tourism industry has to adapt to the rapid innovation brought by ICT, such as the Internet and other tools of communication.

E-tourism is the effective use of ICT to change or digitise services provided by the travel and tourism sector (Willaddara, 2024). According to Reino (2013), digitising consumer services is thought to play a crucial role in an organisation's cost-cutting measures while maintaining comparable services, increasing customer connection, and documenting individual preferences. The tourist industry's increasing technological intensity compels service providers to offer a variety of ICT solutions in order to satisfy customer requests (Misganaw & Singh, 2024; Stankov & Filimonau, 2019). According to Chandel & Kamble (2024), the digitisation of operations encompasses not only sales but also the processes of other individuals, including talent, customer service, and the service industry, among others. In order to promote long-term improvement, travellers and tourists can post both good and negative assessments of their experiences on websites such as Booking.com and TripAdvisor, thanks to digitisation in the tourism sector (Xalxo et al., 2019).

E-marketing***:*** The advent of mobile social media platforms like Facebook, TikTok, X (Twitter), and Google, to name but a few, has been a hot place for new marketing techniques that include both good and negative effects (Venugopal, 2023). E-marketing is a new paradigm or integrated activity that involves sharing ideas and data via digital means and promoting various items to a target demographic. E-marketing is beneficial to a company since it allows for the tracking of customer Behavior at every step of product creation, including pre-, during, and post-sales (Labanauskaitė et al., 2020). In addition to using a variety of distribution methods and targeting niche markets, the Internet allows for direct communication and more affordable and extensive access to potential clients (Chivandi & Sibanda, 2018; Petti & Passiante, 2009). In a similar vein, Hughes & Moscardo (2019) and Sigauke & Erdis (2018) maintain that contemporary discourse on tourism and ICT centres on how new technologies might imitate the industry's established methods of operation in order to improve them more effectively.

Different types of ICT tools to choose from

There are various types of ICT tools that can be applied by accommodation establishments in the tourism industry to optimise their marketing, and these include website and email, Search Engine Optimisation (SEO), Pay-Per-Click (PPC), Location-Based Services (LBS), and Virtual Assistant (VA). Website and e-mail as accommodation establishments gain from low marketing expenses and efficiency by using websites to self-promote their product offerings to the worldwide market (Gössling, 2021). According to Brock et al. (2016), a website is a tool used for the marketing and promotion of a business in order to increase online traffic and awareness among potential customers. By including link handles in the email, a business can easily direct potential customers to their website, web pages, and social media platforms. This helps to prevent spam and direct customers to the appropriate company's platforms for advertising (Miletic et al., 2024). Email marketing is a form of advertising that uses current and potential audiences' emails to create trust and dependability while introducing them to new products and exclusive deals (Miletic et al., 2024). In order to communicate and get feedback from clients about their services, both websites and emails were utilized in place of letters (Gössling, 2021). According to Saleh & Nugraha (2024), websites are among the greatest channels for online marketing in the tourism industry. Their beauty and educational value can also have a good impact on potential clients. On the other hand, email advertising offers the tourism sector a number of advantages, including increased consistency, prompt customer service, and contact, as well as the ability to quickly customise items at a reduced cost, and spatial infinity (Miletic et al., 2024). To put it simply, email marketing allows accommodation establishments to easily create customised content and product offerings, track their effectiveness, and determine the number of people who returned to the establishment to learn more about the promoted product.

According to Sharma et al. (2019), SEO is a type of digital marketing that increases the likelihood that a webpage will be found through a search. Businesses in the tourism industry utilise SEO to place their product postings so that potential clients can quickly find them (Kakkar et al., 2024). When SEO is done correctly, the company website will be in a good position and show up higher in the search results (Camossi & Rodas, 2023). The sales administration's SEO advantageous position is crucial to reaching a large number of potential customers online by facilitating visitors' discovery of their particular websites and increasing the company's revenue in comparison to other marketing strategies (Kakkar et al., 2024). According to Sharma et al. (2019), businesses use SEO because it allows them to cut expenses on organic advertising and online traffic while also accelerating the appearance of pages on their product website. Social media marketing (SMM) is the term for digital promotions that use social media platforms to disseminate information and publicise a business or its products to prospective customers (Loitongbam et al., 2023). Social media gives accommodation establishments the opportunity to interact with their customers in addition to promoting their goods (Chen, 2024). Social media is used by tourism establishments to stay informed about how their products behave before, during, and after-sales (Labanauskaitė et al., 2020). Chen (2024) adds that by using social media platforms, businesses may communicate directly with customers and learn about their preferences and the efficiency of their marketing strategy. SMM advertises goods and services through a variety of platforms, including Facebook, Instagram, LinkedIn, X (Twitter), and more (Rajendran & Paul, 2024). Social media's primary function is commercial promotion, but it also improves customer contact and turns regular people into product advocates (Chen, 2024). Loitongbam et al. (2023) alluded that social media marketing is an excellent instrument that improves interactions and guarantees that businesses can easily and successfully reach out to their potential customers. Chen (2023) added that social media allows businesses to draw attention from global audiences in addition to concentrating on local advertisements, which makes it simple for the product to become widely used in a short period of time. A few advantages of social media marketing for a business's products include simple access to the target market, direct customer engagement, and cost-effectiveness (Rajendran & Paul, 2024). PPC advertisements are those adverts that marketers pay for each time a user clicks on them (Sampat et al., 2020). PPC marketing can have a significant impact if it targets a certain niche population and uses targeted keywords (Basariya, 2019). PPC advertising campaigns are becoming a more popular online marketing technique because they provide easier and more fulfilling interactions with potential customers across a variety of channels. PPC guarantees that search engine results, including websites, are quickly listed and ordered based on high rankings and quality (Sampat et al., 2020).

The term LBS describes a collection of applications that use a device's location data to give prospective clients helpful information about the business (George, 2019; Reddy et al., 2024). According to Ozkan et al. (2024), the advancements in LBS have made it simpler for businesses to offer services by customising data and offerings based on user location data using mobile applications. LBS provides geographic and spatial information on the location of the establishment using the Global Information System (GIS) (Ramadhan et al., 2023). According to a 2017 Google study, half of the tourists use their smartphones to look for things to do after they arrive, and over 85% of leisure travellers choose the kinds of activities and attractions they will visit when they first arrive (George, 2019). Location-based services can be used by accommodation establishments to classify their patrons' preferences according to their location and the items they often look for or require meeting (Ramadhan et al., 2023). Moreover, a virtual assistant (VA) is a computer program that uses internet technology to create a replica environment that users can explore and experience in various ways (Louw & Louw, 2018; Park & Stangl, 2020). Customers can ask questions about the cost and reservations before making a booking at an accommodation facility by interacting with a virtual assistant via typed text (Doiphode & Jaiswal, 2020; Vayankat & Khan, 2023). George (2019) and Hassan et al. (2024) claim that a virtual assistant uses Virtual Reality Modelling Language (VRML) to create text and graphics and code language to facilitate various forms of communication. Additionally, the VA can translate the voice or sound response into text, according to Vayankat & Khan (2023). By answering all of the queries and worries that prospective guests could have prior to booking a reservation, virtual assistants play a critical role in the accommodation sector (Louw & Louw, 2018). By ensuring that all necessary information is available and accessible at all times of the day, the VA's round-the-clock operations help to improve the customer experience.

In contrast to traditional marketing strategies and tools, George (2019) maintains that ICTs have made all tourism industries equal and compete for the same consumers' attention. They also allow SMEs to market more efficiently at lower costs, which improves the consumer experience. ICTs offer several advantages, including the ability for accommodation facilities to cooperate and promote creativity, which guarantees improved performance and lower costs for customer service (Nosike, 2024). ICT enables direct communication between a seller and a client by reducing the expenses associated with printing brochures and distributing them for product marketing. ICT increases efficiency without incurring additional expenditures and saves time while obtaining knowledge on a certain destination that one may plan to visit (Pierdicca et al., 2019).

Research methodology

A quantitative research approach directed towards the accommodation establishments of Mpumalanga (South Africa) was followed in this study to explore the usage of ICT as a marketing tool. The quantitative approach describes research where the data can be statistically analysed, such as when determining the proportion of people who think, feel, or act in a specific way (Mohajan, 2020). This approach provides explanations and predictions that will enable the researcher to create generalisations that support the idea and to establish, confirm, or validate linkages (Merriam & Grenier, 2019). A questionnaire was developed based on literature related to ICT as an effective marketing tool, consisting of three sections. Section A focused on the information pertaining to the owner/manager of the accommodation, their position, and responsibilities, just to mention a few.

Section B focused on business and marketing information, and Section C focused on the effectiveness of ICT as a marketing tool. The questionnaire was tested at two guesthouses and five academics in Mbombela, Mpumalanga, before collecting the research data. Revisions were made before the finalisation of the questionnaire. The results from the pilot study were not included in the main survey. Descriptive statistics were used to determine the usage of ICT tools by the tourism establishments. The participants were selected based on their availability and willingness to participate in the research. The relevant scientific and ethics committee reviewed and approved the research process and the questionnaire, which assigned an ethics clearance number: UMP/HLATSHWAYO220669933/TOUHON/2024.

This approach utilised simple random sampling, which enhanced the study's representativeness and improved the generalisability of the results. Respondents were all from the tourism accommodation establishments in Mpumalanga, which are listed under the Mpumalanga Tourism and Parks Agency (MTPA) website. These establishments were contacted, and their cooperation was requested. 10 accommodation establishments responded positively and were willing to distribute and complete the questionnaires among their staff. In all cases, respondents had a choice to participate, and it was stated that they could not identify in person with the information requested in the questionnaire. The sample size of the study was 50 respondents from 10 accommodation establishments, with 5 respondents from each accommodation establishment. Probability sampling was adopted in this research. The researcher ensured that participation was open to any respondent who wanted to take part. Time and budgetary constraints were the main factors that emphasised that only a limited number of establishments have been selected. The researcher has therefore randomly selected 10 accommodation establishments to focus on in Mpumalanga. 5 respondents (employees and managers) were then selected for participation using simple random sampling. In total, 50 respondents were considered as the sample size for this study project. The owners/marketing managers can give the most accurate view on the usage of ICT as an effective marketing tool, as they are the ones exposed to the marketing efforts and influenced by it to make a decision. After the completion of the distribution process. The data was collected using a self-administered questionnaire with closed-ended questions. The questionnaire required approximately 15 minutes for the respondent to complete the questionnaire. Once data from the respondents was received, it was captured by the researchers in an Excel spreadsheet and presented by means of tables and figures. Samuels (2020) maintains that the data must be assessed for quality and start cleaning the data to ensure that there is no duplication, check and eliminate outliers, and trace for missing data or unanswered questions from the questionnaire. Frequencies and percentages were used in the descriptive data's basic statistical interpretation and analysis. This was done to make it simple to identify and notice linkages possessed by the data. Patterns to observe include the accommodation establishments that utilize similar marketing tools or platforms and those accommodation establishments that do not use any of ICT's marketing tools. A conclusion was drawn based on the tables and figures of the summarised data. 50 questionnaires were suitable for analysis.

Study results

Demographic profiles of the respondents

Table 1 shows that the majority of the respondents were females (60%), between the ages of 26-30 years (33%). Their positions in the establishments were mostly Receptionists (47%), Establishment Managers (13%), Reservation Agents (13%), Marketing Managers who promote the accommodation establishments (10%), and Establishment Owners (7%). Furthermore, respondents have been in their respective positions for a period of 0-5 years (60%), followed by those with 6-10 years (33%).

Table 1: Demographic profiles of respondents

PROFILE CATEGORY	PROFILE ITEM	RATING	PROFILE CATEGORY	PROFILE ITEM	RATING
Gender	Female Male	**60%** 40%	**Year of birth**	< 25 years 26-30 years 31-40 years 41-50 years 51+ years	20% **33%** 25% 20% 2%
Respondents' Position at the establishment	Receptionists Establishment Manager Reservation Agent Marketing Manager Establishment Owner Food and Beverage Supervisor	13% 13% 10% 7% 7% 3%	**Respondents' Period of years employed in the position**	0-5 years 6-10 11-20	**60%** 33% 7%
PROFILE CATEGORY	**PROFILE ITEM**	**RATING**	**PROFILE CATEGORY**	**PROFILE ITEM**	**RATING**
Respondents' roles at the accommodation establishment	Checking in and out of guests Making reservations Managing the establishment Marketing the establishment Directing calls Hotel and catering Group booking Banqueting Cash up officer Manage food and beverage	**37%** 33% 20% 17% 17% 3% 3% 3% 3% 3%	**Years the accommodation Establishment has been in operation**	0-5 years in operation 6-10 years in operation 11-15 years in operation 16-20 years in operation 21-25 years in operation 26 and above years in operation	**30%** 20% 17% 17% 10% 6%
PROFILE CATEGORY	**PROFILE ITEM**			**RATING**	
Respondents' Level of Education	No qualifications related to tourism and ICT Diploma in Hospitality Management Marketing and Communication training Diploma in Tourism Management Master's degree in Tourism Management Diploma in Information and Communication Technology Basic end-user Hospitality degree			47% 23% 10% 7% 3% 3% 3% 3%	

The different roles that these respondents were responsible for included front desk duties such as checking in and checking out guests (37%), making reservations (33%), management of the accommodation establishment ensuring that it is operating smoothly (20%), responsible for the marketing the establishment (17%) and directing calls from the front desk (17%). With regards to the level of education, the majority of the respondents did not have any qualification related to Tourism and ICT (47%), followed by those with a Diploma in Hospitality Management (23%) and Marketing and Communication training (10%). diploma in Tourism Management qualifications (7%). Only one respondent indicated that he has a master's degree in Tourism Management (3%), a Diploma in Information and Communication Technology (3%), a basic end-user (3%), and a Hospitality Degree (3%). Lastly, in terms of the number of years that these establishments have been in operation, most of the accommodation establishments were still new, between 0-5 years in operation (30%), followed by the accommodation establishments with between 6-10 years in operation (20%).

ICT tools that are used by accommodation establishments

This question aimed to determine the different types of ICT marketing tools that were being used by accommodation establishments.

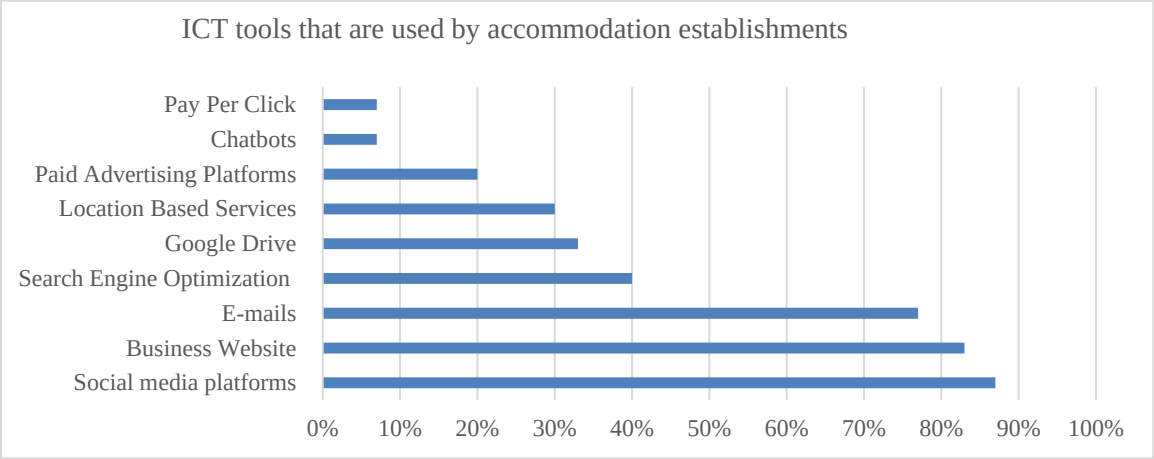

Figure 1: **ICT marketing tools**

According to Figure 1, most of the accommodation establishments utilise social media platforms for marketing (87%). respondents indicated that they also make use of business websites (83%), and this is the second most utilised ICT tool for marketing. Other respondents indicated that they use e-mail to promote accommodation establishments (77%). The least used ICT marketing tools were Chatbot (7%) and Pay Per Click (7%). Moreover, on these platforms, the accommodation establishment frequently advertised or posted on a daily basis (57%), on a weekly basis (40%), and the least accommodation establishments promoted and posted on their marketing platforms twice in a week (3%).

ICT effective marketing tools

The aim of this question was to ascertain the effective marketing tools for accommodation establishments. Figure 2 illustrates that most of the accommodation establishments mostly rely on social media platforms as their key effective marketing tools (73%). The second most effective marketing tool is business websites (43%), which is then followed by e-mail marketing tools (20%) as the third most effective marketing tool that is used by accommodation establishments. The second lowest marketing tool was Search Engine Optimization (10%), and the lowest marketing tools displayed in the above table were Airbnb and Lekkerslaap (3%).

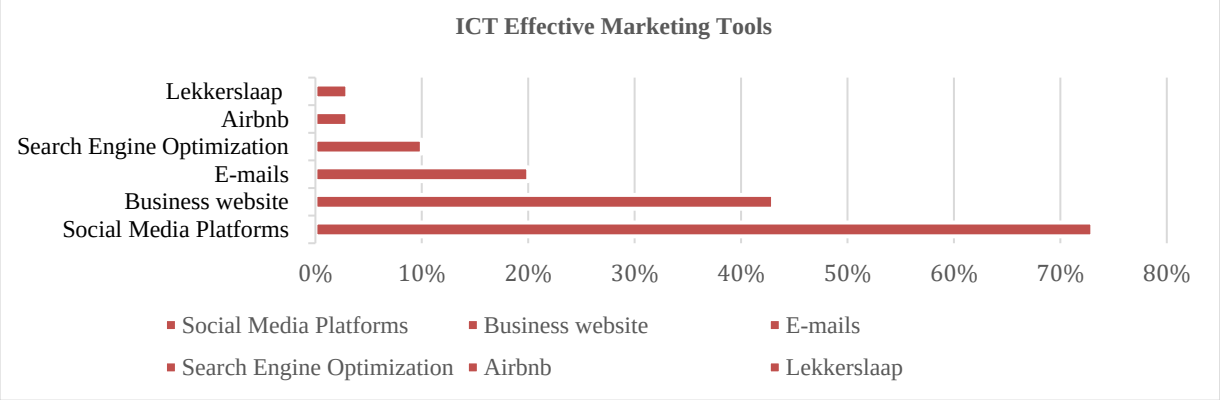

Figure 2: ICT effective marketing tools

Effectiveness of ICT as a marketing tool in tourism accommodation establishments

Respondents were asked to score how much they agreed on the usefulness of ICT as a marketing tool in tourism accommodation establishments. The results display that the effectiveness of ICT as a marketing tool in tourism accommodation establishments depends largely on strategic and professional digital practices. Key factors include having a dedicated marketing manager (94%), a functional and frequently updated website (93%), and social media marketing (86%), and staying current through market research (84%). Being graded by the Grading Council (90%), having a good location (93%), and offering loyalty programs (87%) also enhance ICT effectiveness. Traditional marketing methods such as radio, TV, and print (63%), signage (67%), and tour operator promotions (70%) were seen as less effective. The findings suggest that ICT tools are most impactful when combined with skilled personnel, updated content, and a strategic digital presence.

Marketing efforts by tourism accommodation establishments

The aim of this section was to get insights from respondents' understanding of the marketing efforts of their accommodation establishments. Respondents view ICT as highly beneficial for tourism accommodation marketing, especially when combined with experienced management, dedicated budgets, and improved service delivery. However, despite recognising its general usefulness, many believe ICT does not enhance customer interaction or generate economic benefits, and they undervalue long-term planning and customer data use, highlighting a gap between ICT adoption and strategic marketing application.

Benefits of ICT

It is vital to determine the benefits that ICT brings to tourism accommodation establishments, to leverage and optimise product marketing. It was established that the majority of the respondents believe that ICT offers flexibility and immediate accessibility to information (83%), followed by the respondents who believe that ICT helps promote their business with more choices and in a larger area (80%). George (2019) maintains that ICT made accommodation establishments more equal and competitive with one another for customers' attention, as it enables transparency. In addition, customers can share their feedback publicly, leading accommodation establishments to be competitive and build trust and loyalty with their guests by enhancing efficiency in day-to-day operations. This is shown in the responses that ICT helps with branding and improves business potential (57%), and ICT ensures greater interaction between the seller and the buyer (57%). other respondents indicated that ICT improves efficiency (50%). Fan (2023) maintains that social media marketing enables direct communication between accommodation establishments and customers by eliminating the middlemen, leading to lower marketing costs.

Challenges of ICTs

In attempting to establish the benefits of ICT, the study also discovered the challenges of ICT that the accommodation establishments had encountered. Even though the majority of respondents indicated having not encountered challenges in adapting to the ICT tools for marketing their establishments (43%), a significant group of respondents faced data security problems (17%), and others found it difficult to cope with the ICT transformation since they are used to the traditional ways of performing duties (17%). The most common challenges that were encountered were the difficulty in assisting old and technologically illiterate guests (13%), technical issues (13%), and poor network connectivity (13%). The second least challenge encountered was the negative feedback that could be visible to the public (7%). Additionally, the last challenge encountered was the limited ICT skills in the employees (3%); this is in support of the statement made by Rehman (2023) that ICT comes with some challenges, even though it was meant to enhance accommodation establishments' functioning and efficiency. Thus, it can be presumed that though ICT is seen as a good contribution to accommodation establishments, there are difficulties in the adoption of technological advancement (Nosike, 2024). Limited ICT skills and the generational gap for pensioners are huge challenges, as people fear scams and uploading their personal information online (Rehman, 2023).

Discussion

The study findings reveal a strong uptake of Information and Communication Technologies (ICT) among tourism accommodation establishments in Mpumalanga, with social media and business websites emerging as the most commonly used marketing tools. This supports the growing trend of digital transformation in the tourism sector, particularly among small to medium enterprises (SMEs), which increasingly rely on cost-effective, wide-reaching digital platforms to connect with potential guests. Despite the digital shift, human resource capacity remains a limitation**.** A large proportion of respondents lack formal qualifications in tourism or ICT, suggesting a gap in digital marketing competencies. Most establishments rely on front-line staff, such as receptionists, to manage reservations and marketing functions, which may dilute the strategic impact of ICT tools due to a lack of dedicated marketing expertise. The study also found that daily or weekly advertising frequency was common among these establishments, and respondents recognised the effectiveness of ICT in offering flexibility, business expansion, and enhanced branding. These perceived benefits affirm the transformative potential of ICT to enhance visibility, customer engagement, and service delivery. However, the challenges of ICT adoption cannot be ignored. Although 43% of respondents indicated no major challenges, issues such as data security, resistance to change, technical problems, and poor network connectivity were highlighted. These align with the literature by Nosike (2024) & Rehman (2023), which notes that digital inequality, low ICT skills, and generational gaps continue to impede ICT

integration in African tourism enterprises. Interestingly, while 100% of respondents agreed that ICT is beneficial and profitable, astonishingly, 90% indicated that ICT has not yet brought positive economic returns**.** This may indicate a time gap between adoption and measurable impact**,** or possibly poor alignment between ICT usage and strategic marketing outcomes. Lastly, marketing efforts seem to rely more on short-term digital engagement than long-term planning. Only 20% of respondents acknowledged the need for a long-term marketing plan, and 73% believed maintaining customer databases was not essential. This short-term focus may undermine the full potential of ICT tools in fostering repeat business, loyalty programs, and data-driven marketing, key components of sustainable tourism competitiveness.

Conclusion

The steady increase in interest in ICT has forcefully commanded a shift from the traditional forms of marketing to adaptation to the Fourth Industrial Revolution (4IR), allowing virtual marketing. ICT enables accommodation establishments to reach their target market very easily and affordably through platforms such as social media, LBS, SEOs, business websites, and Chatbots, to name a few. In a nutshell, this study highlighted various types of ICT tools that are used by accommodation establishments for marketing as well as their benefits and challenges. Change is good, but it comes with different challenges, as some accommodation establishments in Mpumalanga struggle with technical issues and poor network connectivity that pose threats to the performance of the accommodation establishment in terms of efficiency, as most of the administration is done online. Social media platforms and business websites were the most effective marketing tools that accommodation establishments relied on since it is accessible to everyone and allow direct interaction with their customers to be able to build trust and loyalty. ICT tools enable competition between SMEs and well-known accommodation establishments to advertise their products on different platforms with limited costs while increasing profitability. The recommendations of the study are that accommodation establishments should consider using chatbots. A chatbot would enable accommodation establishments to reduce expenses, such as hiring more staff members to deal with customer queries. Accommodation establishments should consider SEOs to enhance their visibility on Google. Accommodation establishments should work more in partnership with social media influencers to showcase their accommodation establishment, posting more frequently (daily) and engaging with their customers on social media to get a deeper understanding of their needs and preferences, or the emerging trends to remain competitive. Regardless of this, accommodation establishments listed under the MTPA website in Mpumalanga province show that they are slowly adapting to the modern ways of marketing by utilizing different platforms of ICT to market themselves. This indicates that accommodation establishments will fully shift from traditional marketing methods and rely more on digital marketing.

REFERENCES

Adeola, O. & Evans, O. (2020). ICT, Infrastructure, and Tourism Development in Africa. *Tourism Economics*, 26(1), 97-114. https://dpo.org/10.1177/1354816619827712

Basariya, S.R. (2019). Role of Niche Marketing on Search Engine with Reference to Pay Per Click Advertisement. *International Journal of Nano and Biomaterials*, 7, 258-260.

Brock, B., Carlson, S., Moilanenb, M. & Schillo, B. (2016). Reaching Consumers: How the Tobacco Industry Uses Email Marketing. *Preventive Medicine Reports*, 4, 103-106. https://dpo.org/10.1016/j.pmedr.2016.05.020

Camossi, G. & Rodas, C. (2023). Contributions of Search Engine Optimization Techniques to Information Findability. *Encontros Bibli*, 1-17. https://dpo.org/10.5007/1518-2924.2023.e93371/54069

Chandel, S.S. & Kamble, G.U. (2024). E-tourism in India: The Impact of Digital Transformation on the Tourism Industry. *Journal of Economics*, 17, 184-194.

Chen, M. (2023). Brand Marketing Strategies under Social Media. *Advances in Economics, Management and Political Sciences,* 85(1), 190-195. https://dpo.org/10.54254/27541169/85/20240875

Chen, M. (2024). Analysis and Research on the Marketing Mix of Grin Natural. *Modern Economics & Management Forum*, 5(3), 462. DOI:https://dpo.org/10.54254/2754-1169/85/20240875

Chivandi, A. & Sibanda, F. (2018). An Investigation of E-commerce Adoption Inhibitors in the Tourism Industry: A Zimbabwe National Parks Perspective. *African Journal of Hospitality, Tourism and Leisure (AJHTL)*, 7(3), 1-15.

Doiphode, S. & Jaiswal, R. (2020). Virtual Assistant. *Journal of Emerging Technologies and Innovative Research (JETIR)*, 7(10), 3527-3532.

Dwyer, L., Forsyth, P. & Dwyer, W. (2020). *Tourism Economics and Policy*. 2nd ed. Channel New Publications.

Fan, X. (2023). Social Media Marketing Strategies. *Advances in Economics, Management and Political Sciences*, 23(1), 59-64. https://dpo.org/10.54254/2754-1169/23/20230353

Farkhondehzadeh, A., Karim, M.R.R., Roshanfekr, M., Azizi, J. & Hatami, F.L. (2013). E-Tourism: The Role of ICT in Tourism Industry. *European Online Journal of Natural and Social Sciences: Proceedings*, (3)2, 566-573.

George, R. (2019). *Marketing Tourism in South Africa*. 6th ed. Oxford University Press Southern Africa (Pty) Limited, 428-487.

Gössling, S. (2021a). Technology, ICT and Tourism: From Big Data to the Big Picture. *Journal of Sustainable Tourism*, 29(5), 849-858. https://dpo.org/10.1080/09669582.2020.1865387

Gössling, S. (2021b). Tourism, Technology and ICT: A Critical Review of Affordances and Concessions. *Journal of Sustainable Tourism*, 29(5), 733-750. https://dpo.org/10.1080/09669582.2021.1873353

Gretzel, U. & Stankov, U. (2021). ICTs and Well-being: Challenges and Opportunities for Tourism. *Information Technology & Tourism*. 23(1). https://dpo.org/10.1007/s40558-021-00198-2.

Hassan, T.H., Al-Hyari, H.S., Helal, M.Y., Elshawarbi, N.E., Mahamoud, H.M.E., Hashish, M.E-S., Anas, A.M., Bilalov, B., Ahmed, I.S. & Moustafa, F.A.S. (2024). Meeting Online Customers' Expectations: How Do E-Service Quality and E Reputation Impact Restaurant E-Customer Satisfaction? *African Journal of Hospitality, Tourism and Leisure*, 13(3), 494-503. https://doi.org/10.46222/ajhtl.19770720.533

Hughes, K. & Moscardo, G. (2019). ICT and the Future of Tourist Management. *Journal of Tourism Futures*, 5(3), 228–240. https://doi.org/10.1108/JTF-12-2018-0072

Kakkar, T., Nrip, N. & Deshmukh, A. (2024). A Study of Search Engine Optimizations (SEOs). *International Journal of Multidisciplinary Research Transactions*, 6(5), 38-55. https://doi.org/10.5281/zenodo.11118982

Labanauskaitė, D., Fiore, M. & Stasys, R. (2020). Use of E-marketing Tools as Communication Management in the Tourism Industry. *Tourism Management Perspectives*, 34. https://doi.org/10.1016/j.tmp.2020.100652

Lee, C.C., Chen, M.P. & WU, W. (2021). The Impacts of ICTs on Tourism Development: International Evidence Based on a Panel Quantile Approach. *Information Technology Tourism*, 23, 509–547. https://doi.org/10.1007/s40558-021-00215-4.

Loitongbam, S., Sorokhaibam, R. & Singh, S. (2023). Social Media as a Marketing Tool. *Journal of Law and Sustainable Development*, 11(8), 1-16. https://doi.org/10.55908/sdgs.v11i8.1498

Louw, C. & Louw, L. (2018). The Digital Disruption of Virtual Reality and the Future of the Steel Roller Coaster: An Initial Industry Analysis. *African Journal of Hospitality, Tourism and Leisure (AJHTL)*, 7(3), 1-16.

Merriam, S.B. & Grenier, R.S. (2019). Qualitative Research in Practice: Examples for Discussion and Analysis. London. *Wiley Brand*. UK.

Miletic, L., Globočnik Ž, A. & Poropat, P. (2024). Self-sufficiency of E-mail as a Marketing Tool. *Education for entrepreneurship*, 13(1-2), 182-188. https://doi.org/10.38190/ope.13.1-2.14

Misganaw, A.A. & Signh, A. (2024). The Effects of Organizational E-readiness on E-marketing Adoption in Tourism Businesses of Ethiopia: The Mediating Role of Innovation Attributes. *African Journal of Hospitality, Tourism and Leisure*, 13(4), 815-823. https://doi.org/10.46222/ajhtl.19770720.568

Mohajan, H.K. (2020). Quantitative research: A Successful Investigation in Natural and Social Sciences. *Journal of Economic Development, Environment and People*, 9(4), 50-79.

Ndhlovu, E. & Thwala, K.C. (2024). Artificial Intelligence and Robotic Adoption by Customers in the Global Accommodation Industry. in Dube, K., Ndhlovu, E. & Makuyana, T. (Eds.). Tourism and Hospitality for Sustainable Development. Volume two. (PP. 23-43). *Springer Nature*. https://doi.org/10.1007/978-3-031-63077-4_2.

Nguyen, Q. & Nguyen, C. (2022). An Analysis of the Relationship Between ICT Infrastructure and International Tourism Demand in an Emerging Market. *Journal of Hospitality and Tourism technology*, 13(5), 992-1008. https://doi.org/10.1108/JHTT-11-2021-0331

Nguyen-Viet, B., Thi, Y., Nguyen, H. & Do, S. (2022). Factors Driving Consumers' Attitudes towards Facebook Advertisements in an Emerging Market: A Case Study of Vietnam. *Asian Journal of Business and Accounting*, 15(1), 243-267. https://doi.org/10.22452/ajba.vol15no1.8

Nosike, C. (2024). Deployment of Modern Digital Technologies and ICTs in Public Sector HRM: Benefits and Challenges. *Interdisciplinary Journal of Africa & Asian Studies (IJAAS)*, 9(3), 1-13.

Özkan, E., Yaşin, B., Gursen, A. & Akpınar, H.M. (2024). The effect of Flow Experience on Reuse Intention of Mobile Navigation Apps: The Mediating Role of Location-Based Mobile Service Quality. *Tourism & Management Studies*, 20(1), 1-19. https://doi.org/10.18089/tms.20240101

Park, S. & Stangl, B. (2020). Augmented Reality Experiences and Sensation Seeking. *Tourism Management*, 77, 1-42. https://doi.org/10.1016/j.tourman.2019.104023

Pencarelli, T. (2020). The digital Revolution in the Travel and Tourism Industry. *Information Technology Tourism.* 22, 455–476. https://doi.org/10.1007/s40558-019-00160-3

Petti, C. & Passiante, G. (2009). Getting the Benefits of ICTS in Tourism Destinations: Models, Strategies and Tools. *International Arab Journal of e-Technology*, 1(1), 46–57.

Pierdicca, R., Paolanti, M. & Frontoni, E. (2019). E-Tourism: ICT and its role for Tourism Management. *Journal of Hospitality and Tourism Technology*, 10(1), 90-106. https://doi.org/10.1108/JHTT-07-2017-0043

Rajendran, V. & Paul, A. (2024). A Study on Effects of Social Media Marketing in Today's Business. Conference Paper: *Connaissance2024.* Bengaluru.

Ramadhan, M., Faizah, N.M. & Koryanto, L. (2023). Android-Based Health Service Center Search Application in Tasikmalaya City Using Location Based Service (LBS) Method. *Journal Mobile Technologies (JMS)*, 1(1), 27-34. https://doi.org/10.59431/jms.v1i1.131

Reddy, K., Sharma, V.K., Anusha, M., Jhade, S. & Dhanasekaran, B. (2024). Progressive Collaborative Method for Protecting Users Privacy in Location-Based Services. *Matec Web of Conferences*, 392. https://doi.org/10.1051/matecconf/202439201089

Rehman, A. (2023). Student Experiences of ICTs in Online Learning during COVID-19 in Pakistan: Challenges and Prospects. *Journal of Development Policy, Research & Practice (JoDPRP)*, 5(1), 66-80. https://doi.org/10.59926/jodprp.vol05/04

Reino, S. (2013). Developing a Framework for the Assessment of E-tourism Capability. Queen Margaret University College, School of Business and Enterprise.

Saleh, M. & Nugraha, R. (2024). Website Utilization as Labuan Bajo Super Digital. Marketing. *West Science Social and Humanities Studies*, 2(5), 867-876. https://doi.org/10.58812/wsshs.v2i05.923

Sampat, S., Gurusamy, S. & Janaki, K. (2020). Pay Per Click Advertising- Future Marketing Tool? *UGC Care Listed Journal*, 40(16), 747-755.

Samuels, P. (2020). A Really Simple Guide to Quantitative Data Analysis. https://doi.org/10.13140/RG.2.2.25915.36645

Şen, Ö. (2020). The Role of ICTs for Effective Marketing Activities in Event Tourism. Hospitality & Tourism Managerial Perspectives & Practices. *Peter Lang GmbH Internationaler Verlag der Wissenschaften*, 309-333.

Sharma, D., Shukla, R., Giri, A.K. & Kumar, S. (2019) "A Brief Review on Search Engine Optimization," 9th International Conference on Cloud Computing, *Data Science & Engineering (Confluence)*, Noida, India, 687-692, https://doi.org/10.1109/CONFLUENCE.2019.8776976

Sigauke, J. & Erdis, C. (2018). The Role of the E-Marketplace as a Marketing Channel for Bed and Breakfast Enterprises in South Africa. *African Journal of Hospitality, Tourism and Leisure (AJHTL*), 7(3), 1-19.

Stankov, U. & Filimonau, V. (2019). Reviving Calm Technology in the E-tourism Context. *The Service Industries Journal*, 39(5-6), 343-360. https://doi.org/10.1080/02642069.2018.1544619

Thwala, K.C. & Dube, K. (2023). Examining Covid-19 Recovery and Resilience of Cape Town as Tourist Destination. in K, Dube, O.L. Kupika, & D. Chikodzi. (Eds.). *Springer Nature*, 221-238. https://doi.org/ 10.1007/978-3-031-28340-6

Thwala, K.C. & Slabbert, E. (2018). The effectiveness of the Marketing Mix for Guesthouses. *African Journal of Hospitality, Tourism and Leisure (AJHTL)*, 7(2), 1-15.

Vayankat, R. & Khan, M. (2023). University Interactive Virtual Assistant (UIVA). *Grenze International Journal of Engineering and Technology*, 8(2), 165-168.

Venugopal, K. (2023). Impact of E-Marketing Promotions on the Performance of Religious Tourism: In Case of Srikakulam District, A.P, India. *International Journal of Engineering and Advanced Technology*, 8, 1289-1292. https://doi.org/10.35940/ijeat.F1223.0986S319

Wagaw, M. & Mulugeta, F. (2018). Integration of ICT and Tourism for Improved Promotion of Tourist Attractions in Ethiopia. *Applied Informatics*, 5(1), 1-12. https://doi.org/10.1186/s40535-018-0053-x

Willaddara, B.M. (2024). Developing an E-Tourism Adoption Model for Small and Medium Tourism Enterprises as a Framework for Sri Lanka's Tourism Industry. Conducted by the International Conference on Business Innovation (ICOBI). Colombo: NSBM Green University, Sri Lanka.

Xalxo, M. & Shree V.D. (2019). A Study on Digital Transformation in Tourism Sector-Challenges and Opportunities. Available at https://www.ijrar.org/papers/IJRAR19VP030.pdf

Zhou, C. & Sotiriadis M. (2021). Exploring and Evaluating the Impact of ICTs on Culture and Tourism Industries' Convergence: Evidence from China. *Technology Innovation: Applications in Sustainable Tourism and Hospitality*, 13(21). https://doi.org/10.3390/su132111769