

Digital literacy in townships: The problems and the promise for SMMEs

DOI: <https://doi.org/10.35683/jcm23.008.260>

MPHO TAU*

Department of Business Management, University of Johannesburg, South Africa

Email: mtheofista@gmail.com

ORCID: <https://orcid.org/0000-0002-2094-3052>

*corresponding author

THEA TSELEPIS

SARChI: Entrepreneurship Education, University of Johannesburg, South Africa

Email: theat@uj.ac.za

ORCID: <https://orcid.org/0000-0001-5990-4571>

CECILE NIEUWENHUIZEN

SARChI: Entrepreneurship Education, University of Johannesburg, South Africa

Email: cecilen@uj.ac.za

ORCID: <https://orcid.org/0000-0003-4925-32>

ABSTRACT

Purpose of study: The purpose of this paper is to explore and describe applicable digital literacy of township based Small, Medium and Micro Enterprise (SMME) owners and their customers. The specific objectives of this paper are to report on the awareness of willingness to apply, and confidence to use applicable digital technologies from township based SMME owners, as well as their customers' point of view.

Research Approach: A mixed methods approach was implemented, with two sequential research phases. The first involved semi-structured interviews with 15 township based SMME owners, and the second phase comprised questionnaires completed by 300 customers of township based SMMEs.

Results/Findings: The study's main findings indicate that digital literacy requires a level of technology proficiency that may be enhanced by applying digital technologies in various contexts. External factors need to be managed to reduce fear around adoption. There are also promising applications for digitalisation not applied, while customers seem willing and able to learn how to apply various platforms.

Recommendations/Value: It is recommended that ambassadors and tech-savvy customers be encouraged and incentivised to assist other customers to apply digital platforms to more than just information searching. SMME owners can be involved in such incentive initiatives. Moreover, the government may consider first spending funding on infrastructure and data prior to formal training on digitalisation.

Managerial implications: Owners of township based SMMEs can consider the willingness of their customers to transform their business practices and make use of the various opportunities still not utilised. More knowledge about the application of various applications can also improve the willingness of owners to adopt digital technologies in their businesses.

Keywords

Digitalisation; Digital literacy; Digital transformation; Township economy; Township based SMMEs

JEL Classification: D81

1. INTRODUCTION

In the South African context, “townships” refer to the residential areas that are considered underdeveloped due to historical racial segregation (McGaffin *et al.*, 2015). While the white population resided in cities and suburbs, townships, on the other hand, were formed for the black population and are usually found within city limits (Bvuma & Marnewick, 2020). Prior to 1994, townships experienced segregation in terms of accessing basic needs such as health, education, and housing services, and operated separately from the mainstream socio-economy (Cant & Rabie, 2018). This segregation shaped townships into what they are today and how they operate, including their SMMEs. Despite the policies and growth strategies put in place by South Africa’s democratic government, townships still face inequalities that hinder the development of their economic activity that is directly linked to the SMMEs in these communities.

One of the strategies to improve and empower township based SMMEs that has gained momentum in recent years is digital transformation (Bvuma & Marnewick, 2020). Digital transformation can be defined as integrating new information technologies into businesses so that results and value add are created for the business as well as its consumers (Mičić , 2017; Power & Heavin, 2018). For this reason, several support structures have been availed in South African townships for township based SMMEs and their customers, for example, the Small Enterprise Development Agency (SEDA), which supports training on digital technologies (SEDA, 2019). It is therefore argued that digitalisation (the application of digital technologies) in the Fourth Industrial Revolution (4IR) presents much promise for township based SMMEs.

Digitalisation in township based SMMEs presents the potential for innovation through agile and disruptive digital practices (Bvuma & Marnewick, 2020). In this regard, digitalisation includes the digital practices of SMME owners/employees, as well as the digital practices of their customers (Urban & Ndou, 2019). For such digital practices to be fully embraced,

however, township based SMME owners, as well as their customers, should be digitally literate.

Digital literacy can be viewed as a user's ability to use digital technology to find, evaluate, create, and communicate information (Gono *et al.*, 2016). This ability involves, firstly, the awareness and willingness to adopt digital technology and, secondly, the confidence to apply it (Gono *et al.*, 2016). The purpose of this paper is, therefore, to explore and describe applicable digital literacy of SMME owners and their customers in order to make recommendations relating to the use of digital technologies accessible to township based SMMEs.

This paper commences with a literature review on the conceptualisation of digitalisation and digital literacy from a social cognitive theoretical perspective. The paper then offers the methodology that was applied to this study, and findings and discussions follow this. The conclusion is offered as a last section to make recommendations for township based SMMEs.

1.2 Problem statement

From the discussion above, it is apparent the application of digitalisation presents much promise to township SMMEs, as it has the potential to enhance innovative business practices that the SMME owners can use in this current digital age. What we do not know, however, is the current awareness and willingness of the township SMME owners and their customers to use digital technology. Understanding the awareness and willingness to use digital technologies from a customer perspective can be used by business owners to make informed decisions about investing in applicable digital technologies in township based SMMEs.

1.3 Research objective

The specific objective of this paper is to report on the awareness of, willingness to apply, and confidence to use applicable digital technologies from township based SMME owners, as well as their customers' points of view.

This paper commences with a literature review on the conceptualisation of digitalisation and digital literacy from a social cognitive theoretical perspective. The paper then offers the methodology that was applied to this study, and findings and discussions follow this. The conclusion is offered as a last section to make recommendations for township based SMMEs.

2. LITERATURE REVIEW

In this review of scholarship, the concept of digitalisation, as it may be relevant in the context of SMMEs in townships, is first unpacked.

2.1 Digitalisation conceptualised for township based SMMEs

Digitalisation, which is the application of digital technologies to promote digital transformation, encompasses a range of dimensions which may differ according to the context to which they are applied (Power & Heavin, 2018). The common dimensions of digitalisation include the technological dimension (any hardware, software, or digital tools that enable digitalisation), but, in addition, there is also a socio-economic dimension, which involves cultural aspects such as the culture of the individuals and businesses that apply the technology, as well as the communication patterns (Parviainen *et al.*, 2017). These dimensions are often interlinked and, therefore, digitalisation is not a simple construct. It is for this reason that the context of digitalisation is also considered carefully when it is explored.

Townships in South Africa offer a context for digitalisation (Moos & Sambo, 2018). Due to the different circumstances of each township, their SMMEs will also have disparate technological and economic challenges. Despite the unique challenges facing each township, the fact remains that all townships are underdeveloped in terms of economic, technological, and societal advancement. A World Bank Group study (2014:13) found that many South African townships “exist below subsistence levels and remain impoverished because they lack access to basic infrastructure, thus lagging to gaining economic growth and development.”

Township based SMMEs face direct competition with established businesses within the formal economy because they have similar pricing, brand recognition, and packaging strategies, and offer services to the same target market (Muriithi, 2017). However, due to township businesses’ small-scale production and limited market access, many SMMEs have difficulty competing in conventional ways, compared to larger, formal businesses (Muriithi, 2017). This situation, therefore, requires these township SMMEs to be more innovative to sustain their businesses. It is argued that, in the current era of digital disruption, businesses ought to know and understand the importance of adopting digital technologies to be more agile and, consequently, more competitive. For this, owners of SMMEs and their customers need to be digitally literate.

2.2 Digital literacy underpinned by the social cognitive theory

The social cognitive theory assumes that people can learn from others through observation, reinforcement, and modelling (Abdullah, 2019). In this regard, information and behaviour (for example, how to apply digital technology) can be learned informally (Heidari *et al.*, 2021). From the social cognitive learning perspective, this implies that the use of digital technology can be improved by observing or modelling other people who use it, or simply by hearing about it and trying it because of the advantages observed in another situation (reinforcement). The social cognitive theory may guide an important understanding of how users use digital technologies in various contexts and hence may offer some insight into how users learn to digitalise.

To become digitally literate, Gono *et al.* (2016) are of the opinion that there are dimensions of digital literacy that need to be taken into account: the user's ability to use digital technology in order to find, evaluate, create, and communicate information. In this regard, awareness and willingness to use digital technologies, as well as the confidence to apply them, are the first steps towards digital literacy (Falloon, 2020; Sadaf & Gezer, 2020). Of course, competence is the level of proficiency that users can apply to seeking information, evaluating information, and communicating via digital technology (Khan & Idris, 2019). However, the argument from a socialization point of view is that awareness, willingness to use, and confidence to apply digital technologies can probably be influenced by observing others apply it in a context and, according to Arthur-Nyarko *et al.* (2020), this links to readiness to implement digitalisation.

For this study, this awareness, willingness, and confidence in using digital platforms and applications were, therefore, the dimensions of digital literacy, as these aspects may be transmitted from one user to another and require no formal training as such. The aim of the first dimension, which is digital awareness, was to explore the awareness of township SMME owners about the use of digital technology. The second dimension was to explore the willingness these SMME owners have in using customer-centric digital technologies, and the last dimension was to explore the confidence that SMME owners possess to apply digital business practices in their business. It is argued that such platforms and applications may present "low-hanging fruit" for SMME owners to promote competitiveness and agility.

3. METHODOLOGY

3.1 Research objective

This paper reports on an objective from a larger study on digitalisation in townships: a report on the awareness of, willingness to apply, and confidence to use applicable digital technologies from township based SMME owners, as well as their customers' point of view.

3.2 Research paradigm and approach

A pragmatic paradigm applies to this study. Kaushik and Walsh (2019) suggest that the reason for the study needs to be kept in mind in pragmatic paradigms. In this study, the researcher wanted to end up with data that informs recommendations around digital transformation. To this end, a mixed-methods approach was used. Antwi and Hamza (2015) describe mixed research as an approach where both quantitative and qualitative methods are combined to address a phenomenon, which in the case of this study is digital literacy.

3.3 Sampling

The target population of this study is consistent with township SMMEs located in Gauteng and their respective owners and customers. The sample, therefore, included both the township based SMME owners and their customers. The sampling frame, therefore, is consistent with township SMMEs that offer personal services (hairdressers and beauty salons), food and events caterers, and clothing designers who are based in Soweto, Alexandra, and Kwa-Thema.

According to Fox and Bayat (2013:35), a sample size taken from a population should be at a minimum of 5% and a maximum of 10% of that population. Motha (2015) is also of the opinion that a suggested sample size should range from a scope of 150 to 500. Therefore, a sample size of 315 participants, which consisted of 15 township based SMME owners and 300 of their respective customers, was enough for this study. To obtain more inclusive data that could be used to represent township based SMMEs in Gauteng, the sample size was designed to collect data from three different townships geographically dispersed across the eastern region of Gauteng. The study was conducted in Gauteng because the selected townships are based in a city, a formal settlement where there is infrastructure for a digital economy, unlike other SMMEs located in rural areas.

3.3.1 The selection criteria used

The target participants included the owners and customers of township SMMEs. The targeted participants of this study had to meet these criteria:

- Township SMMEs that only operated in Soweto, Alexandra, and Kwa-Thema.
- Participants who were the owners of township SMMEs in the retail (clothing designers) and service sector (food, and beauty salon service-based businesses), which have potential for strong customer relationships through which the potential for digital transformation can be analysed based on the perspectives of their customers.
- Participants who were the customers of township SMMEs in the retail and service sector.
- Participants (customers) who have some form of exposure to digital devices, to provide input on such matters.

3.3.2 Sampling method

The researcher used non-probability sampling, together with convenience sampling. Antwi and Hamza (2015) state that convenience sampling is used when the researcher has easy access to a readily available population, whereby it will not be hard to collect data from the selected sample. In this study, the researcher had easy access to the chosen sample because the population was conveniently available to the researcher, who is personally familiar with the population from which the sample was selected. The selected participants of this study, therefore, were limited to the owners of selected SMMEs in townships, as well as the customers of township SMMEs in Soweto, Alexandra, and Kwa-Thema.

3.4 Research methods

Semi-structured interviews were used in the first phase of the research to explore and describe the awareness and acceptance of relevant digitalisation from SMME owners' points of view. The researcher interviewed the owners of the township SMMEs to ascertain their opinions on the use of digital practices within their businesses that could help build better customer relationships and improve the overall performance of the businesses in this digital era. An interview schedule was used to facilitate the interviews.

Questionnaires were used to gather data from the customers of the SMMEs to explore and describe their awareness and acceptance of relevant digitalisation. Due to the movement restrictions and limitations caused by the outbreak of the global Coronavirus (COVID-19) pandemic, the researcher opted to collect data through online self-administered questionnaires, with the help of fieldworkers who distributed the questionnaire's online link using platforms such as email and WhatsApp to customers of the township SMMEs in Soweto, Alexandra, and Kwa-Thema.

3.5 Data analysis

In phase one of the research, a thematic analysis was done on the transcribed data to identify the main themes around which digital technologies were relevant, the willingness to use digital technologies, as well as the competence to apply them.

It is important to note that a sequential approach was followed with the mixed methods approach. This implies that the first qualitative phase, where owners of SMMEs were used, informed the indicators that would be relevant in the questionnaire used in the second phase with the customers of the SMMEs. The questionnaire was therefore developed by the researcher, bearing in mind the findings of the first research phase and the literature on digital literacy.

The SPSS software version 27 was applied to compile descriptive statistics on the quantitative data collected through the questionnaire. This paper provides the quantitative phase from a consumer perspective to supplement the qualitative findings from the owners' perspectives.

4. FINDINGS AND DISCUSSION

Findings in the first research phase are first provided on the readiness of SMME owners in the study to adopt digital technologies in their businesses, followed by quantitative findings in the second phase based on the use of digital technologies from the customers' perspectives.

4.1 Phase 1 of the research (interviews with SMME owners)

The awareness and willingness of owners, as well as their confidence around digital technologies, emerged in interviews.

4.1.1 Awareness and willingness to apply digital technologies by SMME owners

Theme 1- Fears that inhibit the willingness

The participants in the study all indicated that digital technology could be relevant in their businesses and indicated their awareness of social media and some other digital technologies. Because most of the participants already use social media as part of their business practices, the idea of participants increasing their presence on other social media platforms such as Instagram and YouTube, was more acceptable to the participants compared to the use of operational mobile apps. This could be because social media is not an entirely new concept to the participants, and adopting a business model that is inclusive of the use of more social media platforms will be more accessible compared to the use of mobile apps. The responses below, however, show the theme of fear when using mobile apps due to external reasons.

Table 1: Extracts of fears expressed by SMME owners

Participant	Statements illustrating the fear in the use of digital devices and digital channels.
P2	<i>'As much as it is good to have good digital devices such as laptops that will help me to connect to the internet and explore on the different business opportunities, I fear that if I buy the devices, they would likely be stolen because the crime rate is very high here in Alexandra and I have experienced this issue of theft before so I try by all means not to buy expensive gadgets that will bring attention to my business.'</i>
P14	<i>'No, I do not trust that things like mobile apps are not safe to use because there are a lot of scammers these days who can steal and hack into your phone. So that will be putting my business at risk.'</i>
P4	<i>'No, I do not think it will be safe for my clients, so I prefer to make things confidential, and I prefer direct communication with my clients by calling them. So, with a mobile app there could be possibilities of scams and I don't want anything that might negatively affect my clients.'</i>

When asked about their willingness to use a mobile app for customers that can help them offer delivery services and other services such as payment services or internal operational mobile apps, most of the business owners did not show interest, and the common reason that emerged was safety. This issue of safety that arose among the participants was based on two distinct perspectives. The first perspective on safety was based on the fear of the operational mobile apps being hacked, whereby people would get access to the business's valuable information. Some participants also mentioned that they do not trust such online platforms and do not think it will be safe for them and their customers to use mobile apps as they can be hacked. The second perspective on safety, on the other hand, was based on the fear of theft, where some of the participants were worried about their mobile phones, laptops, and Wi-Fi routers being stolen. Participant 6 said that *"...I am afraid of investing in things like mobile apps and other digital platforms because they are costly and living in an unsafe area where people can come and steal my digital devices, im not willing to risk it."*

A similar study conducted by Bvuma and Marnewick (2020) on the use of Information and Communication Technologies (ICTs) by township entrepreneurs had similar results, where the participants were reluctant to invest in and use removable ICTs such as desktops and printers because of the high crime rate within townships. This reasoning, therefore, shows that, for

some participants, the fear is not really of using digital technology but instead of external forces like theft, which causes the participants to be reluctant to invest in digitalising their businesses.

Theme 2 –The stifling effect of improper infrastructure and affordability

In this study, the common challenge that emerged among the participants was the lack of access to fibre, while the few participants who have access to fibre complained about unstable and slow network connections. It is also important to note how the differences in the current development and infrastructure of the three townships within which this study was conducted might impact how the participants experience technological challenges. The main issue of the participants of Soweto, for example, which is considered an urban township compared to Alexandra, was poor fibre connections, while the main issue of participants in Alexandra was no access to the very same fibre. One participant from Soweto mentioned that *“I do use a Wi-Fi router but we have very poor connection to the internet in this area so it will be hard for me to regularly use the internet,”* while another participant from Alexandra mentioned that *“I cannot even afford an effective mobile data plan because I already spend so much on data to use social media so adding the use of mobile apps will not be affordable for me.”* Bvuma and Marnewick (2020) state that while Soweto has access to Vuma Reach, fibre coverage is still not accessible to some townships and rural areas.

While access to Wi-Fi and fibre was a common issue among the participants, the more significant issue, however, when it comes to using more digital channels, was due to financial constraints, that is, the limited affordability of mobile data and Wi-Fi routers. Financial constraints and infrastructure are, therefore, inseparable from the participants' perspective. Most participants mentioned that they have access to affordable data plans which they can get from service providers but that they cannot afford those plans due to financial constraints and lack of financial flexibility within their businesses. Of the 15 participants, only two own Wi-Fi routers they use for internet connectivity.

Table 2: Willingness stifled by financial constraints of SMME owners

Participant	Statement illustrating financial constraints among the participants
P9	<i>‘Yes I think using digital channels is a good business practice, but that would require substantial finances which I do not have at the moment, but if that opportunity avails itself then I would definitely consider mobile apps.’</i>

P7	<i>'Well firstly it is very expensive to stay connected to the internet because I buy mobile data almost everyday and it is actually where I spend most of my money, so I think it will be costly to operate and maintain mobile apps because I do not have money for that kind of investment.'</i>
P2	<i>'I would definitely use mobile apps if I had the money to get an effective data plan which would help me a lot you know, and I think it is very important to have unlimited internet access through fibre so that I can stay connected. But with poverty and other financial struggles we face here in Alex, I think it will also be costly for me and my customers to use things like mobile apps at the current moment.'</i>

Various studies have indicated the different challenges confronting townships and rural settlements, which hinder development and growth within these areas. Among the underlying difficulties these areas face underdeveloped technological infrastructure is one of those difficulties. Urban and Ndou (2019) state that digital transformation can be the catalyst of change within townships, which will bring about more opportunities that will not only uplift the communities by bridging the digital divide but will also enable businesses to thrive and create more employment. Steyn (2018) also argues that with the lack of technological infrastructure, such as Wi-Fi, around the townships, it will not be easy for the participants to integrate ICTs and other digital technologies to enhance their businesses.

Moos and Sambo (2018), however, highlight that financial access continues to be a challenge as townships are still low-income residential areas, and this also means that there is no exception to the participants in this study as they are also part of the residents in townships. This is something that government can keep in mind when budgets are allocated to SMME development.

4.1.2 Confidence of owners applying digital technologies

The findings relating to the confidence of owners of township based SMMEs emerged around the notion of tech savviness.

Theme 3 – Technology proficiency or experience promotes confidence with digitalisation

The theme of confidence around digital literacy emerged from the differences in the responses between participants, some of whom are familiar and others unfamiliar with digital applications. Whilst almost all of the participants favoured the use of social media as a digital tool that they can use to enhance their competitiveness, the use of mobile apps, on the other hand, was

less favoured among the participants, and the reasoning behind the opinions of the participants was an indicator of which participants were more tech-savvy (more digitally literate in their own opinions) and which participants were less tech-savvy.

Table 3: Differences in the responses of the participants familiar and unfamiliar with technology

Participants who are familiar	Participants who are unfamiliar
<i>P7: 'Yes ... most of my business is done online. This also includes part of my service delivery (online classes) and payment (e-banking) and also communicating with clients and customers. I always do a monitoring and evaluation after service delivery by a way of seeking feedback from my customers via WhatsApp text or call. This gives me a chance to clearly offer what they want and to improve my services through constructive criticism. So having a mobile app to do this would be great but I think it is costly for my business to create one at the moment.'</i>	<i>P13: 'No, I am comfortable with how I work and communicate with my customers as the moment as I prefer face-to-face communication with my customers as they come to do their hair. I am not used to digital devices because I do not understand how most of the feautres work so I do not think I will be able to use a mobile app properly for the benefit of my business.'</i>
<i>P3: 'Definitely, as I said, most information is found online and also makes processes faster and cheaper, online advertisement and marketing is also faster and cheaper compared to making flyers or depending on referrals so things like social media and mobile apps are great tools that a business can use. As for operational apps, I was actually planning on creating a PayPal account to cater for my international clients so as I said mobile apps are very convenient and easy to use.'</i>	<i>P10: 'I do not think I am familiar with what a mobile app is, but as for social media, I do have an account on Facebook where I post my work but I do not get as many clients as I do from my local area so I would say that social media does not bring much business for me.'</i>

The extracts provided above show how the participants who had more knowledge and understanding of what mobile apps are were more willing to use the mobile apps, compared to the participants who were not familiar with how mobile apps work. With the rapid disruptive change caused by digital technology, one might therefore argue that businesses that are

apprehensive about digital change might be at a disadvantage in keeping up with the increased competitiveness in the business market.

According to various studies conducted, digital literacy is considered to be one of the technological challenges that SMMEs within townships face due to the low level of education and underdeveloped nature of townships. Urban and Ndou (2019) state that township businesses still face challenges when it comes to the level of technological skills and digital literacy due to the low levels of technological infrastructure within the townships. For the effective adoption of digital technology, participants should acquire a good set of digital skills (Gono *et al.*, 2016). Steyn (2018) states that SMMEs in developing countries (with which township economies in South Africa, specifically, can be compared) need to increase their digital literacy levels in order for them to employ ICTs that will assist SMME owners in growing sustainable businesses. It is therefore concluded that tech savviness is something that needs to be developed in all township SMMEs.

The following extracts from the responses of participants considered to be less tech-savvy provide evidence to support the notion that greater tech-savviness may lead to higher adoption of digital technologies and a sense of possibility or lack thereof:

Table 4: Differences in tech-savvy participants and those who are less confident

<i>Participant</i>	<i>Statement illustrating the less tech-savvy participants reluctant to use mobile apps</i>
P8	<i>'No, those mobile apps are used by big companies such as well-known food outlets in our country, so I think it will be expensive for my small business to do that, and I do not have a lot of customers such as other big companies so I think it will also be costly for my customers to use mobile apps.'</i>
P11	<i>'No, I think we all use the same technology because we are in the same area and we face the same challenges when it comes to our businesses.'</i>
P14	<i>'We wouldn't say so with local competitors which operate small businesses like we do, but with larger business it definitely gives them a competitive advantage.'</i>

Bvuma and Marnewick (2020) state that as township businesses continue to lag behind in the adoption of ICTs, their level of competitiveness continues to be relatively lower because they become vulnerable to changing disruptive economic conditions. Moos and Sambo (2018) also argue that the structure and size of SMMEs make it relatively easier for them to adapt to change and that this gives them an advantage over larger organisations. Moos and Sambo

(2018) further argue that when SMMEs adopt effective digital technologies, they will be able to compete with larger organisations as they will be well-equipped to implement the necessary changes to their current practices. It can, therefore, be said that township SMMEs need to incorporate digital practices to remain competitive.

4.2 Phase 2 of the research (questionnaires that customers completed)

To determine the existing use of digital technology among the customers, the respondents were asked to answer questions based on how they use their digital devices; this was used to determine their awareness of and confidence in applying digital technologies.

4.2.1 Customer awareness of digital technologies and confidence to use them

The results presented in Table 5 indicate customers' awareness of and confidence in using digital technologies.

Table 5: Awareness of and confidence in digital technology use by customers of township based SMMEs

I use my smartphone, device, or computer to...		Strongly Disagree/ Somewhat disagree	Neither agree nor disagree	Strongly Agree/ Somewhat agree	Mean	Standard deviation
Communicate with my friends and family	Count	1	1	288	4.54	.454
	Row N %	0.3%	0.3%	99.3%		
Get the latest information on current affairs around the world	Count	8	8	274	4.39	.708
	Row N %	2.8%	2.8%	94.5%		
Conduct online business activities such as transferring funds to others	Count	10	6	273	4.36	.737
	Row N %	3.4%	2.1%	94.4%		
Conduct online business activities such as online banking	Count	3	5	280	4.53	.641
	Row N %	1.0%	1.7%	97.2%		
Conduct online business activities such as electronic payments	Count	5	6	279	4.45	.691
	Row N %	1.7%	2.1%	96.2%		
Order or check on transport options such as bus/train times and Uber	Count	39	29	220	3.92	1.046
	Row N %	13.6%	10.1%	76.4%		

The results in Table 5 indicate awareness of and confidence in using digital devices for the various activities shown in the statements. Among the activities that the respondents use their digital devices the most for are communication and online business activities, as 288 (99.3%) of the respondents have agreed to using their digital devices to communicate with friends and family, and 280 (97,2%) of the respondents use their digital devices to conduct online business

activities such as online banking. These results, therefore, not only indicate there is access to and existing use of digital technology among the customers of the township based businesses, but also indicate that most of the respondents do engage in various online business-related activities, which shows that there might be a potential for the use of digital channels that will enhance customer-centric practices from the customers' perspective.

4.2.2 Customers' willingness to apply digital technologies in other ways (possibilities)

The results presented in Table 6 indicate the possibilities of customers' willingness to apply digital technologies in other ways.

Table 6: Customers' willingness to apply digital technologies

As a consumer of a business, I would like to use social media and mobile apps to...		Strongly Disagree/ Somewhat disagree	Neither agree nor disagree	Strongly Agree/ Somewhat agree	Mean	Standard deviation
Get the latest updates on new products and or services offered by the business	Count	11	6	273	4.33	.701
	Row N %	3.8%	2.1%	94.1%		
Compare products and/or services offered by the business with other competitors	Count	24	22	244	4.22	.952
	Row N %	8.3%	7.6%	84.2%		
Refer the products and/or services offered by the business to my social media friends/followers/subscribers	Count	25	18	246	4.13	.953
	Row N %	8.6%	6.2%	85.1%		
Directly communicate with the business owners to give feedback, lodge complaints, and share ideas on how the business can improve their products/services	Count	6	11	273	4.35	.671
	Row N %	2%	3.8%	94.1%		
Make digital transactions such as online payments	Count	5	7	277	4.39	.658
	Row N %	1.7%	2.4%	95.9%		
Make use of delivery services	Count	3	10	274	4.42	.614
	Row N %	1.0%	3.5%	95.4%		

Looking at the individual practices presented in the statements, there are practices that the respondents are not willing to do more than other practices, and this can be due to the nature of those practices. Overall, however, the results (Table 6) show that there is a positive response towards the use of social media and mobile apps to engage with business owners. Two hundred and seventy-three (85.1%) of the respondents, for example, have strongly agreed to referring the products and services offered by the business to their social media friends/followers, compared to only 25 (8.6%) of respondents who have disagreed to referring

the products and services offered by the business to their social media friends/followers. These findings, therefore, provide an indicator that not all respondents are willing to use social media for business-related practices, but even so, the results show that there are more respondents who are willing to use social media for business-related practices than those who are not willing to use social media for business related-practices.

Looking at the last statement, on the other hand, there are only three (1,0%) respondents who have disagreed with making use of delivery services that businesses could offer, and this is surprising since some of the respondents were customers of service-based businesses which do not require delivery services like product-based services, and this shows that the respondents generally want customer-centric practices that are of convenience to them, regardless of the type of business they were basing their answers on in this study. Based on the positive overall results towards the use of social media and mobile apps for business-related practices by most of the respondents, it can, therefore, be said that these digital channels can be used as a strategy to enhance the competitiveness of township based SMMEs from a customer's perspective.

5. CONCLUSION

While it was discovered that there is potential for the use of digital technology as a competitive tool in township businesses, it was also discovered that there are challenges, such as underdeveloped technological infrastructure and financial constraints, that affect the adoption of digital channels and consequently, the digital literacy of participants. While some business owners had complaints regarding the slow and unstable internet connections that they experienced, other business owners had complaints of no internet access at all, as they had no access to fibre and data affordability due to the financial constraints they have. More recent studies, however, such as the one by Fosu (2019), show that the government, together with various broadband companies, has launched an initiative to install fibre infrastructure (underground fibre cables) across South African townships. This initiative was launched in 2017 in city centres and suburban areas but is only starting to filter down to local townships now because the township residents were reluctant towards the installation of underground fibre cables in their yards. It was only with the COVID-19 pandemic in 2020 that township residents saw the need for fibre connection, as many residents started working from home and needed stable internet connections. Thus, government is recommended to spend funding on infrastructure and the maintenance thereof, particularly in the light of load shedding, which requires battery storage for Wi-Fi. This rising need for internet connections in townships shows

that there is potential for township based SMMEs to use digital technology as an effective competitive tool.

The lack of digital literacy, mainly due to fear and lack of digital skills among township based SMME owners, however, is still a considerable challenge that needs to be addressed so that they can effectively use these digital channels and build a competitive advantage in this current digital era. Digital literacy might help these township entrepreneurs to adapt to the pressure and constant change that technological advancements bring to the business environment. Owners of township SMMEs should adopt digital business practices and use effective digital tools that might improve their traditional business operations that limit sustainability and growth in a disruptive environment driven by technology and innovation. Some examples of customer-centric business practices that SMME owners can implement through digital channels can include the opening of business accounts in social media channels for more digital communication with customers and the creation of additional product awareness, which could enhance their digital marketing strategy.

Township SMMEs need more awareness of the advantages when it comes to digital technologies so that they can not only acquire digital skills but also know which digital tools are effective for adoption by their individual businesses. Socialisation is a way to do this, and incentivising business owners who apply these technologies, as well as training them on the advantages of sharing knowledge, is more important than only training operational aspects. Digital and innovative hubs, therefore, could be an effective way to increase digital skills and digital literacy around townships, bearing in mind that government can invest their funds in this way.

Once township participants, including customers of SMMEs, understand how they can use digital technology to create sustainable growth and competitive advantage, there might be more use of digital channels, and they could also use their acquired knowledge to gain access to other opportunities and explore new markets. In this regard, social platforms and ambassadors can be considered. The managerial implications are, therefore, that the SMME owners may incentivise such ambassadors (customers) who enable others with, for example, discounted products and services. Such informal training (socialisation) in a township, where the social capital is already there, may prove to be more effective than in other communities.

The use of digital technology has never been more relevant and necessary for businesses than now. The success and growth of township SMMEs are dependent on their ability to adapt to disruptive changes in the business environment. It is imperative, therefore, for the owners of these businesses to start exploring the adoption of sustainable digital practices that might

help them elevate their productivity and competitive advantage and, thus, thrive in the current digital age.

To end this paper, it is the opinion of the researchers that there are problems and promises around digitalisation in township economies.

ACKNOWLEDGEMENTS

The authors would like to acknowledge the DHET and the NRF for funding the research project. This work is based on the research, supported wholly in part 1, by the National Research Foundation of South Africa (Grant Number: 118845).

REFERENCES

- Abdullah, S. M. 2019. Social Cognitive Theory: A Bandura thought review published In 1982-2012. *Psikodimensia*, 18(1):85–100. [<https://doi.org/10.24167/Psidim.V18i1.1708>].
- Antwi, S.K. & Hamza, K. 2015. Qualitative and quantitative research paradigms in business research: A philosophical reflection. *European Journal of Business and Management*, 7(3):217-225. [Internet: <https://iiste.org/Journals/index.php/EJBM/article/view/19543/19868>; Downloaded on 15 January 2023].
- Arthur-Nyarko, E., Agyei, D.D. & Armah, J.K. 2020. Digitizing distance learning materials: Measuring students' readiness and intended challenges. *Education and Information Technologies*, 25:2987-3002. [<https://doi.org/10.1007/s10639-019-10060-y>].
- Bvuma, S. & Marnewick, C. 2020. An information and communication technology adoption framework for small, medium and micro-enterprises operating in townships South Africa. *The Southern African Journal of Entrepreneurship and Small Business Management*, 12(1):1-12. [<https://doi.org/10.4102/sajesbm.v12i1.318>].
- Cant, M.C. & Rabie, C. 2018. Township SMME sustainability: A South African perspective. *Acta Universitatis Danubius*, 14(7): 227-247. Internet: <https://core.ac.uk/download/pdf/229459582.pdf>; Downloaded on 06 January 2023].
- Falloon, G. 2020. From digital literacy to digital competence: The teacher digital competency (TDC) framework. *Educational Technology Research and Development*, 68: 2449-2472. [<https://doi.org/10.1007/s11423-020-09767-4>].
- Fosu, A. 2019. The use of ICT by SMMEs in a digital economy: A case study in Buffalo City Metropolitan in South Africa. *International Journal of Community Development & Management Studies*, 2: 159-168. [<https://doi.org/10.28945/4314>].
- Fox, W. & Bayat, M.S. 2008. A guide to managing research. Cape Town: Juta. [Internet: https://books.google.co.za/books?hl=en&lr=&id=las-GgOpe-8C&oi=fnd&pg=PA1&dq=A+guide+managing+research.+&ots=E62HDsS23-&sig=9ufPkU0kvTTZXMFavhrKRtRKODQ&redir_esc=y#v=onepage&q=A%20guide%20managing%20research.&f=false; Downloaded on 20 January 2023].
- Gono, S., Harindranath, G. & Berna Özcan, G. 2016. The adoption and impact of ICT in South African SMEs. *Strategic Change*, 25(6): 717-734. [Internet: <https://core.ac.uk/download/pdf/187719021.pdf>; Downloaded on 23 December 2022].

- Heidari, E., Mehrvarz, M., Marzooghi, R. & Stoyanov, S. 2021. The role of digital informal learning in the relationship between students' digital competence and academic engagement during the COVID-19 pandemic. *Journal of Computer Assisted Learning*, 37(4):1154-1166. [<https://doi.org/10.1111/jcal.12553>].
- Kaushik, V. & Walsh, C.A. 2019. Pragmatism as a research paradigm and its implications for social work research. *Social Sciences*, 8(9): 1-17. [<https://doi.org/10.3390/socsci8090255>].
- Khan, M.L. & Idris, I.K. 2019. Recognise misinformation and verify before sharing: A reasoned action and information literacy perspective. *Behaviour & Information Technology*, 38(12):1194-1212. [<https://doi.org/10.1080/0144929X.2019.1578828>].
- McGaffin, R., Napier, M. & Karuri-Sebina, G. 2015. *South African township economies and commercial property markets: A conceptualisation and overview*. Cape Town: South African Cities Network and the CSIR. [Internet: http://www.urbanlandmark.org.za/downloads/SACN_ULM_township_economies.pdf Downloaded on 04 February 2023].
- Mićić, L. 2017. Digital transformation and its influence on GDP. *Economics*, 5(2):135-147. [<https://doi.org/10.1515/eoik-2017-0028>].
- Moos, M. & Sambo, W. 2018. An exploratory study of challenges faced by small automotive businesses in townships: The case of Garankuwa, South Africa. *Journal of Contemporary Management*, 15:467-494. Internet: <https://hdl.handle.net/10520/EJC-15269e6fd2> Downloaded on 22 January 2023].
- Motha, M.J. 2015. *An enabling environment for youth to become entrepreneurs*. University of Johannesburg, Auckland Park, Johannesburg. [Internet: <https://www.proquest.com/pagepdf/2536835367?accountid=13425>; Downloaded on 20 December 2022].
- Muriithi, S.M. 2017. African small and medium enterprises (SMEs) contributions, challenges, and solutions. *European Journal of Research and Reflection in Management Sciences*, 5(1):36-48. [Internet: <http://repository.daystar.ac.ke/xmlui/handle/123456789/3613>; Downloaded on 20 December 2023].
- Parviainen, P., Tihinen, M., Kääriäinen, J. & Teppola, S. 2017. Tackling the digitalization challenge: How to benefit from digitalization in practice. *International Journal of Information Systems and Project Management*, 5(1):63-77. [<https://doi.org/10.12821/ijispm050104>].
- Power, D.J. & Heavin, C. 2018. *Data-Based Decision Making and Digital Transformation: Nine Laws for Success*. [Internet: <https://0-search-ebshost-com.ujlink.uj.ac.za/login.aspx?direct=true&db=nlebk&AN=1823050&site=eds-live&scope=site>; Downloaded on 19 October 2022].
- Sadaf, A. & Gezer, T. 2020. Exploring factors that influence teachers' intentions to integrate digital literacy using the decomposed theory of planned behavior. *Journal of Digital Learning in Teacher Education*, 36(2):124-145. [<https://doi.org/10.1080/21532974.2020.1719244>].
- SEDA. 2019. *SMME Quarterly Update 1st Quarter 2019*. [Internet: <http://www.seda.org.za/Publications/Publications/SMME%20Quarterly%202019-Q1.pdf>; Downloaded on 23 January 2023].
- Steyn, R. A. 2018. Changing thoughts towards digital literacy interventions for South African entrepreneurs. *Reading & Writing*, 9-1. [<https://journals.co.za/doi/epdf/10.4102/rw.v9i1.172>].
- Urban, B. & Ndou, B. 2019. Informal entrepreneurship: A focus on South African township entrepreneurs. *Journal of Developmental Entrepreneurship*, 24(4). [<https://doi.org/10.1142/S1084946719500213>].
- World Bank Group. 2014. *The South African township economy and informal micro-enterprises: What are the prospects for youth employment and entrepreneurship?* University of Cape Town. [Internet: http://www.dpru.uct.ac.za/sites/default/files/image_tool/images/36/Publications/Policy_Briefs/DPRU%20PB%2016_45.pdf; Downloaded on 14 February 2022].