# Harnessing Information and Communication Technologies (ICT) in the Vhembe District of Limpopo Province

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KEYWORDS Enterprises. Competiveness. Productivity. Rural Areas. Service

ABSTRACT Small, Medium and Micro Enterprises (SMMEs) are a driving force for economic growth and job creation. They play a major role in creating work opportunities and wealth. Access to and usage of ICT by SMMEs is a critical enabler in enhancing SMMEs' competiveness and long-term survival. This study was conducted in the Vhembe District of Limpopo Province in South Africa. Both qualitative and quantitative scientific research designs were employed to assess the adoption and use of ICT in enhancing rural SMMEs' competitiveness in this district. Simple random sampling was used to select 10 SMMEs per local municipality, and a total of 40 SMMEs were therefore interviewed. Both primary and secondary data collection methods were employed. A questionnaire was used to collect primary data, while the secondary data was collected through a literature review. The results of this study show that ninety percent of the SMMEs in the Vhembe District were established using own funds. The study found that ICT enhances effective business operations, enables easy communication with customers and stakeholders, is fast and cost effective when doing business, and enables easy management of information.

### INTRODUCTION

Millions of people, especially on the African continent, are poor, unemployed and poorly developed. One of the drivers of job creation is the development of Small, Medium and Microenterprises (SMMEs). SMMEs are globally regarded as the driving force in economic growth and job creation, especially in rural areas (The Economic Development Department 2016). These businesses play a major role in creating jobs and wealth in any economy. Nurturing a prosperous SMME sector is therefore acknowledged as a priority item on the development agenda, and much work has been devoted to analyzing favorable policy environments for SMMEs' growth (World Bank Review Report 2016). SMMEs have the potential to support national economic development programs and policies. Worldwide, they play a critical role in absorbing labor, penetrating new markets and generally expanding economies in creative and innovative ways (Yaokumah 2015). Stimulating and supporting SMMEs should therefore be part of an integrated strategy to diversify the economy, enhance productivity, and foster investment and entrepreneurship. South Africa has moved relatively fast in establishing and supporting SMMEs. Since 1994, considerable emphasis has been placed on SMMEs development in an attempt to promote the general economic development of the country (African Development Bank 2016). These businesses present a huge opportunity to alleviate poverty and provide employment to millions. A review report by the Department of Trade and Industry shows that between 1994 and 2004, 1.8 million small enterprises were established in South Africa, contributing about forty-five percent the Gross Domestic Product (GDP). They absorbed between fifty percent and sixty percent of the employed labor force, and up to seventyfive percent of informal activities and self-employment categories (DTI 2016). It has been recognized that in order to establish a more vibrant and dynamic SMME sector that contributes to economic growth and development, SMMEs need to be able to compete locally as well as in international markets, and provide a diverse range of new and lasting decent employment opportunities (Zhong and Zhang 2015).

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### **Problem Investigated**

The Limpopo Province is one of the provinces in South Africa dominated by rural areas,

with high levels of poverty and unemployment. Empirical evidence has shown that SMMEs have the potential to reduce poverty and unemployment (Zendler et al. 2015). The successful implementation of SMMEs programs is confronted by various challenges, which include amongst others, overreliance on a traditional approach, and a lack of skills, funding and markets (LEGDP 2014). The Department of Economic Development, Environment and Tourism (LEDET) established the Limpopo Business Support Agency (LIBSA) and Limpopo Economic Development Enterprise (LimDev) with the sole purpose of assisting SMMEs in the province to become sustainable. However, lack of access to and adoption of ICT by rural SMMEs in the Vhembe District prevents them from competing and thriving in the global economy (African Development Bank 2016; Yaokumah 2014). The problem that this research project addresses is determining access to and adoption of ICT by rural SMMEs in the Vhembe District. This study aims to assist rural SMMEs in this district with information and strategies, which can be used to improve their competitiveness, especially through the use of ICT. The main aim of this study is therefore to assess the use and adoption of ICT in facilitating trade by rural SMMEs in the Vhembe District, Limpopo Province (The Economic Development Department 2016). Drawing on the above problem, this article poses the following research questions:

- What factors hinder SMMEs' growth in the Vhembe District?
- What are the key success factors for SMMEs' performance in the Vhembe District?
- How many SMMEs' have access to and use ICT in the Vhembe District?
- What perceptions do rural SMMEs' in the Vhembe District have of ICT use in their business operations?

### **Literature Review**

SMMEs have huge potential to create jobs, particularly for unskilled labor, and thus reduce poverty, especially in rural areas. However, certain factors limit the growth of the SMMEs sector (Limpopo Economic Development Agency 2016). These include, amongst other things, lack of access to information and bank credit, high taxes and strict regulations, insufficient demand

for SMMEs' products, a shortage of skilled labor and high operating costs (Silic and Back 2014). A lack of business growth in the SMMEs sector could lead to increased unemployment and poverty. In order to realize the full potential of SMMEs for poverty eradication and economic growth, access to and adoption of ICT is considered a critical enabler in enhancing SMMEs' competiveness and survival. ICT is recognized as an essential tool for business development that helps organization's remain competitive and relevant in domestic as well as international markets. Access and connectivity is a tool to narrow the digital divide between developed and developing nations, and between urban and rural areas (Schroeder 2014). Access to and the adoption of ICT transformed the world into a global village, as the use of telephones and computers make it easier to access, retrieve, disseminate and share information within a short period of time (Montague et al. 2014). The faster flow of information enhances market competition. However, it should be noted that access to ICT does not necessary give a business a competitive advantage. Rather, linking ICT to the business processes and strategy will most likely offer a competitive advantage (Media Development and Diversity Agency 2014). This means that SMMEs with access to and the ability to use ICT in their businesses operations have competitive advantage and the potential to succeed. As noted by Matos et al. (2014), the uptake of mobile telephones, mobile devices and services might well provide the key to enhanced growth and performance amongst SMMEs. Despite the competitive advantage that ICT can bring to small businesses, most developing countries have not yet fully explored such possibilities, and challenges such as a lack of infrastructure, funds and technical skills to operate such technologies further hamper the use of ICT by rural SMMEs (Lam et al. 2015). These challenges hinder SMMEs' development and survival, especially in rural areas. Furthermore, the role of ICT in enhancing SMMEs' competitive advantage has mainly been piloted and adopted in urban areas. This disadvantaged rural SMMEs and resulted in non-sustainability and ultimately, failure. This study explored the role of ICT in improving rural SMMEs' competitiveness in the Vhembe District of Limpopo Province. It seeks to advise decision-makers and members of SMMEs on the advantages of ICT as an enabler of business development (World Bank Economic Review Report 2016). The study hopes to assists decision-makers to make informed and calculated decisions when rolling out SMMEs programs in rural areas (Gong et al. 2015). This article raises awareness of the value of using ICT as an enabler for SMMEs' business growth and development in rural areas. It demonstrates that through the use of ICT, rural SMMEs can be sustainable and thus contribute to poverty eradication and job creation. Effective and efficient access to relevant information and the ability to communicate it can make a difference in the way SMMEs operate in rural areas (Gartner and Schon 2016). This article demonstrates that access to and the use of ICT can assist in addressing the various challenges limiting small business growth in rural areas. The study is important because it generated knowledge, which will be used to raise awareness of the value of SMMEs in economic development, poverty eradication and redressing unemployment, especially in the rural areas of the Vhembe District in Limpopo Province (Limpopo Economic Development Agency 2016). The study aimed to share best practices on how rural SMMEs can use ICT to grow their businesses. It generated data and information relevant to SMMEs, and it is hoped that this will be used to guide SMMEs in the Vhembe District to grow, compete and become sustainable. The study also aimed to inform those interested in setting up SMMEs on where they can get assistance and information to start their business, as well as sources of financial and technical support (Frenz et al. 2014).

# Population of Vhembe District

The Vhembe District covers an area of 21,407 km², and has a total population of approximately 1.2 million. Black people account for about ninety-eight percent of the total population. The majority of the inhabitants speak the Tshivenda language. Women constitute fifty-five percent of the population (Edwards 2015). The local municipality with the largest population in Vhembe is Thulamela, followed by Makhado, Mutale and Musina. It is estimated that the Vhembe District is home to about twenty-four percent of Limpopo Province's total population of 5.2 million. A report produced by the Vhembe District Municipality shows that the dis-

trict population is growing at an annual rate of 1.1 percent. While this is a reasonable growth rate, improved economic growth is required if poverty and unemployment are to be eradicated (Limpopo Economic Development Agency 2016).

# Education, Poverty and Unemployment in Vhembe District

The Vhembe District Municipality report indicates that the District is performing above the provincial average in terms of education. It is therefore most likely the source of skills for the Province, and hence susceptible to brain drain (DTI 2016).

It is estimated that about 813,467 people are living in poverty, which accounts for sixty-five percent of the total population residing in Vhembe. The majority of the District's inhabitants work in community services and the agricultural sector. The number of formally employed has decreased over the years, which is of concern, as both the population and the labor force has increased. Therefore, the district is confronted by increasing unemployment (LEGDP 2014). If offered appropriate support, the agricultural sector has much potential to absorb new entrants in the labor market.

### **Economic Opportunities**

Vhembe is one of the least developed districts in the Limpopo Province, and one of the most rural areas in the country (De Waal and Chipeta 2015). However, the District is strategically located for easy trade with most countries in the Southern African Development Community (SADC). The N1 road from Cape Town to Cairo in Egypt passes through Vhembe District, making the district an ideal location for trade between South Africa and most African countries (African Development Bank 2016). Vhembe District borders the Kruger National Park and Trans Frontier Parks, which include South Africa, Botswana and Mozambique. Those conservation destinations profile the district as a preferred tourism destination in the Limpopo Province (Chung-Fun 2015). This presents an opportunity for small and big tourism businesses to exist and thrive in Vhembe District. Vhembe District is also considered the "fruit bucket" of South Africa and Africa. The soil in the area is highly fertile and very suitable for agricultural production. This offers opportunities for both subsistence and commercial agricultural businesses (Chauhan 2015).

# RESEARCH METHODOLOGY

# Research Approach

Both qualitative and quantitative scientific research designs were employed to assess the use of ICT in enhancing rural SMMEs' competitiveness in the Vhembe District. A quantitative approach was used to collect data on the factors hindering SMMEs' growth, SMMEs success factors, and the number of SMMEs with access to ICT (Eriksson 2013). A qualitative approach was employed to collect data on rural SMMEs' perceptions of ICT use and adoption. The qualitative approach enabled the researchers to investigate rural SMMEs' perceptions in relation to the study's objectives. On the other hand, as indicated by Guercini (2014), the quantitative design enabled the researchers to effectively quantify the available data. The use of both qualitative and quantitative methods enables researchers to gain more insight into the subject matter than would be the case if only one method was used (Lee 2014).

### The Study Area

The study area is Vhembe District in the northern part of Limpopo Province, South Africa. Vhembe District is comprised of four local municipalities, namely, Thulamela, Makhado, Mutale and Musina. The district shares borders with Zimbabwe in the north, Botswana in the northwest, and Mozambique in the east (Limpopo Economic Development Agency 2016).

# Sample Size and Sample Technique

Limpopo Province is divided into five district municipalities, namely, Vhembe, Mopani, Waterburg, Sekhukhune and Capricorn. The demarcated area for this study is the Vhembe District in the northern part of the province (Hair et al. 2014). While the researchers accessed the database of SMMEs in Vhembe District from the Limpopo Economic Development Enterprises (LIMDEV) and Limpopo Business Support Agency (LIBSA), most of the SMMEs were

randomly selected during field surveys. Simple random sampling was adopted in order to select 10 SMMEs per local municipality. A total of 40 SMMEs were therefore interviewed. Factors hindering SMMEs' growth, success factors, access to and use of ICT by SMMEs and perceptions of ICT use and adoption were probed (Lam and Jowl-Ching 2015).

### OBSERVATIONS AND DISCUSSION

The key findings of the study are aligned to the research questions as follows.

### SMMEs' Profile in the Vhembe District

The SMMEs sampled were established between 1997 and 2012. Ninety percent of SMME's were established with owner funding. The amount spent on establishing an SMME ranged from a minimum of R2,000 to a maximum of R250,000, with an average of R38,000. The five most popular types of SMMEs in the Vhembe District are computer training, bookshop and printing, IT services, and Internet café. The majority of people employed by SMMEs in Vhembe District have studied up to grade 10-12 (50%), followed by diplomas (38%) and degrees (12%). The monthly income of those employed by SMMEs range from a minimum of R150 to a maximum of R10,000 per month. The average wage is R2,600 per month. The income generated by an SMME per annum ranges from a minimum of R19,000 to a maximum of R890,000, with an average of R140,000 per annum.

# Factors Hindering SMMEs' Growth in the Vhembe District

The study identified various factors hindering the growth of SMMEs in the Vhembe District. The most important is a lack of funding (28%). Other factors include corruption (18%), a lack of training to enhance skills and knowledge (11%), competition (10%), a lack of markets to sell products (7%), poverty and unemployment (6%), and lack of access to credit (6%).

# Factors Promoting the Success of SMMEs in the Vhembe District

The study also assessed the SMMEs' competitive advantage and the key success fac-

tors for SMMEs in the Vhembe District. The most important factors in being competitive are delivering quality service to customers (41%), meeting customers' needs (18%), expertise and training (14%), offering affordable and reasonable prices (14%), innovation in the end product (7%) and effective marketing (7%).

# Access to and Usage of ICT by SMMEs in the Vhembe District

The study found that access to and usage of ICT (information, computer, the Internet and phone) varies from one SMME to another. The majority of SMMEs in the Vhembe District have access to ICT. Furthermore, they have the knowledge to use ICT in order to grow their businesses. The majority of SMMEs have access to phones and cellphones (22%), computers (19%), the Internet (17%) and information (16%). A small percentage (9%) indicated that they use SMMEs' business information in order to improve their performance. One challenge is the lack of access to SMMEs business information in the Vhembe District.

# Rural SMMEs' Perceptions of ICT usage

The SMMEs interviewed felt that ICT is very important in modern business operations.

Regardless of the perceived benefits of using ICT in business operations, most SMMEs felt that rural SMMEs' access to ICT in Vhembe District is still a challenge, due to a lack of funds to purchase ICT. As a result, ICT is not fully utilized in the rural areas.

# **Purpose of Using ICT**

The SMMEs in Vhembe District stated that the purpose of gathering information is to gain knowledge to grow the business and compete in the market. Information also identifies new business opportunities and marketing methods. The Internet is used to search for information and send information by e-mail. It is a means of communication between business owners, customers and stakeholders and is an effective tool to conduct market and business research. Telephones and cellphones are used to communicate with customers and stakeholders. Phones are also used to market the business. The study

found that, due to the advantage of mobility, cellphones are used more than telephones.

### CONCLUSION

The results of this study demonstrate that SMMEs play a significant role in employment creation and thus poverty eradication in rural areas. SMMEs therefore contribute positively to South Africa's economic development. It is also clear that access to and use of ICT by SMMEs is a critical enabler for their growth and development. This suggests that SMMEs need to access and use ICT in order to increase business opportunities and gain competitive advantage. This study clearly illustrates that SMMEs in Vhembe District appreciate the value of using ICT as an enabler of business growth. As a result, there is an increasing desire to use ICT. The results show that most of SMMEs in Vhembe District (90%) were established with own funding. This is a clear indication of the lack of financial support for SMMEs. The key factors that determine SMMEs' success in the Vhembe District are delivering quality service to customers, meeting customers' needs, expertise and training, affordable and reasonable prices, innovation in the end product, and effective marketing. The respondents also indicated that hindrances to the growth of SMMEs can be addressed by government and the private sector by providing sufficient funding, continuous training in computer skills, business management techniques, and new marketing and pricing techniques, and by lowering the tax payable by SMMEs. Most SMMEs use cellphones to communicate with customers and stakeholders. This is due to the fact that the costs of accessing and using landlines, the Internet and computers are high. This study further concludes that despite SMMEs' potential to enhance socioeconomic development, various challenges, including a lack of funding, information and training, corruption, high tax rates and a lack of access to credit hinder the effective usage of ICT by rural SMMEs. These challenges are also contributing to a lower SMMEs success rate. There is therefore an urgent need for government, the private sector and donors to work together to address the challenges confronting rural SMMEs.

#### RECOMMENDATIONS

This study clearly demonstrates that a lack of business information and support (financial, technical and infrastructure) are the most pressing challenges that hinder the growth of SMMEs in the Vhembe District. The following recommendations are proposed:

### **Business Information**

The lack of business information is a major hindrance to SMMEs' development and sustainability in the Vhembe District. Most of the SMMEs indicated that they do not have access to information to help them grow their business. It is therefore recommended that SMMEs in the Vhembe District regularly make contact with local institutions such as the LIBSA and LimDev to access information.

### **Training and Financial Support**

While various institutions offer training and financial support to SMMEs in South Africa, many SMMEs in rural areas are not aware of these institutions and the programs they offer. It is therefore recommended that SMMEs in Vhembe District request training and financial support from the LIBSA and LimDev.

# **Subsidizing SMMEs**

SMMEs in South Africa employ many people, and subsidies would therefore represent a viable poverty alleviation tool. It is therefore recommended that government and the private sector provide subsidies to SMMEs for human capital development.

### **ICT Support**

This study demonstrated that all the SMMEs in Vhembe District have access to phones, mostly cellphones. However, not all SMMEs have access to a computer, the Internet and business information. It is therefore recommended that agencies dealing with SMMEs provide computers, Internet connections and free business information.

### Research and Development (R&D)

There is also a need for research and development on SMMEs in the Vhembe District.

#### LIMITATIONS

The research focused on one of the five districts in Limpopo Province. SMMEs in the rest of the province and South Africa were excluded.

A comparative study of SMMES in all nine provinces would identify national SMMEs trends. This could be an area for further research.

Financial and time constraints limited the study to the Vhembe District.

The conclusions and generalizations arrived at in this study are only applicable to the Vhembe District.

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Paper received for publication on July 2014 Paper accepted for publication on October 2016