Chapter 5
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Role of Digitalization in the Development of Rural Entrepreneurship in the Gokwe District of Zimbabwe

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ABSTRACT

Adopting and implementing digital technologies can assist rural entrepreneurs in accessing national and international markets to increase their profitability. Entrepreneurs in the rural areas of Zimbabwe can leverage digital technologies and infrastructures to develop their businesses within the agricultural sector. Many studies have investigated rural entrepreneurs' adoption of digital technologies and their impact on their performance. However, little empirical evidence is available on the role of digital technology and how this can assist entrepreneurs in the Gokwe district of Zimbabwe to sustain their businesses. We adopted qualitative and quantitative methodologies to collect data using interviews and questionnaires from rural entrepreneurs. This chapter investigates digital technology's role in developing rural entrepreneurship in Gokwe. Findings indicate that rural entrepreneurs appreciate the role of digital technology in facilitating networking activities, connecting users, and interacting with suppliers, distributors, customers, and markets to foster their performance and profitability. However, most of them confirmed that they had difficulty identifying new entrepreneurial opportunities and expanding their existing markets with digital technology. Policy implications from this study are the need for government to encourage the adoption of digital technologies to enhance rural entrepreneurs' businesses.

Keywords: Rural; entrepreneurship; digital technology; agricultural sector; Gokwe; Zimbabwe.

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1. INTRODUCTION

Over the years, the agricultural sector has served as a catalyst for development in most rural areas in both developed and developing countries [1]. The mainstay of these communities is assumed to be dependent on agricultural produce. Thus, developing and adopting innovative agriculture could help improve productivity and exposure to national and global markets [2] and increase the welfare of the citizens in rural areas. One way of achieving this could be by introducing digital technologies and agribusiness [3]. According to these authors, agribusiness involves the integration of material sourcing, delivery of products to required markets, and marketing of agricultural produce. Many studies have investigated rural entrepreneurs' adoption of digital technologies and their impact on their performance [2,4]. However, little empirical evidence is available on how this can assist entrepreneurs in the Gokwe district of Zimbabwe to sustain their businesses.

The agricultural process is gradually evolving from what it used to be to integrated agriculture. This is made possible by developing rural entrepreneurship in the farming sector. According to Wortman [5], rural entrepreneurship involves a new business start-up launching new products into available markets with digitization within the local environment. Certain conditions must be met for agricultural entrepreneurship to flourish in rural areas, such as utilizing accessible local resources [6]. For example, these authors found that when local resources are harnessed for entrepreneurial development in a rural area, they tend to help achieve viable economic growth. Rural entrepreneurial digitization in developed countries has opened vital opportunities for entrepreneurs to become more innovative [7]. However, the situation is different in most developing countries because of the numerous limitations regarding infrastructures needed to enable innovation and digitization, especially in the district of Gokwe in Zimbabwe.

The Gokwe community is known for its agricultural activities. However, these rural entrepreneurs have not been privileged to use digitization, which could have assisted them in showcasing their products to the outside world. Modernization of business processes and access to required markets serve as limitations for the sustainability of businesses in Gokwe. Most of the few who have been able to mitigate this risk are venturing into more stable economies in other countries where they could access technologies that will enhance innovation and digitization. A comprehensive literature analysis preceded the study and included a survey of rural entrepreneurship in Africa, Europe, the US, and China, where digital technology is boosting it. The remaining part of this chapter is structured as follows: background, the literature review, methodology, findings, discussions, limitations, recommendations, policy implications, suggestions for future research and the conclusion.

2. BACKGROUND

Digital technology implementation and adoption in urban areas depend on the development of business systems and the proper functioning of digital

infrastructures, which, in turn, requires optimal use of both digital design and relevant technology. There appear to be widening gaps between the opportunities and rewards accessible to rural entrepreneurs and their urban and international counterparts. Digital technology facilitates networking activities, connects users, and enables entrepreneurs to interact with suppliers, distributors, customers, and markets [8]. Although the systems have the potential to enhance profitability in rural areas, their viability is hampered by a lack of expertise and, in many cases, restricted exposure to urban and international markets [9].

Digitalization has the potential to address these challenges and expand market outreach for rural entrepreneurs [10]. Even though digital technology is widely used and accessible, many in Zimbabwe's rural areas are reluctant to change and prefer to continue using antiquated practices and less efficient means of reaching out to clients. The inability to access larger markets is one of the most severe limitations of employing conventional marketing strategies in rural locations. Thus, rural business owners cannot make as much money as they can since they are restricted from reaching as many customers as they want. They cannot boost local economies since they cannot create jobs [11], and many startups fail within the first year of operation [12].

According to Reuschke and Mason [13], entrepreneurship in rural areas benefits significantly from creating a suitable digital platform for promoting rural goods and disseminating pertinent information, communication, and advertising. Digital design and technology have also made entrepreneurial opportunities possible, leading to efficient and effective business systems that allow people in rural areas to access urban and international markets [14]. Therefore, there is a need to determine digital technology's role in promoting rural entrepreneurship in Gokwe in Zimbabwe for rural entrepreneurs to help create employment and facilitate connections to customers outside their local environment. It is essential to conduct a study on the role played by digital technology in promoting networking activities, connecting users, and creating an enabling system for entrepreneurs to interact with their suppliers, distributors, customers, and markets. Thus, this article aims to determine the role played by digital technology in developing rural entrepreneurship in Gokwe and suggest appropriate strategies to develop and promote rural entrepreneurship.

3. LITERATURE REVIEW

A noticeable challenge facing rural entrepreneurs is their inability to harness and leverage their industry's available resources and capabilities to grow their business innovatively [4]. They lack the power to bargain for these resources compared to bigger corporations. Rural entrepreneurs have difficulties connecting with potential markets, unlike entrepreneurs in urban areas. Nevertheless, one of the ways to mitigate this problem is by adopting and implementing digital technologies [15]. According to Akpan et al. [16], awareness of the industry competition regarding available markets and customers organizations propose to create value through digitization is an essential factor that could lead to business sustainability. Unfortunately, understanding these value-add propositions is lacking in most rural agricultural entrepreneurship.

Globally, many small businesses are gradually adopting innovative ways to improve their performance using digital technology [17].

Furthermore, Puddister and Small [17] iterate that e-commerce and digital communication systems for online meetings and payment are technologies entrepreneurs use to create value for their customers. Adopting and implementing digital technologies can assist rural entrepreneurs in accessing national and international markets. Entrepreneurs in the rural areas of Zimbabwe can leverage digital technologies and infrastructures to develop their businesses within the agricultural sector. These technologies and infrastructures have not been utilized to help increase the awareness and marketing of their agricultural products [3]. In the Gokwa area of Zimbabwe, rural entrepreneurs have not tapped into the opportunity that digitization presents. This invariable has hindered them from making their products available to local markets and their inability to generate adequate profits since they only realize a limited profit from their sales.

3.1 Rural Entrepreneurship and Digitization

Implementation and adoption of digitization of business have been a challenge in rural areas, depriving most, if not all, entrepreneurs in the Gokwa area of Zimbabwe. This could have been due to the non-adoption of digitization of business or prerequisite skills required by entrepreneurs to advertise and sell their products through digital platforms [18]. Digitization has been utilized by rural entrepreneurs globally to promote and sell their products and has enabled them to tap into the global markets to showcase and sell their products without geographical limitations. Digitization encourages rural and urban entrepreneurs to collaborate on business concepts and worldwide marketplaces to sell and buy resources. Shareefa et al. [19] posit that collaboration with counterparts outside their boundary will foster their ability to tap into the urban entrepreneurs' experience who have digitized their businesses to enhance their operations. For example, urban entrepreneurs have harnessed innovation and digitization in the United States (US) to promote and sustain their businesses. Furthermore, Meyn [20] argued that this initiative is not limited to the US metropolitan area. There have been significant initiatives in rural areas on ways entrepreneurs can digitize their businesses to harness the opportunities this could present.

3.2 Benefits of Digitalization and Internet Adoption by Rural Entrepreneurs in Zimbabwe

Kluth [21] argues that the digitalization concept goes beyond using the internet alone to transact business but involves the combination of the internet, digital technologies, and creating intelligent solutions using available data. Furthermore, these authors iterate that digitalization can only be achieved through a total re-orientation of mindset by the rural entrepreneurs on integrating digitalization into their daily business. Meyn [20] posits that when rural entrepreneurs embrace the digitalization of their enterprises, they can achieve significant change. Therefore, rural entrepreneurial digitalization goes beyond the use of the Internet. Still, a holistic approach that combines tools, skills, and creativity is a few of the characteristics required to foster digitalization in rural areas.

According to Musungwini [22], Zimbabwe's internet penetration and use of mobile devices have enabled connectivity across the country, which has boosted business development and profitability. The affordability of mobile devices has made communication easy because at least one person in any household within the rural area owns a device to seamlessly communicate with the outside world using various social media platforms [23] and carry out business transactions online. Furthermore, Todor [18] mentioned that Zimbabweans can now do online shopping through some business platforms such as Owani, Hammer, and Tongues in the rural and urban areas of the country. This was made possible through internet infrastructure and the digitalization of businesses. This was corroborated by Data Reportal [24], that about 5.74 million citizens had access to the Internet at the beginning of 2023. Despite access to the internet, most rural entrepreneurs are yet to harness the opportunity this could affirm them to showcase their products and services beyond their immediate environment [25]. One of the critical digital design principles for rural entrepreneurs is translating existing data into useful information that can be used to support digital business transactions [26]. Similarly, Mandl [27] supports this assertion that digitalization evidence could provide immediate satisfaction through unhindered real-time access to relevant business information.

3.3 Factors Preventing the Adoption of Digitization by Rural Entrepreneurs

Digitalization may provide much-desired opportunities for rural entrepreneurship. However, some challenges could limit entrepreneurs from harnessing these opportunities in rural areas. As the International Trade Center [28] identified, one such could be the fear of recouping the money they have invested in acquiring the necessary tools and technologies for digitization. Issues associated with infrastructure development in rural areas in most developing countries have impeded the implementation and adoption of digitalization. Many small business owners in rural areas also lack the experience and sophistication to successfully negotiate for and understand the market value of their goods and services [29]. Products or services may be sold at a loss under specific circumstances. Financial institutions are typically hesitant to lend to rural entrepreneurs because of the risk involved in providing capital to those who have historically shown a lack of success in bringing in sufficient revenue from selling their goods and services [30].

3.4 Digitalization and Rural Entrepreneurship in Africa

The use of internet-related platforms and tools has been harnessed in Africa’s agricultural sectors, encouraging information technology, thus enabling rural farmers to access relevant information that could help them transform their businesses [31]. According to Disrupt Africa [32], investment in agri-tech start-ups across Africa in 2017 is estimated at $ 19 million. Nigeria takes the lead in this area, with about 58 start-ups, and is closely followed by South Africa with 40. Digitalization has been harnessed in Uganda with the introduction of Ensibuuko, a digital platform used to promote economic presence to rural entrepreneurs.

Kenyan farmers use m-fars to get pricing information to help them decide what to grow and how to sell it [33].

Furthermore, in 2018, the Kenya Agricultural and Livestock Research Organisation (KALRO) made available 14 digital platforms that could be used on mobile devices to help provide rural farmers with relevant information regarding how to increase their output of crops such as potatoes, cassava, cowpeas, maize, bananas, and avocados [33]. Also, digital platforms are used in both Senegal and Rwanda to provide rural entrepreneurs with the requisite information on livestock tending, diagnosis and treatment of livestock disease, feeding, and prevention [34]. For example, the 'Agri marketplace' makes available to farmers relevant suppliers' information on where to purchase materials and open markets where they can sell their products and prices. The Food and Agricultural Organisation (FAO) launched a digital platform to provide information on fighting the 'armyworm' that could affect maize production and reporting in real-time livestock decrease based on available data from the farms in developing countries [34].

3.5 How can Rural Entrepreneurship Digitalization be Promoted in Gokwe, Zimbabwe?

Adequate legislation should be developed and widely communicated to help encourage the adoption and use of digital platforms by rural entrepreneurs in Zimbabwe, specifically in the Gokwe area [30,35]. This initiative can be achieved through collaboration amongst government institutions, private institutions, and individuals to help foster the use of digitization in rural areas of the country. NetOne and Econet Wireless initiated a laudable move in this direction by introducing training targeted at rural entrepreneurs to encourage them to adopt digital platforms in their businesses. Part of the training was on using the internet and how it can be harnessed to improve business communication and transaction efficiency in rural areas. With adequate awareness about the internet banking tool EcoCash, rural entrepreneurs have benefited immensely. They can now receive and make payments from their location with less risk associated with dealing with physical cash in the past [36]. To enhance the sustainability of digitalization in rural areas, the government has a crucial role in ensuring that the data cost is affordable to the entrepreneurs so they can continue to use the available tools and platforms to support their business [37,38]. Similarly, the government should create adequate awareness among rural entrepreneurs to help alleviate their fear regarding cybercrime and boost their confidence in adopting and using digital platforms [38]. Furthermore, the government can champion subsidized access to relevant digital devices for rural entrepreneurs to purchase the hardware required to perform their digital activities to enhance their business.

Mobile phones enable entrepreneurs to communicate with the global community via the internet and avoid the expenditures associated with commuting to city centres to do business [39]. Mobile devices provide two-way communication between businesses, their clientele, vendors, and target markets [40,41]. Currently, Zimbabwe's entrepreneurs can receive payments and insure crops

using mobile services [42]. In addition, they can obtain updated information concerning the prices of products from sources such as suppliers and markets through the SMS-based EcoFarmer platform. In addition to facilitating economic growth in sectors like handicrafts, tourism, and agriculture, adopting digital design and technology through Information Communication Technology (ICT) empowers rural entrepreneurs by increasing their access to microfinance [34,43]. Policies and laws that offer investment inducements through private or public partnerships and universal service schemes are necessary to develop strategies to promote digital design and technology in Gokwe. New and exciting commercial endeavours may be fostered if rural business owners actively forge collaborations with businesses. Concurrently, dividing up tasks might lessen the likelihood of mistakes.

4. METHODOLOGY

We adopted an exploratory methodology for this study. Data were collected through a mix-methodology. This process is suitable for exploratory research [44], and it is helpful to help unearth numerous characteristics of a phenomenon under investigation [45]. The close-ended questionnaire and interview questions were developed based on the literature surveyed since very few studies are related to the area under study [46,47]. We followed the suggestion of Mohajan [48] to test for the validity of the test instrument through content analysis. Professionals in entrepreneurship and digitalization from a Zimbabwean university and the business sector were tasked with ensuring that the questions were clear enough to be comprehended by the respondents and sufficient for eliciting replies [49]. Content analysis was adopted to analyze the qualitative part of the study [50], while descriptive analysis was conducted for the quantitative part of the study and followed the suggestion of Guzman et al. [51]. Through purposive sampling, this study's sample was twenty-seven entrepreneurs based in the Gokwe area of Zimbabwe who had been operating their businesses for five years or longer and operators of family-owned businesses, with few who owned their businesses. Twenty of them operated family businesses, and Seven owned their businesses.

5. FINDINGS AND DISCUSSION

This research aimed to evaluate how digital design and technology have contributed to the growth of rural enterprises in Gokwe. Thus, the entrepreneurs were asked to determine the influence of digital design and technology in identifying entrepreneurial opportunities and communicating with potential markets. Similarly, we anticipate that it is essential to elicit information from the respondents on the factors inhibiting their businesses from adopting digital design and technology to enable successful commerce.

5.1 Role of Digitalization in the Development of Rural Entrepreneurship

We asked the entrepreneurs a question on the role of digitization development in enhancing business success in the rural area of Gokwe. Collaboration with

counterparts outside their boundary will foster their ability to tap into the experience of the urban entrepreneurs who have digitized their businesses to enhance their operations [19]. Digital design technology, when used properly, creates a solid groundwork upon which firms can build long-term strategies, clear lines of communication, and engaging marketing materials. Seventy percent (70%) of the respondents indicate that digitalization significantly fosters sustainable business and communication with the outside world. In comparison, 30% of the respondents stated that the role played by digitalization is significant.

Table 1. Role of digitalization in the development of rural entrepreneurship

Response	Frequency	Percentage
Not important	0	0%
Somewhat important	0	0%
Moderately important	0	0%
Very important	19	70%
Extremely important	8	30%
Total	27	100%

The business owners' opinions are consistent with Shareefa's [19], who found that digital design technology has nearly limitless possibilities for facilitating partnerships between rural business owners and their urban counterparts and worldwide marketplaces. We conclude that entrepreneurs could not broaden their perspectives this way, even in the relatively recent past. Rural entrepreneurs must draw on their urban counterparts' gains by integrating digital design technology into their daily operations [19].

5.2 Digitalization, Opportunity Identification, Market Expansion, and Customer Satisfaction

Meyn [20] posits that when rural entrepreneurs embrace the digitalization of their businesses, a drastic change could be achieved. Therefore, the process of rural entrepreneurial digitalization goes beyond internet use. Instead, a holistic approach that combines tools, skills, and creativity are a few characteristics required to foster digitalization in rural areas. Responses to how respondents valued the significance of digital design and technology in affecting customer satisfaction are summarised in Table 2.

Table 2. Influence of digitalization on market expansion and customer satisfaction

Response	Frequency	Percentage
Unimportant	0	0%
Somewhat important	10	37%
Moderately important	8	30%
Very important	3	11%
Extremely important	6	22%
Total	27	100%

Responses from the entrepreneurs vary; 37% responded that they are not sure if digitization will enhance customer satisfaction, 30% mentioned that it would moderately strengthen customer satisfaction, 11% indicated that digitization plays an essential role in promoting customer satisfaction, 22% stated that this is extremely important in helping to boost customer satisfaction. One of the respondents (Crafter 3) noted: “We get our feedback via phone calls and messages, and sometimes if customers come back to buy more, we know that is positive feedback”. It has been found that digital design affects customer satisfaction by facilitating the production of content about the services offered by rural entrepreneurs [52]. Likewise, digital advertising is crucial to the success of digital marketing, which in turn encourages the development of rural enterprises by increasing their access to new markets.

5.3 Importance of Strategies and Factors That Discourage the Adoption of Digitalization

Digitalization may provide much-desired opportunities for rural entrepreneurship. However, some challenges could limit entrepreneurs from harnessing these opportunities in rural areas. As identified by the International Trade Center [28], one such could be the fear of recouping the money they have invested in acquiring the necessary tools and technologies for digitization. Table 3 summarises the responses of the respondents when they were asked to rate the importance of the influence of the factors which discourage the adoption of digital design and technology. It showed their problems' complexity and how the government or civil society had to get involved to find solutions. While 30% rated the importance of their influence as somewhat necessary, 44% as very moderately important, 22% as very important, and 3% posit that it is extremely important. Modern communication technologies have been shown to improve participation, simplify the spread of information, and promote the exchange of skills and knowledge in rural areas of developing nations [34,53]. As a result, increasing attention is being paid to the power of digital platforms to stimulate new business ventures in economically stagnant rural areas of emerging nations [54].

The use of internet-related platforms and tools has been harnessed in Africa’s agricultural sectors, encouraging information technology, thus enabling rural farmers to access relevant information that could help them transform their businesses [31]. When asked how essential they thought it was that their firm increased its efficiency and effectiveness via digital design and technology, the vast majority of respondents said it was "very important" or "very important." This conclusion shows that people generally agree that being unable to do business online is a significant disadvantage for their businesses. The survey results also revealed that respondents generally believed that using digital technology would greatly aid in luring financial support from foreign organizations.

Table 3. Importance of strategies and factors that discourage the adoption of digitalization

Response	Frequency	Percentage
Unimportant	0	0%
Somewhat important	8	30%
Moderately important	12	44%
Very important	6	22%
Extremely important	1	3%
Total	27	100%

5.4 Role of Legislation in the Promotion of Digitalization in the Rural Area

Every rural entrepreneur interviewed stated that no legislation or policy had been established or implemented in Zimbabwe to foster the growth of entrepreneurship through the adoption of digital design and technology. In contrast, many people were aware of laws and policies that aimed to increase agricultural output, such as the introduction of Command Agriculture, which provides a 10% discount on all agricultural inputs to farmers. They believe that legislation should be developed and widely communicated to help encourage the adoption and use of digital platforms by rural entrepreneurs in Zimbabwe, specifically in the Gokwe area [30,35]. This initiative can be achieved through collaboration amongst government institutions, private institutions, and individuals to help foster the use of digitization in rural areas of the country.

Table 4. Role of legislation in the promotion of digitalization in rural Areas

Response	Frequency	Percentage
Unimportant	0	0%
Somewhat important	0	0%
Moderately important	5	18%
Very important	15	56%
Extremely important	7	26%
Total	27	100%

Eighteen percent (18%) of the respondents rated appropriate legislation's influence on adopting digitalization in promoting rural entrepreneurship, and 56% agreed it was very important. In comparison, 26% mentioned that the government must put legislation favourable for rural entrepreneurs to adopt digital technologies to promote their businesses. The respondents agree with Clementine and Shava [30] and Salemink et al. [35] that adequate legislation should be developed and widely disseminated to allow rural entrepreneurs to embrace and use digital platforms to build their enterprises.

6. LIMITATIONS

This study is limited to rural entrepreneurs in the Gokwe area of Zimbabwe., with a small sample. A larger sample would assist in shedding light on digitization and rural enterprises in Gokwe. Due to the population of rural entrepreneurs in the country, it is suggested that large samples be used in the future to enable generalization and better provide an insight into what could serve as drivers of digitization and its adoption by the rural entrepreneur. Additional research may focus on gender equity and using digital tools and platforms to support their business.

7. RECOMMENDATIONS

This research suggests that the government should help rural business owners by providing them with resources like digital technologies for free or at reduced rates, as well as experts in the fields of information technology and digital design so that they can build the necessary infrastructure to transform rural business into a fully digital enterprise [37,38]. The government might fund the installation of Internet kiosks equipped with low-cost PCs in strategic locations to make the internet accessible to everybody. Allowing small businesses in rural areas to participate in the global internet trade community and boost national economic growth requires a well-thought-out plan. Similarly, the government should develop and roll out suitable interventions to enable rural business owners to reap the benefits of digital marketing and advertising. By banding together to build digital marketing platforms, they could explore new business possibilities and penetrate old ones more easily.

8. POLICY IMPLICATIONS

Our findings suggest that entrepreneurs without consistent and low-cost internet connectivity may not be able to grow their businesses to join the global online trade community and contribute to the national economy. The government should design a digital policy to promote infrastructure development to upgrade the rural entrepreneurial sector to a digitally based sector, which might help rural entrepreneurs use digital technology to improve their businesses. In addition, internet booths with computers are constructed and installed in specific regions to provide universal access to affordable internet.

The government should implement policies that promote the development of ICT infrastructure in rural areas and provide training and support for entrepreneurs to bridge the knowledge gap in utilizing digital technologies [55]. Furthermore, policymakers can learn from the experiences of other countries, such as China, where digital financial inclusion has successfully promoted entrepreneurship and narrowed the urban-rural income gap [56].

9. SUGGESTIONS FOR FURTHER RESEARCH

In light of the study's limitations, some recommendations for future research could be made. Given that 70% of the population lives in rural regions, more

robust study samples are required to compare and contrast the factors that foster entrepreneurial growth in rural and urban areas, particularly concerning the use of digital technology in commercial settings. To properly situate the phenomenon that this study was conducted to investigate in a context that takes considerations such as gender equality adequately into account, further research is required to analyze the relationships between demographic characteristics (such as age and gender) and trends of digital technology adoption and usage.

10. CONCLUSION

The study aimed to explore the role of digital technology in developing rural entrepreneurship in Gokwe, Zimbabwe. Thus, rural entrepreneurs were asked to provide insight into whether they have used digital tools, their experiences, and challenges limiting their effective use of available tools and platforms to carry out their business transactions. Respondents were aware of the potential of digital design and technology to increase their businesses' efficiency and profitability and the factors preventing many entrepreneurs, particularly those in rural areas, from accessing digital technology. The study found that while most rural business owners surveyed had cell phones with social networking apps loaded, they seldom used them for business purposes. In addition, most of the study's rural business owners struggled to recognize untapped potential and grow their current customer base despite a keen interest in doing so. Reuschke and Mason [13] stress the value of digital design in online business promotion, public relations, and information sharing. Customer satisfaction is a vital aspect of online business, as it was previously impossible for customers to express their satisfaction or discontent as openly as they can now. Even though business owners in Gokwe recognized the importance of maintaining their customers' positive engagement [57], they had not yet taken advantage of the opportunities afforded by digitally communicated expressions of customer satisfaction or expanding their reach to national or international markets. Many of the hurdles that prevented local entrepreneurs from extending their markets noted in this research might be solved via digital design to develop content that successfully informs and advertises their products and services to prospective customers.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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