

**THE CONTRIBUTION OF MOBILE ICT TO THE DYNAMIC  
CAPABILITIES OF SMEs: A FOCUS ON INFORMAL  
TRADERS IN WINDHOEK, NAMIBIA**

by

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# DECLARATION

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## **THE CONTRIBUTION OF MOBILE ICT TO THE DYNAMIC CAPABILITIES OF SMEs: A FOCUS ON INFORMAL TRADERS IN WINDHOEK, NAMIBIA**

I declare that the above dissertation/thesis is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references.



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## **Abstract**

As Mobile ICT usage surges, there is a case for making sense of how it contributes to innovation. This study sought to determine Mobile ICT's contribution to the dynamic capabilities of informal traders in Windhoek. Through the qualitative interpretive paradigm, data were collected from 34 informal traders located at the Hilton Hotel market and Post Street Mall in Windhoek.

The study revealed that informal traders possess innovative dynamic capabilities [introduction of new products], absorptive dynamic capabilities [marketing], adaptive dynamic capabilities [responding to market activities], and network dynamic capabilities [use of various ways of mobile communication], but they do not effectively implement Mobile ICT to enhance these capabilities. The majority of the users use basic functionalities [text messages and phone calls] offered by Mobile ICT. The primary reasons given for not fully adopting Mobile ICT were the high cost of acquiring mobile devices and mobile data to access the internet, as well as a lack of technical knowledge.

The study recommends that over and above financial schemes being made available, a unique mobile device that intuitively enables dynamic capabilities is required. This type of device would eliminate the challenges that come with the adoption of Mobile ICT and enable traders to conduct business better, thereby reducing the effects of disruptions such as COVID-19 on the economy. This research also contributes to the use of the theory of dynamic capabilities at a micro level, which has not been attempted before.

**Keywords:** Mobile ICT, dynamic capabilities, informal traders, mobile devices

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# Chapter 1

## 1 Background of the Study

### 1.1 Introduction

The availability of Mobile Information Communication and Technology (ICT) has increased in the past decade (Pratama & Scarlatos 2020); most adults now have at least one mobile device at their disposal (Pratama & Scarlatos 2020; Jaramillo-Alcázar, Luján-Mora & Salvador-Ullauri 2017). This growth can be attributed in part to the rise of social media, content-rich apps, and video content that can be accessed from a new range of smartphones costing less than US\$50 (£30) (Willems, 2020; Reed, Mbongue, Jotischky, Escofet & Newman 2014). As Mobile ICT becomes increasingly popular, it is necessary to investigate how it can be used in business (Pratama & Scarlatos 2020).

Mobile ICT refers to technology that provides access to information and data from anywhere, mobile money transfers, and mobile telecommunication. Mobile ICT comes with powerful features such as audio recording, video capturing, large screen displays, Global Positioning Systems (GPS), access to the internet via several browsers and apps, Near Field Communication (NFC), fingerprint scanners, and many others (Mukundarajan, Hol, Castillo, Newby & Prakash, 2017; Wang, Cataldo, Ayala, Natarajan, Cadmus-Bertram, White, Madanat, Nichols & Pierce, 2016). However, these features differ from mobile device to mobile device, with the higher end and more expensive mobile devices having the most features. This study investigates the influence of Mobile ICT on the dynamic capabilities of informal traders in Windhoek.

An informal trader is any person or group of people who carry out business in the street as street vendors or hawkers (Mago 2018). These are people who earn a living by buying and selling goods, which may include the small-scale manufacturing or production of goods. These are generally referred to as small, medium, and micro-sized enterprises (SMMEs). SMMEs are owned by an individual or a group of people, and can operate in any business sector of the economy (Hendricks, B. et al. 2015).

Most informal traders have a mobile device of some sort, but do not have the luxury of investing in ICT infrastructure (Rumanyika, Tedre, Apiola & Mramba 2019).



Therefore, this study aimed to understand how informal traders use their Mobile ICT if they have it, and if they do, if it has led to increased sales and profits. Although some of the traders have mobile phones which are simple phones with basic features such as calling and SMS, some have smartphones. The number of smartphones has increased of late due to the drive by mobile phone operators to increase their number of data clients.

Dynamic capabilities refer to a business' ability to identify, combine, shape and reconfigure the internal and external competencies that are necessary for an organisation to survive in rapidly changing market conditions (Hareebin, Aujirapongpan & Siengthai, 2018; Teece 2014; Teece, Pisano & Shuen 1997). There is a lot of uncertainty in business today, which calls for unique organisational capabilities for one to prosper. Mobile devices enable one to download and use different mobile applications which allow online advertising, online banking and online communication in various ways, such as teleconferencing. This study explored the contribution of Mobile ICT to Namibian businesses with a special focus on the informal traders in Windhoek. The dynamic capability theory thus informed the theoretical framework of this study.

This chapter provides a detailed account of how the study was conducted, including a discussion of the problem and the methodology that was adopted.

## **1.2 Scope**

This study focused on exploring the contribution of Mobile ICT to the dynamic capabilities of informal Namibian traders.

## **1.3 Purpose of Study and Research Objectives**

The study assessed whether the uptake and use of Mobile ICT can help small businesses become more profitable in Namibia, with a focus on informal traders in Windhoek. The researcher used the inductive approach to assess individual capabilities, as informal traders are individualistic. Recommendations are given on how small businesses can adopt Mobile ICT to improve their business operations and profitability.

This study had the following research objective: *To determine the contribution of Mobile ICT to the dynamic capabilities of informal businesses in Windhoek, Namibia.*

## 1.4 The Research Problem

The unemployment rate has been on an upward trend in Namibia, reaching 364,411 people in 2018, or 33.4% (Namibia Statistics Agency 2018). Namibia's youth unemployment rates for 2018, 2019 and 2020 were recorded as 37.89%, 39.53% and 41.17%, respectively. Compared to Botswana and South Africa, Namibia has the highest male unemployment rate (Matandare 2018). This increase in the unemployment rate has resulted in the number of informal traders in Windhoek growing in the last few years, resulting in more competition for the same pool of clients with decreasing returns for the informal traders.

The problem statement led to the following research question: *How can Mobile ICT enhance the dynamic capabilities of informal traders in Windhoek?*

To address the research question, the following sub-research questions were also asked:

**SR<sub>1</sub>:** What is the extent to which informal traders in Windhoek use mobile ICT as part of their business?

**SR<sub>2</sub>:** What are the benefits and drawbacks of mobile ICT usage among informal traders?

**SR<sub>3</sub>:** What is the role of Mobile ICT in managing financial services of informal traders in Windhoek?

**SR<sub>4</sub>:** How do Informal traders in Windhoek use the internet to enhance their communication?

**SR<sub>5</sub>:** What are the absorptive capabilities of informal traders in Windhoek?

**SR<sub>6</sub>:** What role does Mobile ICT play in the absorptive capabilities of the informal traders in Windhoek?

**SR<sub>7</sub>:** What are the adaptive capabilities of informal traders in Windhoek?

**SR<sub>8</sub>:** How is mobile ICT used by informal traders in Windhoek to gain adaptive capabilities?

**SR<sub>9</sub>:** What are the innovation capabilities of informal traders in Windhoek?

**SR<sub>10</sub>:** What role does Mobile ICT play in innovation capabilities of the informal traders in Windhoek?

**SR<sub>11</sub>:** What are the network capabilities of informal traders in Windhoek?

**SR<sub>12</sub>:** What role does mobile ICT play in the network capabilities of informal traders in Windhoek?

## **1.5 Research Study Design**

Research study design refers to the strategies adopted to investigate the data collection, measurement, and analysis process to be followed when conducting a study to ensure that the research process is addressed (Bloomfield & Fisher 2019).

For this study, the qualitative, interpretive method of research was used. A convenient sampling strategy was adopted to select informal traders from the Hilton Hotel and Post Street Mall markets in Windhoek city centre.

## **1.6 Ethical Considerations**

It is a requirement to observe ethics during a research study (Saunders, Lewis & Thornhill 2009, p. 249), thus the morals, values and ethics of the respondents were respected by not using any force to elicit responses from them. Honesty in work and documentation was exercised by using only data collected from this study to avoid any misrepresentation of the conclusions, while sensitive data obtained during the study were kept private and used only for research purposes. Anonymity and confidentiality were always respected, with numbers 1 to 34 being used to identify the respondents. An ethical clearance certificate was sought from Windhoek Municipality, which is responsible for the markets around Windhoek City Centre.

## **1.7 Structure of the Research**

This study is made up of six chapters:

### *Chapter 1: Background of the Study*

This chapter gives a summary of the whole study, including an outline of the problem statement and the objectives of the study.

### *Chapter 2: Case Study*

This chapter presents the problem and the study objectives, as well as the purpose of the research. It introduces the study, states its focus, and describes the background of the problem. The main constructs are also defined.

### *Chapter 3: Literature Review*

Chapter 3 gives a detailed review of the literature related to the problem being investigated. This includes details of similar studies that were carried out by other authors.

*Chapter 4: Research Methodology*

This chapter discusses the research method and research design adopted in this study. It gives a detailed account of the data collection and analysis process.

*Chapter 5: Research findings*

Results from the data analysis process and the research findings are provided in this chapter.

*Chapter 6: Summaries, Conclusions, Discussions and Recommendations*

In this section, a brief recap of the entire study is given, and conclusions are drawn from the analysed data.

## Chapter 2

### 2 Case Background

#### 2.1 Introduction

The previous chapter presented a summary of the study, including the problem statement and the research questions. This chapter includes the case background, including definitions of frequently used terms, uses of ICT by informal traders, and a brief description of Namibia, where the study was conducted. Theories regarding the use of mobile technologies and mobile application technologies in the context of informal traders are also discussed.

Informal trading incorporates workers such as street vendors, micro-entrepreneurs, home-based traders, and casual workers. These are generally people who operate on a small scale in terms of operations, capital, stock, revenues, and profits. Informal traders do not usually operate as registered companies or entities, but rather tend to be individuals or small groups of people who work to make a living by buying and selling goods or small-scale manufacturing (Fatoki 2016).

In highly populated areas, informal traders sell their products and services in the streets, at traffic lights, and on pavements (Harber, Parker, Joseph & Maree 2018; Tawodzera, Riley & Crush 2017). Informal traders use informal channels of doing business, using what power they have to try to keep themselves employed and out of poverty (Vermaak 2017; Barros & Chivangue 2017).

As of year 2018, Namibia has a population of approximately 2.1 million people and a Gross Domestic Product (GDP) of US\$12.5 billion. The average income per person is US\$6,000 (Eita 2018). Namibia has a high Gini coefficient, i.e. income is unevenly distributed. Because of the high unemployment and poverty rates, many Namibians begin trading informally to generate income.

#### 2.2 Economy of Namibia

Namibia is located in southern Africa, and is a multicultural country with a large number of official languages (Kamwi 2017). Namibia's economy relies largely on imports and exports from and to South Africa; a large percentage of raw materials are exported, with many consumer products being imported (Simasiku & Sheefeni

2017). As a result, the economy is mainly comprised of restaurant, transportation, education, health, government, financial, and business services (Eita 2018; Humavindu & Stage 2013). Agriculture contributes only 5% towards GDP, but employs one-third of the country's population (Humavindu & Stage 2013).

The Namibian economy is made up of two key facets: the modern market, which relies on capital to conduct business, and the traditional market, which is largely farming (Engler, von Wehrden & Baumgärtner 2019). Mining and government services are the country's key businesses, despite the agricultural industry providing the most employment by sector (Humavindu & Stage 2013).

Despite the country's high poverty rate, Namibians have not been left behind in embracing technological advances. Research has shown that people in Namibia are using Mobile ICT for both business and personal needs (Häkkiälä, Colley, Cheverst, Robinson, Schöning, Bidwell & Kosmalla 2017; Kumar et al. 2016). Hackathons, where software developers meet and develop mobile apps for different purposes, are held twice in a year in Windhoek (Ashikoto, Ajibola & Virmasalo 2018), while the local tourism, banking, education, and sports industries have also embraced technology in their activities (Jere, Boikhutso & Maoneke 2018).

### **2.3 ICT Usage Among Informal Traders**

As ICT has permeated all sectors of society, informal traders have benefited by using ICT in their day-to-day operations (Nteta 2017), including reaching potential clients they could not have otherwise. Some informal traders have seen an improvement in their ability to track their operations better by using ICT solutions like Point of Sale (POS) systems (Samuel 2016; Nteta 2017). Banks in Namibia have even introduced solutions targeted towards informal traders who have no fixed abode, by offering them a way to accept payments via cards anywhere they conduct business, with no need for a fixed internet line or connection (Neto 2017; Kalan 2016).

Nonetheless, informal traders face obstacles that stop them from adopting ICT in their small businesses, including costs and a lack of skills (Fatoki 2016). This highlights that there is a need for traders to acquire technology skills so that they can use Mobile ICT to its fullest potential. Financial obstacles can be overcome by applying for assistance

from the government or organisations that help small businesses. These organisations often also provide ways to ease the process of ICT adoption (Fatoki 2016).

Another obstacle faced by informal traders is connected to online security, making them fearful about conducting business online. To avoid online crimes, informal traders develop a self-protection mentality (Hopkins & Fox 2016) and avoid using ICT for business purposes. However, research shows that measures such as blockchain can be adopted to make online businesses secure (Singh & Kim 2018), thereby reducing online fraud.

ICT can assist informal traders to grow their small businesses by improving communication channels within the business and externally by offering multiple communication channels (Domazet, Zubović & Lazić 2018). Enhancing internal communications can result in the improved dissemination of information within a business, while improved external communication can result in better quality relationships with stakeholders and customers, as well as more chance of gaining a competitive advantage over competitors.

Informal traders have benefited from the fact that growing numbers of people have access to mobile phones (Pankomera & van Greunen 2019; Larsson & Svensson 2018). With more people having access to mobile phones, communication is easier and more affordable for business owners. It also opens up payment options for business owners, with mobile wallets now being a possibility (Karim, Haque, Ulfy, Hossain & Anis 2020; Uduji, Okolo-Obasi & Asongu 2019).

Mobile ICT is an economic development tool (Rotondi, Kashyap, Pesando, Spinelli & Billari 2020; Bar, Weber & Pisani 2016) which offers businesses new ways to save money, reduce corruption, conduct comparisons on prices, increase response times, and attract new customers (Wiredu, Labaran, Nketiah & Osibo 2020; Osabuohien & Karakara 2018; Neto 2017).

## **2.4 The Spread of Informal Businesses**

There has been an increase in the adoption of cross-border trading by informal businesses in Southern Africa (Peberdy & Crush 2017), where people import commodities from other countries and resell them at a profit. Like other African countries, Namibia also has a high rate of poverty and unemployment (Shigwedha & Kaulihowa 2020; Matandare 2018), hence the existence of informal traders. Informal trading in Namibia includes cattle trading, transport businesses (taxis), catering businesses, cross-border trading, and buying and selling of consumer goods (Kalundu & Meyer 2017).

Informal trading exists across Namibia but is most common in Windhoek, the capital city of Namibia. The Municipality of the City of Windhoek has made places available where traders can conduct business, that is, various legal markets have been opened in the city centre and in the suburbs to allow traders to meet at one place and transact. Customers also have access to these markets, where they can go and buy commodities that they need. As with the markets in the city centre, some are more craft-oriented and directed towards tourists than locals.

## **2.5 Summary**

This chapter gave a background to the study by discussing the uses of ICT by informal traders, and provided a brief description of Namibia, where the research was conducted. Theories regarding the use of mobile technologies and mobile application technologies in the context of informal traders were discussed. The chapter showed that Mobile ICT is already being used in different sectors in Namibia despite the country's high poverty levels, which could be the result of the rise in the number of informal traders. Chapter 3 provides a detailed review of literature related to the study.



## Chapter 3

### 3 Literature Review

#### 3.1 Introduction

Chapters 1 and 2 gave a detailed account of the research problem and background of Namibia, where this study was conducted. The purpose of this chapter is to review the literature on Mobile ICT on the operations of informal traders. This objective is achieved by providing the theoretical underpinning of definitions, origins, and application of mobile technologies in informal trading businesses.

#### 3.2 Defining Mobile ICT

Given the accessibility of mobile devices and the push by technology companies to increase their market share, people increasingly own one or multiple mobile devices. Most of them are smartphones that can be connected to different networks and offer multiple functions. Mobile ICT is the most affordable and cost-efficient technology used for eLearning in developing countries (Nwabude, Ogwueleka & Irhebhude 2020; Pillay & Ramdeyal 2013, p. 6), with mobile devices forming a greater part of Mobile ICT.

Mobile ICT refers to technology that provides access to information and data from anywhere, mobile money transfers, and mobile telecommunication. Laptops, tablets, smartphones, and smart devices are some examples of mobile computers, with the majority of these devices possessing the following features which improve a device's functionality: camera, video, SMS, MMS, internet, games, video support, email, and support for mobile apps.

Mobile ICT has introduced new opportunities to Africa by connecting people, information, services, and markets (Emeana, Trenchard & Dehnen-Schmutz 2020). To benefit from the increasing popularity of mobile devices in Africa, organisations in different sectors of the economy, such as agriculture, are now offering services using Mobile ICT (Wood et al. 2019). Mobile ICT makes communication with every part of the country extremely easy; even farmers who are in isolated rural areas can use Mobile ICT (Adesemowo et al. 2020).

In one study, poor rural farmers in Nigeria revealed that mobile phones had simplified their communication [socially and at business levels] and enhanced their farming skills

and knowledge, resulting in increased business and reducing poverty rates (Anadozie, Fonkam & Cleron 2021). In another example, a farming system called the organic farming mobile agricultural extension services (OrgFarMob) is installed on mobile devices, which Nigerian farmers use to access knowledge bases that provide solutions to problems that they encounter with organic crop cultivation (Adesemowo et al. 2020). At Pointe-à-Pitre University Hospital in Guadeloupe, HIV and AIDS patients are reminded to take their medication through text messages (Zebina et al. 2019), while in education, Mobile ICT is being used to assess and examine students, access online libraries, and share knowledge amongst students and teachers (Kumar, Singh, Choudhury & Gupta 2019).

The innovative capabilities of mobile apps installed on mobile devices give Mobile ICT the potential to change lives by eradicating poverty (Bekoe, Ayoung, Boadu & Folitse 2017). Because of Mobile ICT's ubiquity, if properly taken advantage of, it can be used as an economic development tool.

### **3.3 Contribution of ICT to Business**

The ubiquity of mobile phones in developing countries is a key phenomenon in the technology industry. There are more people with mobile phones than with bank accounts in developing countries (Asongu, Nwachukwu & Orim 2018), which has led to the popularity of mobile banking.

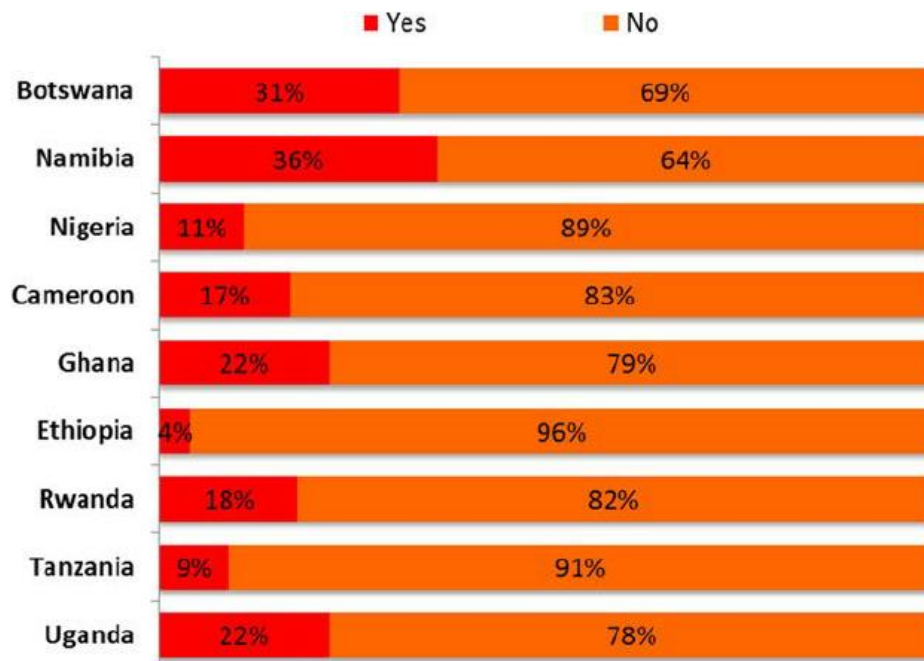
#### **3.3.1 *Mobile ICT as a financial instrument***

Because of the availability of mobile devices, they are being used to conduct financial transactions such as purchasing airtime and electricity. Financial services come in different forms, including remittances, informal airtime bartering schemes, and micro-payments. These are commonly referred to as mobile banking, mobile payments, or mobile transfers (Asongu, Nwachukwu & Orim 2018).

The availability of such financial services through Mobile ICT offers various advantages, including saving time and making various account payments from anywhere at any time.

Informal business owners often face challenges related to a lack of access to financial services, including formal bank accounts, which results in a lack of financial support such as business loans (Owusu 2017). Mobile money can be used by informal traders

who do not have formal bank accounts and insurance, providing a safe place for them to keep and access their funds (Kim, Zoo, Lee & Kang 2018; Comninou, Esselaar, Ndiwalana & Stork 2008 cited by Deen-Swararray et al., 2013). The figure below shows the percentages of bank account ownership in nine countries in Africa, with Namibia having 36% of the population owning a bank account.



**Figure 1: Population access to financial accounts (Source: Deen-Swararray, Moyo & Stork 2013)**

The adoption of mobile money services has increased in the previous decade in Africa, hence the growing relationship between mobile money usage and bank accounts (Ahmad, Green & Jiang 2020). Organisations in the telecommunications industry, such as Orange Kenya, have introduced mobile money services that include a bank account (Onsongo & Schot 2015). Yet while the use of mobile money is becoming widespread in Africa, in some remote areas, traditional ways of sending gifts are still used which could be due to a lack of alternatives (Johnson, Kiser, Washington & Torres 2018).

### 3.3.2 Mobile ICT usage and access

The internet should be treated as basic infrastructure, such as waste removal, roads and water. Where there is extreme poverty, large investments are required to bring broadband internet access to these places, which competes for funds and priority with other basic human needs like sanitation and public transport (Saldana et al. 2017). For any new technology to proliferate and be considered successful, it needs to do

more for the poor, powerless and uneducated than for the well-educated, rich and powerful. However, the technology-as-magnifier theory results in the opposite outcome; the greater a person's financial means, the more they see the benefits of technology, and vice versa. This results in technology helping the rich more and more at the expense of the poor, thereby increasing the gap between the haves and the have-nots (Toyama 2018; 2010).

Technology widens the gap between the rich and the poor in many different forms, including differential access. The rich are able to consistently access, upgrade and use technology; to acquire, operate, maintain and upgrade technology requires money that the poor are not able to access easily. Even in cases where technology is fully sponsored or given for free, the poor struggle to operate, maintain and upgrade said technology. For example, in the United States, although libraries have free internet access, poorer residents cannot enjoy this benefit as it is difficult to get to libraries due to transportation costs and they lack sufficient leisure time (Toyama 2018).

Informal traders in Africa mainly use Mobile ICT; the use of other ICTs such as desktop computers is minimal as these devices cannot be easily transported. The invention of Mobile ICT has seen many businesses increase their communications with stakeholders, which is attributed to the easy accessibility of mobile phones at any given time. The reduction in other kinds of ICT is due to their size, cost, and inaccessibility, as well as a preference for Mobile ICT which can be used for both social and business reasons (Allen 2018).

Now that Mobile ICT is being adopted across Africa and most developing countries, the focus is shifting to using ICTs to minimise poverty and improve business operations (Mwantimwa 2019). The adoption of Mobile ICTs helps informal traders to minimise business expenses and travelling time as they can compare prices and conduct business online, thereby expanding their customer networks (Pankomera & van Greunen 2019).

### **3.3.3 Mobile ICT as a communication mechanism**

Mobile devices paired with networks can be used as advertising and communication tools. The internet is the largest network in the world, which can be accessed by anyone, from anywhere, at any time (Ghasempour 2019). It is thus the most widespread marketing tool, which can help any business advertise its products through

internet marketing (e-marketing). E-marketing refers to the use of ICTs to promote awareness, and create and deliver products and services (Labanauskaite, Fiore & Stašys 2020).

The different categories of how people use the internet (Aung & Thein 2020) include:

- getting daily information such as the news;
- collaboration and communication such as e-mail and instant messaging;
- conducting day-to-day activities, for example, accessing financial services and online shopping; and
- entertainment such as listening to music, watching videos, and playing games.

The internet also brings advantages such as reducing communication fees by providing cheaper alternatives such as emails, instant messaging, and social network platforms (Pankomera & van Greunen 2019). Taking advantage of such platforms eliminates telephone calls which are more expensive, especially over long distances. The WhatsApp platform also recently introduced video calls, which enables one to see the person they are talking to at an exceptionally low cost. If people have internet access, they can make unlimited calls at low cost, unlike a normal telephone call where you are charged for every minute you spend on the phone.

Internet platforms further enable video conferencing (Archibald, Ambagtsheer, Casey & Lawless 2019) through applications such as Zoom, which makes it possible for people to have meetings while in different places and at the same time get to see each other. This facility enables traders to have virtual meetings with their customers and suppliers, while seeing or showing their products simultaneously. This has an advantage in that the traders and customers get to see their products before buying them and making informed decisions before making any payments.

Mobile ICT goes further by providing tracking capabilities for products and services. The tracking of products begins in the factory, where technology [both mobile and fixed] is used to track and measure products' progress and quality (Alalwan 2020).

### **3.4 Dynamic Capabilities**

Small businesses exist in rapidly changing environments, where everything ranging from markets to customer requirements are rapidly changing, resulting in the need to adopt effective survival strategies such as flexibility and innovation, hence the need

for dynamic capabilities (de Vrande, De Jong, Vanhaverbeke & De Rochemont 2009; Parida, Oghazi & Cedergren 2016).

To survive in the ever-changing business industry, organisations attempt to structure their plans in two categories of planned capabilities identified as: organisational resources and organisational competencies. The materials or resources that a business relies on for the achievement of its business goals and objectives are its resources, and how these resources are used for productivity purposes are its competencies (Krzakiewicz & Cyfert 2017). The dynamic capabilities theory regards a business' plan as action taken by management where the focus should be on the business' strengths and weaknesses (Khan, Daddi & Iraldo 2020).

In this case, 'dynamic' refers to a business' ability and potential to develop abilities to remain relevant in the evolving industry atmosphere (Krzakiewicz & Cyfert 2017). The dynamic capabilities theory is an attempt to clarify how new capabilities can be developed and how novel resources and capabilities and combinations can help small business organisations to achieve a competitive advantage when faced with rapidly changing technological and market conditions (Khan, Daddi & Iraldo 2020; Krzakiewicz & Cyfert 2017). Dynamic capability theory strives to give an analysis of why some businesses succeed and others fail in competitive dynamic environments (Ferreira, Coelho & Moutinho 2020). This research aimed to understand how and why some informal traders successfully use Mobile ICT, and whether there is an advantage to using Mobile ICT. The dynamic capability theory thus informed the theoretical framework of this proposed study.

Organisational capabilities are designed to use a business' resources to meet its goals, whereas dynamic capabilities are developed to combine a business' resources to help it remain relevant in a rapidly changing business atmosphere (Hashim, Raza & Minai 2018; Lin & Tsai 2016). It is recommended that small businesses adopt specialised resources and processes that are important for their survival and performance if they need to develop dynamic capabilities (Hashim, Raza & Minai 2018). Such resources include human resources and specialised equipment such as Mobile ICT, which falls under ICT capabilities.

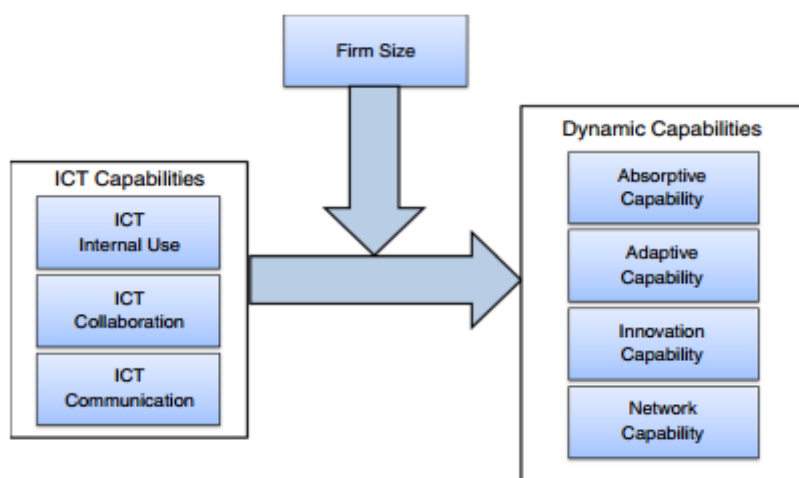
Small businesses can adopt ICT capabilities to develop dynamic capabilities (Parida, Oghazi & Cedergren 2016). The majority of small businesses do not have structured

Information Technology (IT) departments, equipment and processes in place, resulting in the need for a revision of their ICT capabilities (Santoro, Ferraris & Winteler 2019). There is thus a need for a proper management of IT resources to ensure that goals will be met by achieving dynamic capabilities (Osabuohien & Karakara 2018).

Despite the benefits brought about by ICT capabilities, firms have challenges migrating from one technology to another. The adaptability of firms from one technology to another may be improved by a clearer picture and understanding of the relevant technologies available within their business line, however (Eggers & Park 2018). The adequate management and organisation of technology activities are needed to be successful (Sanchez & Terlizzi 2017), hence the need for properly managed ICT departments.

### 3.4.1 Relationship between dynamic capabilities and ICT capabilities

There is a close relationship between ICT capabilities and dynamic capabilities. Parida, Oghazi, and Cedergren (2016) set out the interrelationships between ICT capabilities and dynamic capabilities, as seen below in Figure 2.



**Figure 2: Relationship between ICT capabilities, dynamic capabilities, and business size (Source: Parida et al. 2016)**

Dynamic capabilities consist of four capabilities, namely absorptive, adaptive, innovative, and network.

### *Absorptive capability*

Absorptive capabilities are the business practices and procedures followed by an organisation to attain, integrate, convert and use knowledge to identify and develop dynamic organisational capabilities regarding the knowledge formulation and utilisation, which is used as a tool to gain a competitive advantage in the market (Zahra & George 2002). Absorptive capability empowers a business to discover and utilise external knowledge for commercial purposes (Cousins 2018; Broersma, Van Gils & De Grip 2016). A small business' absorptive capacity acts as a predictor for its ability to combine explorative and exploitative innovation. It has been discussed in different organisational theories in the fields of learning, innovation, dynamic capabilities, managerial cognition, and coevolution (Limaj & Bernroider 2019) that absorptive capabilities are often considered a key dynamic capability in the pursuit of innovation of a firm. Absorptive capacity deals with the knowledge gathering process and conversion and integration of a business' knowledge, which positively influences innovation ambidexterity (Limaj & Bernroider 2019; Broersma, Van Gils & De Grip 2016).

Absorptive capabilities are as useful to small businesses as they are to larger businesses, although the capability level is usually lower for small businesses because of limited resources (Cousins 2018). There are three ways, according to Parida et al. (2016, p. 184) in which ICT capabilities positively impact a business' absorptive capabilities:

- The ability of small businesses to use ICT such as scanning mechanisms to discover and use data and knowledge to improve internal operations. Training employees to effectively use ICT results in identifying and accessing external technologies that benefit the business.
- ICT can be used to maintain collaboration with stakeholders, which is critical for creating absorptive capabilities.
- ICT can be used for communication within the business through a management information system which will allow the sharing and storing of gathered information.

If, for example, an organisation improves its communication using ICT, employees in the organisation will follow the set IT standards when communicating, which will ease



the dissemination of knowledge from one level in the organisation to another (Podrug, Filipović & Kovač, 2017). In this way, the adoption of ICT capabilities might positively influence a firm's operations and hence productivity.

Informal traders can adopt absorptive capabilities by identifying and absorbing potential information and knowledge about their small businesses; ICT provides many databases where one can gather and acquire such information and knowledge. Absorptive capabilities also support and maintain ICT collaboration. Informal traders can partner with other people in their same line of business and work together to improve their small businesses. ICT can further be used for communication purposes with partners, and information systems can be used to store and centralise data for it to be accessible to all business partners.

#### *Adaptive capability*

Adaptive capabilities refer to a business' capability to discover and benefit from evolving market prospects (Ngo, Bucic, Sinha & Lu 2019). This requires strategic flexibility and agility (Parida, Oghazi & Cedergren 2016, p. 184). Adaptive capabilities have three interrelated aspects: technological aspects, external market aspects, and internal organisational aspects. Their major benefits are responding to external product-market prospects, investment in marketing processes, and reduced response time to evolving business environments (Ngo, Bucic, Sinha & Lu 2019; Biedenbach & Müller 2012; Tuominen, Rajala & Möller 2004). Once a firm acquires adaptive capabilities, it will be better positioned to face evolving problems in the market by aligning its internal resources, thereby demonstrating dynamic capabilities (Ngo, Bucic, Sinha & Lu 2019).

Adaptive capabilities cover technological aspects, which, in turn, support ICT capabilities. ICT capabilities can be referred to as a business' capacity to use different technologies for business activities (Parida, Oghazi & Cedergren 2016; De Mori, Batalha & Alfranca 2016), including using computer networks, electronic commerce, Mobile ICT, and other ICTs that small businesses can adopt (Qosasi et al. 2019). ICT capabilities may be beneficial to large and small firms in many ways, including increasing internal productivity, initiating and maintaining collaboration with

stakeholders, and improving the business' communication processes (Mikalef, Boura, Lekakos & Krogstie 2019).

ICT capabilities can improve a business' adaptive capabilities in the market in the following ways (Parida, Oghazi & Cedergren 2016):

- ICT use for internal productivity improves a business' capability to search for external knowledge and develop strategies to respond based on the obtained information. ICT can also be used to develop business processes that improve a business' adaptive capability through, for example, management information systems.
- ICT can improve collaboration, which enhances adaptive capability by improving an organisation's responsiveness through collaboration with virtual markets to get real-time updates on evolving market environments. Collaborations with stakeholders also provide details on predicted market behaviour.
- ICT for communication brings about two benefits to informal traders, leading to the creation of adaptive capabilities. Enhanced communication results in easier ways to decode external information, while ICT-enabled communication improves a small business' capability to manage its internal operations.

### *Innovation Capability*

There are two categories of innovation capability – incremental innovation, where innovative incremental capability is defined as the firm's ability to create inventions that improve current products and services; and radical innovative capability, which refers to the firm's ability to create inventions that convert current products and services (Mikalef et al. 2019). Innovation can be achieved in many different ways, including introducing new products and services, inventing new methods of production, discovering new markets, engaging new suppliers, and introducing new systems (Soto-Acosta, Popa & Palacios-Marqués 2016). Small business can adopt innovation capability to survive in evolving business atmospheres, and can be used by businesses as an effective tool to support their competitive advantage (Ahluwalia, Mahto & Walsh 2017).

ICT capabilities can improve a business' innovation capability in many ways (Parida et al. 2016, p. 185):

- The use of ICT for internal productivity helps the business reduce costs by using ICT systems to monitor business resources.
- Using ICT to maintain collaboration with stakeholders exposes the business to external information, thereby improving innovation.
- ICT can be used to initiate new network relations with partners worldwide as ICT does not have boundaries. This can help small businesses develop new business ideas and penetrate international markets (Biedenbach & Müller 2012).
- Using ICT for communication enables small businesses to react to customers' requirements and meet their needs, which is critical to a business' success (Parida, Oghazi & Cedergren 2016, p. 186).

### *Network Capability*

Network capability refers to a business' capacity to develop, maintain, use and benefit from external relationships (Parida, Pesämaa, Wincent & Westerberg 2017). Businesses that possess network capabilities can be exposed to competitors' resources by initiating and using inter-organisational networks (Parida, Oghazi & Cedergren 2016, p. 186). Network capability covers four functions: coordination, relational skills, partner knowledge, and internal communication (Walter, Auer & Ritter 2006 cited by Parida, Oghazi & Cedergren 2016).

Because of their limited resources, small firms cannot efficiently use and manipulate their network relations with external parties (Parida, Pesämaa, Wincent & Westerberg 2017). The ability to develop network capability can help small businesses to minimise the challenges that they face in the business environment, focus on running their business, and gain a competitive advantage in the process (Raza, Minai, ul Haq & Zain 2018). Therefore, firms with network capabilities possess an advanced ability to create new knowledge routines with external actors (Behnam, Cagliano & Grijalvo 2018). Thus, informal traders can build network capability by using Mobile ICT to communicate with competitors, suppliers, and customers, and acquire external knowledge from the market, thereby achieving a competitive advantage.

### **3.5 Summary**

Mobile ICT includes technologies that enable access to data and information from anywhere in the world, including mobile money transfers and mobile telecommunications. Mobile ICT is used by businesses for different purposes, including communication and finance, with the internet providing most of the connectivity. The literature review revealed a relationship between ICT capabilities and dynamic capabilities, and informal traders can benefit from adapting absorptive, adaptive, network, and innovation capabilities. Chapter 4 gives a detailed account of how the data for this study were collected and analysed.

## Chapter 4

### 4 Research Design and Methodology

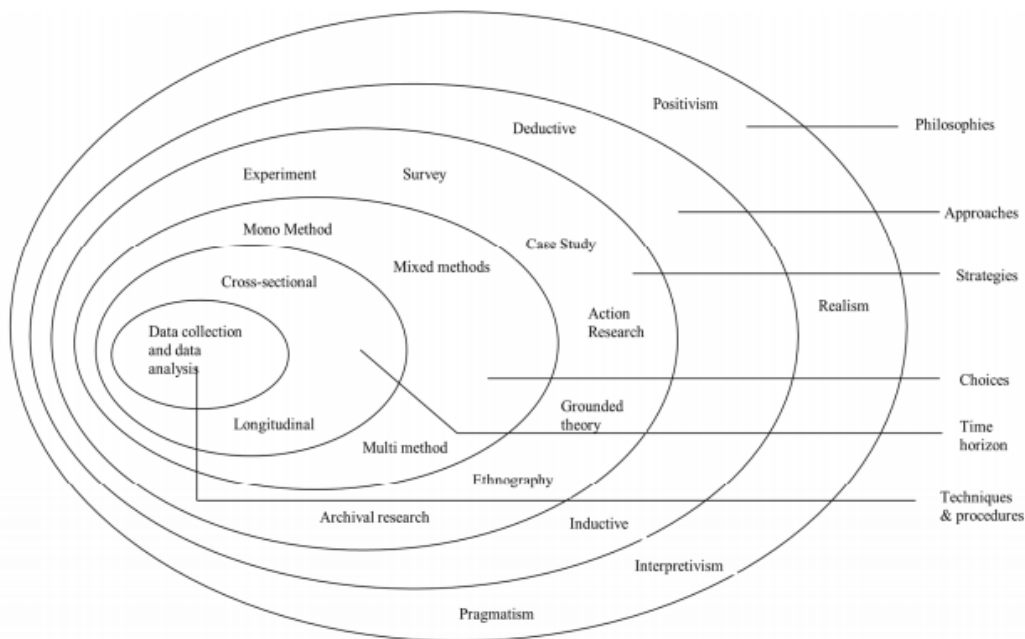
#### 4.1 Introduction

Chapters 1, 2, and 3 provided a comprehensive background to the study, which aimed to answer the following research question: *How are mobile technologies being used by informal traders in Windhoek to aid Namibian businesses?* This chapter outlines the research strategy used and offers justifications for making sense of the research problem using the qualitative, interpretative research approach.

#### 4.2 Research Design

Research design refers to the process of bringing together different elements of a study rationally and logically to ensure that the research problem is adequately addressed or solved. It includes the blueprints for data measurement, collection, and analysis (Creswell 2009; Collis & Hussey 2013). Research design is the overall plan for connecting the conceptual research problems to the pertinent [and achievable] empirical research (Creswell & Poth 2017; Marshall & Rossman 2014).

In coming up with the research design, the researcher adopted the research onion approach, which saw them making a series of decisions and conducting a systematic literature review before deciding on an overall approach to the research design and a method of collecting data (Saunders, Lewis & Thornhill 2009), as per Figure 3 below.



**Figure 3: The Research Onion (Source: Saunders, Lewis & Thornhill 2009)**

#### 4.2.1 Research philosophy

A research objective guide the choice of methods and research strategies that will be dopted in a study (Al-Zefeiti & Mohammad 2015). Knowledge gained, how this knowledge is formed, and how the researcher sees things, thus determine the philosophy they follow (Saunders, Lewis & Thornhill 2009).

As shown in Figure 3 above, there are four research philosophies: interpretivism, positivism, pragmatism, and realism. The pragmatist philosophy believes concepts are only relevant if they support action; it recognises that there are many diverse interpretations of how to view the world, that there are several ways of doing research, that no single idea can give a clear picture, and that there are multiple realities (Maarouf 2019). The realist philosophy, on the other hand, depends on the theory of independence of existence from the human mind (Price & Martin 2018), while the interpretivist philosophy is concerned with understanding the way researchers understand and view the world around them (Riemer & Johnston 2019; Saunders 2016). Finally, the positivist philosophy is the qualified position that promotes working with a discernible social reality (Bonell, Moore, Warren & Moore 2018; Saunders, Lewis & Thornhill 2009).

The interpretive research philosophy was used in this study as it best addressed the research questions and offered an understanding of how a person can make sense of a given subject (Neate, Taylor, Jelinek, De Livera, Marck, et al. 2018).

#### **4.2.2 Research approaches**

A number of research approaches exist and these include the deductive approach and the inductive approach. The deductive approach develops a theory and hypotheses, with a research strategy then being designed to test the hypotheses. The inductive approach starts with data and develops a theory after data analysis (Saunders, Lewis, Thornhill & Wilson 2009). In this research, an inductive approach was used as the data were collected first.

#### **4.2.3 Research strategy**

A research strategy has been described as a road map towards the objective of a study, which sets out how to accomplish said objective. The various research strategies available include surveys, case studies, archival research, grounded theory, experiments, action research, and ethnography. A case study with a deductive, interpretive cross-sectional approach research strategy was adopted for this study, as it enabled the researcher to assess whether scientific hypotheses and models work in the real world (Saunders, Lewis & Thornhill 2009).

#### **4.2.4 Research method**

Research methods can be quantitative, qualitative, or mixed method (Taguchi 2018). Quantitative design typically defines the research factors in a study, such as the type of data to be collected, the sampling and recruitment techniques, data management and analysis plans, and the data collection procedures (Roni, Merga & Morris 2020). It further involves gathering and manipulating data into numbers to make calculations using mathematical methods, as well as for drawing conclusions (Taguchi 2018).

Qualitative research involves collecting and analysing non-numerical data from interviews, conversations, focus groups, and observations by the researcher (Taguchi 2018), and examines people's lived experiences in their context.

Mixed methods research is an approach that involves gathering, analysing, and interpreting data from both qualitative and quantitative research within the same study or series of studies that are investigating the same fundamental phenomenon. This

method is used when applying one of the methods (qualitative and quantitative) individually will not provide a better understanding of the research problem (Molina-Azorin 2017).

Deciding on the appropriate research method depends on different aspects of the study, such as the research topic, research objectives, and research questions (Taguchi 2018; Saunders, Lewis & Thornhill 2009). The research questions in this study were predisposed towards open-ended information, and as such, the responses resulted in the collection of qualitative data. For this reason, the qualitative research method was used as it allowed the researcher to gather perceptions, ideas, and opinions from the informal traders.

#### **4.2.5 Time horizons**

Research may be time-constrained or 'snap shot' [cross-sectional] research, or it may require longer time duration (Saunders, Lewis & Thornhill 2009). This study was cross-sectional as data were collected without altering the study environment. The data were also collected from participants who were in the same environment at the same time, but had different perceptions and opinions. A cross-sectional study is an observational study that analyses data collected from interviewees who have some similarities, but have key differentiating factors of interest such as geographic location, age, sex, or income levels (Bell & Jones 2015).

#### **4.3 Population**

A population can be defined as a comprehensive grouping of individuals or objects that can focus on a scientific query (Saunders 2016). In this study, the population comprised the informal traders in Windhoek's city centre, particularly those in the Post Street Mall and Hilton Hotel markets. These informal traders are recognised by the City of Windhoek and have their places of operation reserved for selling and trading goods and wares to the public and tourists.

#### **4.4 Sampling**

A sample represents a population where it would be impossible to survey the whole population or budget constraints prevent the researcher from surveying the entire population (Bujang, Sa'at & Bakar 2018). A purposive and convenience sample of informal traders who were proficient in written and spoken English at the Hilton Hotel market and Post Street Mall amounted to 34 respondents. This approach was adopted



when coming up with the sample as it was difficult to get all the informal traders in one place at the same time.

#### **4.5 Data Collection**

Data collection is a systematic approach of collecting and quantifying information from various sources on targeted variables, which allows a researcher to answer relevant questions and draw outcomes. For data collection purposes, the researcher utilised interviews during which the participants gave voluntary responses to avoid a breach of ethics. Primary data were used in this study.

##### *Interview: Design*

The interview questions were broken down into eight segments, as presented in Appendix A. The questions were based on literature about obtaining adaptive, absorptive, network, and innovative capabilities, with guidelines by Bakker (2018) being adopted.

#### **4.6 Reliability and Validity**

Validity refers to how well the data collection process and method accurately measured what they were intended to measure (Rose & Johnson 2020; Saunders 2016). In qualitative research, this is generally referred to as trustworthiness, which is achieved by ensuring credibility, transferability, dependability, and confirmability (Taguchi 2018; Golafshani 2003). Credibility refers to the researcher's character, persona, bias, training, experience, coding, and generalisation of the research outcomes (Shufutinsky 2020), whereas transferability means the ability to apply the results from the study to other contexts and settings to achieve generalisation (Maxwell 2021). To achieve transferability, detailed descriptions of the study's population, participants and data collection process are made available for other researchers. Dependability involves the consistency of findings (Kyngäs, Kääriäinen & Elo 2020), which is achieved by the provision of a thick description of the results obtained from analysing collected data and interpreting results to make the study auditable (Treharne & Riggs 2014; Shenton 2004). Finally, confirmability allows other researchers to verify the study results (Haven & Van Grootel 2019). For this to be possible, the raw data that were collected from this study are kept safe and made available when requested.

To ensure authenticity and adequacy, results were checked with participants to ensure that the results are reasonable, useful, meaningful, and resemble the population fairly (Rose & Johnson 2020).

During the study, the following were considered:

1. Appraisal of existing dynamic capabilities theory on which the study is based on.
2. Using qualitative research paradigm to design a research instrument.
3. Consideration of ethics.
4. Consistent coding and categorisation techniques (Owoseni & Twinomurinzi 2017).

#### **4.7 Data analysis**

Data collected from this study were analysed using thematic analysis, which is a technique in qualitative research whereby the researcher analyses the data by identifying, examining (coding), and recording “themes”. Themes are patterns that appear across the data sets being analysed that a researcher sees as relevant to a specific research question (Maguire & Delahunt 2017).

Coding is an analytical process that is used in order to understand qualitative data. Labels are assigned to words, phrases, or sentences, thereby helping the researcher to understand a phenomenon and develop structures (Nowell, Norris, White & Moules 2017).

As the purpose of coding in this study was to identify constructs, the analysis used the “process coding” method in the first cycle coding procedure, and thereafter categorised identified codes by exploring the underlining meaning and the relationships between the codes (Owoseni & Twinomurinzi 2017). The collected data were analysed by identifying patterns of importance within them to identify central themes (Phoenix & Orr 2017).

#### **4.8 Role of the researcher**

In qualitative research, to help the reader understand the perspectives that lead to a research conclusion, it is important to understand what researcher bias is and its effect on the final research outcome (Klein & Myers 1999). The researcher was resident in Windhoek and is employed as a full-time systems developer, hence his interest in a

study of how ICT can improve businesses in Windhoek. The researcher travelled the breadth of the country during his work, visiting and liaising with clients. The researcher is also a volunteer mobile development trainer and developer circle member at the Namibia Business Innovation Institute. The researcher has done work on enterprise systems, Customer Relationship Management Systems (CRMs), Enterprise Resource Planning (ERP), and Asset Management Systems for medium to large enterprises, primarily working on developing customisations and making large systems work for organisations.

#### **4.9 Ethical issues**

Saunders (2016, p. 249) defined research ethics as “the standards of behaviour that guide conduct concerning the rights of those who become the subject of the research work or are affected by it”. This study followed ethical and moral guidelines throughout the course of the study.

The researcher used mainly information gathered from this research and from the literature review to conclude the study. No force was used with the respondents, and their consent was sought first. Ethical clearance to conduct the study in Windhoek was obtained from the City of Windhoek Municipality, and ethical approval from the University was also received.

#### **4.10 Summary**

A deductive, qualitative, interpretive cross-sectional approach was adopted because it allowed the respondents to make sense of the subjective reality and attach meaning to it. Data were collected through interviews where the respondents took part voluntarily. The onion ring method by Saunders et al. (2009) was adopted to come up with the most suitable research approach for the study. Ethics and morals were adhered to during the study.

## **Chapter 5**

### **5 Research Findings**

Chapters 1 to 4 outlined the focus of the study by defining the research and sub-research questions. The theoretical framework was also provided, as was a detailed description of the population, sample, and location of the study. This chapter presents the data analysis and a discussion of the findings.

#### **5.1 Sample Description**

Data were collected from a convenience sample of 34 respondents who used market stalls to conduct their businesses at the Hilton Hotel market and Post Street Mall in Windhoek. To ensure the anonymity of the respondents, the names of the informal traders were not requested during data collection, but rather codes R1 to R34 were used to identify them. The interviews were conducted over two weeks between 6 November and 22 November 2019. Twenty of the respondents were female and 14 were male, with ages ranging between 22 and 50 years.

When asked what led them to set up their businesses, 74% of the respondents highlighted poverty and unemployment as the motivating factor. The remaining 26% were motivated by the need to provide services to their communities and follow their passion.

#### **5.2 Summary Review of Data Collection Process**

The data collection process was guided by the interview questions that are attached in Appendix A. Each respondent was asked the same set of interview questions and their responses were noted down and analysed.

### 5.2.1 Searching for codes

Using the data collected from the study, codes were formulated for each sub-research question as shown below. Themes were then generated by reviewing the summarised codes to identify similarities. The themes generated had meaningful patterns that helped to answer the research questions regarding the use of Mobile ICT and the dynamic capabilities employed by informal traders in Windhoek.

#### Sub-Research Questions

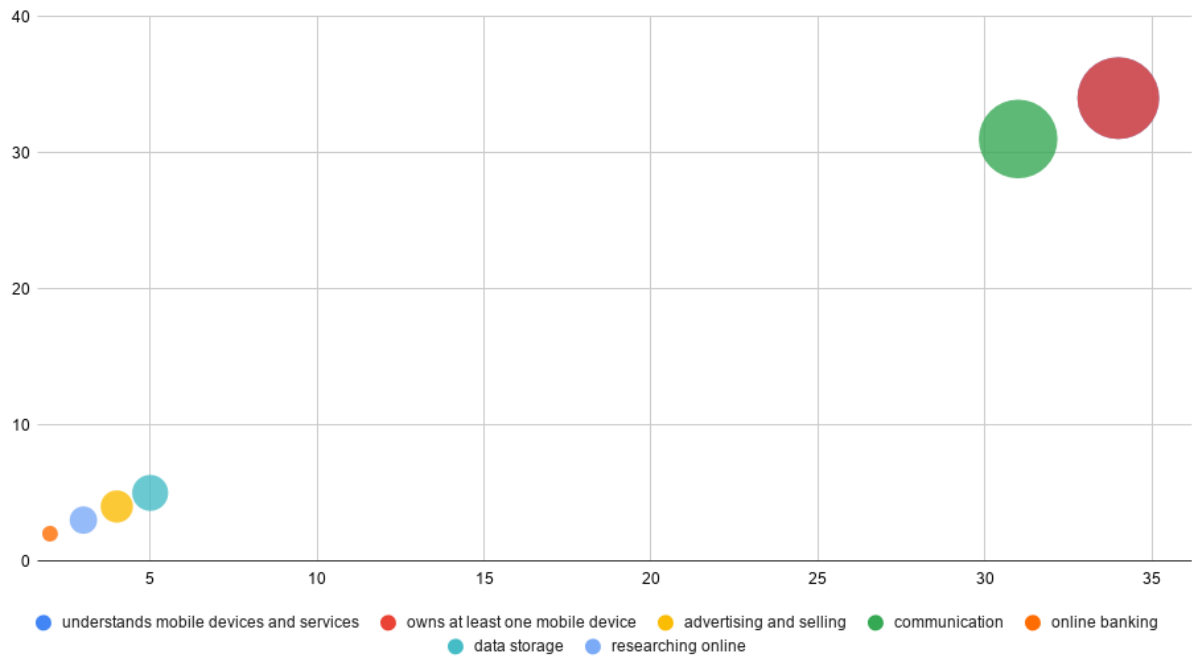
**SR<sub>1</sub>:** To what extent do informal traders in Windhoek use Mobile ICT as part of their business?

Category	Codes	Frequency
Mobile ICT understanding	Understands mobile devices and services	34
	Owns at least one mobile device	34
Mobile ICT use	Advertising and selling	4
	Communication	31
	Online banking	2
	Data storage	5
	Researching online	3
<b>Total</b>		<b>113</b>

**Table 5.1: SR<sub>1</sub> Responses**

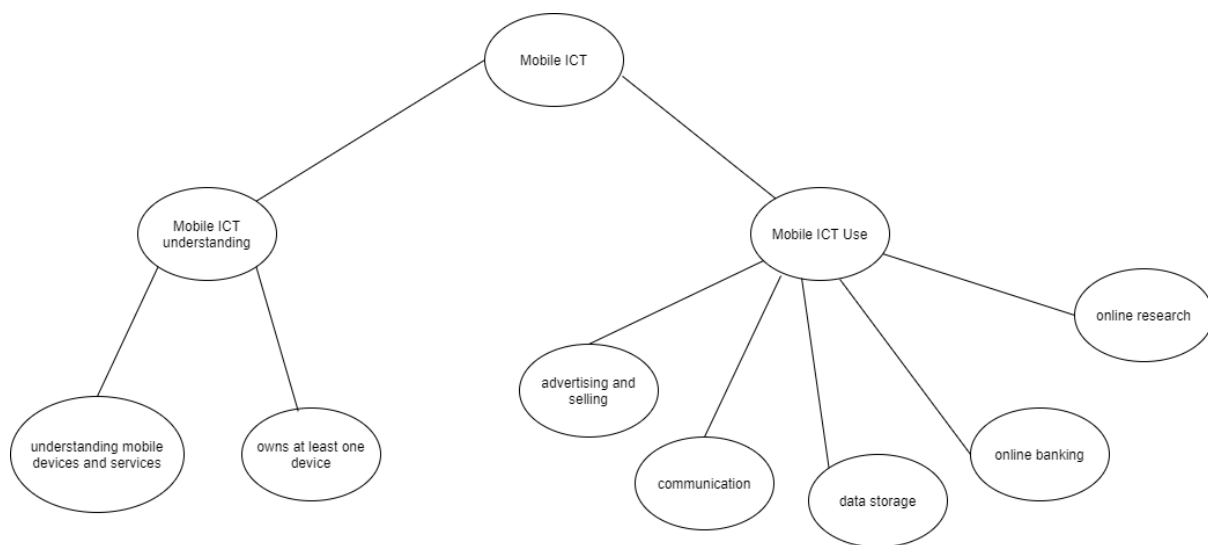
The bubble chart below was generated from the table above to display the data and show the relationships between the codes.

### SR1 Responses



**Figure 4: SR<sub>1</sub> Responses**

The Table 5.1 above shows the codes derived from the responses to the questions that supported SR<sub>1</sub>. The network diagram below shows the relationships between the categories and the codes extracted from the research data for sub-research question 1.



**Figure 5: SR<sub>1</sub> Network diagram**

## **Mobile ICT Use**

The most common uses of Mobile ICT that were identified during the study were advertising and selling, communication, online banking, data storage, and online research, with communication being the most common with a frequency of 31. Informal traders in Windhoek also use Mobile ICT for advertising and selling purposes to create awareness of the products and services they offer to existing and potential customers. Advertising is done through websites and social media, especially on WhatsApp platforms and Facebook. Informal traders post pictures of their products and create posters of goods and services offered on different online platforms. After seeing these adverts, customers can buy and pay for the goods online using bank transfers, blue-wallets or e-wallets, which are services offered by banks to ensure an easy transfer of funds from one person to another. This service was identified during the study as online banking.

Informal traders also use Mobile ICT to pay their suppliers, which has eliminated the need to visit a bank whenever they need to conduct transactions, thereby allowing business to be done anywhere.

The results from the study further revealed that informal traders in Windhoek use Mobile ICT for research purposes. The traders advised that they research various information [supplier details, product information, market demands, customer preferences, information on competitors, and other business-related information] online, and then store said data on their mobile devices. This revealed that informal traders in Windhoek also use Mobile ICT for data storage purposes. The availability of Mobile ICT allows them to store large amounts of data and create multiple back-ups online that are accessible from anywhere if the devices being used are connected to the internet.

The interviews also revealed that informal traders use Mobile ICT for communication with customers, suppliers, shareholders, employees, and competitors through various platforms availed by Mobile ICT. These platforms include phone calls, text messages, video conferences through WhatsApp, and calls and texts on social media. Most of the informal traders indicated that they have WhatsApp groups through which they can easily communicate with their customers. They also highlighted that they send text messages to their customers as some of their customers do not own smartphones or

might not always have mobile data. The traders highlighted that Mobile ICT has simplified the way they communicate with their suppliers, explaining that video calls help them view the products that are being sold by suppliers without having to meet with the suppliers in person. They further explained that Mobile ICT has helped them to conduct online meetings with shareholders and competitors from anywhere in the world if they have mobile data on their devices. The findings from this study are inline with findings made by Wiredu, Labaran, Nketiah & Osibo (2020), Pankomera & van Greunen (2019) and Larsson & Svensson (2018) which reveal how other informal traders in other parts of the world are using technology in their informal businesses.

Simplified communication was thus highlighted as the major benefit of Mobile ICT, as it helps informal traders to cut down on transport costs as there is no need to travel to different places to meet with shareholders. Buying and selling can also be done online, which is made easier by simplified communication, which further helps informal traders to maintain customer relationships and provide better customer services, which is key to retaining and attracting more customers. This will result in more sales and hence, increased profits.

**SR<sub>2</sub>:** What are the benefits and drawbacks of Mobile ICT usage among informal traders?

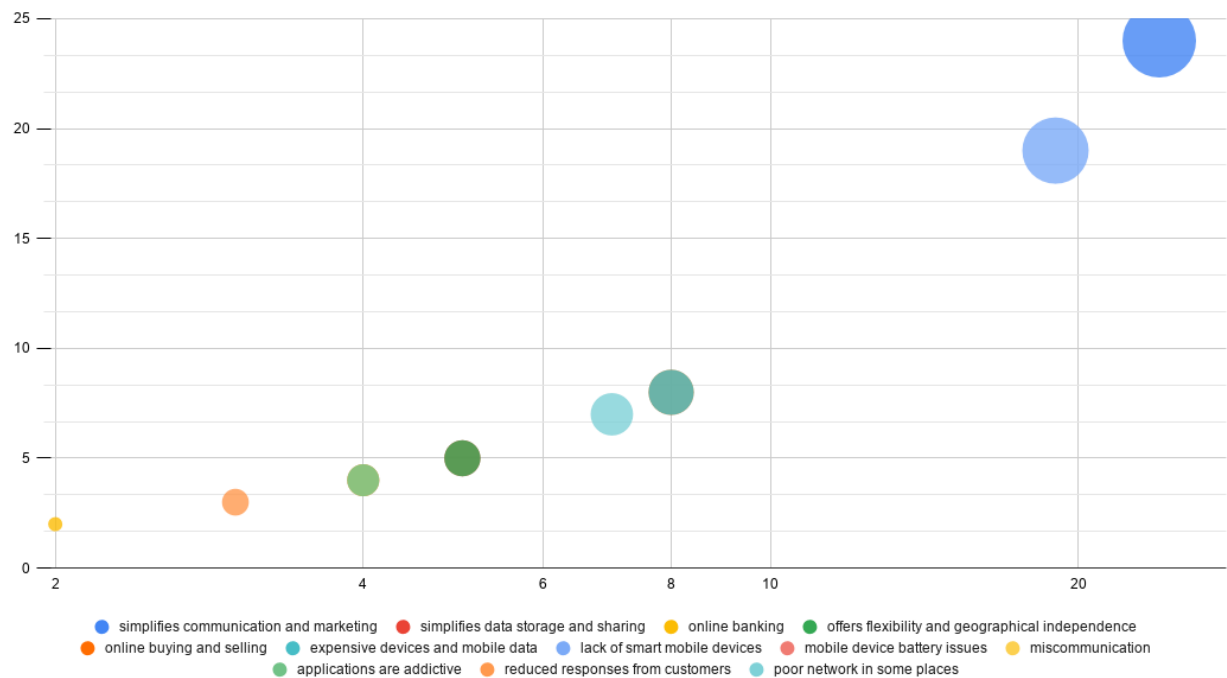


Category	Codes	Frequency
Benefits of Mobile ICT	Simplifies communication and marketing	24
	Simplifies data storage and sharing	5
	Online banking	2
	Offers flexibility and geographical independence	5
	Online buying and selling	8
Drawbacks of Mobile ICT	Expensive devices and mobile data	27
	Mobile device battery issues	4
	Miscommunication	4
	Applications are addictive	4
	Reduced responses from customers	3
	Poor network in some places	7
<b>Total</b>		<b>92</b>

**Table 5.2: SR<sub>2</sub> Responses**

The bubble chart below was generated from the table above to display the data and show the relationships between the codes.

## SR2 Responses



**Figure 6: SR<sub>2</sub> Responses**

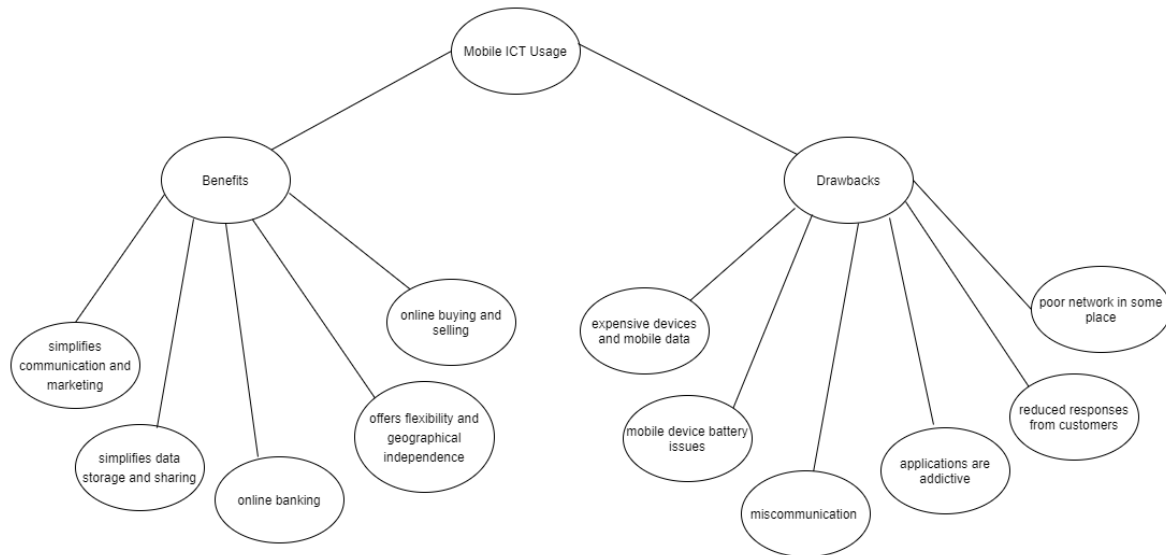
### Benefits and drawbacks of Mobile ICT usage

Mobile ICT's identified benefits were simplifying communication and marketing, simplifying data storage and sharing, online banking, flexibility and geographical independence, and online buying and selling. Simplifies communication and marketing had the highest frequency of 19; online banking was the least common response with a frequency of 2. These benefits can be classified under the following categories; getting daily information, collaboration and communication, conducting day-to-day activities and entertainment (Aung & Thein 2020) which are categories on how informal traders use technology.

The identified disadvantages were expensive devices and mobile data, a lack of smart mobile devices, mobile device battery issues, miscommunication, addictive, reduced responses from customers, and poor network access in some places and these findings are inline with Rumanyika et al. (2019)'s findings which saw informal traders adopting Mobile ICT despite its challenges. The most common disadvantage identified

by the users was expensive devices and mobile data with frequencies of 27, while reduced responses from customers had the lowest frequency at 3.

The network diagram below shows the relationships between the categories and the codes extracted from the research data for sub-research question 2.



**Figure 7: SR<sub>2</sub> Network diagram**

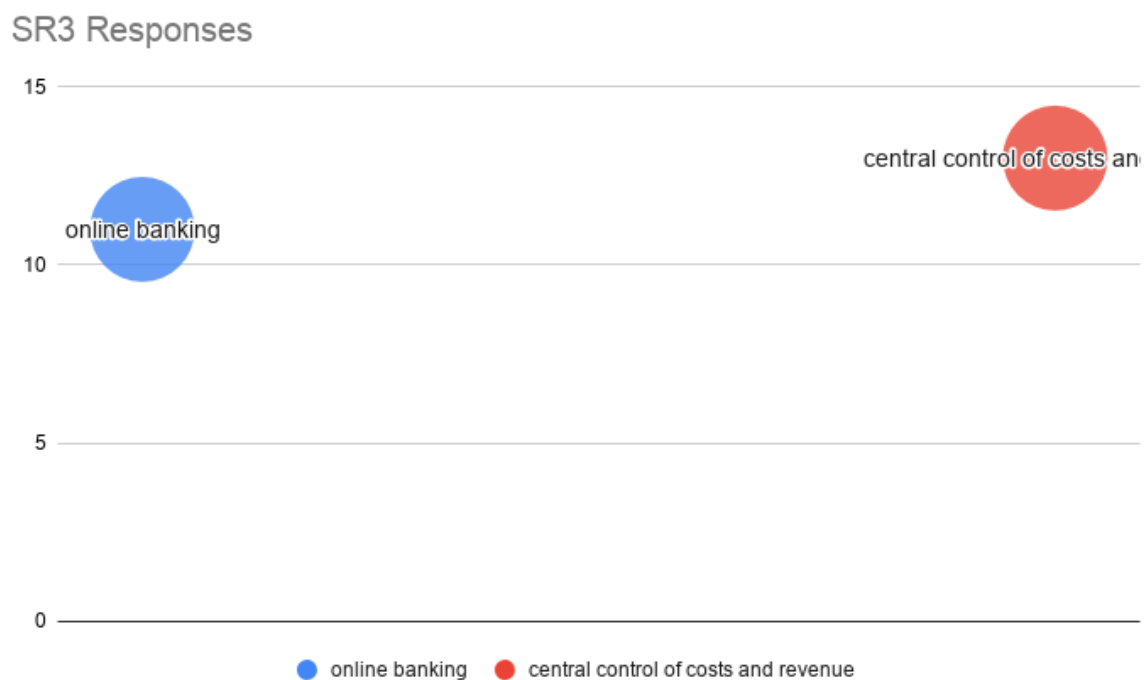
The informal traders advised that these disadvantages affect productivity and hence profit. For example, mobile gaming applications were singled out as being addictive, i.e. one might spend time meant for business planning playing games on the phone instead. Some of the traders owned basic mobile devices, who highlighted that smartphones are expensive. They therefore only have basic telephones with which to make calls and send text messages, leaving them with a lack of knowledge regarding how to use Mobile ICT services to improve their businesses. Others highlighted that mobile devices have battery issues, leading to the need to charge them frequently. When they do not have access to a charger, their mobile devices are turned off, resulting in them being unreachable. The traders further highlighted that mobile data is expensive, so they only turn their mobile data on at certain times to minimise their data usage. Additionally, some areas of Windhoek do not have network coverage, so this can result in the informal traders missing out on real-time updates.

**SR<sub>3</sub>:** What is Mobile ICT's role in managing the financial services of informal traders in Windhoek?

Category	Codes	Frequency
Contribution of Mobile ICT to financial services	Online banking	11
	Central control of costs and revenue	13
<b>Total</b>		<b>24</b>

**Table 5.3: SR<sub>3</sub> Responses**

The bubble chart below was generated from the table above to display the data and show the relationships between the codes.

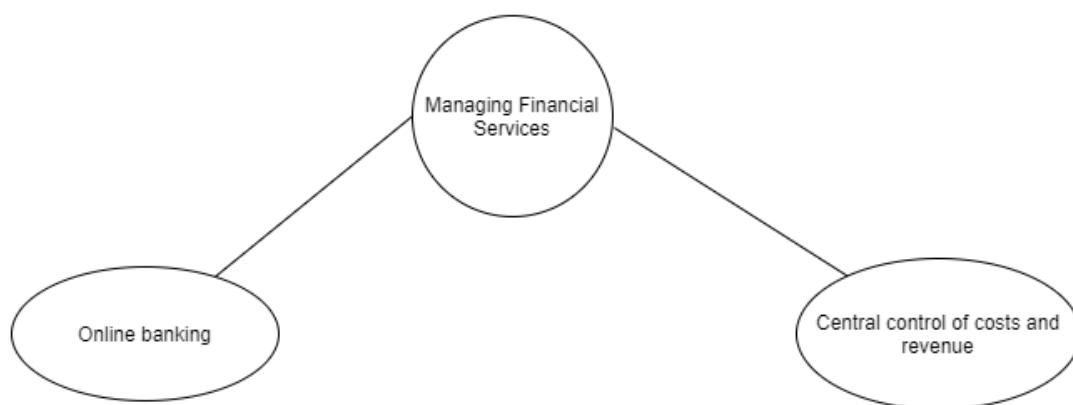


**Figure 8: SR<sub>3</sub> Responses**

## Financial Services Platform

The results in Table 5.3 above provide codes derived from the responses given in response to sub-research question 3, which intended to find out how informal traders use Mobile ICT to manage their financial services in Windhoek. The two most common responses identified were online banking with a frequency of 11, and central control of costs and revenues with a frequency of 13. Informal traders thus use Mobile technology to control their business costs and revenues as they can keep track of the funds that are coming into the business, as well as pay and control the costs incurred by the business. This helps them to minimise any overdrafts as they always have access to updated information regarding their account balances. It also helps them to keep track of payments made by customers and be able to follow up on outstanding payments. This is simplified by the availability of real-time updates on their account balances. Mobile banking can be used by informal traders to manage their financial transactions (Kim, Zoo, Lee & Kang 2018; Asongu, Nwachukwu & Orim 2018) and the findings outlined above show that informal traders in Windhoek also use Mobile ICT in the same manner.

The network diagram below shows the relationships between the categories and the codes extracted from the research data under sub-research question 3.



**Figure 9: SR<sub>3</sub> Network diagram**

**SR<sub>4</sub>:** How do informal traders in Windhoek use the internet to enhance their communication?

<b>Category</b>	<b>Codes</b>	<b>Frequency</b>
Strategies for business survival	Offer credits and discounted prices	11
	Delivering quality goods on time	5
	Constant market research	10
	Good customer care	6
	Marketing and advertising	9
	Spying on and imitating competitors	26
	Introducing new products	5
<b>Total</b>		<b>72</b>

**Table 5.4: SR<sub>4</sub> Responses**

The bubble chart below was generated from the table above to display the data and show the relationships between the codes.

SR4 Responses

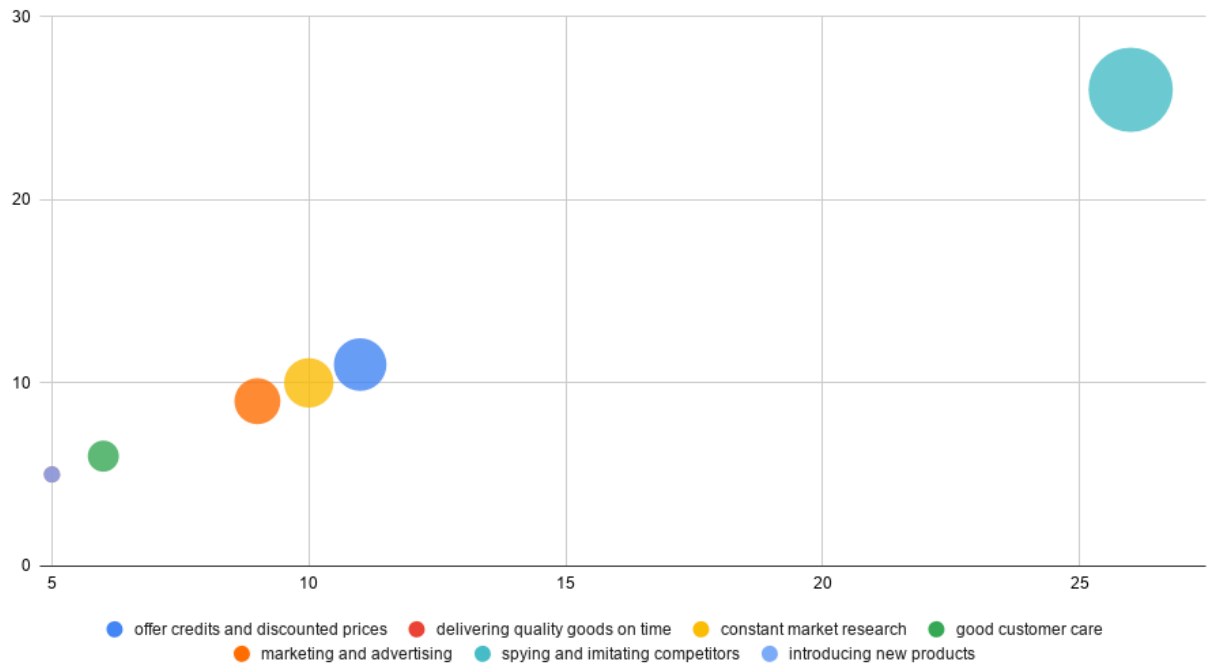


Figure 10: SR<sub>4</sub> Responses

The network diagram below shows the relationships between the categories and the codes extracted from the research data for sub-research question 4.

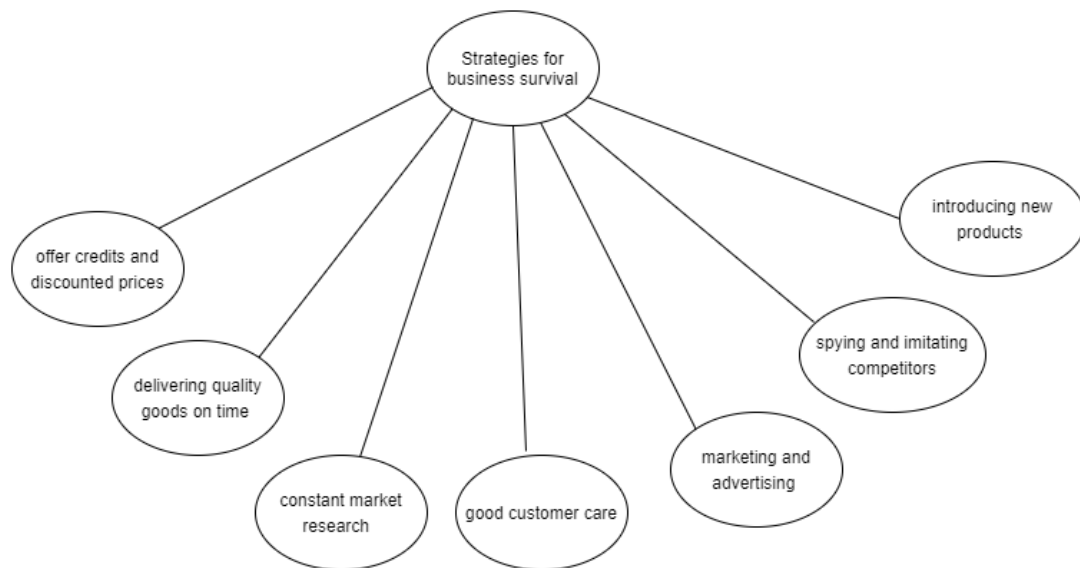


Figure 11: SR<sub>4</sub> Network diagram

## **Using the internet to improve business survival strategies**

Sub-research question 4 aimed to determine how informal traders in Windhoek use the internet to enhance their communication. The questionnaire helped to reveal that informal traders in Windhoek employ several strategies to survive in business, i.e. they offer credit and discounted prices, deliver quality goods on time, undertake continual market research, offer good customer care, utilise marketing and advertising, spy on and imitate competitors, and introduce new products. These strategies are thus the dynamic capabilities of informal traders in Windhoek, which have frequencies of 5, 5, 6, 9, 10, 11 and 26, respectively, with a total frequency of 72 for the whole category.

The study results revealed that most informal traders use the internet to spy on and imitate their competitors. By spying, the traders gather information such as how competitors conduct their businesses, what products they sell, which marketing strategies they employ, and the on-demand patterns of products that competitors are offering. With such information, the traders can imitate those techniques that will increase their productivity and sales. They also use the internet to market and advertise their businesses as the internet helps them reach many people. The majority of the traders advised that they mainly use social media platforms when advertising, highlighting the creation of WhatsApp groups as the most effective platform for them as it allows them to create posters of available products, send and receive orders from customers, send pictures, and communicate any important information about the business.

Facebook platforms, online shops and websites are only used by a few informal traders to promote their business. Some of the reasons given by the users who do not use these platforms included a lack of knowledge regarding how to use them, as well as expenses that may be incurred when setting up websites and online shops. The informal traders in Windhoek also use Mobile ICT platforms such as phone calls, text messages, social media and emails when making agreements with customers on payment plans, since informal traders offer credits to customers as a business strategy to increase sales. These agreements protect the informal traders in case some of the customers default on their payments, i.e. the various communication platforms make it easier for traders and customers to discuss the payment terms, and they provide a platform for traders to offer discounted prices to attract and maintain their customers.



Using the same platforms, the informal traders can check on their customers and find out if there are any products that they need, which helps to make sure that the customers are happy. The internet also makes it possible for informal traders to get instant feedback from their customers regarding their availability for deliveries, and reduces the possibility of delivery people finding no one at the designated destination.

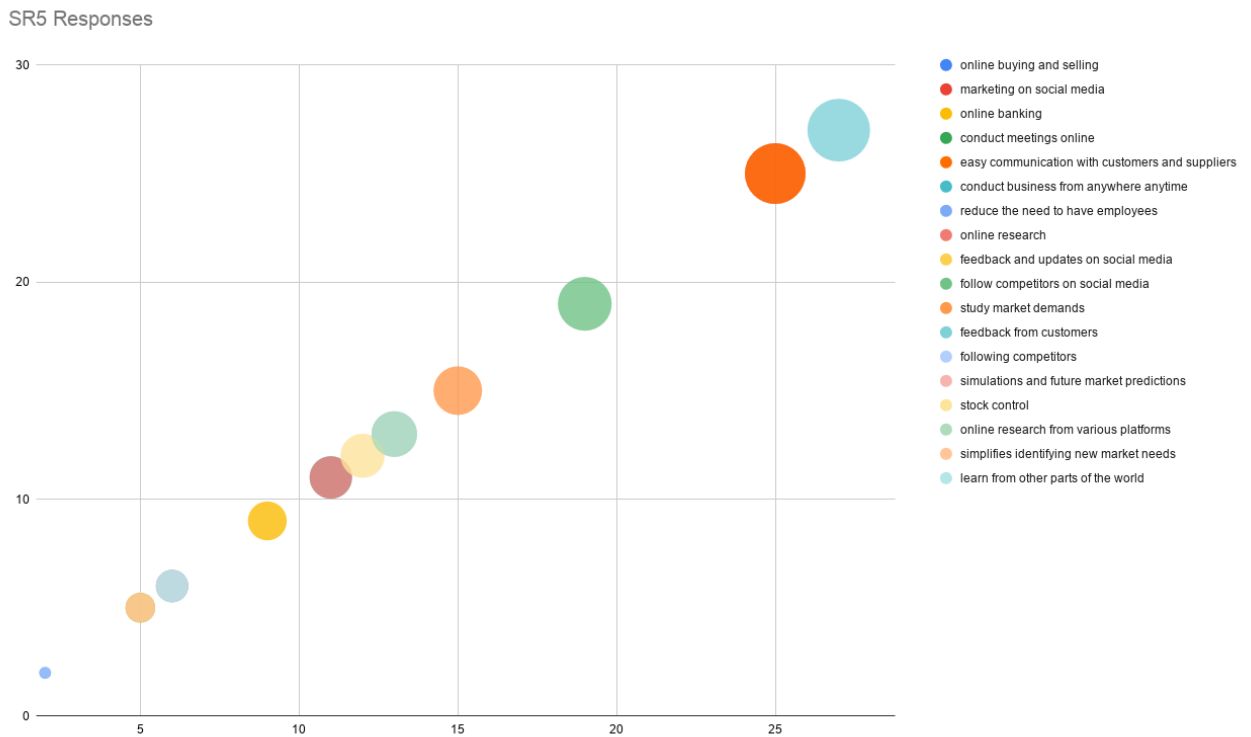
Other studies revealed that informal traders use the internet for buying and selling purposes, communication and collaboration purposes and for social purposes (Aung & Thein 2020; Pankomera & van Greunen 2019; (Archibald, Ambagtsheer, Casey & Lawless 2019) which is inline with the findings made in this study.

**SR5:** What are the absorptive capabilities of informal traders in Windhoek?

<b>Category</b>	<b>Codes</b>	<b>Frequency</b>
Business flexibility by using Mobile ICT	Online buying and selling	6
	Marketing on social media	25
	Online banking	9
	Conduct meetings online	5
	Easy communication with customers and suppliers	25
	Conduct business from anywhere, anytime	11
	Reduce the need to have employees	2
Absorbing external knowledge	Online research	11
	Feedback and updates on social media	5
	Follow competitors on social media	19
Identifying opportunities	Study market demands	15
	Feedback from customers	27
	Following competitors	13
How Mobile ICT help using external knowledge	Simulations and future market predictions	6
	Stock control	12
Using Mobile ICT to drive innovations	Online research from various platforms	13
	Simplifies identifying new market needs	5
	Learn from other parts of the world	6
<b>Total</b>		<b>215</b>

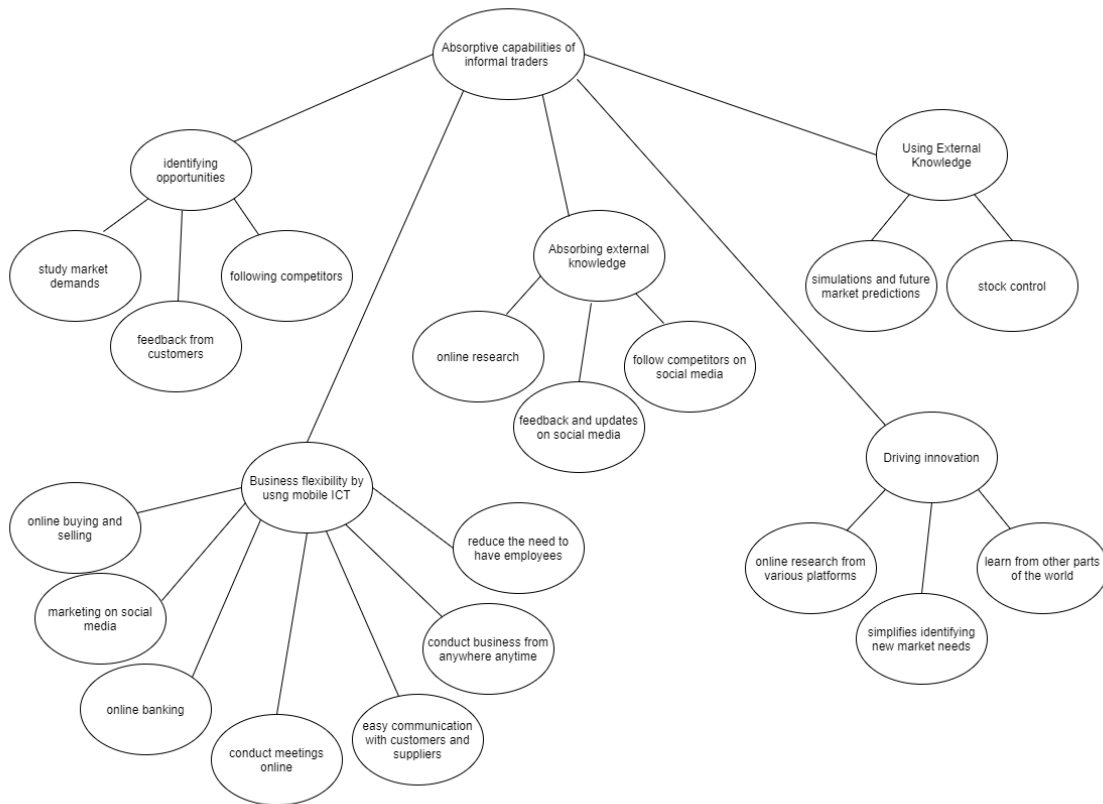
**Table 5.5: SR<sub>5</sub> Responses**

The bubble chart below was generated from the table above to display the data and show the relationships between the codes.



**Figure 12: SR<sub>5</sub> Responses**

The network diagram below shows the relationships between the categories and the codes extracted from the research data for sub-research question 5.



**Figure 13: SR<sub>5</sub> Network diagram**

### **Absorptive capabilities**

Sub-research question 5 focused on identifying the absorptive capabilities of informal traders in Windhoek. This section revealed how informal traders enjoy the flexibility introduced by Mobile ICT, with the responses including online buying and selling; marketing on social media; online banking; conducting meetings online; easy communication with customers and suppliers; conducting business from anywhere, anytime; and reducing the need for employees. The traders advised that they can attend meetings; perform banking transactions; and buy, sell, order and get supplies from anywhere, giving them more time and flexibility to chase other business opportunities.

Feedback from customers topped the list with frequencies of 27 while reducing the need to have employees had the lowest frequency of 2. This means that informal traders can save money that was meant for wages and salaries, which can now be accounted for as profits. Online research (11), feedback and updates on social media

(5) and follow competitors on social media (19) were identified as the techniques used by informal traders to absorb external knowledge. Informal traders then use this knowledge to study market trends and predict which products will sell fastest and where. The availability of various online databases and social media platforms makes it easier for informal traders to have access to such data, thereby improving the informal traders' absorptive capabilities.

The responses collected under this section also revealed that informal traders use the study of market demands, feedback from customers, and following competitors as strategies to identify new opportunities and drive innovations. Informal traders use Mobile ICT to do this through online research via various platforms, simplifying the identification of new market needs and learning from other parts of the world. The frequencies for this section were 13, 5 and 6, respectively. The information absorbed by the informal traders helps to provide new ideas that improve their businesses, as some products are seasonal and as a result they must continuously search for market opportunities to remain relevant.

Informal traders use Mobile ICT to help interpret absorbed external knowledge by using simulations, future market predictions and stock control, which are online tools. Only 6 informal traders highlighted that they use Microsoft Excel for market predictions and stock control; 26 informal traders do not use any of these tools due to a lack of knowledge. Those who do use the tools explained that they simplify calculations and provide detailed information on stock and future predictions.

**SR<sub>6</sub>:** What role does Mobile ICT play in the absorptive capabilities of the informal traders in Windhoek?

Category	Codes	Frequency
Gaining from network relationships by using Mobile ICT	Form new network circles	12
	Maintain contact	20
	Simplifies data gathering	7
Using Mobile ICT to drive innovations	Online research from various platforms	13
	Identify new market needs	5
	Learn from other parts of the world	6
<b>Total</b>		<b>63</b>

**Table 5.6: SR<sub>6</sub> Responses**

The bubble chart below was generated from the table above to display the data and show the relationships between the codes.

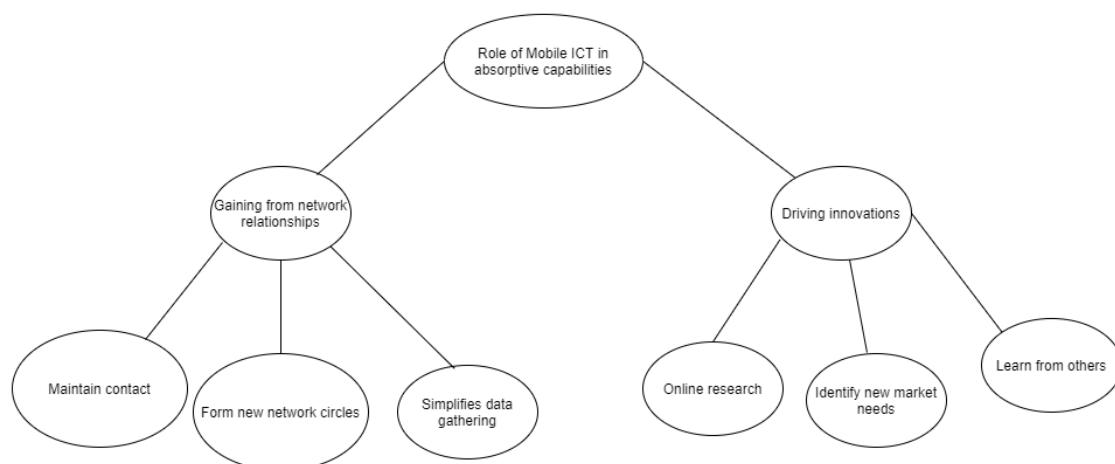


**Figure 14: SR<sub>6</sub> Responses**

## Using Mobile ICT to improve absorption capabilities

Table 5.6 above depicts the data collected to help answer sub-research question 6, which focuses on the role played by Mobile ICT in the absorptive capabilities of the informal traders in Windhoek. The results included forming new network circles, maintaining contact, and simplifying data gathering as some of the ways to benefit from network relationships by using Mobile ICT. These had frequencies of 12, 20 and 7, respectively. The informal traders in Windhoek use Mobile ICT to form new network circles by following social media groups, especially on Facebook and WhatsApp, and by sharing information with other businesspeople who in turn share information with them, thereby improving on the network and absorptive capabilities of the business. Informal traders use Mobile ICT to maintain existing networks by communicating and sharing information with network members. Attending online meetings hosted by fellow network members was highlighted as one way that informal traders maintain their existing networks and gather data. Internet platforms enable video conferencing (Archibald, Ambagtsheer, Casey & Lawless 2019) and this further supports the use of the internet and social media to enhance communication and collaboration within informal businesses.

The network diagram below shows the relationships between the categories and the codes extracted from the research data for sub research question 6.



**Figure 15: SR<sub>6</sub> Network diagram**

The questions in this section revealed that informal traders use Mobile ICT to drive innovations, as it allows informal traders in Windhoek to conduct online research from various platforms, simplifies new market needs, and allows learning from other parts of the world.



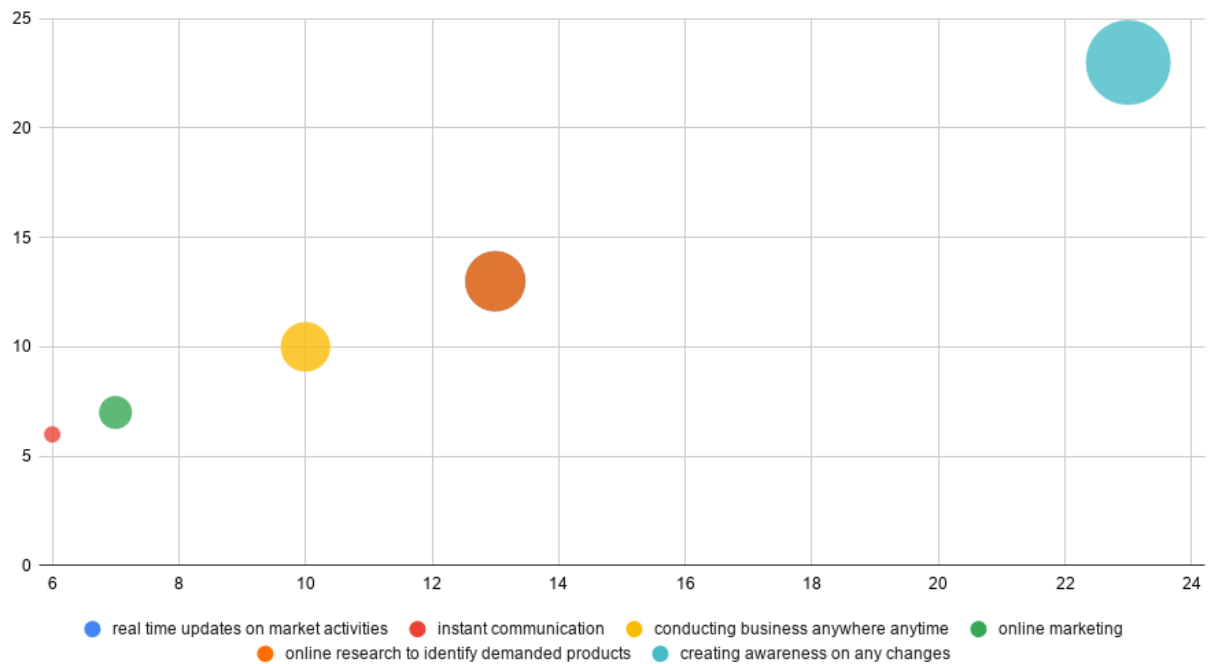
**SR<sub>7</sub>:** How do informal traders use Mobile ICT in Windhoek to gain adaptive capabilities?

<b>Category</b>	<b>Codes</b>	<b>Frequency</b>
Responding to marketing activities	Real-time updates on market activities	13
	Instant communication	6
	Conducting business anywhere, anytime	10
	Online marketing	7
Using Mobile ICT to speed up responses to changing market conditions	Online research to identify demanded products	13
	Creating awareness of any changes	23
<b>Total</b>		<b>72</b>

**Table 5.7: SR<sub>7</sub> Responses**

The bubble chart below was generated from the table above to display the data and show the relationships between the codes.

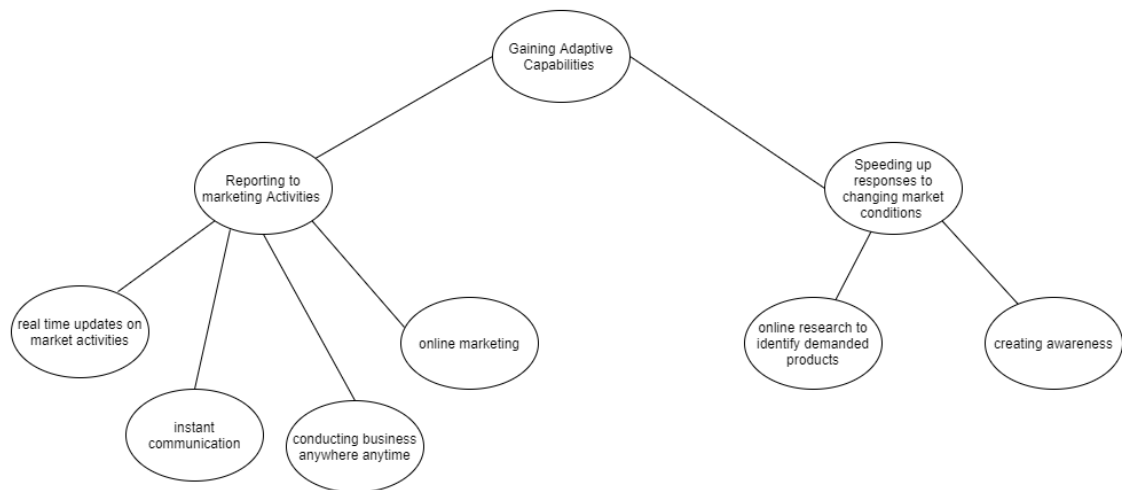
SR7 Responses



**Figure 16: SR<sub>7</sub> Responses**

Sub-research question 7 looked at how informal traders use Mobile ICT in Windhoek to gain adaptive capabilities. When asked about how Mobile ICT helps them to respond to marketing activities, the traders mentioned the availability of real-time updates on market activities with a frequency of 13; instant communication with a frequency of 6; conducting business anywhere, anytime with a frequency of 10; and online marketing with a frequency of 7. Online research to identify demanded products and create awareness of any changes with frequencies of 13 and 23 were identified as ways of using Mobile ICT to speed up responses to changing market conditions.

The network diagram below shows the relationships between the categories and the codes extracted from the research data for sub-research question 7.



**Figure 17: SR<sub>7</sub> Network diagram**

### **Gaining adaptive capabilities**

The informal traders who have mobile businesses, for example those who sell farm produce, advised that when they get updates from their network circles of the markets that have a high demand for products at a given time, they take their produce to those markets, which increases the turnover of their products and helps them to immediately respond to changing marketing activities. Instant communication also helps traders to receive their orders from customers on their Mobile devices and supply the products timeously. Instant communication further improves internal communications amongst informal traders who are in partnerships, or those who have employees, as they can use multiple platforms to communicate (Domazet, Zubović & Lazić 2018); if one mode of communication fails, there will always be an alternative available .

**SR<sub>8</sub>:** What are the adaptive capabilities of informal traders in Windhoek?

<b>Category</b>	<b>Codes</b>	<b>Frequency</b>
Using Mobile ICT to initiate collaboration with external partners	Maintain network communication	15
	Share business information online	6
Use Mobile ICT to increase internal efficiency	Improved means of communication	14
	Improved business strategies	12
	Allows multi-tasking	4
	Data storage	11
Using Mobile ICT to market your business	Online advertising on websites	6
	Online shops	2
	Social media marketing	24
	Phone calls and texts	15
<b>Total</b>		<b>109</b>

**Table 5.8: SR<sub>8</sub> Responses**

The bubble chart below was generated from the table above to display the data and show the relationships between the codes.

SR8 Responses

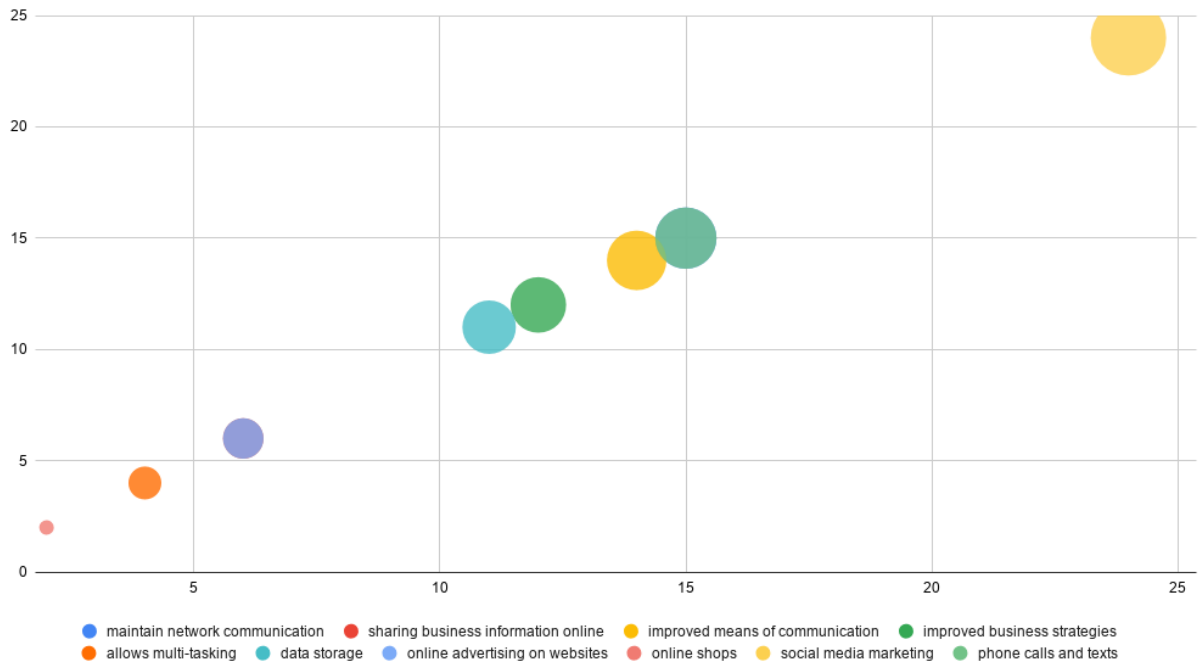


Figure 18: SR<sub>8</sub> Responses

The network diagram below shows the relationships between the categories and the codes extracted from the research data for sub-research question 8.

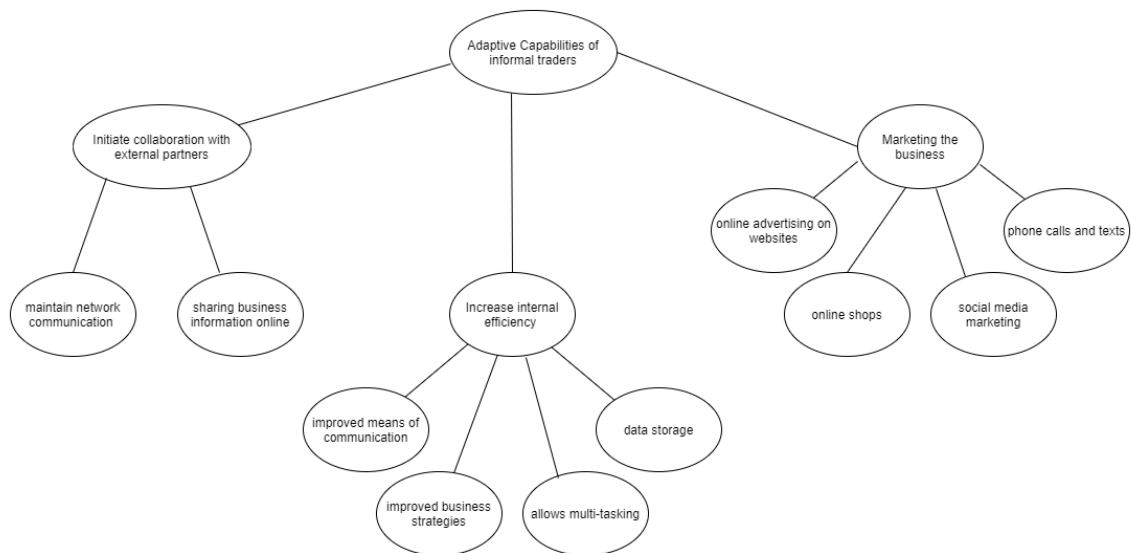


Figure 19: SR<sub>8</sub> Network diagram

## Adaptive capabilities of informal traders

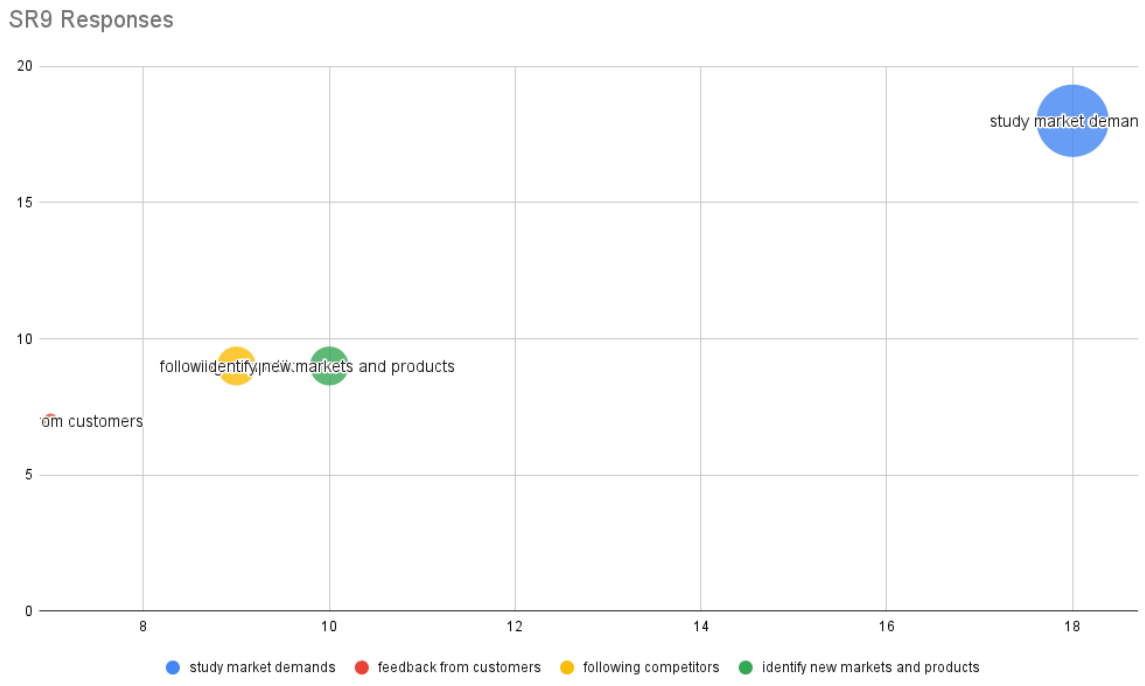
Table 5.8 above shows the results collected from the questions that investigated the adaptive capabilities of informal traders in Windhoek. The results revealed that maintaining network communication, with a frequency of 15, and sharing business information online, with the frequency of 6, are two ways in which informal traders use Mobile ICT in Windhoek to initiate collaboration with external partners. An improved means of communication, improved business strategies, allowance for multi-tasking, and data storage are additional ways in which Mobile ICT increases internal efficiency within informal traders' businesses. The data also show that informal traders use Mobile ICT to market their businesses through online advertising, online shops, social media marketing, phone calls and texts.

**SR<sub>9</sub>:** What are the innovation capabilities of informal traders in Windhoek?

Category	Codes	Frequency
Using Mobile ICT to identify opportunities	Study market demands	18
	Feedback from customers	7
	Following competitors	9
	Identify new markets and products	9
<b>Total</b>		<b>43</b>

**Table 5.9: SR<sub>9</sub> Responses**

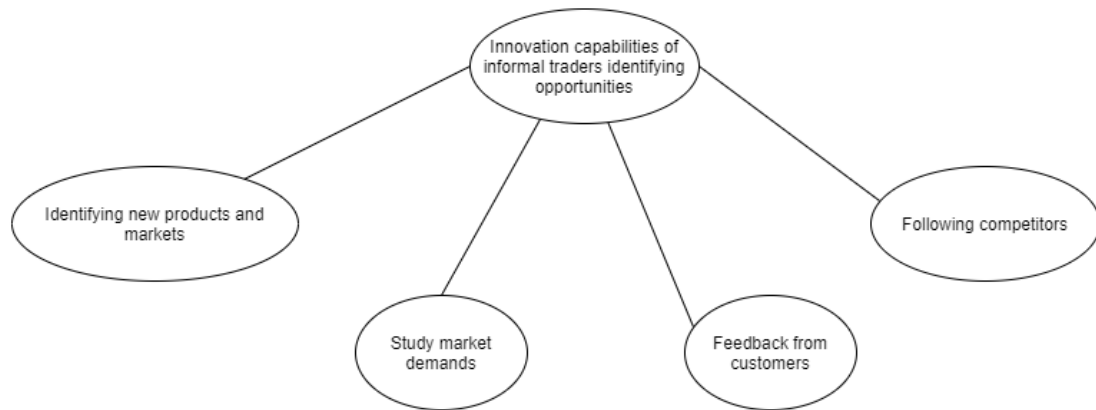
The bubble chart below was generated from the table above to display the data and show the relationships between the codes.



**Figure 20: SR<sub>9</sub> Responses**

Sub-research question 9 looked at the innovation capabilities of informal traders in Windhoek. The study revealed that informal traders use Mobile ICT in Windhoek to identify opportunities by studying market demands, collecting and studying feedback from customers, following competitors, and identifying new markets and products. These four ways had frequencies of 18, 7, 9 and 9 respectively, with a total frequency of 43.

The network diagram below shows the relationships between the categories and the codes extracted from the research data for sub-research question 9.



**Figure 21: SR<sub>9</sub> Network diagram**

### **Innovative capabilities of informal traders**

The results showed that most informal traders use Mobile ICT to study market demands, as this information helps them to determine which products and what quantities of stock to order. Collecting and analysing feedback from customers helps informal traders to assess their satisfaction levels, as well as which areas they need to improve on, such as adjusting their available services or identifying new products and services required by customers. The introduction of new products and services helps the informal traders to gain a competitive advantage in the market.

By following their competitors, the traders acquire more information about the market, and can see, learn and imitate what other traders are doing (Raza, Minai, ul Haq & Zain 2018; Parida, Oghazi & Cedergren 2016). This helps them to make informed decisions for their businesses and remain relevant.



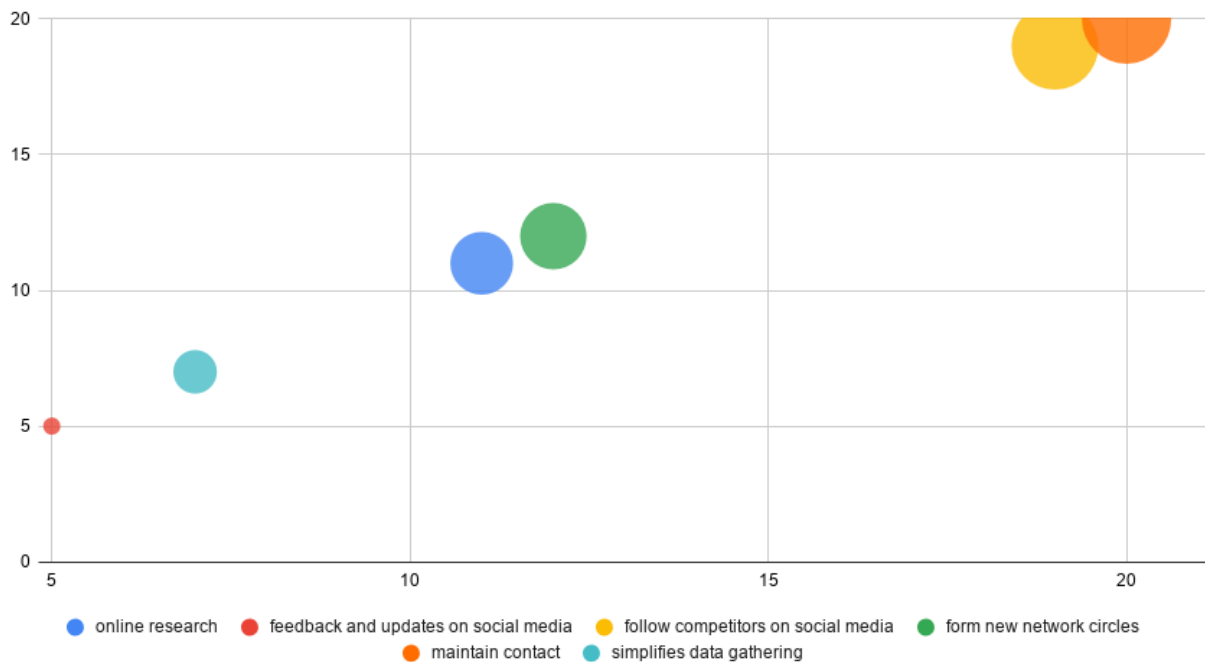
**SR<sub>10</sub>:** What role does Mobile ICT play in the innovation capabilities of the informal traders in Windhoek?

<b>Category</b>	<b>Codes</b>	<b>Frequency</b>
Absorbing external knowledge using Mobile ICT	Online research	11
	Feedback and updates on social media	5
	Follow competitors on social media	19
Gaining from network relationships by using Mobile ICT	Form new network circles	12
	Maintain contact	20
	Simplifies data gathering	7
<b>Total</b>		<b>74</b>

**Table 5.10: SR<sub>10</sub> Responses**

The bubble chart below was generated from the table above to display the data and show the relationships between the codes.

SR10 Responses

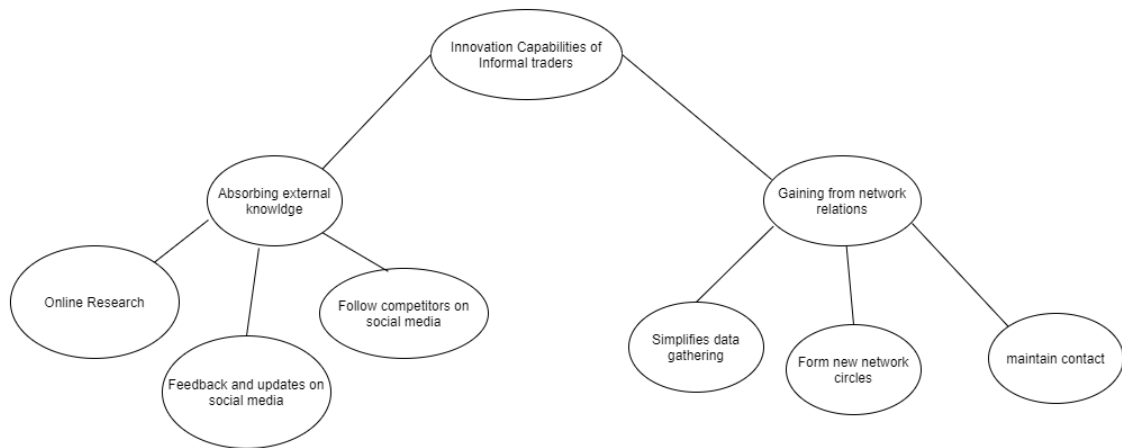


**Figure 22: SR<sub>10</sub> Responses**

### **Use of Mobile ICT in innovation capabilities**

Table 5.10 above depicts the data collected to answer sub-research question 10, which looked at the role of Mobile ICT in the informal traders' innovation capabilities. The identified roles were online research with a frequency of 11, feedback and updates on social media with a frequency of 5, and followed competitors on social media with a frequency of 19. These three are used for absorbing external knowledge. Form new network circles with a frequency of 12, maintain contact with a frequency of 20, and simplifies data gathering with a frequency of 7, are ways of benefitting from network relationships by using Mobile ICT. The results show that informal traders use Mobile ICT in different ways to improve the innovative capabilities of their business, and most use Mobile ICT as the main way to contact customers and suppliers and follow competitors.

The network diagram below shows the relationships between the categories and the codes extracted from the research data for sub-research question 10.



**Figure 23: SR<sub>10</sub> Network diagram**

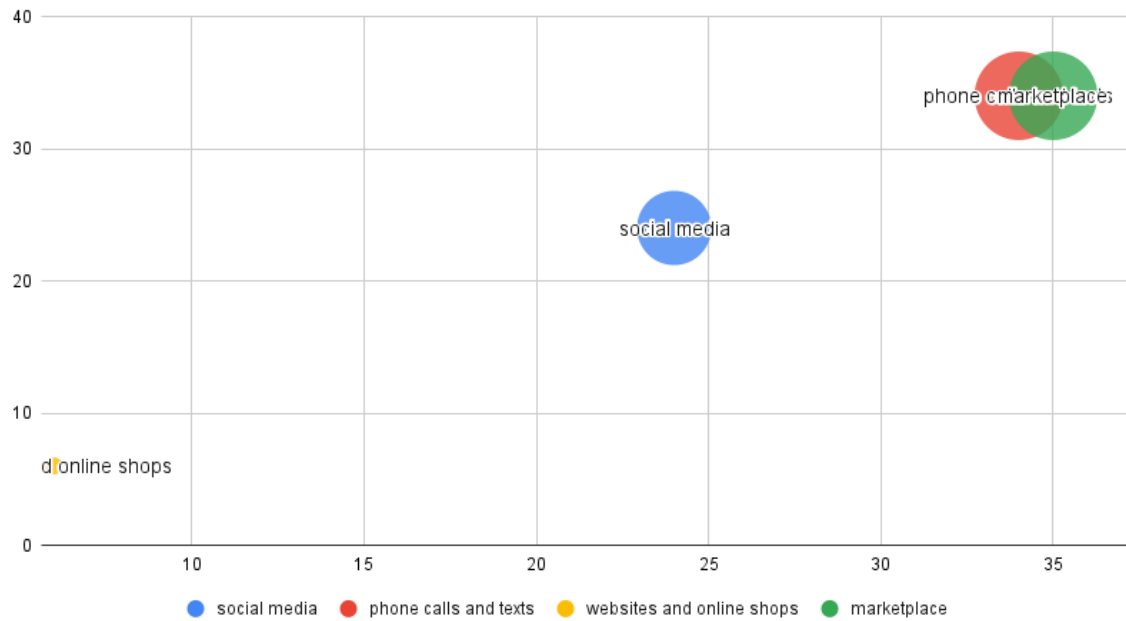
**SR<sub>11</sub>:** What are the network capabilities of informal traders in Windhoek?

Category	Codes	Frequency
Network capabilities of informal traders	Social media	24
	Phone calls and texts	34
	Websites and online shops	6
	Marketplace	24
<b>Total</b>		<b>98</b>

**Table 5.11: SR<sub>11</sub> Responses**

The bubble chart below was generated from the table above to display the data and show the relationships between the codes.

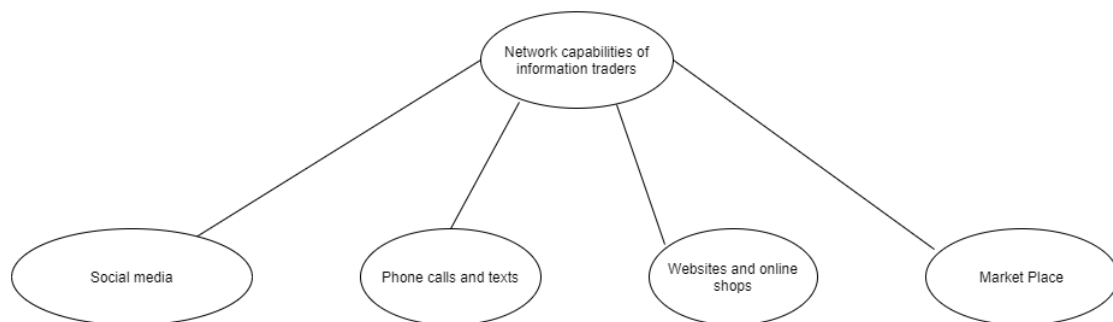
## SR11 Responses



**Figure 24: SR<sub>11</sub> Responses**

Sub-research question 11 focused on the network capabilities of informal traders in Windhoek, which were identified as websites and online shops with a frequency of 6, social media with a frequency of 24, marketplace with a frequency of 24 and phone calls and texts with a frequency of 34. The total frequency for this section was 98. The results for this section are depicted in Table 5.11 above.

The network diagram below shows the relationships between the categories and the codes extracted from the research data for sub-research question 11.



**Figure 25: SR<sub>11</sub> Network diagram**

## Network capabilities of informal traders

The study revealed that phone calls and texts are frequently used as these can be done from any kind of phone, including those that do not connect to the internet. Some traders highlighted that they do not own a smartphone, and as a result they do not have access to the internet. Other traders had smartphones, but they rarely turn their mobile data on in order to minimise the amount of data they use, i.e. they rely more on phone calls and texts as this is a less expensive option.

Other traders, despite owning smartphones, highlighted that they are not tech-savvy, so they prefer using calls and texts which are easier for them. Most traders widely use the physical market place and social media for advertising and communication purposes. Websites and online shops are the least used platforms because of the high set-up costs involved; 28 of the traders argued that these work better for well-established businesses, not their small businesses. 24 of the traders are comfortable conducting their business on social media platforms and using phone calls and text messages.

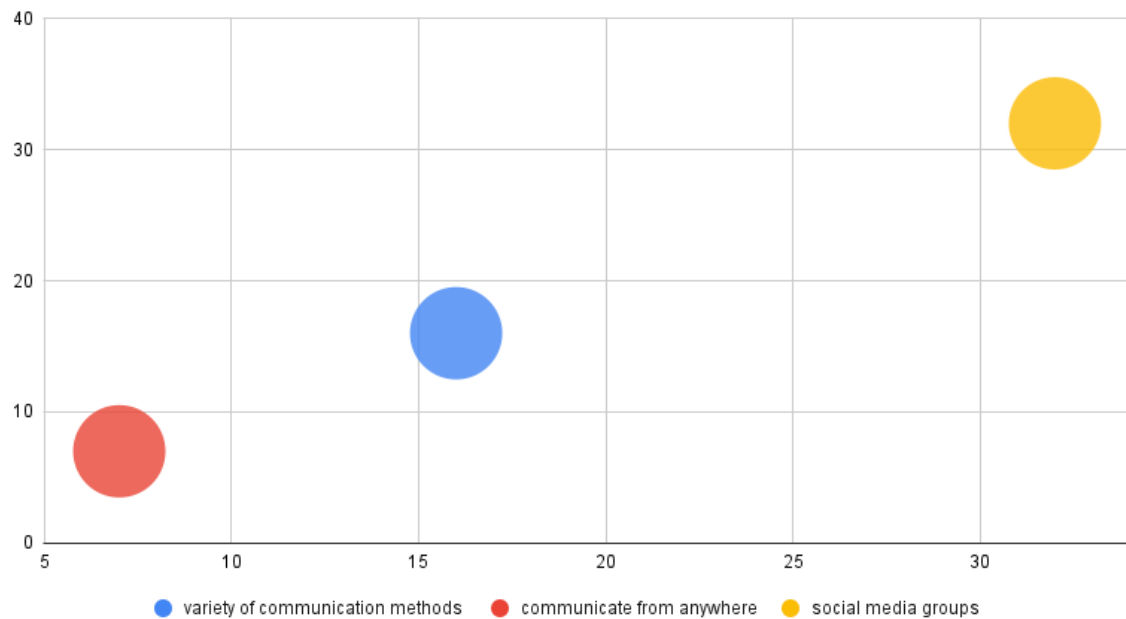
**SR<sub>12</sub>:** What role does Mobile ICT play in the network capabilities of the informal traders in Windhoek?

Category	Codes	Frequency
Improving internal and external communication using Mobile ICT	Variety of communication methods	16
	Communicate from anywhere	7
	Social media groups	32
<b>Total</b>		<b>55</b>

**Table 5.12: SR<sub>12</sub> Responses**

The bubble chart below was generated from the table above to display the data and show the relationships between the codes.

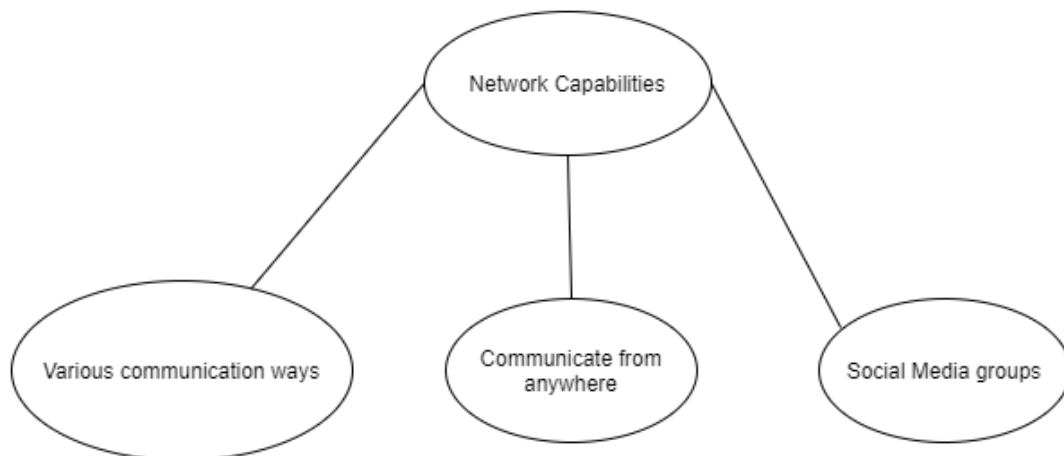
## SR12 Responses



**Figure 26: SR12 Responses**

Table 5.12 above shows the results that help answer sub-research question 12, which focuses on the role played by Mobile ICT in the network capabilities of the informal traders in Windhoek. Variety of communication methods with a frequency of 16, communication from anywhere with a frequency of 7, and social media groups with a frequency of 32, are used by informal traders to improve internal and external communication using Mobile ICT. The total frequency for this section is 55.

The network diagram below shows the relationships between the categories and the codes extracted from the research data for sub-research question 12.



**Figure 27: SR<sub>12</sub> Network diagram**

### **Communication and marketing platform**

The results reveal that informal traders use social media platforms to improve their internal and external communications, i.e. informal traders communicate with shareholders and competitors via these platforms. The study results show that informal traders use mainly WhatsApp group platforms when communicating and advertising their products to customers. 94% of traders use both WhatsApp and Facebook platforms. Over half (58%) of the traders feel that social media has greatly improved their business' external and internal communications, while 29% agreed that the various communication forms provided by Mobile ICT have improved their business' external and internal communications. Just 13% of the informal traders were grateful for Mobile ICT allowing them to communicate from anywhere, which makes it possible for them to conduct their business from anywhere at any given time. The results above reveal that Mobile ICT plays an important role in creating and maintaining informal traders' network capabilities through enhanced communication and marketing (Behnam, Cagliano & Grijalvo 2018).

The table below shows the codes derived from the responses given by the respondents during the interview sessions.

Question	Derived Codes (Frequency)
<b>Understanding Business Constructs</b>	
What led you into this business?	Passion, unemployment, poverty, need for income, community service
What does your business do?	Buying and selling clothes, buying and selling food produce, customer services, selling art creations, poultry, welding, car wash, buying and selling essentials
How do you conduct business?	Door to door services, printed media, online trade, selling from the market, car boot sales
<b>Mobile ICT understanding</b>	
What do you understand by Mobile ICT?	Portable devices, online communication, using the internet, mobile banking and online marketing, phone calls and texting using cell phone
What mobile technologies do you own?	Cell phone, tablets, laptop
How do you use your Mobile ICT for business?	Advertising and selling, communication, online banking, data storage, online, research
What are the benefits of Mobile ICT in your business?	Easy communication and marketing simplifies data storage, higher efficiency, and production, offers flexibility, online banking services, simplifies research, simplifies sharing of data, allows online buying and selling



What are the drawbacks of Mobile ICT usage in your business?	Expensive devices and mobile data, lack of mobile devices, battery issues, miscommunication, addictive, reduced responses from customers, poor network in some places
<b>Mobile ICT use</b>	
How do you use your Mobile ICT for business?	Advertising, communication, taking orders, storage media, online banking, calculations, researching on markets
<b>Contribution of ICT to Business</b>	
What is the role of Mobile ICT in managing your financial services?	Immediate transaction updates, central control of costs and revenue, online banking
<b>Dynamic Capabilities</b>	
What strategies do you use to continue surviving in business?	Offer credits and discounts, delivering quality goods on time, constant market research, good customer care, marketing, and advertising, checking what competitors are doing, introducing new products, online shops
<b>Absorptive capabilities</b>	
How does Mobile ICT help you to act flexibly?	Online buying and selling, online research, online banking, online communication, schedule deliveries of products, can conduct business from anywhere, reduce the need to have employees

How does Mobile ICT help you to absorb external knowledge?	Online research simplifies communication, feedback, and updates on social media
How does Mobile ICT help you to identify opportunities?	Following market demand, keeping track of what competitors are doing, surveys and feedback from customers, internet research
How does Mobile ICT help you to use external knowledge?	Through simulations and future market predictions, determine market needs, determine quantities of stock to buy
How does Mobile ICT help you to drive innovations?	Provides new ideas, online research, new market needs, learn from other parts of the world
How does Mobile ICT help you to gain from network relationships?	Form new network circles, maintain contact, simplifies data gathering
<b>Adaptive capabilities</b>	
How do you use Mobile ICT to market your business?	Online advertising, online shops, social media marketing, phone calls
How does Mobile ICT help you respond to marketing activities?	Websites, access markets and market details on the go, conduct business anywhere, real-time updates, fast responses to customers and suppliers
How does Mobile ICT help you to speed up responses to changing market conditions?	Instant availability of information, simplified communication with customers and suppliers

How do you use Mobile ICT to increase internal efficiency?	Several means of communication, improved business strategies, allows multi-tasking, data storage
How do you use Mobile ICT to initiate collaboration with external partners?	Social media groups, improved communication, video conferences and presentations, phone calls, and text messages
How do you use Mobile ICT to maintain collaboration with external partners?	Continued communication, sharing business information online
<b>Innovative Capabilities</b>	
How does Mobile ICT provide you with the ability to identify opportunities?	Following market demands, keeping track of what competitors are doing, surveys and feedback from customers, internet research
How does Mobile ICT provide you with the ability to absorb external knowledge?	Web searches, reviews on social media, online tutorials
How does Mobile ICT provide you with the ability to gain from network relationships?	Learn from others, constant communication, updates on market trends
<b>Network Capabilities</b>	
How does Mobile ICT improve your internal communication?	Various communication ways, communicate from anywhere, social media groups

How does Mobile ICT improve your external communication?	Various communication ways, instant responses, allows use of visuals, social media groups
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**Table 5.13: Derived codes**

## Summary and key findings

After analysing the data collected for each sub-research question, different themes were generated for each question, as indicated below.

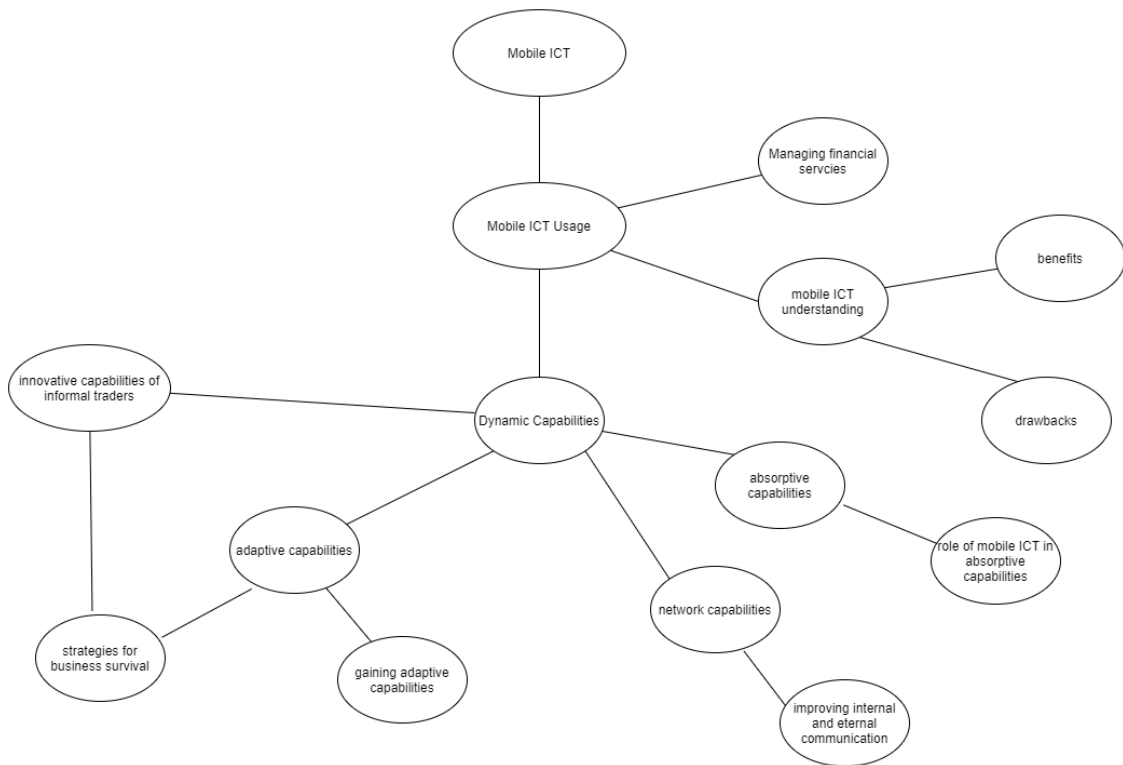
Theme	Name	Description
Theme 1	Mobile ICT use	This theme focuses on the respondents' understanding of Mobile ICT, which is the major construct of this study. The results from the study revealed that informal traders understand what mobile devices and services are. All the informal traders involved in the study owned at least one mobile device, which they use for advertising and selling, communication, online banking, data storage, and online research.
Theme 2	Benefits and drawbacks of Mobile ICT usage	This theme focuses on the advantages and disadvantages of Mobile ICT, as perceived by informal traders in Windhoek. The following advantages were highlighted: simplifies communication and marketing, simplifies data storage and sharing, online banking, offers flexibility and geographical independence, and online buying and selling. The highlighted disadvantages were expensive devices and mobile data, lack of smart mobile devices, mobile device battery issues, miscommunication, mobile gaming applications are addictive, reduced responses from customers, and poor network in some places.
Theme 3	Managing financial services	This theme focuses on how informal traders in Windhoek use Mobile ICT to manage their finances for their businesses. The results revealed that informal traders use Mobile ICT for online banking, allowing them to make transactions from anywhere. Further, they advised that the central control of costs and revenues has been made easier due to real-time access to their bank accounts.
Theme 4	Enhancing communication	This theme looks at how informal traders use the internet to enhance their communication and business strategies. The study revealed that informal traders use the internet to implement the following strategies for business survival: offering credits and discounted prices, delivering quality goods on time, constant market research, good customer

		care, marketing and advertising, spying on and imitating competitors, and introducing new products.
Theme 5	Absorptive capabilities	This theme looks at the absorptive capabilities of informal traders in Windhoek. The study revealed that informal traders gain business flexibility by using Mobile ICT through the following: online buying and selling, marketing on social media, online banking, conducting meetings online, easy communication with customers and suppliers, conducting business from anywhere anytime, and reduced need for employees. Online research, feedback and updates on social media and following competitors on social media are strategies used for absorbing external knowledge. Studying market demands, feedback from customers, and following competitors are strategies to identify opportunities in the market. Informal traders use Mobile ICT to process external information and then make future market predictions and simplify stock control. The study revealed that informal traders use Mobile ICT to drive innovations through online research from various platforms, online identification of new market needs, and learning from other parts of the world.
Theme 6	Knowledge use and absorption capabilities of informal traders	This theme looks at how informal traders use Mobile ICT to absorb external data and then use it to benefit the business. To gain from network relationships, informal traders use Mobile ICT to form new network circles, maintain contact and simplify data gathering. The theme looks at how informal traders use Mobile ICT to keep up with changing markets: products, demand, marketing activities, and customers' needs. Mobile ICT is used by informal traders for online research on various platforms, simplifying new market needs and learning from other parts of the world.
Theme 7	Gaining adaptive capabilities	This theme looks at how informal traders use Mobile ICT to respond to marketing activities and speed up responses to changing marketing conditions. Informal traders use real-time updates on market activities, instant communication, conducting business anywhere, and online marketing to respond to marketing activities. The study reveals that informal traders use Mobile ICT to speed up responses to changing market conditions through online research to

		identify demanded products and create awareness on any business changes.
Theme 8	Adaptive capabilities of informal traders	This theme looks at the strategies adopted by informal traders to remain relevant in business. Informal traders use Mobile ICT to initiate collaboration with external partners by maintaining network communication and sharing business information online. Improved means of communication, improved business strategies, allowing of multi-tasking and data storage are advantages of using Mobile ICT in business, helping users to increase their internal efficiency. The study revealed that informal traders use Mobile ICT to market their businesses through online advertising on websites, online shops, social media marketing and phone calls and texts.
Theme 9	Innovative capabilities of informal traders	This theme focuses on how informal traders use absorbed knowledge to initiate, maintain and gain from business innovations. The study revealed that informal traders identify business opportunities by studying market demands, customer feedback, following competitors, and identifying new markets and products.
Theme 10	Use of Mobile ICT in innovation capabilities	This theme looks at how informal traders absorb knowledge and gain from network relationships using Mobile ICT. Informal traders identified the following roles played by Mobile ICT in innovation capabilities: online research, feedback and updates on social media, follow competitors on social media, form new network circles, maintain contact and simplify data gathering.
Theme 11	Network/communication capabilities of informal traders	This theme focuses on how informal traders use Mobile ICT for communication internally with business partners and externally with customers, suppliers, and competitors. The study revealed that Mobile ICT provides various ways of communicating, the ability to communicate from anywhere, and social media platforms as tools to improve networks and communication in the business.

**Table 5.14: Themes generated from collected data**

The following combined network diagram shows the relationships between the themes generated from the collected data.



**Figure 28: Combined Network diagram**

Mobile ICT is the technology that includes the internet, mobile devices, social media and telecommunications. Mobile ICT usage as a theme focused on the informal traders' understanding of Mobile ICT and this created the basis for this study. The understanding of Mobile ICT helped informal traders to identify benefits and drawbacks of Mobile ICT in their businesses. Mobile ICT usage brought dynamic capabilities to the informal traders and these dynamic capabilities were categorised into innovative capabilities, adaptive capabilities, network capabilities and absorptive capabilities as depicted by the combined network diagram above.

### 5.2.2 Summary

Chapter 5 focused on an analysis of the data collected during interviews conducted with informal traders in Windhoek. Tables and graphs were generated to show the frequency of the study results. Codes were formulated for each sub-research question using the inductive approach, which enabled the researcher to arrive at conclusions and develop theories from the study. The themes for the whole study were then



generated from the codes, which revealed the relationships between the codes. These were depicted in the combined network diagram above.

## Chapter 6

### 6 Conclusions

This study sought to understand Mobile ICT's contribution to the dynamic capabilities of informal traders. The objective was to identify which dynamic capabilities are available amongst informal traders and give recommendations for how Mobile ICT can be used to support these capabilities. The study used a case study strategy using informal traders at the Hilton Hotel and Post Street Mall markets in Windhoek, Namibia.

Before the data were collected, a literature review was undertaken to identify gaps in the study. This revealed that there were no studies where the theory of dynamic capabilities was applied to micro-levels such as informal traders. The data collection process was then conducted with 34 informal traders being interviewed, 20 being female and 14 male. This demonstrated a relative balance in gender amongst the informal traders in Windhoek.

A qualitative research approach was adopted, with the collected data being analysed using thematic analysis. This allowed for the formulation of codes and themes from the data. Charts and tables were then created to depict the collected data, and a detailed account of the findings was given.

The research findings were used to answer the following three sub-research questions:

- How is Mobile ICT currently being used by informal traders as part of their dynamic capability?
- What are the dynamic capabilities of informal traders in their business?
- How can informal traders embrace Mobile ICT to improve their businesses?

#### **Section A: What are the dynamic capabilities of informal traders in their business?**

##### **Necessity is the main driver**

The majority of the respondents highlighted poverty and unemployment as their major drivers for becoming informal traders. These findings are consistent with studies

undertaken in Africa (Etim & Daramola 2020) and Central Asia (Baitas 2020). It can therefore be seen that informal traders engage in small businesses in order to survive and generate funds to support their families and fulfill their ambitions and goals. This means that with the global unemployment rate rising there will be a surge in informal trade, therefore it is necessary to put mechanisms in place that will assist informal traders to thrive.

Mobile ICT offers a convenient platform for such mechanisms, especially seeing that it is no longer a novel phenomenon. Almost all the informal traders owned at least one mobile device, and all of them had been exposed to Mobile ICT services in the past. The convenience offered by Mobile ICT allows informal traders to conduct their businesses from anywhere, especially during the COVID-19 era when lockdowns are prohibiting individuals from conducting business as normal in their designated places of work.

### **Benefits and drawbacks of Mobile ICT**

Mobile ICT offers benefits such as 24/7 communication capabilities; availability of multiple platforms of communication; a fast and efficient means of communication; platforms for marketing, selling and ordering stock; access to online banking; data storage; and improved business flexibility. Similar studies identified similar benefits for informal traders in Tanzania and Ghana, respectively, who adopted Mobile ICT in their businesses (Rumanyika, et al. 2019; Asiedu et al., 2019). This shows that Mobile ICT, when implemented correctly, may improve a business' profitability.

The major challenges of Mobile ICT, according to the informal traders, include the high cost of acquiring mobile devices and mobile data; battery issues; mobile network issues; a lack of technical knowledge and the poor quality of pictures and videos taken by some phones. Rumanyika et al. (2019) identified similar challenges in their study, which have resulted in few informal traders using mobile phones to identify new markets. This reveals that there is a need to improve Mobile ICT to provide better experiences for traders globally; the invention of a unique mobile device that intuitively supports traders' experiences might be a great motivation to adopt Mobile ICT in small businesses.

## **Communication and marketing platform**

Communication is viewed as a key to business success (Percy 2018), as per the results of this study which revealed that informal traders use Mobile ICT to communicate internally within their small business and externally with stakeholders. The majority of the users highlighted that they chiefly use social media, phone calls, and text messages to communicate, therefore it can be seen that communication is important for informal traders, and an interest in adopting Mobile ICT to improve communication has already been established. This means that the availability of improved Mobile ICT and education on how to implement Mobile ICT fully will be welcomed by informal traders, as it will enhance communication between the small business and its stakeholders.

## **Section B: How is Mobile ICT currently being used by informal traders as part of their dynamic capability?**

### **Adaptive capabilities**

Like any other small business, informal traders have competitors, hence the need to employ strategies to survive in the market. Informal traders utilise different adaptive/survival strategies depending on their line of business, which range from selling multiple products to giving credit to customers, respecting customers, and vigorous marketing. Other strategies highlighted were spying on and imitating competitors, which can be easily achieved by following competitors online; maintaining good relationships with customers by offering quality products and good customer care; online marketing and advertising; offering payment plans; introducing new products; and delivering goods on time.

Some of the survival strategies adopted by informal traders in Windhoek are not Mobile ICT-related, for example offering payment plans on purchased products is not, but Mobile ICT can be used to keep track of payments by creating simple databases in Microsoft Excel. This, therefore, shows that Mobile ICT can support business survival strategies employed by traders, thereby enhancing communication.

## **Knowledge use and absorption capabilities**

To survive in the market, informal traders need to gather information on external parties, i.e. customers, suppliers, and competitors. Informal traders in Windhoek sometimes use Mobile ICT to access and use external data, and conduct online research on products and suppliers. Barnes, Pressey, and Scornavacca (2019) discuss smartphone addiction which is defined as the use of a smartphone in many ways, including data absorption. Therefore, informal traders can adopt smartphone addiction to simplify data absorption, which can be done using mobile devices. Data can be absorbed in multiple states, including audio, images, and/or videos. Absorbed data can then be analysed using tools such as Microsoft Excel to identify opportunities that may result in improved profits when implemented in a small business. The analysis of absorbed data helps informal traders make predictions on market behaviour, which can result in better informed decisions being made on stock control.

The majority of informal traders use Mobile ICT to capture pictures of products so they can advertise them to their customers. Therefore, it can be seen that absorption capabilities exist amongst informal traders and there is interest in using Mobile ICT to improve absorption capabilities. Mobile ICT provides informal traders with additional absorption capabilities, such as automated data capturing using voice and videos, and improved data sharing capabilities. Information sharing is viewed as one of the tools used by informal traders to initiate and maintain collaboration with external parties.

## **Network capabilities**

Informal traders use Mobile ICT to initialise and maintain collaboration with external parties by forming emailing groups and social media groups with external parties. They also use phone calls, video calls, information sharing and online meetings to discuss business and to maintain their networks. The availability of the various means of communication brought about by Mobile ICT eliminates the need for physical meetings, which are not always available, especially during this Covid-19 era. This means that business meetings and communication with stakeholders and competitors can be conducted from anywhere, at any time. Travelling costs and time spent moving

from one place to another to meet with stakeholders are eliminated as meetings can be conducted online, thereby offering traders more flexibility and more time to attend to other business activities. The effective adoption of Mobile ICT thus helps traders to create and maintain strong network relationships at a reduced cost.

### **Innovative capabilities**

Informal traders use absorbed data to come up with strategies that can help their small business to survive, as they face competition from fellow informal traders and big firms, depending on their line of business. One of the informal traders described how they used to focus on fixing mobile phones as their core business, but as competition in their line of work increased, they conducted online research and learnt that there was a shortage of printing shops in town. They thus extended their business to offer mobile phone repairs and printing services, resulting in increased sales and profits. Access to online libraries and changing technologies will supply critical data on the running of small businesses to informal traders, thereby enhancing their knowledge, data absorption skills and data adoption skills. Once data are absorbed, it can then be processed into information using software [such as Microsoft Excel] supported by Mobile ICT, and the information can then be used to make informed decisions regarding the running of the small business, for example making future business predictions and driving new innovations that can be implemented to help the small business remain relevant in the market.

### **Section C: How can informal traders embrace Mobile ICT to improve their businesses?**

Despite the finding that informal traders use Mobile ICT in their businesses, most informal traders do not know how to effectively implement it to market their small business when we live in an era where digital marketing needs a business marketing strategy. Only a few of the traders use online shops and websites to conduct an online business; the majority of informal traders use Mobile ICT for simple activities such as calculating customer change, thereby neglecting other powerful features of Mobile ICT which could bring about great changes and improvements to their small businesses. The majority of the responses that the informal traders gave revealed a lack of knowledge regarding what Mobile ICT could do for their small businesses, and further

showed that informal traders use Mobile ICT for social purposes. This, therefore, shows that there is a need to develop Mobile ICT programmes to educate informal traders on how they can effectively implement Mobile ICT in their small businesses in order to improve their operations, sales and profits.

The study further revealed that informal traders face challenges related to the changing market conditions experienced in external markets, evolving marketing processes, and changes in actual products. This requires informal traders to keep abreast of changing marketing strategies in order to introduce new products, new suppliers, and new processes of conducting business, as well as penetrate new markets. Information on changing market conditions can be easily attained through improved communication with stakeholders, hence the need for informal traders to use Mobile ICT to improve their communication processes.

Mobile ICT supports digital marketing, which has gained popularity in the last decade (Stojiljković 2019). Informal traders partially implement digital marketing by using digital posters to communicate with users on social media, however digital marketing offers much more, including search engines, electronic marketing and social media marketing. Therefore, adopting digital marketing will provide various digital platforms that are accessible through Mobile ICT, which can be used for marketing products and service, thereby creating product and service awareness and hence attracting more customers to the small business.

By adopting Mobile ICT, informal traders will gain access to different financial services including banking facilities. This will eliminate the need to visit the bank every time a financial transaction has to be made, resulting in less travelling time and improved business flexibility. Financial transactions with stakeholders can be done from anywhere in the world through Mobile ICT.

Mobile ICT possesses another important feature, which allows the installation of mobile applications on mobile devices. Mobile applications can be management information systems that can be used by informal traders to monitor small business resources and absorb, store and share knowledge, thereby improving the small business' absorption capabilities. Mobile applications can also be used to track products sent out to customers for delivery, which minimises the loss of products while in transit and ensures that the products reach their intended destination.

## **Response to the research question**

This study's research question was: *'How can Mobile ICT enhance the dynamic capabilities of informal traders in Windhoek?'*

The answers to the sub-research questions enabled the researcher to answer the research question. When adopted into a small business, Mobile ICT can access virtual markets with no geographical boundaries, i.e. informal traders can penetrate international markets through virtual markets. This results in the creation of new network relationships that, when properly maintained using Mobile ICT, will expose informal traders to external knowledge that they can absorb and use to improve their small business operations. Mobile ICT can be used to maintain collaboration with existing networks through online meetings, communication on social media platforms and sharing of information, which can be easily done through videos, audio files and other platforms supported by Mobile ICT. This therefore shows that Mobile ICT can be used to enhance a small business' network capabilities by providing ways for informal traders to create, initiate and maintain network relationships.

Mobile ICT comes with sophisticated features that can improve informal traders' absorption capabilities by supporting automated data capturing using voice and videos, and improved data sharing capabilities using applications that can be installed on a mobile device. This means traders can easily absorb external data, and store and share it internally and externally using Mobile ICT, thereby enhancing its absorption capabilities.

Informal traders exist in evolving markets and need to use knowledge absorbed from external networks, as it provides them with information on market trends and customer needs. With such knowledge, Mobile ICT can predict future market trends, thereby assisting informal traders by introducing them to new products, services, systems and suppliers, thereby improving the small business' innovative capabilities.

The adaptive capabilities of a business are the strategies employed by that business to remain relevant in the market, including effective marketing, excellent customer service, high-quality products and services, and reasonable pricing. The adaptive capabilities are important to help informal traders' small businesses remain relevant in changing markets where they compete with big companies. Therefore, it can be seen that adaptive capabilities are especially important to a business' survival and the



adoption of Mobile ICT will introduce improved means of communication, improved business strategies, multi-tasking and data storage.

Adaptive, absorptive, innovative and network capabilities are categories that fall under dynamic capabilities, hence the improvement of these categories will result in improved dynamic capabilities of a small business.

### **6.1 Limitations of the study**

The study's major limitation was the language barrier, as most of the informal traders were Oshiwambo speaking and not fluent English speakers. In such cases, a translator was used to interpret the questions and the responses that were given. It was also difficult to get a large sample of respondents as the traders were not always available at the market. The study sample only included informal traders based at the city centre markets as this was a convenient sample that was covered by the research ethics approval awarded by the City of Windhoek Municipality.

### **6.2 Areas for further research**

Some informal traders own small businesses that only provide them with a means to survive on a day-to-day basis because their small businesses are difficult to expand. Further research giving recommendations on potential businesses that informal traders can engage in will help them to improve their small business operations.

### **6.3 Recommendations**

The reduction of mobile device and mobile services costs, as well as the provision of Mobile ICT education to informal traders, can be encouraged to promote the adoption of Mobile ICT by informal traders. Financial schemes that provide informal traders with funds to acquire mobile devices and mobile services that can assist in the effective adoption of Mobile ICT can be implemented. Seminars on using mobile devices and taking advantage of digital marketing will also improve Mobile ICT fluency amongst informal traders. The invention of a unique mobile device that intuitively enables dynamic capabilities might be a great motivation for informal traders to adopt dynamic capabilities.

### **6.4 Summary**

This study answered the sub-research questions asked in Chapter 1 by revealing that informal traders in Windhoek possess network, absorptive, adaptive and innovative

capabilities. The discussion above outlined how Mobile ICT is used by informal traders in Windhoek as part of their dynamic capabilities. Recommendations on how the adoption of Mobile ICT can be improved amongst informal traders were given. The study also outlines different ways by which mobile ICT may be adopted by informal traders to improve their businesses thereby improving businesses' profitability. If properly implemented, Mobile ICT will enhance the dynamic capabilities of informal traders. This will lead to the creation of more successful businesses within the informal business sector, thereby reducing the poverty rate in the country and possibly creating more employment opportunities.

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## APPENDICES

### APPENDIX A: Interview questions and corresponding research objectives and research questions

Interview Question	Objective	SRQ
<p><b>Section 1</b></p> <ol style="list-style-type: none"> <li>1. What is your age?</li> <li>2. What is your gender?</li> <li>3. For how long have you been in this business?</li> <li>4. What led you into this business?</li> <li>5. Are you in a partnership or are you a sole trader?</li> </ol>	Demographic information	
<p><b>Section 2</b></p> <ol style="list-style-type: none"> <li>6. What does your business do?</li> <li>7. How do you conduct business?</li> <li>8. What do you sell?</li> <li>9. What do you understand by Mobile ICT?</li> <li>10. What mobile technologies do you own?</li> <li>11. How do you use your Mobile ICT for business?</li> </ol>	Understanding research constructs	SR <sub>1</sub>
<p><b>Section 3</b></p> <ol style="list-style-type: none"> <li>12. What are the benefits of Mobile ICT in your business?</li> <li>13. What are the drawbacks of Mobile ICT usage in your business?</li> <li>14. What is the role of Mobile ICT in managing your financial services?</li> </ol>	Uses and benefits of ICT by informal traders	SR <sub>2</sub> SR <sub>3</sub>

<p><b>Section 4</b></p> <p>15. What strategies do you use to continue surviving in business?</p>	<p>Evoking dynamic capabilities of informal traders</p>	<p>SR<sub>3</sub></p>
<p><b>Section 5</b></p> <p>16. How do you utilise external business knowledge?</p> <p>17. How does Mobile ICT help you to identify opportunities?</p> <p>18. How does Mobile ICT help you to act flexibly?</p> <p>19. How does Mobile ICT help you to absorb external knowledge?</p> <p>20. How does Mobile ICT help you to use external knowledge?</p> <p>21. How does Mobile ICT help you to drive innovations?</p> <p>22. How does Mobile ICT help you to gain from network relationships?</p>	<p>Evoking absorptive capabilities of informal traders</p>	<p>SR<sub>5</sub> SR<sub>6</sub></p>
<p><b>Section 6</b></p> <p>23. How do you use Mobile ICT to market your business?</p> <p>24. How does Mobile ICT help you respond to marketing activities?</p> <p>25. How does Mobile ICT help you to speed up responses to changing market conditions?</p> <p>26. How do you use Mobile ICT to increase internal efficiency?</p> <p>27. How do you use Mobile ICT to initiate collaboration with external partners?</p>	<p>Evoking adaptive capabilities of informal traders</p>	<p>SR<sub>7</sub> SR<sub>8</sub></p>

<p>28. How do you use Mobile ICT to maintain collaboration with external partners?</p>		
<p><b>Section 7</b></p> <p>29. How does Mobile ICT provide you with the ability to identify opportunities?</p> <p>30. How does Mobile ICT provide you with the ability to act flexibly?</p> <p>31. How does Mobile ICT provide you with the ability to absorb external knowledge?</p> <p>32. How does Mobile ICT provide you with the ability to use external knowledge?</p> <p>33. How does Mobile ICT provide you with the ability to drive innovations?</p> <p>34. How does Mobile ICT provide you with the ability to gain from network relationships?</p>	<p>Evoking innovative capabilities of informal traders</p>	<p>SR<sub>9</sub></p> <p>SR<sub>10</sub></p>
<p><b>Section 8</b></p> <p>35. How does Mobile ICT improve your internal communication?</p> <p>36. How does Mobile ICT improve your external communication?</p>	<p>Evoking network capabilities of informal traders</p>	<p>SR<sub>4</sub></p> <p>SR<sub>11</sub></p> <p>SR<sub>12</sub></p>

## **Appendix B: Sample Transcribed Interview**

### **Section 1**

1. What is your age?

Response: 38.

2. What is your gender?

Response: *Male.*

3. For how long have you been in this business?

Response: *12 years*

4. What led you into this business?

Response: *I needed a job.*

5. Are you in a partnership or you are a sole trader?

Response: *Sole trader.*

### **Section 2**

6. What does your business do?

Response: *I sell art creations.*

7. How do you conduct business?

Response: *I sell at the market and in the streets.*

8. What do you sell?

Response: *Sculptures, paintings small necklaces and key chains and traditional stuff.*

9. What do you understand by Mobile ICT?

Response: *Using the internet to do business and using phones to do business.*

10. What mobile technologies do you own?

Response: *Smart phone.*

11. How do you use your Mobile ICT for business?

Response: *I use my phone to send pictures of what I sell to customers and to look for products on the internet. I also call and send messages to customers.*

### **Section 3**

12. What are the benefits of mobile? ICT in your business?

Response: *I can talk and send messages to customers and suppliers. I go on the internet to look for information. I can send emails and see other businesses on Facebook.*

13. What are the drawbacks of Mobile ICT usage in your business?

Response: *This phone was expensive, and data is expensive. Battery finishes fast.*

14. What is the role of Mobile ICT in managing your financial services?

Response: *I can check my bank account and I can send email to get a loan from the bank.*

### **Section 4**

15. What strategies do you use to continue surviving in business?

Response: *Sending pictures of products and using social media to be known.*

### **Section 5**

16. How do you utilise external business knowledge?

Response: *I see what other traders are doing and copy.*

17. How does Mobile ICT help you to identify opportunities?

Response: *I can go on the internet and look for information.*

18. How does Mobile ICT help you to act flexibly?

Response: *I can sell my products on Facebook.*

19. How does Mobile ICT help you to absorb external knowledge?

Response: *I search the internet on my phone and go on Facebook and WhatsApp. Customers tell me what they want and I look for it.*

**20.** How does Mobile ICT help you to use external knowledge?

Response: *Internet gives me the information.*

**21.** How does Mobile ICT help you to drive innovations?

Response: *Internet shows me other things that I can sell to make money.*

**22.** How does Mobile ICT help you to gain from network relationships?

Response: *Going on the internet and following others on social media.*

### **Section 6**

**23.** How do you use Mobile ICT to market your business?

Response: *I send pictures of what I sell.*

**24.** How does Mobile ICT help you respond to marketing activities?

Response: *I can know where there are many tourists and then I can go and sell my products there.*

**25.** How does Mobile ICT help you to speed up responses to changing market conditions?

Response: *I can get messages and phone calls of what is happening in the market.*

**26.** How do you use Mobile ICT to increase internal efficiency?

Response: *Changing how I do business, changing prices and getting more stock.*

**27.** How do you use Mobile ICT to initiate collaboration with external partners?

Response: *Talking to them on social media and calling and sending messages.*

**28.** How do you use Mobile ICT to maintain collaboration with external partners?

Response: *Social media.*

### **Section 7**

**29.**How does Mobile ICT provide you with the ability to identify opportunities?

Response: *Internet suggest similar business and I can click what I want.*

**30.**How does Mobile ICT provide you with the ability to act flexibly?

Response: *It is available quickly.*

**31.**How does Mobile ICT provide you with the ability to absorb external knowledge?

Response: *The internet gives me a lot of information.*

**32.** How does Mobile ICT provide you with the ability to use external knowledge?

Response: *Internet tells me how to use the information.*

**33.**How does Mobile ICT provide you with the ability to drive innovations?

Response: *I see new art, take pictures and look for those things and sell them.*

**34.**How does Mobile ICT provide you with the ability to gain from network relationships?

Response: *I am able to follow their work and keep in touch.*

### **Section 8**

**35.**How does Mobile ICT improve your internal communication?

Response: *It is easy to get and share information.*

**36.**How does Mobile ICT improve your external communication?

Response: *I can call, send text messages, use WhatsApp and send emails.*