Athens Journal of Tourism - Volume 11, Issue 2, June 2024 – Pages 147-168

Cloud Computing and Mobile Technologies as a Marketing Strategy towards Innovation and Business Growth among Small Tourism Enterprises

By Abigail Chivandi[*] & Thembelani Mlilo[±]

This study examined the impact of Cloud Computing and Mobile Technologies as marketing strategy towards innovation, business growth among small tourism enterprises (STEs). Mobile commerce is viewed as next generation, e-commerce refers to any transactions, either direct or indirect, via mobile devices, such as phones or personal digital assistants (PDAs). Most significant features of mobile technology are mobility and portability. Ability to access services ubiquitously, on the move, through wireless networks, various devices. The study highlights business risk of being left behind and gives a contemporary research gap, how frequent businesses are engaging with mobile technologies and innovation marketing strategies. Positivist Paradigm- Targeted population were Southern African border countries players in STEs. Data analysis utilised SMARTPLS, Tested CFA, Model Fit, Reliability and Validity, Path Modelling and hypothesis. Raosoft calculator was used to calculate sample size. Calculation considered population of approximately 350 STEs officially registered with Southern Africa Tourism Services Association (SATSA), a 5% margin of error, 90% confidence interval & recommended 50% distribution, and returned a minimum sample size of 184 respondents. Findings revealed transactions can be business to business applications (targeted to other firms, business to consumer applications (targeted to final customers, e.g. advertisements based on SMS/ MMS) e- catalogues on what the small tourism enterprise offers and networking regionally and at global level.

Keywords: *cloud computing, innovation, mobile technology, tourism enterprise, marketing strategy, business growth*

Introduction

In Southern Africa, small tourism enterprises lie at the heart of the industry and form a major part of the tourism sector, serving as cornerstones of tourism development in emerging economies. Mobile commerce is viewed as the next generation of e-commerce and is referred to as any transactions, whether direct or indirect, via mobile devices such as phones or personal digital assistants (PDAs) (Alshamaila et al. 2013). The most significant features of mobile technology are mobility and portability, enabling access to services ubiquitously, on the move, and through wireless networks and various devices.

[*]Lecturer/Researcher, Faculty of Commerce, Law, and Management, School of Business Sciences, University of the Witwatersrand, South Africa.
[±]PhD Candidate, Faculty of Management, College of Business and Economic, University of Johannesburg, South Africa.

https://doi.org/10.30958/ajt.11-2-3 doi=10.30958/ajt.11-2-3

The purpose of the study aimed at assessing the influence of relationship proneness on cloud computing and mobile technologies as innovation capabilities towards business growth for small tourism enterprises in Southern African countries. Despite increasing research on small tourism enterprises, there appears to be a paucity of studies that have interrogated innovation capabilities towards business growth for small tourism enterprises in Southern African countries. In today's post-modern era, the ability to build a competitive network through relationships can be seen as one of the small tourism enterprise's core competencies. Cloud computing and mobile technologies help Small Tourism Enterprises develop better marketing networks that build mutually profitable gains through innovation and competitive advantage in the market (George and Bock 2011). Marketing scholars have suggested that firms should leverage firm–customer/ tourists' relationships and networking to gain privileged information about customers' needs and thereby serve them better than competitors (Ndubisi and Nair 2009). Gao et al. (2010) reported that cloud computing is important for small tourism enterprises since establishing and maintaining relationships with customers fosters customer retention, customer share development, and increased profit and business growth. According to Mostert and De Meyer (2010, p. 28), cloud computing and mobile technology hold benefits for small tourism enterprises, and they should increasingly focus on building services that are innovation-oriented with a consumer service orientation, leading to business growth in terms of customer base and business attractions at a global level. Laukkanen (2007) stipulates that in any form of relationship networking between customers and service providers, the attitude of the customer towards such a relationship is likely to be of importance. Thus, the stronger the customer perceives the importance of mobile technology relationships in general, the more likely the customer is to develop a stronger relationship with the service provider.

Literature Review and Theoretical Foundation

Mobile commerce is viewed as the next generation e-commerce and refers to any transactions, either direct or indirect, via mobile devices, such as phones or personal digital assistants (PDAs). The most significant features of mobile technology are mobility and portability. The ability to access services ubiquitously, on the move, and through wireless networks and various devices. To date, mobile technologies have been applied to consumer-oriented areas, applications focus on voice communication than wireless data transformation. Large-scale usages are still scare in business world specifically to Small Tourism Enterprises (Gebauer and Shaw 2004). Although there is a general notion in which mobile technologies could be applied in business, very little has been done in exploring how to enhance Cloud Computing and Mobile Technologies as innovation capabilities strategy towards business growth for small tourism enterprises.

Adopting mobile technology may create two kinds of impacts on business operations. It is to facilitate communication among small tourism enterprises and customer. Through the enhancement of communicating efficiency and information

timeliness, mobile technology can increase organizational productivity and profitability. Re-vitalizing business processes through changing data access patterns in small tourism enterprise contributes immensely to business growth. The use of cloud computing (CC) and mobile technology (MT) can improve business competitiveness, and has provided genuine advantages for small tourism enterprise (STEs) in tourism sector in southern Africa, enabling them to compete with large firms within the industry (Bayo-Moriones and Lera-Lopez 2007; Picoto, Bélanger and Palma-dos-Reis, 2014) Some of the promised benefits from cloud computing can be very appealing for Small Tourism Enterprises, which need to maximise the return on their investment and still remain competitive in an ever demanding business environment in the tourism sector (Liu and Orban 2008).

A synopsis of the literature interrogating the past and prevailing business environment in the Tourism/ hospitality industry in addition to the description of the concept of cloud computing and mobile technology is presented. The small tourism enterprise provides services for three categories of consumers of its services: local tourists**,** foreign tourists and residence travelling abroad as well as tourists coming into the country (Akbar and Parvez 2009). The services that small tourism enterprise to travellers/tourists are characterised by the need for both physiological (food, drink) and physical needs (rest and entertainment). The origins of small tourism enterprise can be traced as far back as the 16th century (Zott and Amit 2009). Over the ages the origin and development of small tourism enterprise can be tracked to images of inns, Ale houses and Taverns (Zott and Amit 2009). People travelled from place to place for thousand years and in their travels, they needed food, accommodation, and drink. The need for both physiological (food, drink) and physical needs (rest and entertainment) led to development of Inns (Chen 2009). In those early developmental times, some of the early places where services where offered were initiated and set up by the state while in other cases the church took the initiative to provide the travellers with accommodation and food (Chen 2009). Private individuals also began to set up businesses, such as Inns, that offered food and accommodation to travellers. An Inn can be defined as a house which provides accommodation to travellers who are willing to pay (Drucker 1994). As the Inns continued to grow, they began to attract and accommodated many travellers. Initially most of the travellers catered for by Inns used road transport. Horses-drawn coaches and scotch carts were initially the major modes of transport (Medlik 2003). With progression in technology and development of motorised modes of transport, there was a transition from the use of animal-drawn transport modes to more modern road, rail, and sea transport which gave rise to the development of structures of accommodation at terminals and seaside (Medlik 2003). As travelling became easier and more convenient, aircraft took over from road, rail and shipping as the main mode of transport particularly for the long-distance travellers. This development led to the growing volume of international travellers leading to the genesis and development of the small tourism enterprise (Kandampully 2006).

Small tourism enterprise plays important functions: they provide business transactional facilities. By virtue of its positive impact on foreign tourists, it is one of critical industry players that provide services contributing to generating of

foreign currency (Medlik 2003). Small tourism enterprise act as major earners of foreign currency and contribute towards balance of payments especially in countries with limited export capacity (Cohen and Levin 1989) and repeat business purchases by the consumers are realised directly and indirectly through the subsequent diffusion of expenditure by foreign tourist which translate to benefits to the communities of the Southern African countries (Karambakuwa et al. 2011). Small tourism enterprise demands a multiplicity of skills inclusive of cloud computing and mobile technology in order to meet the various services and deliver services at global standards. As such they provide huge opportunities for personnel with a multiplicity of capabilities and have positive downstream effects on other industries, like construction and relations industries (Zeithaml and Bitner 2003). The recent development of Cloud Computing (CC) and mobile technology provides a convincing opportunity for small tourism enterprise to outsource their Information and Communications Technology (ICT). Cloud computing is a model for enabling convenient, on demand network access to a shared pool of configurable computing resources such as networks, servers, storage, applications, and services that can be rapidly provisioned and released with minimal management effort (Alshamaila et al. 2013). The fundamental concept of cloud computing is computing in the "cloud", accessing software, storing data in the "cloud" and representation of Internet/network using associated services. Most cloud computing infrastructures consist of services delivered through common centres built on servers. Cloud Computing (CC) and mobile technology is being used by small tourism enterprise as business mobility strategy to acquire a wider market entry, tourists' information and importantly in growing their business.

Theoretical Background

A theoretical background is provided to formulate the structure that holds the theory of a research study. The following discussion provides the theoretical background of this study.

The Resource Based View

The Resource Based View (RBV) (Barney 1991) is the theoretical orientation underpinning the present study. RBV purports that resources and capabilities are important for understanding the sources of sustained competitive advantage and growth by firms (Barney et al. 2011, Wernerfelt 1984). From the RBV it can be noted that resources and capabilities involve bundles of tangible and intangible assets. These tangible and intangible assets include an organisation's management skills, organizational processes and routines, and the knowledge and information it controls which it uses to select and implement its strategies. The successful implementation of strategies by organisations results in a sustained competitive advantage and growth (Barney et al. 2011). Therefore, for this study cloud computing and mobile technologies are key resources that enhance service innovation and business growth among tourism SMEs.

Empirical Literature

This section presents a review of the literature related to the purpose of this study.

Cloud Computing

Armbrust et al. (2010) states that the cloud computing is a set of active network services, providing scalability, quality of service, an inexpensive computing infrastructure and can be accessed in a simple and pervasive way. Cunha et al. (2017) define cloud computing as a model where technological capabilities are scalable and elastic, and they are provided as a service to end-users over the Internet. From the standpoint of a small and medium enterprise, the benefits of cloud-based technologies are low start-up costs, low cost for sporadic use, ease of management, scalability, device and location independence and rapid innovation (Javaid 2014). Therefore, helping businesses to attain the benefits of cloud computing, by taking advantage of its potential for incremental improvement, avoids disruptive transformation of business processes (Javaid 2014).

Attaran and Woods (2019) postulate that these days, the economic landscape is being redrawn due to several shifts happening worldwide. In this setting, many entrepreneurs are using the potential of cloud computing technology (CCT) to develop novel, effective business models. A time and effort investment are required to implement a successful cloud computing strategy.

As a result of the wide-ranging effects, the complexities of the decisions, and the necessity to consult with interested parties, the entire organisation must be on board. As a result of needing a cloud strategy based on the supply of IT services tied to business process results, many businesses have failed with their cloud computing deployments. And many organisations are still determining the best way to kick off their cloud initiatives. Organisations should first determine where cloud services will yield a return on investment before moving towards widespread adoption. The next step is to devise a strategy for scalable deployment (Attaran and Woods 2019).

Furthermore, RightScale conducted its annual survey of cloud computing trends in 2017. Almost a thousand professionals were polled on their experiences with CCT; half worked for micro, small, and medium enterprises. Nearly three-quarters (72%) of more than a thousand IT pros surveyed use private clouds, while about nine-tenths (89%) rely on public cloud services. The remaining groups intend to adopt cloud services within the following calendar year. Additionally, 67% of participants reported using some hybrid cloud architecture. Since 2016, the use of public clouds has been about the same, while private and hybrid clouds have decreased. More than 80% of workloads at small firms use the cloud, with 50% using the public cloud and 33% using the private cloud (Attaran and Woods 2018, 2019).

According to the same survey, companies that offer cloud computing services also saw significant growth and greater acceptance in 2018. Among the pioneers of cloud computing was Amazon Web Services (AWS), which, in 2006, provided

a few essential computing and storage services. In 2018, AWS had a run rate of $11 billion after being in business for ten years. With 68 percent of respondents using AWS, it is clearly in the lead in 2018. Microsoft Web Services (Azure) adoption rose from 34% to 45%, while Google Web Services adoption rose to 19% but remained in third place. The results showed an increase in market share for Oracle to 10% and an increase in market share for IBM Cloud from 10% to 15% (Attaran and Woods 2018, 2019).

Mobile Technology

According to Patil et al. (2012) mobile technology is the technology used for cellular communication. In addition, mobile technology is increasingly recognized as a contributor to social, economic, political, and environmental transformation, due to the universal and prevalent nature of mobile technology flooding all populations, even those at the bottom of economic pyramid (Kelly and Minges 2012). Njau and Njuga (2015) in their study which examined the impact of mobile phones usage on the performance on the micro enterprise in Moshi municipality and concluded that mobile phone services contribute positively to SMEs performance. Their study clearly showed the benefits mobile phone contributes; these include flexibility in terms of time and space, convenience when employed in business communication. In addition, mobile phone reduces costs and saves time for entrepreneurs with limited economic resources (Njau and Njuga 2015).

The capacity of mobile phones to circumvent infrastructure gaps in Africa's rural and outlying regions makes them a vital tool for the continents underprivileged. The mobile phone is an appropriate and flexible tool to close the digital gap because of its widespread availability, low cost, and rapid development in recent years. Businessmen are embracing mobile phones in underdeveloped countries (Onyango et al. 2014).

Although studies on mobile phone adoption make up a sizable subfield within the field of information systems, there is still room for improvement in the knowledge of what motivates or discourages the use of this technology amongst small tourism businesses. Inter-organisational systems, computerisation of firms, e-commerce, and other factors have all been cited as possible explanations for small tourism businesses' rapid uptake of new technology in the many relevant studies. Cost and a lack of education are two major barriers to the widespread use of information and communication technologies (ICT) by small and medium-sized enterprises (SMEs) (Onyango et al. 2014).

Onyango et al. (2014) study showed that more than half of the SMEs had accepted and used mobile phone technology. The results demonstrate that adoption and use influence small tourism firms' performance. Awareness of mobile phone technology's vast possibilities grows as more people use them and as their owners develop the habit of incorporating mobile devices into their daily work lives and learn to exploit their capabilities thoroughly.

Lastly, businesses that invest in mobile technology are likely to expand faster than their non-mobile technology-using competitors because the former can better serve their clientele through strengthened relationships, present a more professional

front to the public, facilitate more effective information sharing, and increase competition. In addition, an entrepreneur's social network is a vital asset that can aid in acquiring knowledge and resources such as credit. When it comes to transaction costs, contract enforcement, and government regulation, social networks have the potential to play a far more instrumental role in assisting entrepreneurs in overcoming these challenges (Meressa 2020).

Service Innovation

Service innovation can be related to changes in various characteristics of the service product itself (Ryu and Lee 2012). In addition, Randhawa and Scerri (2015) conceptualise service innovation as an "elevated service offering" that is made up of "new client interface/customer encounter; new service delivery system; new organisational architecture or marketing proposition; and/or improvements in productivity and performance through human resource management", further highlighting its multidimensional aspects. Vos (2010) is of the view that a service innovation is a new service or such a renewal of an existing service which is put into practice, and which provides benefit to the organisation that has developed it; the benefit usually derives from the added value that the renewal provides to the customers. Moreover, Chivandi and Maziriri (2018) points out that service innovation is a multi-stage process whereby organisations transform ideas into new or improved services, to advance, compete and differentiate themselves successfully in their marketplace.

Blommerde (2022) postulates that businesses in the service industry need to innovate frequently and quickly respond to consumer preference shifts to maintain their competitive edge, expand their market share, and increase their profits. This is especially true for small tourism enterprises (companies with less than 250 employees), which endure constant pressure from larger competitors despite their smaller size and fewer resources. Since this is the case, service innovation is crucial to the continued existence of such businesses. Despite the widespread agreement among researchers and industry professionals that service innovation is essential, more research needs to be done on the topic in the context of small tourism businesses. There is a startling discrepancy between the vast amount of empirical research exploring service innovation by manufacturers and the scant amount of literature in this area.

As a result of this discrepancy, micro, small, and medium-sized businesses are still determining how service innovation will affect their organisational performance, and they need to know how factors like firm age or client profile might affect this relationship (Blommerde 2022).

Business Growth

Growth determinants of small businesses can be classified by many factors: individual, organizational, and environmental, the factor of organizational resources, the competence of the company, organizational culture, and structure (Sarwoko and Frisdiantara 2016). In addition, Davidsson et al. (2008) describe business

growth as the very essence of entrepreneurship. The growth of SMEs is determined by the owner/manager characteristics (personal approach), and how the strategy is taken (managerial approach) (Sarwoko and Frisdiantara 2016). Additionally, Wodajo et al. 2020) maintain that although several studies have analysed the elements of business growth, each factor was analysed separately, and focus was only placed on personal features, organisational factors, and strategies. Wodajo et al. (2020) further concluded that the environment is a factor that also influences the growth of SMEs because growth is uncertain, due to environmental conditions such as competitive conditions and changing market dynamics.

In addition, the growth of small tourism enterprises is affected by a wide range of variables in developing and developed nations. Factors such as partnership formation, local leadership quality, government policy, and infrastructure investment are often cited as essential drivers. This debate will set the stage and offer context for the various factors contributing to small tourism enterprises' growth. Several studies have examined what factors contribute to the success of small tourism enterprises (Adesile 2020).

Recent empirical studies have examined both internal and external factors affecting small tourism enterprises growth. Additionally, growth is examined in terms of sales, employment, and company profitability. A growth study usually examines the effects of several variables. In these analyses, the intermediate process of controlling these determinants is omitted. In the empirical literature, there are a lot of studies about what causes the growth of small tourism enterprises in different fields. Still, they are primarily focused on exploratory research to find problems. In previous research, growth determinants were overstated using multidimensional components. Several factors influence the growth of small tourism enterprises, including external and internal environmental, contextual, political, social, economic, technological, and organisational aspects. No studies support or contradict the multidimensionality of small tourism enterprises growth factors (Wodajo et al. 2020).

Conceptual Framework and Hypothesis Development

Drawing from the literature review and the postulated hypotheses, a conceptual model was developed (Figure 1). The model consists of four research variables: two variables predictor – Cloud Computing and mobile technology; one mediator service innovation and one outcome variable – Business Growth of STEs.

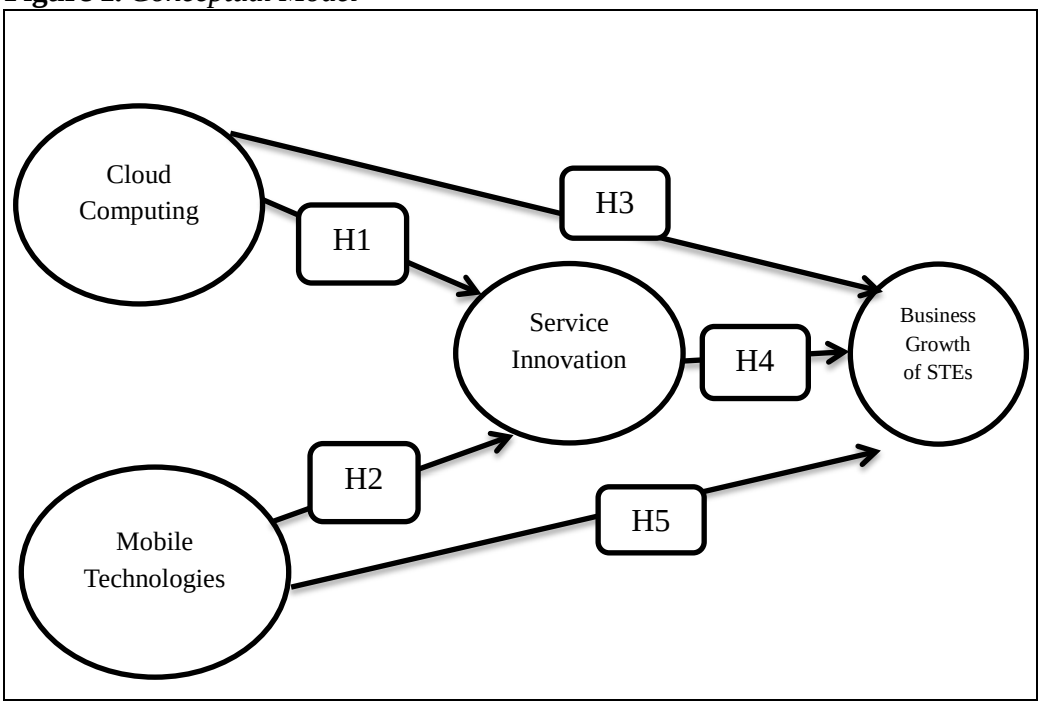
Proposed Hypotheses

The literature throws spotlight upon several validated works, thereby presenting the prospects to test a series of hypotheses in this work. This study used hypotheses to state specific relationships between variables in such a way that the relationships can be empirically tested. In addition, the hypotheses were used to validate the theory used in the research and to allow logical analysis of relationships of variables to deduce the interplay of those variables. Based on scientific evidence

regarding cloud computing, mobile technology, service innovation as well as business growth and considering the underlying theory, the study projected five hypothesis statements which are stated as follows:

H_1: Cloud computing has a positive and a significant influence on service Innovation.
H_2: Mobile technology has a positive and a significant influence on service Innovation.
H_3: Cloud computing has a positive and a significant influence on the business growth of STEs.
H_4: Service innovation has a positive and a significant influence on the business growth of STEs.
H_5: Mobile technology has a positive and a significant influence on the business growth of STEs.

Figure 1. *Conceptual Model*



Research Methodology

This study adopted a positivistic paradigm in investigating the influence of cloud computing and mobile technologies on the business growth of small tourism enterprises. The choice of this paradigm was justified by the need to quantitatively analyse the data to meet the objectives of this study in a more objective manner. A quantitative approach in research is "a formal and objective methodical process of describing and testing relationships and examining the cause–effect relations among variables of interest" (Burns and Grove 1993, p. 777). The study utilised a quantitative research design using a structured questionnaire. The design was suitable to solicit the required information relating to cloud computing, mobile technology, service innovation and business growth. In addition, the approach

enabled the examination of the causal relationships with the constructs used in the study.

Data Collection

Drawing from the literature review and theoretical grounding, a conceptual model/hypothesis were developed. The model consists of four research variables: two variables predictor – CC and MT; one mediator service innovation and one outcome variable – Business Growth of STEs. Research Philosophy took a Positivist Paradigm. Targeted population were Southern African border countries players in STEs. The data for this research was collected from small tourism enterprises within the Ministry of Tourism and Hospitality Industry in Southern African boarder countries inclusive of South Africa and Zimbabwe. Specifically, the target population was restricted to managers and owners of small tourism enterprises operating in Limpopo and Beitbridge Province. In terms of the sampling frame, a list of small tourism enterprises, registered within the database of small businesses, was used as a sampling frame. The database of small tourism enterprises was obtained from the Ministry of Tourism and Hospital Industry. Therefore, a simple random sampling technique was used in this study, because each element of the population had an equal and known chance of being selected as part of the sample (Konovalova et al., 2018) – for instance, where every name within the list of small tourism enterprises registered within the data of the Ministry of Tourism and Hospitality Industry had an equal chance of selection.

The questionnaires clearly stated that the anonymity of the participants would be guaranteed and that the study was purely for academic purposes. The Raosoft calculator for sample size was used to calculate the size of the sample (Lenth, 2001). Research Philosophy took a Positivist Paradigm- Targeted population were Southern African border countries players in STEs. Data analysis utilised SMARTPLS, Tested CFA, Model Fit, Reliability and Validity, Path Modelling and hypothesis. Raosoft calculator for sample size was used to calculate sample (Lenth, 2001). Calculation considered population of approximately 350 STEs officially registered with Southern Africa Tourism Services Association (SATSA), a 5% margin of error, 90% confidence interval and the recommended 50% distribution, and returned a minimum sample size of 184 respondents. Of the 184 questionnaires distributed, 151 returned questionnaires were usable, yielding a response rate of 82%. CC was measured, using a 17-item scale, adapted from Shoniwa (2016), MT measured, using a fifteen-item scale, adapted from Mabinya (2011) , SI measured, using eighteen-item scale, adapted from Yang et al. (2018) and BG measured using a nine-item scale adapted from Lotz and van der Merwe (2013).

Measurement Instrument and Questionnaire Design

Research scales were operationalised, mainly based on previous work. Proper modifications were made for them to fit the current research context and purpose. Cloud computing was measured, using a 17-item scale, adapted from Shoniwa

(2016). In addition, mobile technology was measured, using a fifteen-item scale, adapted from Mabinya (2011). Furthermore, service innovation was measured, using eighteen-item scale, also adapted from Yang et al. (2018). Moreover, business growth was measured using a nine-item scale adapted from Lotz and van der Merwe (2013) as well as Tan et al. (1998). All were measured on a five-point Likert-type scale, 1 (strongly disagree) to 5 (strongly agree), to express the degree of agreement.

Respondent Profile

The respondents were requested to report their demographic data, including gender, age, marital status, and kind of business inside the tourism segment. The respondents were mainly females (57.6%). The average age of the respondents was under 30 years (54.3%). Fifty-seven per cent of the respondents were single. Around 69.53% of the respondents demonstrated that they were occupied with transportation service types of businesses. In addition, 30.46% of the respondents disclosed that they were occupied with accommodation tourism companies, for instance, hotels, guest houses and guest lodges.

Data Analysis

Data analysis refers to the process by which the collected data transformed into a more manageable size to enable the categorisation of behaviours and the application of statistical techniques (Cooper and Schindler 2016, p. 94). The research model developed in the present investigation was tested using partial least squares (PLS), a variance-based, structural equation modelling approach (Subramaniama et al. 2017).

Monecke and Leisch (2012, p. 3) elucidate that 'SmartPLS is stand-alone software specialized for PLS path models and it is built on a Java Eclipse platform making its operating system independent'. Partial least squares have the ability to facilitate the assessment of both the measurement and structural models (Subramaniama et al. 2017). This study utilised PLS for two main reasons: firstly, the aim of the study was oriented towards prediction of the dependent variable (Chin 2010), and secondly the latent variable scores were used in the subsequent analysis for predictive relevance (Hair et al. 2011). Furthermore, Hair et al. (2011) further stressed that these arguments have led to the widespread acceptance of PLS in research. Specifically, this study used the smart PLS approach introduced by Ringle et al. (2005).

Reliability Analysis

The statistical measures of accuracy tests that appear in Table 1, indicate the distinct measures that were utilised to survey the reliability and validity of the constructs for the investigation. Accurately, the table delineates means and standard deviations, Item to Total connections, Cronbach alpha values, Average Variance Extracted (AVE), Composite Reliability (CR) and Factor Loadings.

A confirmatory factor analysis (CFA) was employed, and the SEM was estimated by using PLS data. Table 2 and Figure 2 depict the CFA findings, whereas Table 3 and Figure 2 summarise the SEM finding. Confirmatory Factor Analysis (CFA) was used to evaluate the measurement model, representing the outer model in PLS. Kimberlin and Winterstein (2008) "mentioned that the purpose of the measurement model is to evaluate the eliability and validity of variables". Table 1 shows that the item-total correlation value lies between 0.512 and 0.869 which is above the cut-off point of 0.5 as recommended by Anderson and Gerbing (1988, p. 411). The higher inter-item correlations reveal convergence among the measured items. Nunally and Bernstein (1994, p. 1) explained that "alpha values should exceed 0.6". All variables in this study represented good reliability with the Cronbach's alpha between 0.821 and 0.884. The study also used CR values in testing the reliability of the four research constructs. The CR values varied between 0.854 and 0.906. The obtained values from CR were above the acceptable reliability score of 0.7, thus validating the internal consistency of the five research construct measures, according to Nunnally and Bernstein (1994). The result shows that the AVE of this study was between 0.401 and 0.989. These AVE values were above the recommended 0.40, indicating a satisfactory measure (Anderson and Gerbing 1988, p. 411). As shown in Table 1, "loadings of all items should be more than the suggested value of 0.5" (Walker et al. 2017). Factor loadings in this study met the specification of the recommended value of 0.5 which ranged from 0.528 to 0.883. Items which were below 0.5 were deleted because of the low factor loadings which did not measure at least 50% of what there are supposed to measure. The remaining items fulfilled the requirement of reliability and convergent validity.

According to Hair et al. (2013, p. 13), discriminant validity refers "to items measuring different concepts". Table 3 indicates the results of discriminant validity.

Nunnally and Bernstein (1994) demonstrate that one of the strategies used to observe the discriminant validity of the research was the assessment of whether the connections among latent constructs were under 0.60. A correlation estimates of under 0.60 is prescribed in the empirical literature to affirm the presence of discriminant validity (Nunnally and Bernstein 1994). As appeared in Table 2, the inter-construct correlation estimates ran from 0.387 to 0.597 which is below the dependable guideline of 0.60 (Nunnally and Bernstein 1994), showing the accomplishment of discriminant validity. Thusly, Table 2 demonstrates that the outcomes additionally approve the presence of discriminant validity.

Table 1. *Accuracy Analysis Statistics*

Research variables	PLS code item	Test Item-Total correlation values	Cronbach's a value	CR value	AVE value	Factor loadings
Cloud Computing	CC1	0.611	0.884	0.906	0.497	0.582
	CC2	0.595				0.599
	CC2	0.565				0.661
	CC4	0.680				0.623
	CC7	0.638				0.819
	CC8	0.697				0.876
	CC9	0.697				0.801
	CC11	0.734				0.637
	CC12	0.773				0.814
	CC13	0.756				0.551
Mobile Technologies	MT1	0.768	0.821	0.854	0.401	0.545
	MT3	0.703				0.528
	MT4	0.577				0.545
	MT7	0.727				0.590
	MT8	0.845				0.535
	MT9	0.869				0.644
	MT10	0.787				0.736
	MT11	0.838				0.637
	MT12	0.830				0.529
	MT13	0.830				0.762
Service Innovation	**SI1**	0.852	0.872	0.895	0.440	0.722
	SI2	0.644				0.703
	SI4	0.690				0.638
	SI5	0.780				0.792
	SI6	0.788				0.600
	SI7	0.753				0.642
	SI8	0.640				0.713
	SI13	0.687				0.623
	SI14	0.726				0.537
	SI15	0.706				0.612
	SI16	0.512				0.626
	SI17	0.737				0.642
	SI18	0.708				0.713
Business Growth	BG3	0.717	0.855	0.894	0.589	0.847
	BG4	0.625				0.883
	BG5	0.645				0.769
	BG7	0.643				0.646
	BG8	0.651				0.822
	BG9	0.701				0.591

Note: a. Composite reliability (CR) = (square of the summation of the factor loadings)/(square of the summation of the factor loadings) + (square of the summation of the error variances) b. Average variance extracted (AVE) = (summation of the square of the factor loadings)/(summation of the square of the factor loadings) + (summation of the error variances) PLS=partial least square; scores: 1 – strongly disagree; 2 – disagree; 3 – neutral; 4 – agree; 5 – strongly agree

Table 2. *Results of Discriminant Validity Analysis*

Variables	CC	MT	SI	BG
CC	1.000	-	-	-
MT	0.476	1.000	-	-
SI	0.597	0.433	1.000	-
BG	0.531	0.429	0.464	1.000

Note: CC=Cloud computing; MT=Mobile technologies; SI= Service Innovation; BG= Business Growth.

Assessment of the Goodness of Fit (GoF)

Overall, R^2 for service innovation and business growth in Figure 2, indicate that the research model explains 87.7% and 88.5% respectively of the variance in the endogenous variables. Following formulae given by Tenenhaus et al. (2005), the global goodness-of-fit (GoF) statistic for the research model was calculated using the equation:

$$\text{Goodness of Fit} = \sqrt[2]{(\text{average of all AVEs values} * \text{average of all } R^2)}$$
$$= \sqrt[2]{0.48 * 0.44}$$
$$= 0.46$$

where AVE represents the average of all AVE values for the research variables while R^2 represents the average of all R^2 values in the full path model. The calculated global goodness of fit (GoF) is 0.46, which exceeds the threshold of GoF > 0.36 suggested by Wetzels et al. (2009). Therefore, this study concludes that the research model has a good overall fit.

Path Model Results and Factor Loadings

The PLS estimation results for the structural model as well as the item loadings for the research constructs are shown in Figure 2.

In this study, testing of the hypotheses was determined by path coefficient values, as well as the t-values for the structural model obtained from the bootstrapping algorithm. According to Beneke and Blampied (2012), t-values indicate whether a significant relationship exists between variables within the model, while path coefficients demonstrate the strength of the relationships in the model. Two-tailed t-tests were conducted at the 5% significance level. The findings of the structural model are displayed in Table 3.

Table 3 exhibits the five hypothesised connections, path coefficients, the t-statistics and the decision criteria. The value of the t-statistic indicates whether the relationship is noteworthy or not. A significant relationship is relied upon to have a t-value that is over 2. Drawing from the outcomes shown in Table 3, four of the six theorised connections (H1, H2 H3 and H4) were positive and significant. H5 was positive, however its significance level was weak.

Figure 2. *Structural Model*

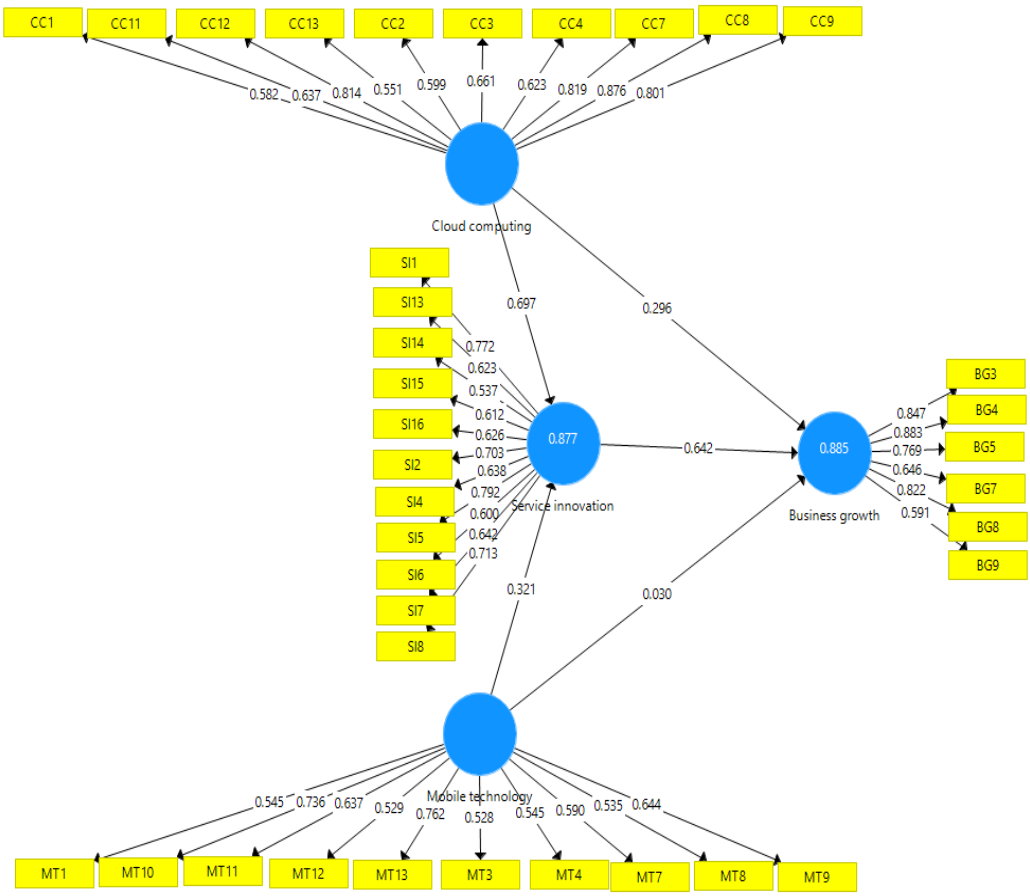


Table 3. *Result of Structural Model*

Hypothesis	Relationship	Path coefficient value β	T-value	P-value	Result
H1	CC ⟶ SI	0.697	10.596	0.000	Positive and significant
H2	MT ⟶ SI	0.321	3.751	0.000	Positive and significant
H3	CC ⟶ BG	0.296	1.983	0.000	Positive and significant
H4	SI ⟶ BG	0.642	3.710	0.000	Positive and significant
H5	MT ⟶ BG	0.030	0.431	0.667	Positive and insignificant

[a]Significance Level p<.10; [b]Significance Level p<.05; [c]Significance Level p<.01.

Cloud Computing and Service Innovation

The primary hypothesis expressed that cloud computing positively and significantly impacts service innovation of small tourism enterprises. In this examination, this speculation was bolstered. It can be seen in Figure 2 and Table 3 that cloud computing applied a positive impact (β=0.697) and was statistically significant (t=10.596) in determining service innovation. This outcome proposes that the higher the level of cloud computing the higher the level of service innovation within small tourism enterprises. Along these lines, this examination fails to dismiss H1.

Mobile Technology and Service Innovation

The second hypothesis expressed that mobile technology positively and significantly impacts service innovation of small tourism enterprises. In this investigation, this supposition was upheld. It can be seen in Figure 2 and Table 3 that mobile technology exerted a positive influence (β =0.321) and was measurably critical (t=3.751) in anticipating service innovation. This outcome recommends that the higher the level of use in mobile technology, the higher the level of service innovation within small tourism enterprises. Subsequently, this investigation supports H2.

Regarding the relationship between mobile technology and service innovation, one study revealed that mobile technology favoured manufacturing enterprises' service innovation performance (Zhao et al. 2015). Mobile technology is an IT capability, and it is logical to assume that its impact on service innovation is similar to that of other IT capabilities.

Another study examined the influence of technology and marketing innovation on tourism SME productivity and showed that both categories of innovation have a significant and favourable impact on productivity (Nguyen et al. 2021). Although this study did not analyse the relationship between mobile technology and service innovation, it implies that technological innovation can have a favourable effect on the productivity of small tourism businesses.

While there may not be a direct study examining the impact of mobile technology on service innovation in small tourism businesses, the available research indicates that technological innovation, including IT capability, can positively impact service innovation and productivity in these types of companies. Consequently, mobile technology may have a comparable positive effect on service innovation in small tourism businesses.

Cloud Computing and Business Growth

The third hypothesis expressed that access to cloud computing positively and significantly impacts business growth of small tourism enterprises. In this examination, this hypothesis was upheld. It can be seen in Figure 2 and Table 3 cloud computing exerted a positive impact (β=0.296) and was factually noteworthy (t=1.983) in anticipating business growth. This outcome recommends that the higher the level of loud computing, the higher the level of business growth with small tourism enterprises. Thus, this examination supports H3.

There is a lack of research into how cloud computing affects small tourism enterprises. According to Gartner, however, worldwide end-user spending on public cloud services is expected to climb in 2022, suggesting a rise in cloud adoption among organisations (Dar 2018, Aggarwal 2021).

There are no studies that look at how cloud computing affects small tourism enterprises, although it is known that SMEs can profit from digitalisation, of which cloud computing is a part. As a result of digitalisation, tourist enterprises now have greater chances to compete on a worldwide scale; SMEs, in particular, can utilise

digital technologies to boost their operations, attract more clients, and provide more customised services (Santos and Silva 2019, OECD 2020).

Cloud computing's indirect benefits to SMEs in the tourism industry are less clear, although there are signs that digitalisation, of which cloud computing is a part, can help SMEs in the sector compete more successfully and improve their operations.

Service Innovation and Business Growth

The fourth hypothesis stated that service innovation positively and significantly impacts business growth. In this study, this hypothesis was supported. It can be observed in Figure 2 and Table 3 that service innovation exerted a positive influence (β=0.642) and was statistically significant (t=3.710) in predicting business growth. This result suggests that the higher the level of service innovation, the higher the level of business growth in small tourism enterprises.

Davronov and Farmonov (2019) claim that research on service innovations in the services sector, which includes the tourism and hospitality industries, is in its infancy. This research, however, finds that service innovations are critical to a company's economic competitiveness and can even boost the growth of a small tourism business (Davronov and Farmonov 2019).

Regarding the tourism industry, service innovation is described as the result of a group effort on the part of multiple entities (Blommerde 2022). Expanding locally owned and operated tourism businesses may result from encouraging a thriving environment for new ideas and startups in the sector. In conclusion, service innovation can affect the development of micro- and small-scale tourist enterprises. Overall, the evidence suggests that service innovation can have a positive and significant impact on business growth and economic growth more broadly. By investing in service innovation and knowledge-intensive business services, firms may be able to enhance their competitiveness and achieve long-term success. However, the components that contribute to this favourable effect need more investigation.

Mobile Technology and Business Growth

The fifth hypothesis stated that mobile technology positively and significantly impacts business growth. In this study, this hypothesis was supported. It can be observed in Figure 2 and Table 3 that mobile technology exerted a positive influence (β=0.030) and was statistically insignificant (t=0.431) in predicting business growth. This result suggests that although mobile technology was statistically insignificant in predicting business growth, it is imperative not to rule it out as it positively influence business growth of small tourism enterprises.

Small tourism enterprises have significantly benefited from mobile technology, which has allowed them to grow their operations and attract more customers. The tourism industry's adoption of mobile apps has allowed consumers to explore the world in new ways. Meressa (2020) claims that smartphones have emerged as the central figure in the evolution of tourism, serving as a multifunctional tool for

tourists in the roles of tour guide, travel agent, best restaurant finder, map, and more. Small tourism enterprises can more readily connect with clients, advise them about their offerings, and process bookings and payments using mobile technologies.

In addition, Njau and Njuga (2015) note that cloud computing—which can be used to gain access to, manage, and store data online—is one of the technology trends impacting the travel and tourism industry. Using cloud computing, travel agencies of all sizes may streamline their data administration and make it easier for customers to access. As a result, they will be better able to make judgments, work more efficiently, and provide better customer service.

Mobile and cloud computers have greatly aided the growth of small tourism enterprises by expanding their consumer base, streamlining booking and payment processes, and enhancing their ability to keep track of and analyse their data.

Conclusions and Implications

The empirical study provided fruitful implications to academicians by making a significant contribution to the tourism destination marketing, specifically in small tourism enterprises literature by systematically exploring the influence of cloud computing and mobile technology and innovation towards business growth in small tourism enterprises. Cloud Computing (CC) and Mobile technology (MT), which includes applications based on cellular (e.g., GSM, GPRS) and wireless (Wi-Fi,) networks, represents the convergence between two of the most relevant technological emerging trends and provide a tremendous impetus to development of strategic applications for small tourism enterprise business growth and different industries like transportation (Chen 2009). This also helps on the managerial implication whereby transactions can be business to business applications (targeted to other firms, business to consumer applications (targeted to final customers, e.g., advertisements based on SMS/MMS) e-catalogues on what the small tourism enterprise offers and networking regionally and at global level (Liang et al. 2007). This study, therefore, stand to immensely contribute new knowledge to the existing body literature in small tourism enterprises in Southern Africa – a context that is often most neglected by some researchers in developing countries.

This study examined the impact of cloud computing and mobile technology on service innovation and business growth in small tourism enterprises. The results show that both cloud computing and mobile technology have a positive impact on service innovation, and access to cloud computing positively impacts business growth. Service innovation was found to positively influence business growth, suggesting that investing in service innovation can contribute to the long-term success of small tourism enterprises.

The study has important implications for small tourism enterprises, as it suggests that investing in cloud computing and mobile technology can enhance service innovation and business growth. Digitalization, of which cloud computing and mobile technology are a part, can help small tourism businesses compete on a

global scale and attract more clients by providing customized services. Moreover, the findings of this study are consistent with previous research that indicates that technological innovation, including IT capability, can positively impact service innovation and productivity in small tourism enterprises.

However, the study has limitations, including a lack of research on the impact of cloud computing on small tourism enterprises and the limited sample size. The study also did not examine the specific components of service innovation that contribute to the positive impact on business growth, suggesting that more research is needed to determine the underlying mechanisms. Nonetheless, the study provides valuable insights into the relationship between cloud computing, mobile technology, service innovation, and business growth in small tourism enterprises.

References

Adesile OO (2020) *Economic determinants of small business growth: the case of selected areas in the Johannesburg Metropolitan region*. Doctoral Dissertation. South Africa: North-West University.

Akbar MM, Parvez N (2009) Impact of service quality, trust and customer satisfaction on customer loyalty. *ABAC Journal* 29(1): 24–38.

Alshamaila Y, Papagiannidis S, Li F (2013) Cloud computing adoption by SMEs in the north east of England: A multi-perspective framework. *Journal of Enterprise Information Management* 26(3): 250–275.

Anderson JC, Gerbing DW (1988) Structural equation modeling in practice: A review and recommended two-step approach. *Psychology Bulletin* 1(3): 411–423.

Armbrust M, Fox A, Griffith R, Joseph AD, Katz R, Konwinski A, et al. (2010) A view of Cloud computing. *Commun. ACM* 53(4): 50–58.

Attaran M, Woods J (2018) Cloud Computing Technology: A Viable Option for Small and Medium-Sized Businesses. *Journal of Strategic Innovation & Sustainability* 13(2): 94–106.

Attaran M, Woods J (2019) Cloud computing technology: improving small business performance using the Internet. *Journal of Small Business & Entrepreneurship* 31(6): 495–519.

Barney J (1991) Firm resources and sustained competitive advantage. *Journal of Management* 17(1): 99–120.

Barney JB, Ketchen Jr DJ, Wright M (2011) The future of resource-based theory: revitalization or decline? *Journal of Management* 37(5): 1299–1315.

Bayo-Moriones A, Lera-Lopez F (2007) *Journal of Enterprise Information Management* 26(3): 250–275.

Beneke J, Blampied S (2012) Driving consumer perceptions through Facebook: An investigation into empowering brands in the 21st century. In JMM van den Berg (ed.), *Conference Proceedings of the 24th Annual Conference of SAIMS – 2012*, 47–61. September 9-11. Stellenbosch: Stellenbosch University.

Blommerde T (2022) Service Innovation and Performance in Micro, Small, and Medium-Sized Organizations. *European Journal of Business and Management Research* 7(4): 46–54.

Burns N, Grove SK (1993) *The practice of nursing research: Conduct, critique and utilization*. 2nd Edition. Philadelphia: W.B. Saunders.

Chen TF (2009) Building a platform of Business Model 2.0 to creating real business value with Web 2.0 for web information services industry. *International Journal of Electronic Business Management* 7(3): 168–180.

Chin WW (2010) How to write up and report PLS analyses. In V Esposito Vinzi, WW Chin, J Henseler, H Wang (eds.), *Handbook of partial least squares: Concepts, methods and applications*, 655–690. Berlin: Springer-Verlag.

Chivandi A, Maziriri ET (2018) Modeling Relationships Between Innovation Antecedents and Service Innovation: A Zimbabwean Hotel Managers Perspectives. *GeoJournal of Tourism and Geosites* 23(3): 633–643.

Cohen W, Levin R (1989) Empirical Studies of Innovation and Market Structure. In R Schmalensee, R Willig (eds.), *Handbook of Industrial Organization*. Holland.

Cooper DR, Schindler PS (2016) *Research methods in business administration*. 12th Edition. Porto Alegre: McGraw-Hill.

Cunha CR, Morais EP, Sousa JP, Gomes JP (2017) The role of cloud computing in the development of information systems for SMEs. *Journal of Cloud Computing* 2017: 736545.

Dar AA (2018) Cloud computing-positive impacts and challenges in business perspective. *Journal of Computer Science & Systems Biology* 12(1): 15–18.

Davidsson P, Steffens PR, Fitzsimmons JR (2008) *Performance assessment in entrepreneurship and management research: Is there a pro-growth bias*. QUT Business School.

Davronov IO, Farmonov EA (2019) The impact of Innovations in tourism and hospitality. *International Multilingual Journal of Science and Technology* 4(9): 658–660.

Drucker P (1994) *Innovation and entrepreneurship*. New York, USA: Harper and Row.

Francis D, Bessant J (2005) Targeting innovation and implications for capability development. *Technovation* 25(3): 171–183.

Gao F, Chen R, Deng W (2010) Technological Innovation for Sustainability. *International Journal of Innovation* 6: 119–125.

Gebauer J, Shaw MJ (2004) Success factors and impacts of mobile business applications: results from a mobile e-procurement study. *International Journal of Electronic Commerce* 8(3): 19–41.

George G, Bock AJ (2011) The business model in practice and its implications for entrepreneurship research. *Entrepreneurship Theory and Practice* 35(1): 83–111.

Hair JF, Ringle CM, Sarstedt M (2011) PLS-SEM: Indeed a silver bullet. *Journal of Marketing Theory and Practice* 19(2): 137–149.

Hair JF, Ringle CM, Sarstedt M (2013) Editorial-partial least squares structural equation modeling: Rigorous applications, better results and higher acceptance. *Long Range Planning* 46(1–2): 1–12.

Javaid MA (2014) Implementation of Cloud Computing for SMEs, *World Journal of Computer Application and Technology* 2(3): 66–72.

Kandampully J (2006) The new customer-centred business model for the hospitality industry. *International Journal of Contemporary Hospitality Management* 18(3): 173–187.

Karambakuwa RT, Shonhiwa T, Murombo L, Mauchi FN, Gopo NR, Denhere W, et al. (2011) The impact of Zimbabwe Tourism Authority initiatives on tourist arrivals in Zimbabwe (2008-2009). *Journal of Sustainable Development in Africa* 13(6): 68–77.

Kelly T, Minges M (2012) Executive Summary. In T Kelly, M Minges (eds.), *Information and Communication for Development*, 3–9. Washington, DC: World Bank.

Kimberlin CL, Winterstein AG (2008) Validity and reliability of measurement instruments used in research. *American JOURNAL of Health-System Pharmacy* 65(23): 2276–2284.

Konovalova EE, Yudina EV, Bushueva IV, Uhina TV, Lebedev KAE, (2018) Forming approaches to strategic management and development of tourism and hospitality industry in the regions. *Journal of Environmental Management and Tourism* 9(2): 241–247.

Laukkanen T (2007) Internet vs mobile banking: comparing customer value perceptions. *Business Process Management Journal* 13(6): 788–797.

Lenth RV, (2001) Some practical guidelines for effective sample size determination. *The American Statistician* 55(3): 187–193.

Liu H, Orban, D (2008) May. Gridbatch: Cloud computing for large-scale data-intensive batch applications. In *2008 Eighth IEEE International Symposium on Cluster Computing and the Grid (CCGRID)*: 295–305. IEEE.

Lotz HM, van der Merwe SP (2013) An investigation of the influence of entrepreneurial orientation on the perceived success of agribusinesses in South Africa. *South African Journal of Business Management* 44(1): 15–32.

Mabinya BV (2011) *The impact of mobile technologies on the business models of small and medium enterprises in Pietermaritzburg*. Doctoral Dissertation. University of Pretoria.

Medlik S (2003) *Dictionary of Travel, Tourism and Hospitality*. Oxford, UK: Butterworth-Heinemann.

Meressa HA (2020) Growth of micro and small scale enterprises and its driving factors: Empirical evidence from entrepreneurs in emerging region of Ethiopia. *Journal of Innovation and Entrepreneurship* 9(Jun): 11.

Monecke A, Leisch F (2012) semPLS: Structural equation modeling using partial least squares. *Journal of Statistical Software* 48(3): 1–32.

Mostert P, De Meyer C (2010). Building customer relationships as retention strategy in the South African domestic passenger airline industry. *Acta Commercii* 10(1): 27-42.

Ndubisi NO, Nair, SR (2009) Green entrepreneurship (GE) and green value added (GVA): A conceptual framework. *International Journal of Entrepreneurship* 13: 21–34.

Nguyen VK, Natoli R, Divisekera S (2021) Innovation and productivity in tourism small and medium enterprises: A longitudinal study. *Tourism Management Perspectives* 38: 100804.

Njau JE, Njuga GO (2015) Mobile Phones Usage in Micro Enterprise in Tanzania and its Impact on Their Performance A Case of Micro Enterprises in Moshi Municipality, Tanzania. *International Journal of Economics, Commerce and Management* 3(6): 1047–1057.

Nunnally JC, Bernstein I (1994) *Psychometric theory*. 3rd Edition. New York: McGraw-Hill.

OECD (2020) Preparing tourism businesses for the digital future. In *OECD Tourism Trends and Policies*, 59–85.

Onyango RA, Ongus RW, Awuor FM, Nyamboga C (2014) Impact of adoption and use of mobile phone technology on the performance of micro and small enterprises in Kisii Municipality Kenya. *World Journal of Computer Application and Technology* 2(2): 34–42.

Patil CS, Karhe RR, Ahe MA (2012) Development of Mobile Technology: A Survey. *International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering* 1(5): 374–379.

Picoto WN, Bélanger F, Palma-dos-Reis A (2014) An organizational perspective on m-business: usage factors and value determination. *European Journal of Information Systems* 23(5): 571–592.

Randhawa K, Scerri M (2015) Service innovation: A review of the literature. In *The handbook of service innovation*, 27–51. London: Springer.

Ringle CM, Wende S, Will A (2005) *Smart PLS 2.0 (Beta).* Hamburg: University of Hamburg. Available at: http://www.smartpls.de.

Ryu HS, Lee JN (2012) Identifying Service Innovation Patterns from The Service-Oriented Perspective. In *PACIS*, 60.

Santos JD, Silva OL (Eds.) (2019) *Digital marketing strategies for tourism, hospitality, and airline industries*. IGI Global.

Sarwoko E, Frisdiantara C (2016) Growth Determinants of Small Medium Enterprises (SMEs). *Universal Journal of Management* 4(1): 36–41.

Shoniwa TR (2016) *Exploring the adoption of cloud computing as a business: a Bulawayo Small to Medium Enterprises (SMSs) Study*. Doctoral Dissertation. Pretoria: University of South Africa.

Subramaniama C, Shamsudinb FM, Alshuaibic ASI (2017) Investigating employee perceptions of workplace safety and safety compliance using PLS-SEM among technical employees in Malaysia. *Journal of Applied Structural Equation Modeling* 1(1): 44–61.

Tan KC, Kannan VR, Handfield RB (1998) Supply chain management: supplier performance and firm performance. *Journal of Supply Chain Management* 34(3): 2.

Tenenhaus M, Vinzi VE, Chatelin YM, Lauro C (2005) PLS path modeling. *Computational Statistics & Data Analysis* 48(1): 159–205.

Ting-Peng L, Chen-Wei H, Yi-Hsuan Y, Binshan L (2007) Adoption of mobile technology in business: a fit-viability model. *Industrial Management & Data Systems* 107(8): 1154–1169.

Vos AH (2010) *Service innovation: managing innovation from idea generation to innovative offer*. Master's Thesis. University of Twente).

Wodajo AD, Mekonen EK, Abera SF (2020) Growth Determinants of Micro and Small Enterprises in Ethiopia: Evidence from Selected Woredas of Gurage Zone. *Open Journal of Business and Management* 8(3): 1339.

Wernerfelt B (1984) A resource-based view of the firm. *Strategic Management Journal* 5(2): 171–180.

Wetzels M, Odekerken-Schröder G, Van Oppen C (2009) Using PLS path modeling for assessing hierarchical construct models: Guidelines and empirical illustration. *MIS Quarterly* 33(1): 177–195.

Yang Y, Li Z, Su Y (2018) The Effectiveness of Service Innovation Practices to Reduce Energy Consumption Based on Adaptive Theory. *Sustainability* 10(9): 3317.

Zeithaml VA, Bitner JM (2003) Services Marketing Integrating Customer Focus. *Journal of Marketing* 28(1): 58–62.

Zhao YW, Chen JH, Zhou YJ, Yao SJ (2015) Research on function paths of IT capability on service innovation performance of manufacturing enterprises. *Statistics & Information Forum* 30(7): 101–106.

Zott C, Amit R (2009) Business, Model Design: An Activity System Perspective. *Long Range Planning* 43(2–3): 216–226.