

# **The Effect of Social Presence, Mobile Phone Usage, and Trust on Venture Success in Johannesburg**

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**A Research report submitted to the Faculty of Commerce, Law and Management, University of the Witwatersrand, in partial fulfilment of the requirements for the degree Master of Management specializing in Entrepreneurship and New Venture Creation.**

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**ABSTRACT**

The study investigates the relationship social presence has on venture performance through the use of mobile devices for Johannesburg based small to medium business ventures. The study touches on the concept of social presence and aims to evaluate how business network trust and social presence influence the success of SMME's in Johannesburg.

This study aims to help entrepreneurs understand how to leverage the benefits of using their social presence and to aims to understand how to use mobile phone technology benefit their ventures. This paper is equally important to researchers who are interested in the field of social presence and mobile technology.

## **DECLARATION**

I, Tinahe Mbisana Ncube, declare that this research report is my own work, except as indicated in the references and acknowledgments. It is submitted in partial fulfilment of the requirements for the degree of Master of Management at the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination in this or any other university.

Tinahe Mbisana Ncube

Signed at University of the Witwatersrand, Johannesburg

On the \_\_\_\_\_ day of \_\_\_\_\_ 2017

## **DEDICATION**

I would like to dedicate this to my mother Soneni for helping start and finish this degree. I would also like to thank my family and friends for being patient and supportive as I worked to complete this Masters Degree. Lastly, I would like to thank my MMENVC classmates, lecturers, administrators and most importantly my supervisor for imparting the knowledge and commitment to complete this Masters degree.

# TABLE OF CONTENTS

<b>INTRODUCTION .....</b>	<b>1</b>
1.1 THEORETICAL BACKGROUND TO THE STUDY.....	2
1.1.1 SOCIAL PRESENCE THEORY.....	2
1.1.2 SOCIAL NETWORK TRUST THEORY .....	2
1.1.3 UNIVERSALISTIC THEORY .....	2
1.2 CONTEXT OF THE STUDY .....	3
1.3 PROBLEM STATEMENT .....	4
1.4 RESEARCH PURPOSE, RESEARCH QUESTION AND AIMS OF THE STUDY.....	5
1.5 CONTRIBUTION OF THE STUDY .....	5
<b>2 LITERATURE REVIEW .....</b>	<b>6</b>
2.1 INTRODUCTION .....	6
2.2 SOCIAL PRESENCE AND ENTREPRENEURSHIP.....	6
<b>FIGURE 2-1: THE COMMUNITY OF INQUIRY MODEL (ROURKE, ANDERSON, GARRISON, &amp; ARCHER, 2007) .....</b>	<b>7</b>
2.2.1 TRENDS IN SOCIAL PRESENCE .....	8
2.2.2 INTIMACY AND IMMEDIACY .....	9
<b>FIGURE 2-2: MODEL OF EMOTION COMMUNICATION IN CMC, SOURCE:(DERKS ET AL., 2008) .....</b>	<b>9</b>
2.3 MOBILE PHONE USAGE AND ENTREPRENEURSHIP .....	10
<b>FIGURE 2-3: MOBILE IMPACT ON COMMERCE SOURCE: (JAGUN ET AL., 2008).....</b>	<b>11</b>
2.3.1 CONNECTIVITY .....	11
2.3.2 INFORMATION .....	12
2.3.3 PRODUCTIVITY .....	12
2.4 NETWORK TRUST AND ENTREPRENEURSHIP.....	13
2.4.1 TYPES OF TRUST .....	13
2.4.2 THE ROLE OF THE NETWORK.....	13
2.5 VENTURE PERFORMANCE .....	15
2.5.1 MARKET SHARE AND VENTURE PERFORMANCE .....	17
2.5.2 RETURN ON ASSETS AND VENTURE PERFORMANCE.....	18

2.5.3	ANNUAL SALES AND VENTURE PERFORMANCE .....	18
2.5.4	ACCESS TO FINANCE AND VENTURE PERFORMANCE .....	18
2.5.5	RETURN ON SALES AND VENTURE PERFORMANCE .....	19
2.6	CONCLUSION OF LITERATURE REVIEW .....	20

**FIGURE 2-4: PROPOSED CONCEPTUAL FRAMEWORK ..... 20**

2.6.1	HYPOTHESIS1 - THERE IS A POSITIVE RELATIONSHIP BETWEEN MOBILE PHONE USE AND SOCIAL PRESENCE. ....	20
2.6.1	HYPOTHESIS 2 - THERE IS A POSITIVE RELATIONSHIP BETWEEN SOCIAL PRESENCE VENTURE PERFORMANCE .....	20
2.6.2	HYPOTHESIS 3 – THERE IS A POSITIVE RELATIONSHIP BETWEEN MOBILE PHONE USE AND VENTURE PERFORMANCE. ....	20
2.6.3	HYPOTHESIS 4 – TRUST POSITIVELY MODERATES THE RELATIONSHIP BETWEEN SOCIAL PRESENCE AND VENTURE PERFORMANCE.....	20

**3 RESEARCH METHODOLOGY ..... 23**

3.1	RESEARCH APPROACH / PARADIGM .....	23
3.2	RESEARCH DESIGN .....	23
3.3	POPULATION AND SAMPLE.....	24
3.3.1	POPULATION .....	24
3.3.2	SAMPLE AND SAMPLING METHOD .....	24
3.3.3	DEMOGRAPHIC PROFILE .....	25
3.3.4	SOCIAL PRESENCE.....	26
3.3.5	MOBILE TECHNOLOGY USE .....	26
3.3.6	BUSINESS NETWORK TRUST .....	26
3.3.7	VENTURE PERFORMANCE.....	26
3.4	PROCEDURE FOR DATA COLLECTION .....	27
3.5	DATA ANALYSIS AND INTERPRETATION .....	27
3.5.1	DESCRIPTIVE STATISTICS .....	28
3.6	LIMITATIONS OF THE STUDY.....	29
3.7	VALIDITY AND RELIABILITY .....	29
3.7.1	EXTERNAL VALIDITY .....	30
3.7.2	INTERNAL VALIDITY .....	30
3.7.3	RELIABILITY.....	30

**4 CHAPTER 4 PRESENTATION OF RESULTS ..... 31**

4.1	INTRODUCTION .....	31
4.2	DEMOGRAPHIC PROFILE OF RESPONDENTS.....	31
4.2.1	DEMOGRAPHIC DATA.....	32
4.2.1	EDUCATION LEVEL OF RESPONDENTS .....	32
4.2.1	INDUSTRY CLASSIFICATION.....	33
4.2.2	YEARS OF OPERATION.....	34
4.2.3	ORGANIZATIONAL SIZE .....	34
4.2.4	YEARS OF OPERATION.....	35
4.2.1	BUSINESS REGISTRATION.....	36

4.3	MEASUREMENT ASPECTS OF THE SCALES.....	36
4.3.1	SOCIAL PRESENCE VARIABLES: RELIABILITY .....	36
4.3.2	SOCIAL PRESENCE VARIABLES: CONFIRMATORY FACTOR ANALYSIS .....	37
4.3.3	SOCIAL PRESENCE VARIABLES: DESCRIPTIVE STATISTICS .....	38
4.3.4	MOBILE PHONE USE VARIABLES: RELIABILITY .....	39
4.3.5	MOBILE PHONE USAGE VARIABLES: CONFIRMATORY FACTOR ANALYSIS .....	39
4.3.6	MOBILE PHONE USE VARIABLES: DESCRIPTIVE STATISTICS .....	40
4.3.7	BUSINESS TRUST VARIABLES: RELIABILITY .....	42
4.3.8	BUSINESS TRUST: CONFIRMATORY FACTOR ANALYSIS .....	42
4.3.9	BUSINESS TRUST: DESCRIPTIVE STATISTICS .....	43
4.3.10	VENTURE PERFORMANCE VARIABLES: RELIABILITY .....	45
4.3.12	VENTURE PERFORMANCE VARIABLES: DESCRIPTIVE STATISTICS.....	46
4.4	CORRELATION OF COMPUTED VARIABLES .....	47
4.5	TWO-WAY CLUSTER ANALYSIS .....	47
4.6	RESULTS PERTAINING TO HYPOTHESIS1 .....	49

**FIGURE 6: MOBILE PHONE AND SOCIAL PRESENCE SCATTER GRAPH..... 51**

4.7	RESULTS PERTAINING TO HYPOTHESIS 2.....	51
4.8	RESULTS PERTAINING TO HYPOTHESIS 3.....	53
4.9	RESULTS PERTAINING TO HYPOTHESIS 4.....	56
4.10	CONCLUSION .....	57

**5 CHAPTER 5 DISCUSSION OF RESULTS..... 58**

5.1	INTRODUCTION .....	58
5.2	DEMOGRAPHIC PROFILE OF RESPONDENTS.....	58
5.2.1	DEMOGRAPHIC DATA.....	58
5.2.3	EDUCATION LEVEL OF RESPONDENTS .....	59
5.2.4	INDUSTRY CLASSIFICATION.....	59
5.2.5	YEARS OF OPERATION.....	60
5.2.6	NUMBER OF EMPLOYEES.....	60
5.2.7	YEARS OF OPERATION.....	60
5.3	DISCUSSION PERTAINING TO HYPOTHESIS 1 .....	61
5.4	DISCUSSION PERTAINING TO HYPOTHESIS 2 .....	62
5.5	DISCUSSION PERTAINING TO HYPOTHESIS 3 .....	63
5.6	DISCUSSION PERTAINING TO HYPOTHESIS 4 .....	64
5.7	CONCLUSION .....	65

**6 CHAPTER 6 CONCLUSIONS AND RECOMMENDATIONS..... 67**

6.1	INTRODUCTION .....	67
6.2	CONCLUSIONS OF THE STUDY.....	67

6.3	RECOMMENDATIONS .....	67
6.4	SUGGESTIONS FOR FURTHER RESEARCH.....	68
<b>7</b>	<b>REFERENCES .....</b>	<b>69</b>
<b>8</b>	<b>APPENDIX: SURVEY INSTRUMENT .....</b>	<b>75</b>
	<b>TABLE 26: DESCRIPTIVE STATISTICS FROM SAMPLE .....</b>	<b>82</b>

**TABLE OF FIGURES**

Figure 2-1: The Community of Inquiry model (Rourke, Anderson, Garrison, & Archer, 2007).....	7
Figure 2-2: Model of emotion communication in CMC, Source:(Derks et al., 2008).....	9
Figure 2-3: Mobile impact on commerce Source: (Jagun et al., 2008) .....	11
Figure 2-4: Proposed Conceptual framework.....	20
Figure 2-5: Consistency matrix.....	22
Figure 6: Mobile phone and Social presence scatter graph .....	51

## **INTRODUCTION**

The purpose of this research is to investigate the relationship between an entrepreneur's online social presence on mobile technology and how it is mediated by trust to affect the performance of their business venture. The intended objective of the study is to look at the effect of social presence in the small to medium business area to understand the net effect it has on venture performance. There is also a need to understand how the usage of mobile technology, in particular mobile phones, benefits small business sector by the entrepreneur will have an influence on their social presence and subsequently the overall businesses performance.

Since the introduction of mobile phones and their increasing penetration into African markets, there has been a change in the way people in the business world communicate (Poushter, 2015). The most common uses of mobile phones in Africa are communication, taking pictures, doing banking, and this has allowed the mobile phone to become central in the day to day tasks of most everyday people.

This increasing mobile phone penetration has allowed Africa to leap frog into the digital era as well as create new platforms for people to communicate, trade and conduct business (Poushter, 2015). Due to the rapid growth of mobile phones, there are few studies that look at the effect the interactivity has on how they value the relations using these devices and if entrepreneurs value their social presence on these interactive applications these mobile devices provide. There is also a need to understand the relationship of trust when it comes to engaging in business amongst entrepreneurs and small business owners in Africa as most business is conducted on the basis of trust.

In this study, the aim is to investigate the relationship between social presence and mobile phone use, brought about by the increase in access to technology by entrepreneurs. It shall also look at the extent to which individuals in business trust, and how this has an effect on venture performance.

## **1.1 Theoretical background to the study**

This study looks at how venture performance is influenced by social presence, business trust and the use of mobile phones. The main theory that the study is centred around is the social presence theory.

### **1.1.1 Social presence theory**

Multiple studies across Africa have identified that the most common use of mobile phones are to maintain social ties (Carmody, 2013). It has also been argued that the usage of mobile phones has the ability to create and strengthen social ties. Studies have been conducted and confirm that in order for social ties to be created through a communication medium, there has to be a degree of social presence on this platform. The theory of social presence has mostly been studied within the realm of computer mediated communication (CMC) in an online learning or educational climate that is text based but it still applies to the mobile context.

### **1.1.2 Social network trust theory**

It is important to note that according to Donner (2006) there is no direct link between mobile use alone and prosperity. That being said, it is important to look carefully at how the mobile phone is used to achieve prosperity. Individuals who are seen as more trustworthy are likely to get more access to scarce resources, thereby enabling them to become more successful in their business ventures.

### **1.1.3 Universalistic theory**

This is part of a theory which is used to assess the method of measuring the business success in IT ventures highlighted by Fink and Sukenik (2011). This assumes that researchers need to identify the independent variable and dependent variable when measuring venture performance.

## 1.2 Context of the study

Carmody (2013) states that historically the mobile phone was positioned and marketed to the rich and wealthy and its use benefitted them initially, but due to the gradual increase in affordability mobile phones are now accessible to the masses. This accessibility has created new social classes in Africa, as mobile phones have increased the standard of living of the underprivileged by providing commercial and social opportunities according to Madden, Savage, Coble-Neal, and Bloxham (2000). In South Africa, mobile phone penetration is reported to be at least 85% of the population (*GSM African Mobile Observatory report*, 2013) and it is growing rapidly. Over the past decade, the increased processing power of smartphones is now closing the gaps in speed, ease of use and accessibility that plagued earlier mobile phones (Donner & Gitau, 2009). This is due to a decrease in the price of smartphone technology as well as an increase in capacity.

The decrease in the barrier to entry of mobile phones for most marginal communities has resulted in the creation of low-margin high volume business models (Spence & Smith, 2010). The communication brought about by mobile phones has been seen to be pivotal in reducing transaction costs, increasing output and subsequently producing higher paying jobs (Kuofie, Boateng, Yellen, & Garsombke, 2011). In earlier studies by Torero and von Braun (2005) showed that with a mobile penetration of up to 22% in Africa there was at maximum of 6.2 % growth in the economy between 1999 to 2003. The subsequent adoption of mobile internet technology has been seen to be increasingly pivotal for Africa to compete in the Global economy allowing Africa to leapfrog into digital age (Poushter, 2015).

As stated by Torero and von Braun (2005), it is important to note that with mobile phones, the first prerequisite of usage is connectivity, via calls and messaging and then follows the need and capability to access interactive content. Due to the fact that the mobile phone has become a big part of users everyday lives, some authors argue that it has moved from a technical device to a more social device (Srivastava, 2005). The innovative use of mobile phones can create new products and services and new customs and thus the theory of social presence is introduced as this is how all this new medium of

communication embodies all the human communication cues and how it is perceived as real. With the explosion of social media, internet applications also have an effect on how the mobile phone has shaped society, it is important to understand how this affects the new venture and what factors contribute to the success of a new venture. This new technology is popular with millennials and since they are the most frequent and most active users of mobile phones the study shall focus on how they use mobile to conduct business.

### **1.3 Problem statement**

Social presence is becoming increasingly important to understand as most of businesses communication is done through electronic mediums. The effect social presence has on the success of a venture needs to be understood in the African context. The growth in mobile technology, which is breaking social norms and creating new forms of communication and interactions has subsequently led to new ways of conducting business for companies. This phenomenon needs to be investigated and understood in relation to how it related to social presence. Through mobile technology, millennials are changing the way they are doing business using the advantages and interactivity of mobile technology.

This study aims to understand how relevant social presence is to the performance of a business. Furthermore and due to how sparsely spread out the entrepreneurs' social networks are it aims to investigate how trust increases the success of their entrepreneurial ventures.

#### **1.3.2 Sub problem 1**

To investigate the impact of mobile technology/mobile phone usage impact on venture performance.

#### **1.3.3 Sub problem 2**

To investigate how trust mediates the impact of social presence on venture performance.

### **1.3.4 Sub problem 3**

To investigate the relationship between the level of the entrepreneur's social presence and mobile phone use.

## **1.4 Research purpose, research question and aims of the study**

The main purpose of this study is to understand if social presence is being utilized by young South African entrepreneurs to improve the performance of their businesses.

The other issues are to understand how the use of mobile technology impacts entrepreneurs' social networks and to what degree they see value in the use of this platform. Lastly, the aim of the study is to quantify how mobile technology contributes to the growth of perceived social presence of the entrepreneurs.

## **1.5 Contribution of the study**

This study will contribute to an improved understanding of how society perceives social presence; trust in the use of mobile phone technology, and how it impacts on venture performance in the South African small business context.

## **2 LITERATURE REVIEW**

### **2.1 Introduction**

The literature review provides an outline on social presence, mobile phone usage, trust and venture performance. It also provides an overview of the conceptual framework and the factors or themes related to the proposed model.

Over the past three decades, there has been an explosion of the use of ICT across the world. This was widely adopted in developing countries and not so much in Africa due to the fact that there was limited access to technological infrastructure. The introduction of mobile phones and subsequent decrease in cost of owning a mobile phone has led to its ever rapid increase in adoption and use in Africa where it is argued to a point that it contributes to the developing countries GDP (Donner & Escobari, 2010).

### **2.2 Social presence and entrepreneurship**

The construct of social presence can be traced back to the concept of feeling, perception, and reaction, which are communication behaviors that enhance closeness and nonverbal interaction between parties (Paquette, 2016). The growth in the adoption of technology in the way individuals, as well as businesses, communicate in the 21<sup>st</sup> century has made it even more important to understand the construct of 'Social presence' and how it affects the users of these platforms (Kraton, 2007). Putnam and Kolko (2009) argue that with the increasing use of technology in communication this will lead to decreased perceived social presence. Researchers of communication mediums rate face-to-face communication highest in social presence, due to its immediate feedback, multichannel, natural and personal nature, whereas email is rated lowest (Bos, Olson, Gergle, Olson, & Wright, 2002).

Many researchers of social presence concentrated on text-based computer mediated communication (CMC) have argued that this medium has a limited amount of intimacy or human nature (Min, 2007; Paquette, 2016). CMC is different from other forms of

communication like print, TV, and radio due to the fact that it allows for interactivity and feedback (Fortin & Dholakia, 2005). According to Fortin (2005) the more interactive a CMC medium becomes, the more it incites human feelings and thus creates the notion of social presence.

Social presence can then be defined as the degree to which people establish warm and personal connections in a communication setting as initially proposed by Short, Williams, and Christie (1976). Similarly, Biocca (1997) defines it as the 'sense of being together' bringing people with similar interests together. It has also been defined from an academic point of view as "the ability of learners to project their personal characteristics onto the community of inquiry, thereby presenting themselves as 'real people'"(Tu & Mclsaac, 2002). Figure 2-1 depicts how social presence fits into the model of the community of inquiry.

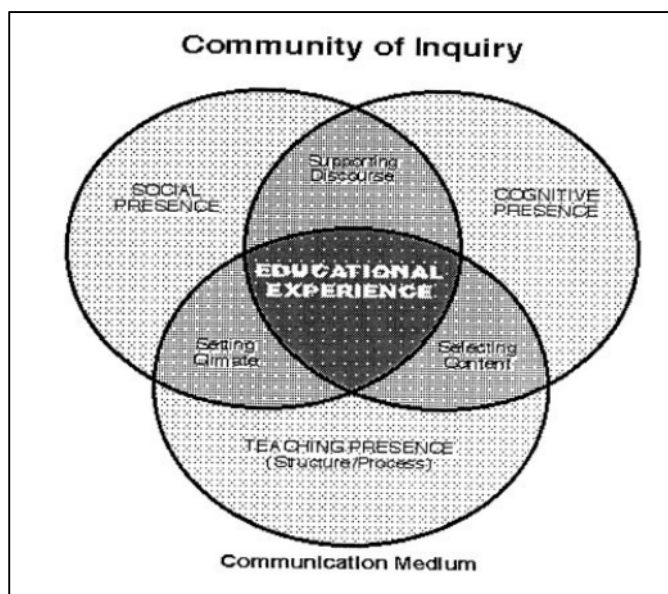


Figure 2-1: The Community of Inquiry model (Rourke, Anderson, Garrison, & Archer, 2007)

Social presence theory is relevant to business education and communication, as traditionally business is addressed through face-to-face conversation, but now communication over computer mediated platforms is becoming popular (M. Kraten, 2015). It is important to understand social presence from two perspectives, the first being

how the instructor's actions are perceived as real, and the other is how authentically present are the other learners (Paquette, 2016). The growth of the internet and mobile technology has created a multitude of ways that people can communicate with each other. The more a user engages in CMC they begin to perceive the environment to be more communal and connected and thus creating the notion of social presence, which increases the more they use the platforms (Bhappu, Griffith, & Northcraft, 1997; Paquette, 2016). In this study, the aim is to understand and measure the degree to which entrepreneurs feel effectively connected to one another over CMC that is mobile based (Swan & Shih, 2005). This is due to the fact that within some areas of CMC, even though devoid of social cues, it is more stimulating, interactive and interesting (Gunawardena, 1995). The channel richness is also dependant on the circumstances, which means CMC is unique to other media due to the fact that it supports many features and unique ways to communicate. One example of this is the emoticon which was created to simulate the nonverbal cues that normally could not be conveyed through text based communication (Derks, Fischer, & Bos, 2008).

### **2.2.1 Trends in social presence**

According to Lenhart, Purcell, Smith, and Zickuhr (2010), the use of the internet is gradually moving from the desktop devices to the mobile and wireless environment amongst millennials. The increase in capacity of these mobile devices means that the mediums through which CMC communication is conducted also advance. This in turn results in much more interactive and intuitive applications that are being developed around these and in-turn turns them into platforms for learning which have a high sensory and social presence (Biocca, Harms, & Burgoon, 2003; Tu & Mclsaac, 2002). Bangert (2008) states that the through social presence the state of opinion in a group can change if there is a low social presence compared to one which has a high social presence. There is also a belief that the more social presence there is on a CMC medium the greater the perceived trust of that individual, brand or entity (Bos et al., 2002; Gefen & Straub, 2004). This has become increasingly important for entrepreneurs as it is now important for them to market their businesses on such platforms.

### 2.2.2 Intimacy and immediacy

Intimacy and immediacy are related concepts that are typically associated with social presence. Intimacy can be defined as the interpretation of interpersonal interactions, which is expressed by nonverbal behaviour, for example, eye contact, which is subconsciously maintained at equilibrium (Rettie, 2003). Intimacy is the degree of emotion that can be expressed through the CMC platform. Figure 2.2 shows the mediating effect that social presence and visibility have on emotional expression and recognition (Derks et al., 2008).

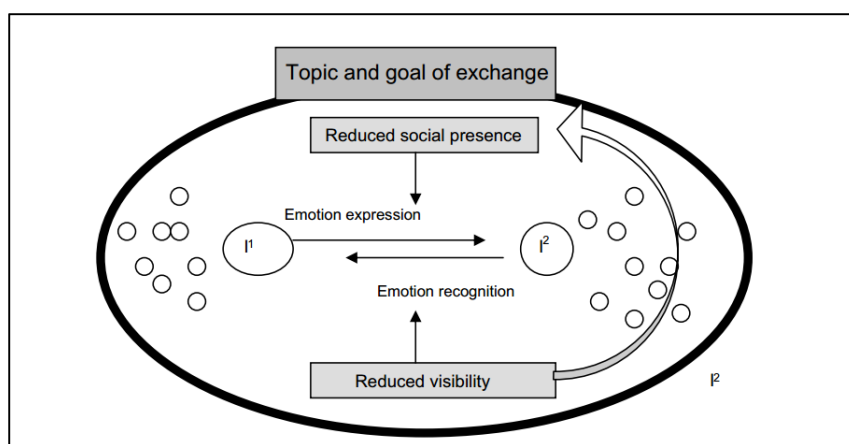


Figure 2-2: Model of emotion communication in CMC, Source:(Derks et al., 2008)

Immediacy according to Rettie (2003) is concerned with the measure of psychological distance, this psychological distance is communicated through a medium via non-verbal feedback via gesturing, smiling, vocal variety and encouragement (Gunawardena, 1995). Danchak, Walther, and Swan (2001) and argue that the level of immediacy may change depending on the medium of communication and participants comfort level as they will change their behaviour to create a balance.

To assess the intimacy and immediacy of social presence this study will measure it using the following factors: (1) human contact (2) personal (3) sociability, for measuring immediacy and (4) warmth (5) sensitivity for measuring intimacy.

### **2.3 Mobile phone usage and entrepreneurship**

Mobile telecommunications provide the promise of increasing social contact using multimodal access that can cut across space and time (Brown, Green and Harper 2001)

The computing power of the mobile phone has far surpassed desktop computers of 10 years ago and this has partly led to its widespread adoption worldwide. Due to this widespread adoption, mobile phones are said to embody both a symbolic and cultural aspect of our lives and making them artefactual in nature, as it can be used as an aesthetic object, status symbol or technological fetish (Luthar & Kropivnik, 2011). The usage of mobile phones is largely influenced by age instead of class, which lends it to the millennial generation which uses mobiles more (Luthar & Kropivnik, 2011). Though being almost artefactual in nature in Africa, one benefit of the mobile phone is that its use by individuals for business has the potential to improve the social standing, economic power and social networks of these individuals (Srivastava, 2005).

To understand the role of the mobile phone in African economic development a closer look needs to be taken at how telecommunications have helped ensure the widespread use of cellular technology. According to Saunders, mobile telephony contributes to economic development in the following ways: (1) Accessing of market information, (2) Improvement of transport efficiency or productivity, (3) Reduction of isolation and increasing of security, (4) Increased connectivity and coordination with international economic activity. The introduction of mobile telephony in Africa was subsequently followed by downstream products and services that were created on the use of the mobile phone. Mobile pay phones are one example of such services that resulted from the use of the mobile phone in Africa. Money transfer services like MPESA have revolutionized the way Africans perceive their mobile phone. M-PESA allows for ordinary Africans to partake in banking even though they rarely have a bank account and therefore they do not have to go into town to participate in the economy. Other services like mobile phone repair businesses' and mobile accessory businesses have also resulted in the adoption of the mobile phone in Africa.

According to Jagun, Heeks, and Whalley (2008), mobile phones have the capacity to change the way commerce is done from various levels in the supply chain. This is due to the fact that they substitute for travel, enabling the user to have time and thus creating more productivity. Figure 2-3 shows how mobile phones can affect supply chain from a number of levels.

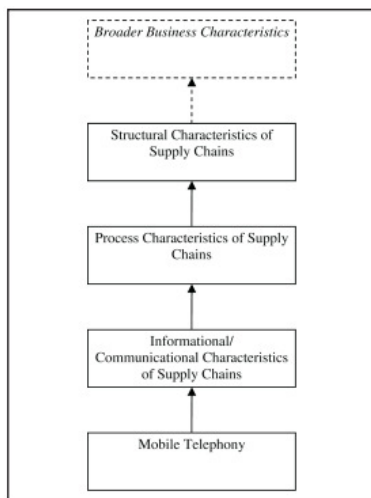


Figure 2-3: Mobile impact on commerce Source: (Jagun et al., 2008)

Based on a study by Jonathan Donner (2004), there are 3 distinct uses of the mobile phone that will be explored in the study which are: (1) Connectivity, (2) Productivity (3) Information.

### 2.3.1 Connectivity

The growth of mobile technology use is also largely due to mobile operator competition as they try to lower tariffs in order to get the right consumers. This results in most of the services provided by the mobile easily being accessed. Thompson Jr and Garbacz (2007) state that the increased connectivity provided by telecommunications has increased business efficiency, this, in turn, lowers business transaction cost. Increased connectivity allows the poorest nations to improve their economies as increased connectivity results in reduced cost of usage that subsequently increases usage. The increase in connectivity also has a huge impact on the social dimension of the mobile phone as this can be used to change the social dynamic. As mentioned by Jagun et al.

(2008) the connection brought about by mobile telephony can increase business effectiveness by cutting out unnecessary middle men.

### **2.3.2 Information**

In developing countries, knowledge creation and transmission are major drivers of growth. Mobile phones are devices that manage to bring the advantages of ICT technology to the consumer. Mobile phones provide information to the users in order to allow them to make informed decisions about trading.

It is stated that mobile phones can be used to gauge the trustworthiness of a party in a trade, ordering of commodities during a trade and receiving feedback on information acquired after a trade (Norton, 1992). Through mobile phones, research can be done on pricing, goods availability, and information can be used to aid in smarter decisions in business transactions.

### **2.3.3 Productivity**

Mobile technology has one key advantage in the fact that it allows businesses to have no fixed physical location (Donner, 2004). This is beneficial for the African business person as this means that he/she does not have to have a physical landline from which to conduct business. This emancipation from the landline results in the mobile phone being the office of the entrepreneur, thus the mobile phone has allowed for the increase of business virtualization (Chesbrough & Teece, 1996) which means there is also a change in the way that individuals are using the technology to conduct business.

Due to Moore's Law, there has been a steady progression in the capabilities and features of the mobile phone, whilst the price point of the mobile phone has remained affordable. This means that more people are getting access to better phones and this has resulted in the general population becoming more productive as the mobile phone becomes almost like a personal assistant or diary where users store their information and retrieve it when needed.

## **2.4 Network trust and entrepreneurship**

Social capital can be defined as how networks can bond people who are similar and diverse and promote reciprocity from this bondage (Dekker & Uslaner, 2003). Empirical literature that aims to measure social capital is disparate, with scholars referring to social capital and social networks interchangeably. There have been arguments by scholars that technology allows for decay in social capital due to the individualising aspects of technology.

### **2.4.1 Types of trust**

The main attributes of social capital that are measured, according to recent studies are generalized trust, the intensity of associative links, and civic and political participation. Social network trust is a concept that can be derived from social capital. It is important to note that there is a difference between social capital and informal social networks. Even though interrelated social networks do not often always equate to social capital. The social capital is derived from the qualitative dimension of the networks.

### **2.4.2 The role of the network**

Chow (2008) grouped all the attributes of social capital into three clusters which are: structural, relational and cognitive. The structural cluster is more concerned with the factors that address: (1) Network pattern, (2) Density of the network, (3) The connectivity of the network, and (4) Network hierarchy. The relational dimension looks at the level of trust that comes from interactions, obligations, and norms that raise awareness to their collective goals. The cognitive dimension looks at culture and the way it increases understanding between parties. In this study, the moderating relationship effect of “social network trust” or business trust will be assessed which falls within the relational dimension.

Trust is defined as a willingness to be vulnerable and has also been defined as a component in the quality of relationships (Paine, 2003). For there to be trust, there needs to be an established network and these networks are beneficial to organizations as well as the individual entrepreneur in order to facilitate the smooth running of the venture.

Networks facilitate the flow of resources and the building of trust that is valuable for an entrepreneur. Network centrality has a huge influence on trust as high network centrality ensures that entrepreneurs have more access to resources. The organizations with more network trust are seen as market leaders to outsiders who are in turn appear more trustworthy (Stam & Elfring, 2008a).

The mobile social network is said to be under constant evolution (Srivastava, 2005), and due to the personal nature of the mobile phone, it is a huge determinant of someone's social network. It is argued that users form a personal relationship with their mobile phone which is deeper than any other form of ICT. The entrepreneur's networks allow him/her to be able to access resources for product development, production, and promotion. If entrepreneurs position themselves in a beneficial way, they can create "trust" which can be used as a commodity to get certain resources. In fact, trust is seen as a big prerequisite of the usage of social networks in cases where there is a need to prolong the engagement (Schmeets, Linssen, & Righi, 2013)

There needs to be a careful consideration that is made on the relationship that the mobile phone has with the creation of social networks as it works as the conduit through which these social networks are realized. The lifetime use of a mobile phone is around 9 months to 3.5 years (Suckling & Lee, 2015; Wilhelm, Hutchins, Mars, & Benoit-Norris, 2015) and though the use is highly personal and the mobile holds a higher personal relationship, these relationships are devoid of the device but more embodied in the degree of presence of the owner of the device. This also contributes to the shift in social network designs as the mobile phones become faster, and more innovative software programs and features are designed.

There has been strong empirical evidence that though strong interfirm networks may improve entrepreneurial orientation, no literature can confirm this (Stam & Elfring, 2008b). Network ability is the individual skill of developing friendships that create strong and mutually beneficial alliances (Ferris et al., 2007). Networking skills can allow entrepreneurs to attract investment (Batjargal, 2003) and can also have a positive effect on the organisations financial performance (Semrau & Sigmund, 2012).

## 2.5 Venture Performance

A large proportion of literature on venture performance states that entrepreneurial orientation is a key factor that can be used to determine the success of a new venture (Carland & Hoy, 2002; Guo, Tang, & Su, 2014; Tocher, Oswald, Shook, & Adams, 2012). Factors EO that contribute to the performance of the venture are: self-efficacy, need for achievement, the locus of control, need for autonomy and risk-taking (Venter & Urban, 2015).

Accurate and appropriate measurement of venture performance is key for entrepreneurship research. However, there is no single way of measuring venture performance in entrepreneurship as scholars all agree that there many facets that a new venture touches on that need to be understood to be able to quantify a business's performance (Robinson & McDougall, 2001). The determinant of the success of a venture as the measurement of business performance is also based on multiple performance dimensions, thus the research on a single construct may not accurately show the performance of the business as a whole, as different performance measures are needed in different phases of the business (Lumpkin & Dess, 1996). Getz and Carlsen (2000) state that in measuring the performance of a small firm, certain qualitative factors need to be taken into consideration like the firm's goals, aspirations, and objectives. Another aspect that needs to be taken into consideration is the firm's strategy and resources as if these are weak they could impact on the firm's performance (Chrisman, Bauerschmidt, & Hofer, 1998).

In light of this, there are several compelling models that measure venture performance, Smith, Baum, and Locke (2001) created a model of venture performance, which assesses the factors that contribute to venture performance. This model looks at six critical factors that combined could contribute to the success of a new venture, which are the entrepreneur's traits, competencies, the environment, the competitive strategy, resources as well as the organizational structure. The fact that there are numerous individual factors that need to be taken into account to accurately measure venture performance, scholars have suggested a number of theoretical perspectives and

approaches can be adopted to approach the measurement of venture performance these are: universalistic, configurational and contingency theory (Fink & Sukenik, 2011; Robinson & McDougall, 2001).

The universalistic theory aims to show variables as universal across all organizations and in using this theory it is important to develop relevant dependent and independent variables (Fink & Sukenik, 2011; Robinson & McDougall, 2001). In the contingency theory unlike the universalistic the court this theory aims to show that relationships are more about interactions between two variables more than just simple associations (Robinson & McDougall, 2001). For example, the quality of management performance is overlooked in the universal theory when assessing venture performance (Ensley, Pearson, & Amason, 2002) and this is a key success factor in new ventures. Lastly the configurational theory, which is the most complex approach of measuring venture performance as it looks at relationships between environment, strategy, structure, and performance. Smith et al. (2001) used this approach when they developed a model to assess the performance of a new venture, which based a ventures performance on entrepreneur traits, competitive strategy, environment, and industry structure. There is compelling evidence that that venture growth cannot be explained from a single perspective and different approaches can be used to assess this based on context.

For the purpose of this study, the performance of the venture shall be measured using financial measures and the theoretical approach will be a universalistic approach. In This paper, the measure of performance of the business venture will focus on looking at the economic performance of the venture from the subjective view of the entrepreneur as stated by (Dawes, 1999). The other reason to measure economic performance from the entrepreneur's perspective and some entrepreneurs are perfectly happy to have marginal returns on a business venture so as to have gains in personal values for example not having to answer to a supervisor may drive some entrepreneurs besides financial gains (Dawes, 1999; Wall et al., 2004). Another reason is the sensitivity of financial data is also another reason why it is important to use the entrepreneurs view as financial data is usually kept secret by new ventures in order to keep their competitive edge (Li, Zhang, & Chan, 2005).

In this study, the following universalistic economic performance measures concerned with measuring venture performance will be adapted to our scale and it will be derived from the measurement scales highlighted by Su, Xie, and Wang (2015) and these are the firms (1) market share, (2) return on assets, (3) annual sales, (4) access to finance and (5) return on sales.

### **2.5.1 Market share and venture performance**

The quality of a product or service a business provides and market share are firmly related. The fact that a firm has a high percentage of market share may be a firm indicator of customer satisfaction. There are some studies that have proposed the fact that there is a negative relationship between customer satisfaction and market share (Anderson, Fornell, & Lehmann, 1994). Firms that may have a small market share may serve a particular niche compared to firms with a large market share that serve a larger diverse range of customers. To be competitive firms that have a small market share need to ensure that they are creating a niche product and service that addresses a specific consumer.

According to Anderson et al. (1994), there are two ways of achieving market share for a business. Firstly high market share can be achieved by economies of scales which may result in a generic product with lower pricing and an increase in customers. Secondly, a firm addresses a niche and ensures that it is creating a product and service that addresses a specific customer. Small niche firms do not have the benefit of access larger markets and thus they need to address a niche and provide superior customer satisfaction in order to compete. There are ways SMME's can structure their product services to achieve market share and this can be determined by the resources the firm has and the market the firm is playing in.

In South Africa, SMME's are more likely to rely on a differentiation strategy to be able to play in the space

### **2.5.2 Return on assets and venture performance**

Return on assets (ROA) is viewed as one measure of the operational efficiency and investing performance of a business and is measured looking at how the firm's asset base is used profitably. This is calculated by the net income divided by the average total assets and as a general rule (Needles Jr, Powers, & Crosson, 2010). This can give an indication of the capital intensity of a company as different firms will have different returns on assets based on their organizational size.

The bulk of the SMME's usually rely on self-generated assets and it is important to measure how they profit from this as this is key to their success and unlocks the potential to allow the firm to have access to finance. SMME's need to maximise on the assets they own and track them in order to succeed as a low number of firms utilize their return on assets to allow them to generate sales (Turyahebwa, Sunday, Aluonzi, Yahaya, & Sumil, 2013).

### **2.5.3 Annual sales and venture performance**

When assessing venture performance, looking at annual sales is probably the first thing that management will do in order to gauge the performance of the venture. Depending on whether the business has sales for or there are dual roles in the business, the annual sales are important to seeing that the business survives. Annual sales is a reliable performance measure that shows the total volume of business activity and can show if an organization is growing (Hermelo & Vassolo, 2007).

### **2.5.4 Access to finance and venture performance**

The main issue that small ventures struggle with is the access to financial capital that will enable them to grow. The access and use of finance may allow the firm to access better resources and affect the firm's performance on various factors. The access to finance can help the firm's entry, growth, equilibrium, size and risk reduction this entail will improve the overall firm's economic performance (Beck, Demirguc-Kunt, & Levine, 2005).

SMME's in their first few years of operation may not fulfil the criteria to obtain the required amount of debt finance from financial institutions these is made worse by the fact that these firms are more financially constrained compared to larger firms. The most sought after type of financial assistances SMME's require is working capital as they do not receive supplier credits or buyer advances (Riley, 1993). Whited (1992) noted that financial constraints and a diminished ability to access finance from an external source have a direct impact on a firms capital investment plans. For most firms, insufficient financial resources has been stated as one of the primary reasons why emerging businesses fail (Chandler & Hanks, 1994).

According to the 2016 Global entrepreneurship monitor report, most countries in the developed and developing world have less than optimal sources of financial backing for new entrepreneurial ventures (GEM, 2016). This may be due to the fact that funding start-up, small and young firms have a higher level of risk compared to an established firm (Levy, 1996). Though the access to finance alone is not a guarantee that the new venture will succeed but it assists the venture in acquiring the much-needed resources that will give it a chance to achieve success.

SMME's in South Africa have to adhere to strict regulations in order to access finance from financial institutions and these regulations require for some sort of economic success or collateral from the firm in order for the banks to find the firm eligible for financial assistance (Beck & Demirguc-Kunt, 2006; Levy, 1996). The strict rules are a result of the recession that affected South Africa and made most of the financial institutions tighten up their lending legislation. Levy (1996) states that it is possible that South African banks discriminate against small business borrowers who are not white.

#### **2.5.5 Return on sales and venture performance**

When a company does business trading a product or service it is essential to calculate its return on sales. Return on sales (ROS) is simply the evaluation of a company's operational efficiency and can show how much a business is making per dollar of sales. The more return a firm gets from its sales this will ensure that the firm has enough capital

to invest into new markets, innovation, marketing and new products (Hermelo & Vassolo, 2007).

## 2.6 Conclusion of literature review

Below is a proposed framework that will be used as the foundation of the theory. This will also be used to build and test the hypotheses that have been identified in the literature review. The hypotheses need to be tested to understand which variables have a stronger relationship with venture performance.

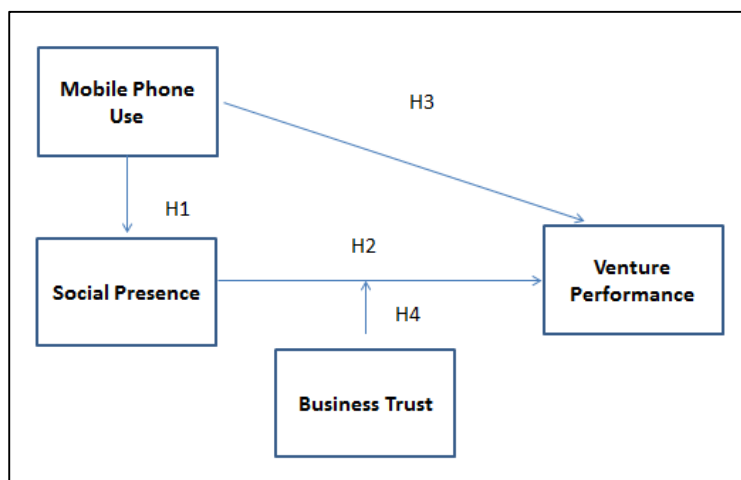


Figure 2-4: Proposed Conceptual framework

- 2.6.1** Hypothesis 1 - There is a positive relationship between mobile phone use and social presence.
- 2.6.1** Hypothesis 2 - There is a positive relationship between social presence and venture performance.
- 2.6.2** Hypothesis 3 – There is a positive relationship between mobile phone use and venture performance.
- 2.6.3** Hypothesis 4 – Trust positively moderates the relationship between social presence and venture performance.



**Figure 2-5: Consistency matrix**

<b>Sub Problem</b>	<b>Literature Review</b>	<b>Hypothesis</b>	<b>Source of Data</b>	<b>Type of Data</b>	<b>Analysis</b>
To investigate the relationship between social presence and mobile phone use.	<b>Jonathan Donner (2004)</b> <b>(Gunawardena, 1995)</b>	Hypothesis 1 - There is a positive relationship between mobile phone use and social presence.	Questionnaire	Interval data	Correlation and regression analysis
To investigate the impact of mobile technology usage impact on venture performance .	<b>(Gunawardena, 1995)</b>	Hypothesis 2 - There is a positive relationship between social presence venture performance	Questionnaire	Interval data	Correlation and regression analysis
	<b>Jonathan Donner (2004)</b>	Hypothesis 3 – There is a positive relationship between mobile phone use and venture performance.	Questionnaire	Interval data	Correlation and regression analysis
To investigate how trust mediates the impact of mobile technology on venture performance	<b>(Schmeets et al., 2013)</b>	Hypothesis 4 - Trust positively moderates the relationship between social presence and venture performance.	Questionnaire	Interval data	Correlation and regression analysis

### **3 RESEARCH METHODOLOGY**

In this chapter, the research methodology used for this study will be discussed. The study was a cross-sectional study which aimed to investigate a prevalence of certain behavioural phenomena in a population subset to predict how this affects the larger population. The research design will be quantitative and will employ the use surveys and experiments to collect data using predetermined instruments. The research design uses online questionnaires as well as printed distributed surveys as the population group was located in the Johannesburg metro region which allowed the research intimate access to the respondents.

#### **3.1 Research approach / paradigm**

This is largely due to the fact that in the study, the main aim is to understand and quantify the relationship between social presence, mobile technology and trust will impact on venture performance. The analysis that will be done will be correlational; so as to understand the relationship between the variables and then a regression analysis will be done and this will be to further justify the positivist approach.

#### **3.2 Research Design**

The research design shall focus on primary data collection and analysis and this will be collected in the form of a quantitative survey questionnaire. This questionnaire will be administered by hand via printed copy and online via email, the internet as well as social media to a predetermined sample that adheres to selected criteria. The advantages of having a printed copy and collecting of survey data via a face to face interaction are that you get a timeous response and the likelihood of completion is higher. There is also the ease of use of face to face tools in the sense that the researcher will only need the survey instrument which can be administered via a printed copy. The disadvantages of this method of collection is the data capture can leave this method open to many errors,

it can also prove difficult to collect large datasets with this method. The advantages of using the online survey in addition to the other sample collection methods are that researchers can streamline the responses to target the factors they are intending to measure. The disadvantages of using online responses are that the response rates are generally low and the need for a peripheral device may hamper the completion rate. The survey will also allow for the respondents to access it on the go on their mobiles, which is quite beneficial for the target market.

Responses to the questionnaire shall be tabulated and assessed through descriptive statistics to give an overall impression of the state of the data collected. To understand the relationship between the factors a correlational analysis is conducted on the independent and dependent variables to test the hypotheses put forward in this paper. There will also be causality and regression analysis to compare the findings with the literature review.

The questionnaire was pilot tested before the study to test if the questions asked were relevant to the constructs, and that the questionnaire is easily understandable. A subset of the sample was selected for this pilot test and

### **3.3 Population and sample**

#### **3.3.1 Population**

The study will aim to look at businesses people in South Africa between the ages of 19 and 65 who own a registered business and are using mobile phone technology in their day to day business operations. They should reside in the greater metropolitan area of Johannesburg. According to the 2014 census, the target population group that we will draw the sample from consists of about 5,004,830 people, which is roughly 9, 6% of the total population in Johannesburg.

#### **3.3.2 Sample and sampling method**

Cooper, Schindler, and Sun (2003) define sampling as a process of selecting a subset of a population in order to draw conclusions about the entire population. The convenience

sample was chosen for this study as to account for the constraints in time and this allowed fast access to data that could produce data in the research timeframe. The advantages provided by the convenience sample ensure that more data can be gathered with less constraints and rules on the gathering of this data, and there is a significantly reduced cost associated with this form of data collection. The disadvantages of this method is that it is difficult to determine the effect of the dependant variable on the independent variable and the fact that there is a high vulnerability to selection bias due to influences that are out of control of the researcher.

For this study, the sampling frame will consist of businesses derived from public incubator databases from the following organizations: The Business HUB, SEDA, and the Innovation Hub. The incubators have been approached and sample of the study has been focused on a subset of their databases that consist of all small businesses that are undergoing, or that have completed an incubation process. The study will also allow for the implementation of the snow ball sampling method.

The proposed representative sample size determined was 261 respondents (based on calculation derived from the Yaro Yamane sampling formula) and this sample size was chosen to represent a sample of 20% of the entire Johannesburg metropolitan population. The sub sample would then be used to create the data which will be used to validate the various hypothesis and prepositions that have been put forward in the study. The following control variables will be imposed on the sample: age, gender, education, and mode of internet access.

For the purpose of this study, three research instruments will be combined to test the above hypotheses using our research sample.

### **3.3.3 Demographic profile**

The instrument shall aim to find out more information about the respondents in order to be able to match the data collected from the survey to census data to be able to see how valid the sample is to the general population. The demographics questions shall focus on the following: (1) Gender, (2) size of business, (3) years of operation, (4) industry and (5)

business size. The variables collected here will be of a categorical nature, with respondents only being permitted to select one response per question.

#### **3.3.4 Social presence**

The instrument shall adapt the instrument used by Gefen and Straub (2004) that measures the following indicators of social presence. These are (1) human contact (2) personal (3) sociability (4) warmth (5) sensitivity. The questions in the instrument for this section shall be of a 5 point Likert scale.

#### **3.3.5 Mobile technology use**

Mobile technology usage will be assessed using Jonathan Donner's instrument that aims to measure the uses of mobile phones by measuring the factors like (1) Connectivity, (2) Information, (3) Intrinsic value, (4) Productivity,(5) Security and (6) Others (Donner, 2004). This will be combined with the instrument that measures social capital that is based on an existing tool and adapted from Wright and Ricks (Westhead, Wright, & Ucbasaran, 2001) definition of internationalisation, "a firm-level activity that crosses international borders".

#### **3.3.6 Business network trust**

The business network trust shall be measured using the adaptation of the business network trust scale proposed by Chow and Chan (2008). This measures network trust from the point of view of the organizational members of a business network.

#### **3.3.7 Venture performance**

In this study, the following measures of venture performance will be used based on Su et al. (2015) and these will be (1) market share, (2) return on assets, and (3) return on sales. The instrument will consist of five questions that will measure small to medium venture performance. This will be derived from the work by Chen (2009) that measures the same factors.

### **3.4 Procedure for data collection**

The Innovation Hub, SEDA, and The Business Place were incubators whose databases were used to obtain contacts in the start-up space in Johannesburg. The respondents were identified by getting email lists from incubators and appointments were made to administer the survey of the link was shared where appropriate.

The method of data collection was done by way of a printed questionnaire which was distributed by hand as well as in an online survey accessed through an anonymous website link which was distributed to each of the respondents. This survey was administered using the University of Witwatersrand's licensed version of Qualtrics ([wits.eu.qualtrics.com](http://wits.eu.qualtrics.com)) which is trusted online survey research collection software. The collection of the data was done utilizing a five point Likert scale and closed ended questions. The scale had all the 4 constructs in the model which were social presence, mobile phone use, and business network trust and venture performance. Entrepreneur demographic figures were collected and were used as the control variables.

The five point Likert was used placing 5 as the highest score and 1 as the lowest score was utilized. The responses to the items in the scales were calculated to produce the frequencies, mean, and standard deviation.

The method of data collection focused on collecting primary data by extracting respondents directly from the respondents using the various methods. They reminded through various methods like email, text messages and follow-up visits to complete the survey.

### **3.5 Data analysis and interpretation**

The research used statistical analysis to interrogate the relationship between the dependant variable of venture performance and three independent variables (social presence, mobile phone use, and business trust).

During the analysis stage, respondent data was collected and exported into SPSS statistical software. The data was put through a process known as data preparation where it was cleaned, validated and edited to ensure consistency.

The analysis of the data started off with descriptive statistics to describe the data and inferential statistics were used to distinguish significant relationships between the data. Data shall be analysed using bivariate correlation analysis (Cooper et al., 2003) which will allow variables to be observed in how they relate to each other symmetrically. The data shall be used to formulate scatter plots (Cooper and Schindler, 2006) in order to explore the relationships between variables and how they interact with each other.

### 3.5.1 Descriptive statistics

This will be used to describe the characteristics of the respondents and will use frequencies, means, modes, medians, standard deviations and coefficients to summarise the characteristics of the data. The following statistics were used:

**Frequency:** This refers to the actual percentage of responses to a question. This will be represented in the form of a table.

**Mean:** This is the sum of the values of all observations in a variable divided by the total number of observations.

**Mode:** This is the observation that occurs most frequently.

**Median:** The middle value when data is arranged from smallest to largest

**Percent:** The rate or proportion per hundred

**Valid percent:** Percentage that does not include missing cases

**Cumulative Percent:** the percentages of each region from the top of the table to the bottom

### **3.6 Limitations of the study**

The study was limited to owner/managers of small to medium businesses operating from incubator premises. The study also focused on focusing on subjects that were located in the Johannesburg metropolitan region.

It is important to note that there are other variables that may influence a ventures performance which a research may struggle to measure or account for. It is also difficult to focus on a single variable of venture performance. As a result of this, the study only measured the venture performance from a financial standpoint and this was from the subjective view of the entrepreneur.

Convenience sampling can lead to some unwanted results observed between particular groups within the sample. The sample may not provide an accurate representation of the population group.

The instrument has not been tested to account for language barriers that may be experienced in the in the population sample.

Venture performance was measured in terms of return on sales, return on equity, market share, revenue and access to finance.

### **3.7 Validity and reliability**

The study used pre-existing scales used by researchers (Donner, 2004; Gunawardena, 1995; Schmeets et al., 2013) were used to ensure that the constructs measured were valid. The reliability of the measures of social presence, mobile phone use, business trust as well as venture performance was checked using reliability estimations for Cronbach's alpha (Nunally & Bernstein, 1978). Confirmatory factor analysis was done to ensure that the data was indeed measuring the correct thing.

### **3.7.1 External validity**

The questionnaire will be administered under the same conditions to ensure that the instrumentation is consistent. The questionnaire will be statistically significant as the sample will be there is an accurate representation of the population.

### **3.7.2 Internal validity**

For the internal reliability analysis of the instrument, Cronbach's alphas coefficients will be used. The Cronbach alpha score of 0.6 will be employed for this. The study will also aim to regression analysis and the value of significance will be a p-value of less than 0,05.

### **3.7.3 Reliability**

Reliability is defined as the consistency of a concept that is being measured. In this study the following types of reliability were done: Principal Component Analysis, Factor Analysis, and Cluster Analysis.

Principal component analysis and factor analysis was done to assess the grouping of the components and to see if they grouped together in a satisfactory manner. Cluster analysis was done to see if there was any pattern in the responses that could be used to group the data by responses. The reliability of the constructs has been measured through the questionnaire and the various constructs have had a satisfactory score of a Cronbach above 0.7 in measuring their respective constructs. The data will be analysed using factor analysis which is similar to Principal component analysis in SPSS and the factors were validated using KMO and Bartlett's Tests to ensure that one factor was loading per scale. The minimum alpha value that we will accept from the validity test will be 0,600.

## **4 CHAPTER 4 PRESENTATION OF RESULTS**

### **4.1 Introduction**

In this chapter the results of the research study were presented. The data was collected using an online survey and the handwritten questionnaires were captured carefully. The responses were cleaned in SPSS and the validity of the questionnaire coding was checked for consistency. The data is represented in tables for ease of reading and to allow swift comparison between the results. The following discussion shall depict the demographics of the sample, complete with frequencies and percentages. Thereafter the descriptive statistics, frequencies and correlational tests for each hypothesis where applicable in the context of the research question will be presented.

The results of the hypothesis tests were presented in this chapter hypothesis. This was done in the following procedure:

The 4 factors were tested for reliability and were tested to see if they each achieved a Cronbach of 0.7 and above and a KMO and Barlett's test score of the same value. Thereafter confirmatory factor analysis was done via principal component analysis to ensure that one component loaded per factor with a Cronbach value of at least 0.6

Once confirmed the scales were computed into a single variable that represented the confirmed factor that was being measured. Bivariate correlational analysis was done on the independent variable and the correlation coefficients where summarized. Finally, the model was tested using linear regression to understand the relationship between the variables.

### **4.2 Demographic profile of respondents**

A total of 260 questionnaires were distributed to respondents using a convenience sample, as well as snowball sampling, and this resulted in a final sample of 141 filled in surveys representing a response rate of 56%.

#### 4.2.1 Demographic data

This section presents and describes the data related to the firms and the respondents answering on behalf of the businesses. Questions 2 - 7 in this survey addressed the business classification, business registration, period of operation and business size. The gender, age, demographics and educational level of the entrepreneur were also collected in this section.

#### 4.2.2 Gender of respondents

Out of the 141 respondents, the gender distribution of the sample was skewed as depicted by (Table2). The gender composition revealed that 56.8% of the sample consisted of male business owners while female business owners consisted of 43.2% of the sample.

Table 1: Gender of respondents

Please specify your gender					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	75	56,8	56,8	56,8
	Female	57	43,2	43,2	100,0
	Total	132	100,0	100,0	

#### 4.2.1 Education level of respondents

A small percentage of the respondents, approximately 12.1% had not completed more than a matric. The level of secondary schooling of the respondents shows that 3.8% of the respondents had not completed matric, 8.3% of the respondents had completed matric. A large number of the respondents, approximately 87.8% had completed a tertiary education at. The level of tertiary schooling of the respondents showed that 9.1% had completed a short program, 49.2% had completed a diploma/degree and 29.5% had completed postgraduate education. These as shown in in (Table 3) statistical tests revealed that the distribution of the level of education indicated in the sample of the respondents showed that the educational level of the respondents was high.

Table 2: Education level of respondents

<b>What is the highest level of schooling you have completed or the highest degree you have received?</b>					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No matric	5	3,8	3,8	3,8
	Matric completed	11	8,3	8,3	12,1
	Short program completed	12	9,1	9,1	21,2
	Diploma / degree completed	65	49,2	49,2	70,5
	Postgraduate	39	29,5	29,5	100,0
	Total	132	100,0	100,0	

#### 4.2.1 Industry classification

The results show that a large proportion of the businesses were operating in other areas that were not covered by the Standard Industrial Classification (SIC) as seen in (Table 4). Academia and education 5.3%; Banking, finance and insurance 5.3%; Computers, telecommunications and networks 14.4%; Electrics and electronics 3.8%; Engineering and Architecture 6.1%; Manufacturing 12.1%; Mass media and publishing 11.4%; Medicine and health 1.5%; Real estate 4.5%; Restaurant hotel 0.8%; Textile and garment 3%; Transport, Shipping and logistics 1.5% and; other 30.3% which showed a limitation with the scale used in the research instrument.

Table 3: Industry

<b>What type of industry is your business in?</b>					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Academia/ education	7	5,3	5,3	5,3
	Banking / finance/ insurance	7	5,3	5,3	10,6
	Computers / Telecommunications / Networks	19	14,4	14,4	25,0
	Electrics / electronics	5	3,8	3,8	28,8

Engineering / architecture	8	6,1	6,1	34,8
Manufacturing	16	12,1	12,1	47,0
Mass media / publishing	15	11,4	11,4	58,3
Medicine / health	2	1,5	1,5	59,8
Real estate	6	4,5	4,5	64,4
Restaurant hotel	1	0,8	0,8	65,2
Textile/ garment	4	3,0	3,0	68,2
Transport/ shipping/ logistics	2	1,5	1,5	69,7
Other	40	30,3	30,3	100,0
Total	132	100,0	100,0	

#### 4.2.2 Years of operation

The number of businesses in operation for less than 1 – 5 years was 67.4%, 17.4 of businesses were in operation for 6 -10 years, 8.3% of businesses were in operation for 11 – 15 years, 0.8% of businesses were in operation for 16 – 20 years and 6.1% of businesses were in operation for more than 20 years as seen in (Table 5)

Table 4: Years of operation

<b>How long has your business been operational?</b>					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1-5 years	89	67,4	67,4	67,4
	6 -10 years	23	17,4	17,4	84,8
	11 -15 years	11	8,3	8,3	93,2
	16 - 20 years	1	0,8	0,8	93,9
	> 20 years	8	6,1	6,1	100,0
	Total	132	100,0	100,0	

#### 4.2.3 Organizational size

The organizational size was determined using the total number of people working in the organization while excluding the owners of the organization. A majority of the firms, 54.48% had between 0 - 5 employees, 20.90% had between 6 - 10 employees, 11.94% had between 11 - 20 employees and 12.69% had more than 20 employees as seen in (Table 6).

Table 5: Business size

<b>What is the size of your business (number of employees)?</b>					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0 -5	71	53,8	53,8	53,8
	6 – 10	28	21,2	21,2	75,0
	11 – 20	16	12,1	12,1	87,1
	> 20	17	12,9	12,9	100,0
	Total	132	100,0	100,0	

#### 4.2.4 Years of operation

The results of the survey show the distribution of the number of years firms have been in business. This was measured in the years of operation of the business. The results below show that 67.16% of the businesses were in between 1 - 5 years of operation, 17.91% of businesses that have been in operation for 6 - 10 years, 8.21% of the businesses were in operation for 11 – 15 years, 0.75% of business were in operation for 16 – 20 years and finally 5.97% of the firms were in operation for more than 20 years as seen in (Table 7).

Table 6: Years of operation

<b>How long has your business been operational?</b>					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1-5 years	89	67,4	67,4	67,4
	6 -10 years	23	17,4	17,4	84,8
	11 -15 years	11	8,3	8,3	93,2
	16 - 20 years	1	0,8	0,8	93,9
	> 20 years	8	6,1	6,1	100,0
	Total	132	100,0	100,0	

#### 4.2.1 Business registration

The number of businesses registered on the CIPC in the sample was 90.9% and the unregistered businesses made up the remaining 9.1% of the sample as seen in (Table 8).

Table 7: Registered businesses

Is your business registered?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	120	90,9	90,9	90,9
	No	12	9,1	9,1	100,0
	Total	132	100,0	100,0	

### 4.3 Measurement aspects of the scales

This is a detailed analysis at the descriptive statistics of the various constructs used in the study. This looks at the reliability of the scales by using the Cronbach alpha.

#### 4.3.1 Social Presence Variables: Reliability

Table 9 shows an analysis of the reliability of the 5 factors that measured venture performance. The reliability scale that was looked for was a Cronbach Alpha value of  $\alpha = 0.764$  which all the items in scale managed to achieve.

Table 8: Reliability

Reliability Statistics	
Cronbach's Alpha	N of Items
0,764	5

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted

Social Presence 1	14,29	13,840	0,399	0,763
Social Presence 2	14,39	11,995	0,656	0,683
Social Presence 3	14,14	12,643	0,574	0,710
Social Presence 4	15,05	11,028	0,641	0,680
Social Presence 5	14,89	11,399	0,453	0,764

#### 4.3.2 Social presence variables: Confirmatory factor analysis

The social presence scale showed that 1 factor was observed in the component matrix after the completion of the principal component analysis. The Kaiser-Meyer-Olkin Measure of Sampling Adequacy revealed a score of 0.763.

Table 9: Social presence scales: Component matrix

<b>Component Matrix<sup>a</sup></b>	
	Component
	1
Social Presence 1	0,607
Social Presence 2	0,821
Social Presence 3	0,764
Social Presence 4	0,794
Social Presence 5	0,631
Extraction Method: Principal Component Analysis.	
a. 1 components extracted.	

<b>Social Presence</b>		
<b>KMO and Bartlett's Test</b>		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0,763
Bartlett's Test of Sphericity	Approx. Chi-Square	181,340
	Df	10
	Sig.	0,000

### 4.3.3 Social Presence Variables: Descriptive Statistics

Table 10 presents the summary of descriptive statistics of the continuous variables from the 5 questions measuring social presence used in the study. The statistics were obtained to check measures of centrality (mean, median), spread (standard deviation, interquartile range, minimum and maximum). The descriptive statistics showed that the standard deviation between the responses in the scale was 1,456 at greatest and as small as 1,033.

Table 10: Social presence scales: Descriptive statistics

Descriptive Statistics								
	N	Range	Minimum	Maximum	Mean		Std. Deviation	Variance
	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic
SP1	132	4	1	5	3,90	0,090	1,033	1,067
Social Presence 1	132	4	1	5	3,80	0,093	1,066	1,136
Social Presence 2	132	4	1	5	4,05	0,091	1,040	1,082
Social Presence 3	132	4	1	5	3,14	0,110	1,259	1,584
Social Presence 4	132	4	1	5	3,30	0,127	1,456	2,121
Social Presence 5	132							

The social presence scales all have a satisfactory Kaiser-Meyer-Olkin score of above 0.7 and they were computed into a single variable (Mean\_Social\_Presence) using the mean of all the values for further analysis.

#### 4.3.4 Mobile Phone Use Variables: Reliability

Table 13 shows an analysis of the reliability of the 5 factors that measured venture performance. The reliability of the mobile phone usage scale was very good. The analysis showed that the scale achieved a combined Cronbach alpha value of 0.888 which all the five items managed to achieve a high level of reliability.

Table 11:

<b>Reliability Statistics</b>	
Cronbach's Alpha	N of Items
0,888	5

<b>Item-Total Statistics</b>				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Mobile phone use 1	15,90	20,105	0,694	0,872
Mobile phone use 2	15,92	20,825	0,679	0,874
Mobile phone use 3	16,14	19,147	0,806	0,845
Mobile phone use 4	16,45	19,822	0,710	0,868
Mobile phone use 5	16,17	20,155	0,754	0,858

#### 4.3.5 Mobile phone usage Variables: Confirmatory Factor Analysis

The social presence scale showed that 1 factor was observed in the component matrix after the completion of the principal component analysis. The Kaiser-Meyer-Olkin Measure of Sampling Adequacy revealed a score of 0.829.

Table 12

<b>Component Matrix<sup>a</sup></b>	
	Component
	1
Mobile phone usage 1	0,885
Mobile phone usage 2	0,850
Mobile phone usage 3	0,821

Mobile phone usage 4	0,805
Mobile phone usage 5	0,794
Extraction Method: Principal Component Analysis.	
a. 1 components extracted.	

Mobile Phone Use		
<b>KMO and Bartlett's Test</b>		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0,829
Bartlett's Test of Sphericity	Approx. Chi-Square	368,088
	Df	10
	Sig.	0,000

#### 4.3.6 Mobile Phone Use Variables: Descriptive Statistics

The information below presents the summary of descriptive statistics of the continuous variables from the 5 questions measuring social presence used in the study. The statistics were obtained to check measures of centrality (mean, median), spread (standard deviation, interquartile range, minimum and maximum. The descriptive statistics showed that he the standard deviation between the responses in the scale was 1,376 at the greatest and as small as 1,275.

Table 13: Mobile phone use: Descriptive statistics

Descriptive Statistics							
	N	Range	Minimum	Maximum	Mean	Std. Deviation	Variance
Mobile phone usage 1	132	4	1	5	4,24	1,360	1,849
Mobile phone usage 2	132	4	1	5	4,23	1,282	1,643
Mobile phone usage 3	132	4	1	5	4,00	1,342	1,802
Mobile phone usage 4	132	4	1	5	3,70	1,376	1,892
Mobile phone usage 5	132	4	1	5	3,98	1,275	1,625

The mobile phone use scales all have a satisfactory Kaiser-Meyer-Olkin score of above 0.7 and they were computed into a single variable (Mean\_Mobile\_Phone\_Use) using the mean of all the values for further analysis.

#### 4.3.7 Business trust variables: Reliability

The information below shows the results of the analysis of the reliability of the 5 factors that measure venture performance. The reliability of the mobile phone usage scale was very good. The analysis showed that the scale achieved a Cronbach alpha value of .8 which all the five items managed to achieve.

Table 14

<b>Reliability Statistics</b>	
Cronbach's Alpha	N of Items
0,842	5

<b>Item-Total Statistics</b>				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Business Trust 1	13,17	14,430	0,720	0,790
Business Trust 2	13,15	15,305	0,610	0,821
Business Trust 3	13,23	15,693	0,666	0,807
Business Trust 4	13,27	15,101	0,629	0,815
Business Trust 5	12,87	14,632	0,624	0,818

#### 4.3.8 Business trust: Confirmatory factor analysis

The business trust scale showed that 1 factor was observed in the component matrix after the completion of the principal component analysis. The Kaiser-Meyer-Olkin Measure of Sampling Adequacy revealed a score of 0.800.

Table 15

<b>Component Matrix<sup>a</sup></b>	
	Component
	1
Business Trust 1	0,842
Business Trust 2	0,802

Business Trust 3	0,765
Business Trust 4	0,758
Business Trust 5	0,757
Extraction Method: Principal Component Analysis.	
a. 1 components extracted.	

Business Trust		
<b>KMO and Bartlett's Test</b>		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0,800
Bartlett's Test of Sphericity	Approx. Chi-Square	262,675
	Df	10
	Sig.	0,000

#### 4.3.9 Business Trust: Descriptive statistics

Table 10 presents the summary of descriptive statistics of the continuous variables from the 5 questions measuring social presence used in the study. The statistics were obtained to check measures of centrality (mean, median), spread (standard deviation, interquartile range, minimum and maximum). The descriptive statistics showed that the standard deviation between the responses in the scale was 1,376 at the greatest and as small as 1,275.

Table 16: Descriptive statistics: Business trust scale

Descriptive Statistics								
	N	Range	Minimum	Maximum	Mean		Std. Deviation	Variance
	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic
Business Trust 1	132	4	1	5	3,26	0,106	1,221	1,490
Business Trust 2	132	4	1	5	3,27	0,106	1,217	1,482
Business Trust 3	132	4	1	5	3,19	0,094	1,085	1,178
Business Trust 4	132	4	1	5	3,15	0,107	1,226	1,504
Business Trust 5	132	4	1	5	3,55	0,114	1,309	1,715
Valid N (listwise)	132							

The business trust scales all have a satisfactory Kaiser-Meyer-Olkin score of above 0.7 and they were computed into a single variable (Mean\_Business\_Trust) using the mean of all the values for further analysis.

#### 4.3.10 Venture Performance Variables: Reliability

Table 18 shows the results of the confirmatory factor analysis of the venture performance variable. The results tested positive for the 5 factors that measured venture performance in the study. The reliability scale revealed that a Cronbach value of 0.876 of which all the scales managed to achieve a value of above 0.8.

Table 17

<b>Reliability Statistics</b>	
Cronbach's Alpha	N of Items
0,876	5

<b>Item-Total Statistics</b>				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
NVP1	11,39	18,210	0,689	0,853
NVP2	11,59	17,495	0,783	0,830
NVP3	11,53	17,075	0,874	0,808
NVP4	11,21	19,909	0,576	0,878
NVP5	11,42	18,765	0,620	0,870

#### 4.3.11 Venture Performance Variables: Confirmatory factor analysis

Table 20, shows the results of the principle component analysis where one component was extracted which confirmed that the questionnaires measured the same factors.

Table 18

<b>Component Matrix<sup>a</sup></b>	
	Component
	1
NVP1	0,915
NVP2	0,884
NVP3	0,815
NVP4	0,765
NVP5	0,693

Extraction Method: Principal Component Analysis.
a. 1 Components extracted.

Table 19

Venture Performance		
<b>KMO and Bartlett's Test</b>		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0,836
Bartlett's Test of Sphericity	Approx. Chi-Square	361,720
	Df	10
	Sig.	0,000

#### 4.3.12 Venture performance variables: Descriptive statistics

Table 25 presents the summary of descriptive statistics of the continuous variables from the 25 questions obtained from the study. In addition to these descriptive statistics, univariate statistics were obtained from the same variables (see appendix). Both statistics were obtained to check measures of centrality (mean, median), spread (standard deviation, interquartile range, minimum and maximum and distribution of the variables (histograms). This was used to check the variables for any outliers and used for cleaning the data.

Table 20

<b>Descriptive Statistics</b>								
	N	Range	Minimum	Maximum	Mean		Std. Deviation	Variance
	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic
NVP1	132	4	1	5	3,30	0,129	1,477	2,182
NVP2	132	4	1	5	3,33	0,118	1,351	1,824
NVP3	132	4	1	5	3,36	0,116	1,337	1,788
NVP4	132	4	1	5	3,23	0,129	1,481	2,192
NVP5	132	4	1	5	3,30	0,128	1,466	2,149

Valid N	132							
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The venture performance scales all have a satisfactory Kaiser-Meyer-Olkin score of above 0.7 and they were computed into a single variable (Mean\_Venture\_Performance) using the mean of all the values for further analysis.

#### 4.4 Correlation of computed variables

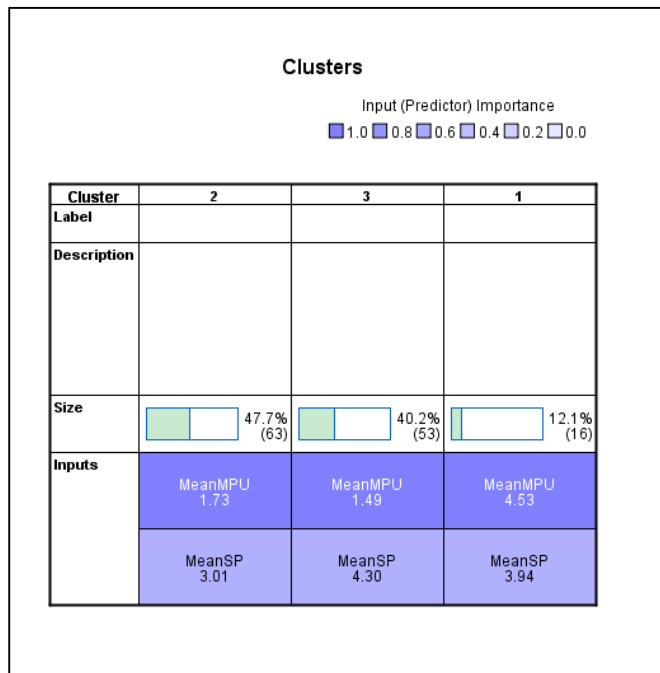
Table 21: Standardized variable correlations

		Correlations			
		Mean_Social_Pres ence	Mean_Mobile_Phon e_Usage	Mean_Business_Trus t	Mean_Venture_Perfor mance
Mean_Social_Pre sence	Pearson Correlation	1	-0,066	.317**	.322**
	Sig. (2- tailed)		0,453	0,000	0,000
	N	132	132	132	132
Mean_Mobile_Ph one_Usage	Pearson Correlation	-0,066	1	0,007	-0,099
	Sig. (2- tailed)	0,453		0,939	0,260
	N	132	132	132	132
Mean_Business_ Trust	Pearson Correlation	.317**	0,007	1	.202*
	Sig. (2- tailed)	0,000	0,939		0,020
	N	132	132	132	132
Mean_Venture_P erformance	Pearson Correlation	.322**	-0,099	.202*	1
	Sig. (2- tailed)	0,000	0,260	0,020	
	N	132	132	132	132

#### 4.5 Two-way cluster analysis

The social presence and mobile phone variables were used in determining clusters in a two-step cluster analysis. This yielded 3 distinct clusters of respondents which had a fair

quality rating. These clusters were arranged from low, medium to high social presence and an analysis was done on them so as to not overpower the results.



The sizes of the clusters were not significant to warrant any analysis, hence the data was analyzed as one whole dataset as there was not enough data in the sample to warrant an adequate testing of groups. The use of 95% confidence levels would be used to replace the use of clusters in the analysis.

## 4.6 Results pertaining to Hypothesis1

The results pertaining to hypothesis 1 show that there is a standardized correlation coefficient of -0,066, however, the relationship between the variables showed a coefficient of 0,082 at the upper bound 95% confidence level. Based on the standardized coefficient it was observed that there is a weak negative relationship between mobile phone use and social presence the significance of this correlation yielded a p of 0.453 with is greater than our baseline of a 0.05 minimum.

The results of regression to investigate the models fit to the data showed an R value of 0,066 which in turn means there is a 6% fit to the model. The R squared value did not improve the overall fit.

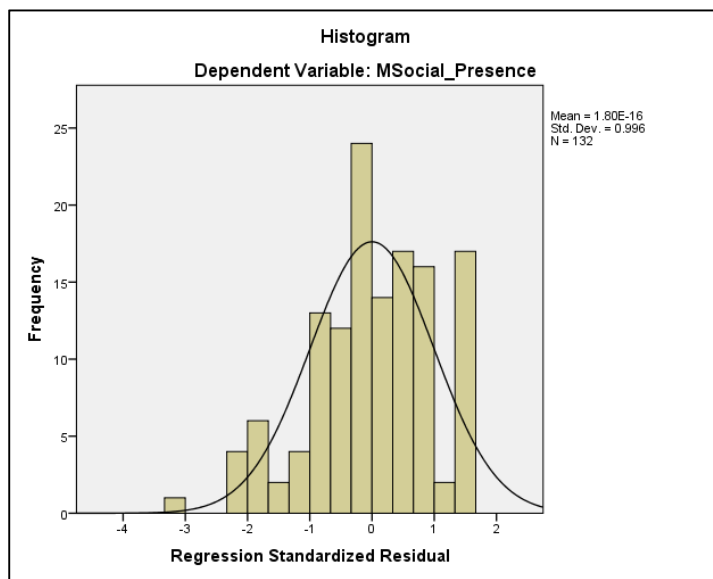
Based on this the model confirms that social presence has a minimal interaction with the increase of the mobile phone usage variable, thus rejecting the hypothesis.

Table 22: Hypothesis 1 regression model

Model Summary <sup>b</sup>									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.066 <sup>a</sup>	0,004	-0,003	0,84926	0,004	0,566	1	130	0,453
a. Predictors: (Constant), MMobile_Phone									
b. Dependent Variable: MSocial_Presence									

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	0,408	1	0,408	0,566	.453 <sup>b</sup>
	Residual	93,763	130	0,721		
	Total	94,171	131			
a. Dependent Variable: Mean_Social_Presence						
b. Predictors: (Constant), Mobile_Phone_Usage						

Coefficients <sup>a</sup>								
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	95,0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	3,842	0,281		13,675	0,000	3,286	4,398
	Mobile_Phone_Usage	-0,051	0,067	-0,066	-0,752	0,453	-0,184	0,082



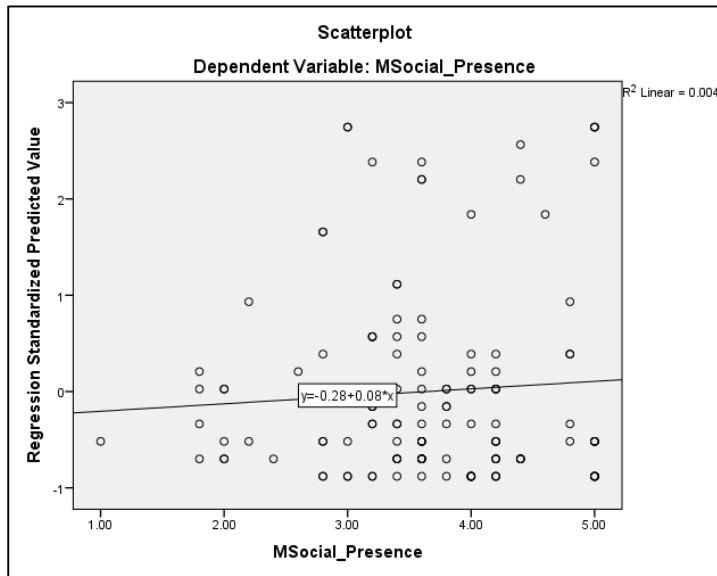


Figure 6: Mobile phone and Social presence scatter graph

#### 4.7 Results pertaining to Hypothesis 2

The results pertaining to hypothesis 2 shows that there is a standardized correlation coefficient of 0,322, however, the relationship between the variables at the upper bound 95% confidence level showed a coefficient of 0,604. Based on the standardized coefficient it was observed that there is a positive relationship between social presence and venture performance the significance of this correlation yielded a p of 0.001 which is which is significantly less than our baseline of a 0.05 minimum.

The results of regression to investigate the models fit to the data showed a R value of 0,322 which in turn means there is a 32.2% fit to the model. The R squared value did show that with additional variables the models overall fit decrease to 10.4%.

Based on this the model confirms that social presence has a significant interaction with the increase of the venture performance variable, thus supporting the hypothesis.

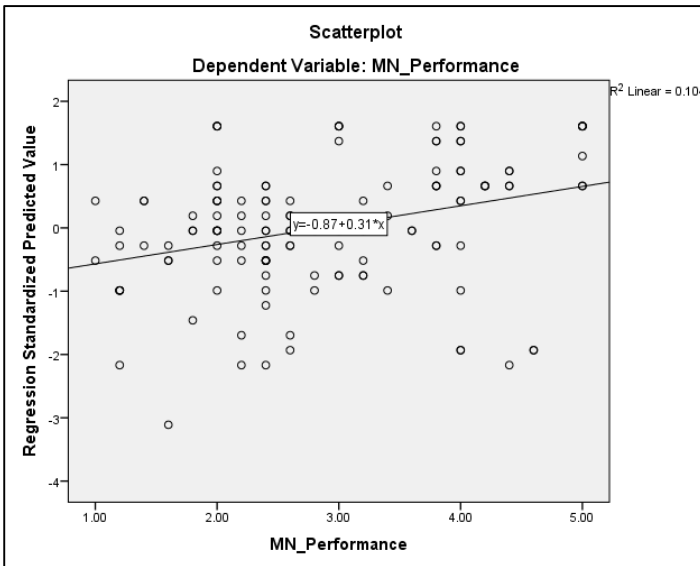
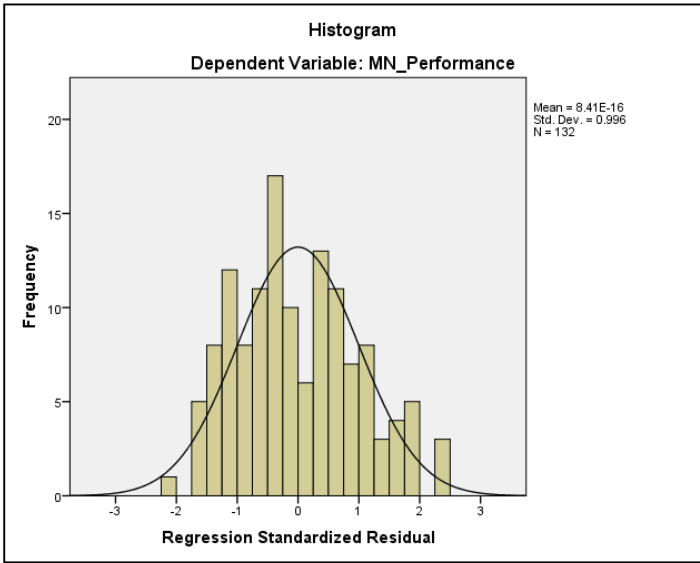
Table 23 : Hypothesis 2 regression

Model Summary <sup>b</sup>					
Model	R	R Square	Adjusted	Std. Error of	Change Statistics

			R Square	the Estimate	R Square	F Change	df1	df2	Sig. F Change
1	.322 <sup>a</sup>	0,104	0,097	1,00066	0,104	15,050	1	130	0,001
a. Predictors: (Constant), Mean_Social_Presence									
b. Dependent Variable: Mean_Venture_Performance									

<b>ANOVA<sup>a</sup></b>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	15,070	1	15,070	15,050	.000 <sup>b</sup>
	Residual	130,172	130	1,001		
	Total	145,242	131			
a. Dependent Variable: Mean_Venture_Performance						
b. Predictors: (Constant), Mean_Social_Presence						

<b>Coefficients<sup>a</sup></b>								
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	95,0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	1,402	0,385		3,641	0,000	0,640	2,164
	Mean_Social_Presence	0,400	0,103	0,322	3,879	0,001	0,196	0,604
a. Dependent Variable: Mean_Venture_Performance								



### 4.8 Results pertaining to Hypothesis 3

The results pertaining to hypothesis 3 shows that there is a standardized correlation coefficient of -0.099, however, the relationship between the variables at the upper bound 95% confidence level showed a coefficient of 0,071 as opposed to the -,0259 lower bound level. Based on the standardized coefficient it was observed that there is a positive relationship between social presence and venture performance the significance

of this correlation yielded a p-value of 0.260 which is greater than our baseline of a 0.05 minimum.

The results of regression to investigate the models fit to the data showed a R value of 0,099 which in turn means there is a 9.9% fit to the model. The R-squared value did show that with additional variables the models overall fit decrease to 1%.

Based on this the model confirms that social presence has a significant interaction with the increase of the venture performance variable, thus rejecting the hypothesis.

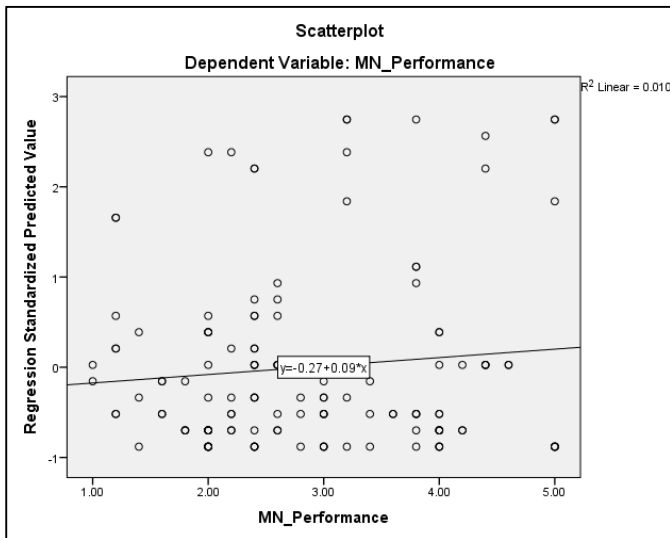
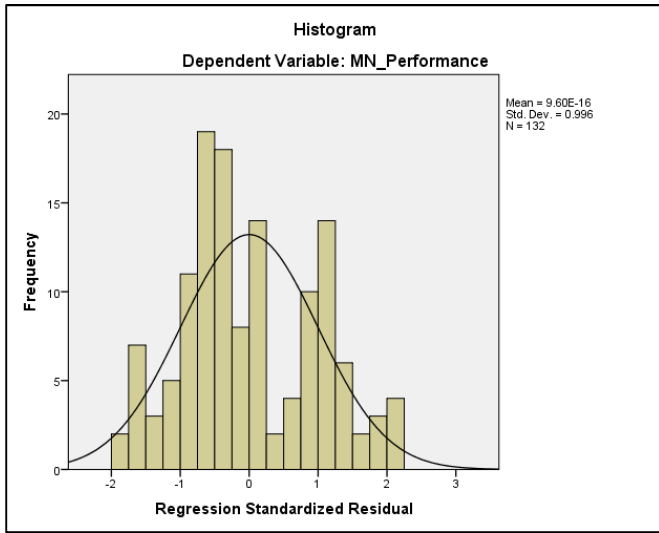
Table 24: Hypothesis 3 regression

Model Summary <sup>b</sup>									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.099 <sup>a</sup>	0,010	0,002	1,05184	0,010	1,279	1	130	0,260
a. Predictors: (Constant), Mobile_Phone_Usage									
b. Dependent Variable: Mean_Venture_Performance									

ANOVA <sup>a</sup>						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1,415	1	1,415	1,279	.260 <sup>b</sup>
	Residual	143,827	130	1,106		
	Total	145,242	131			
a. Dependent Variable: Mobile_Phone_Usage						
b. Predictors: (Constant), Mean_Venture_Performance						

Coefficients <sup>a</sup>								
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	95,0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound

1	(Constant)	3,237	0,348		9,304	0,000	2,549	3,926
	MMobile_Phone	-0,094	0,083	-0,099	-1,131	0,260	-0,259	0,071



#### 4.9 Results pertaining to Hypothesis 4

The results pertaining to hypothesis 4 indicates that there is a standardized correlation coefficient of 0,211 between the moderating effect of the two variables. The results of regression to investigate the models fit the data showed an R value of 0,388 which in turn means there is a 38%% fit to the model. The R-squared value did show that with additional variables the models overall fit decrease to 15% with an addition of extra variables.

Based on this the model confirms that social presence has a significant interaction with the increase of the venture performance variable, and the p-value is significantly under the 0.05 value thus supporting the hypothesis.

##### Model Summary

R	R-sq	MSE	F	df1	df2	p
,3883	,1508	,9636	7,5764	3,0000	128,0000	,0001

##### Model

	coeff	se	t	p	LLCI	ULCI
constant	3,5974	1,1308	3,1813	,0018	1,3599	5,8349
MBusines	-,7025	,3674	-1,9121	,0581	-1,4295	,0245
MSocial_	-,2783	,2929	-,9504	,3437	-,8578	,3011
int_1	,2114	,0909	2,3266	,0216	,0316	,3913

##### Product terms key:

int\_1 Mean\_Social\_Presence X Mean\_Busines\_Trust

R-square increase due to interaction(s):

	R2-chng	F	df1	df2	p
int_1	,0359	5,4132	1,0000	128,0000	,0216

\*\*\*\*\*

**Conditional effect of X on Y at values of the moderator(s):**

MBusiness	Effect	se	t	p	LLCI	ULCI
2,3341	,2152	,1227	1,7543	,0818	-,0275	,4580
3,2848	,4162	,1097	3,7931	,0002	,1991	,6334
4,2356	,6173	,1548	3,9874	,0001	,3110	,9236

#### **4.10 Conclusion**

This chapter gave us the overview and depiction of the data collected by using the questionnaires. In the results presented above, the demographic data as well the factors like social presence, mobile phone usage, business network trust and venture performance were presented in a meaningful way. The information allowed us to answer the hypothesis questions to investigate the effect of the factors that affect venture performance. These results will allow researchers to further interpret and come up with actionable insights in the study.

## **5 CHAPTER 5 DISCUSSION OF RESULTS**

### **5.1 Introduction**

This chapter aims to discuss and interpret the results of the data analysis that was presented in Chapter 4. The data will be explained and validated by first looking at the demographic profile of the respondents then ending with the results of the hypotheses that were proposed in the study. This chapter looks at the results attained in the study and looks at the demographic profile of the respondents, followed by a systematic presentation and description of the results obtained for the 5 hypotheses along with a conclusion of these hypotheses.

### **5.2 Demographic profile of respondents**

A total of 260 survey questionnaires were distributed and this resulted in 141 completed questionnaires presenting a completion rate of 56%, the validation of the data yielded only 132 valid responses that were used in the study. According to Cooper et al. (2003), 100 respondents is regarded as the baseline of the sample size that is needed in order to analyse the variables that the study aims to experiment with.

#### **5.2.1 Demographic data**

This section discusses and analyses the demographic information relating to the respondent's firms and the entrepreneurial landscape where the study was conducted.

#### **5.2.2 Gender of respondents**

The gender composition revealed that 56.8% of the sample consisted of male business owners while female business owners consisted of 43.2% of the sample. This, however, is echoed in the GEM Report (2016) where the population's total entrepreneurial activity

for the different genders was at 11.6% for males and 7% for females. Though there have been several initiatives to give equal opportunities to different genders in entrepreneurship it is evident that there is still a gender imbalance that still needs to be addressed.

### **5.2.3 Education level of respondents**

The study shows that the average level of education of the sample was quite high with only 12% of the entrepreneurs not having completed secondary and 88% having a tertiary qualification. In light of this education did not play a huge factor in how the entrepreneur used their mobile phone and it was interesting to note that the entrepreneurs with the highest education tended to value social presence more compare to entrepreneurs with the least amount of education. There was, however, some evidence that the more educated business owners were in the early stages of their venture. This could show that the educated entrepreneurs who did not see success in their ventures would not persevere to make it work and were more likely to go back to formal employment.

### **5.2.4 Industry classification**

This shows that a large proportion of the businesses were operating in other areas that were not covered by the Standard Industrial Classification (SIC). This showed a limitation with the scale used in the research instrument. The broad classification of industries was a good way to understand how the sample size represented the population. The computers and internet vertical were one of the largest in the sample followed by the other category which meant that most of the businesses that had applied for incubation were operating in a new business category. This was consistent with the (GEM, 2016) report that states that South African businesses are more focused on the new manufacturing technology sector. This also highlights a weakness in the SIC that it needs to be expanded to account for these businesses that are operating in new industries.

### **5.2.5 Years of operation**

The results below show that 67.16% of the businesses were in between 1 - 5 years of operation, 17.91% of businesses that have been in operation for 6 - 10 years, 8.21% of the businesses were in operation for 11 – 15 years, 0.75% of business were in operation for 16 – 20 years and finally 5.97% of the firms were in operation for more than 20 years. This is consistent with the GEM (2016) report for South Africa's as highest form of entrepreneurship is early stage entrepreneurship. This was also consistent with the type of businesses the study aimed to focus on which is small to medium in nature, which made this a valid control measure.

### **5.2.6 Number of employees**

Based on the study 58.48% of the firms employed 0 - 5 employees, 20.90% had between 6 - 10 employees, 11.94% had between 11 - 20 employees and 12.69% had more than 20 employees. This seemed to indicated that the availability of resources would be scarce for the South African entrepreneurs, but according to the GEM (2016) report South Africa's highest form of entrepreneurship was the early stage entrepreneurial activity and this results and a low entrepreneurial employee sore of 0.3% of the population which is validated by this study. Technology can be argued to be helping on bridging that gap of extra head count the social standing of the entrepreneur is increased resulting in the need for less headcount (Srivastava, 2005).

### **5.2.7 Years of operation**

The results of the study showed that 67.16% of the businesses were in between 1 - 5 years of operation and this was consistent with the incubation process as Innovation hub, SEDA and the business place focused solely on new businesses. The 17.91% of businesses that have been in operation for 6 - 10 years as well as the decreasing frequency of businesses in relation to the increase in years of operation was also observed. This could be explained by the fact that incubators in South Africa still offer opportunities to small businesses that also want to pivot and look at new areas to focus

on. This is shown by the sample consisting of 8.21% of the businesses that were in operation for 11 – 15 years, 0.75% of businesses were in operation for 16 – 20 years and finally 5.97% of the firms were in operation for more than 20 years.

Another key interpretation that could be seen was that the sharp decline in businesses in the sample after 1 – 5 years of operation could be indicative of an important statistic in the failure rate of new business ventures which is indicated in the GEM (2016) report highlights this which is consistent with the study.

### **5.3 Discussion pertaining to Hypothesis 1**

This hypothesis predicted that there is a positive relationship between mobile phone use and social presence. Putnam and Kolko (2009) suggest that studies show that the increase in use of technology has a positive effect on the social presence of the people who use that technology, however, the study does not seem clearly support these findings and this may be attributed to the fact that the study focused more on mobile devices than technology as a whole.

The results from the study indicate that mobile phone use has a weak positive relationship on the level of social presence of the individual who uses the mobile devices, but this did not hold significance at the  $p < 0.05$  level. In Chapter 2, it was argued by (Gunawardena, 1995) mobile phones due to their interesting and intriguing nature will increase the mobile phone users interaction and engagement with their mobile phones. The mobile phone, though wide spread in use the African context and arguably its ability to bring people together through a better 'sense of being together' as suggested by Biocca et al. (2003) leans towards the fact that it can account for the improvement the life of the ordinary South Africa millennial, but does not seem to significantly increase the notion of social presence even if the CMC environment is deemed to be more communal and connected as deemed by (Bhappu et al., 1997; Paquette, 2016).

Secondly, the fact that Thompson Jr and Garbacz (2007) argue that due to the fact that mobile phone accessibility is increased by lower tariffs and cheaper phones, this, in turn, does not translate to an increased social presence. This may be a result of the fact that

the population may still be struggling to adopt the new technologies and ways of using these technologies on the affordable devices they have gained access to and this may explain the weak correlation to social presence. This was mentioned by Putnam and Kolko (2009) who argue that the increase in the use of technology platforms could be having a diminishing effect on the level of perceived social presence.

The interrogation of the model summary does highlight how much it does not support the hypothesis as it shows a 6% change in R, but due to the p-value of 0,453, which is below the acceptable level, this hypothesis cannot be accepted. Poushter (2015) put forward the fact the mobile device has a large potential to allow Africans to leapfrog into the digital era, but this study further reinforces the notion of face to face communication is the medium having the best level of social presence as put forward by Bos et al. (2002).

Lenhart et al. (2010), also brought to light that even the use of the internet is gradually moving from the desktop devices to the mobile and wireless environment amongst millennials, these devices are doing little to increase the notion of social presence in these new environments. The results of this study could have yielded different results if the sample size was increased as there were clusters that began to form amongst different levels of social presence and mobile phone use and this would have been interesting to test. Lastly, it has been argued that mobile technology may cause decay in social capital and this may be one of the reasons as to why the study has a weak indication to the model.

#### **5.4 Discussion pertaining to Hypothesis 2**

This hypothesis predicted that there is a positive relationship between social presence and venture performance. In the literature covered in Chapter 2, Donner (2004) suggests that mobile phones have a huge influence on productivity. This is further supported by Chesbrough and Teece (1996), whose study suggests that the mobile phone increases venture performance by allowing business virtualization allowing business owners to be less office bound. The observation of the study suggests that there is some evidence that indicates that social presence has a positive influence on venture performance, this is

shown by the correlation coefficient of 0,322 between the two factors. This is also supported by the p-value of less than 0, 05 which allows for a significant justification to support the hypothesis.

The relationship social presence seemed to have with venture performance was linear and this was shown by how the confidence level increased to 0,604 in the upper 95% confidence level which could be attributed to phenomenon as stated by Biocca (1997) where social presence is becoming increasingly relevant for business communication as more and more communication is being conducted over interactive communication mediums this is also supported by Brown, Green and Harper (2001). Social presence as stated by Rettie (2003) could be manifesting itself by allowing that immediacy that is needed in order to maintain relationships within the CMC space thus benefitting business and allowing it to flourish.

This is further emphasized by a fit of the model which managed to achieve a 32, 2% R-squared value. What was particularly interesting was the fact that the R-squared value increased by 10, 2% with additional variables being entered into the regression model. Though this hypothesis is supported, it is important to exercise caution in support of this hypothesis due to the fact that measuring venture performance is complex due to the number of parameters that can influence its measurement and it is difficult to quantify a factor that is related to a business's performances as stated by Robinson and McDougall (2001).

### **5.5 Discussion pertaining to Hypothesis 3**

This hypothesis predicted that there is a positive relationship between mobile phone use and venture performance. Looking at the results of the study the hypothesis has a positive correlation of 0.099, but it does not fit the regression model adequately as the model only fits 9% of the data. The addition of variables further increases this issue as the level of mobile phone use has a weak fit to venture performance which the p-value is

much higher than the p-value of 0.05% which is significantly less than the 5% level of significance that is being tested for to accept or reject a hypothesis.

In Chapter 2, it is argued that mobile phone has allowed for the increase of business virtualization (Chesbrough & Teece, 1996), and thus increasing the productivity of the entrepreneur. Evidence from the study shows no evidence of any identified correlation that confirms this statement. This could be the fact that there might be an intervening variable that mediates the role of the mobile phones effect and that would be the entrepreneurial orientation of the individual. Mobile phone use could be interacting with EO factors that contribute to the performance of the venture are: self-efficacy, need for achievement, the locus of control, need for autonomy and risk-taking (Venter & Urban, 2015).

According to the literature in Chapter 2, Jagun et al. (2008) state that mobile phones may be able to improve commerce but the results of the study show that in the context of the study context this notion is very weak. As mentioned by Donner (2004) the mobile phone has the potential to change the lives of African entrepreneurs, the sample also seemed to have a high level of mobile phone usage but this did not necessarily transfer to business success. This was representative of the African business context as in this study they are not using mobile phones as an ideal tool for business.

## **5.6 Discussion pertaining to Hypothesis 4**

This hypothesis predicted that business network trust positively moderates the relationship between social presence and venture performance. The findings suggest that Business network trust is negatively correlated to venture performance. Dekker and Uslaner (2003) propose that the bondage that comes through social capital can promote Business network trust and reciprocity of which this notion is further supported by the results of this hypothesis.

The results from the study observed that the moderating effect of the business network was very powerful as it managed to increase the correlational coefficient to 0,211 when interacting with the dependent variable which shows a powerful correlation. This could be attributed to comments from Stam and Elfring (2008a) stating that network trust has the ability to increase a business's social standing and this is key in defining the importance of trust and how it interacts with the variable. Consequently, looking at the fit of the regression model it was evident that with an R of 0,388 mean's that the regression model had a 38% fit which was substantial enough to accept the hypothesis. Paine (2003) states that trust can be defined by the quality of relationships that are present within a business network. The mobile phone does have a large effect on the network pattern, density, connectivity and hierarchy. This is also largely influenced by the fact that according to Thompson Jr and Garbacz (2007) it can increase business efficiency and that can lead to an increased level of trust.

The moderating effect of business network trust is a large factor that influences the way social presence increases venture performance. This further supports the theory put forward by Stam and Elfring (2008a) that organizations that have more network trust are seen as more trustworthy. This highlights the fact that social presence and social network trust are related in a positive way and this is further confirmed by the Correlation coefficient of 0,317 which is significant at the p-value is less than 0,05. Bangert (2008) further emphasizes this by stating that through social presence the state of the opinion in a group can change.

## **5.7 Conclusion**

This chapter aimed to give clarity and explanations on the empirical results that were received from the survey. The hypothesis was tested and this gave us a better understanding of how the model interacted with the data via the results of the hypothesis testing. Based on this the findings in the research showed a distinctly different picture from what scholars like (Gunawardena, 1995) allude. The absence of a relationship between mobile phone usage and social presence is proved and we also see how social presence is positively related to new venture performance. The study also uncovered a

powerful relationship between trust and its moderating effect on the social presence variable

## **6 CHAPTER 6 CONCLUSIONS AND RECOMMENDATIONS**

### **6.1 Introduction**

This chapter aims to give an overview of the results of the study and to discuss the problem statement and how the results are relevant. This chapter will summarize the whole research process and the findings and final conclusions that have arisen from this. There will be some suggestions for further research that will be put forward in this chapter as well.

### **6.2 Conclusions of the study**

Social presence seems to have a significant effect on the performance of the venture but this has to be carefully considered with the other measures of venture performance. Mobile phone use does not seem to have a significant impact on the level of social presence in the study. The weak relationship it has with the dependent variable confirms this. Social presence has been confirmed to have a substantial effect on venture performance and the moderating influence of business network trust seen to be a relevant moderating factor that influences the performance of a firm in the study. This performance, however, is arguably subjective as it is from the entrepreneur's standpoint.

The effect of mobile phone use and the benefits of mobile phones are not significant in proving that mobile phones are responsible for the success of a new venture or contributing to the individual's level of social presence. This could be a product of the socioeconomic landscape where society has not gained enough trust to rely on their mobile phones to gather and organize resources.

### **6.3 Recommendations**

The study aimed at adding to entrepreneurship literature in South Africa by building on work done by researchers like (Donner & Escobari, 2010) in a bid to explore the link

between social presence, mobile phone usage, and new venture success. This study adds value to entrepreneurs, future researchers as well government policy makers.

This study will add to the literature that will have a South African context enabling further research on social presence and mobile phone use to be conducted.

#### **6.4 Suggestions for further research**

Though the link between Social presence mobile phone usage and trust has been explored in Johannesburg, it is important to note that this study was done on a limited scale and it would be beneficial to do the study at scale. This could be carried out using the same methodology and instrument.

Social presence was a major component in the research carried out and the instrument used was adapted from an online classroom point of view and it would be beneficial for studies to be conducted on how social presence on CMC mediated communication affect venture performance.

The research also used the measure of venture performance that was subjective from the view of the entrepreneur. It would be interesting to get the actual financial results to aid in the performance measure to get much more accurate results and findings.

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## 8 APPENDIX: SURVEY INSTRUMENT

Q1 Introduction My name is Tinahe Ncube and I am a Masters student at Wits Business School. I am conducting survey on how mobile technology is being used by entrepreneurs and I would love your input into the survey. Please indicate that you accept to participate in the survey below.

I accept

## Section 1 - Demographics

Q2 Please specify your gender?

- Male
- Female

Q3 What is the highest level of school you have completed or the highest degree you have received?

- No matric
- Matric completed
- Short programme completed
- Diploma / degree completed
- Postgraduate studies completed

Q4 Type of industry

- Academic/ education
- Banking / finance/ insurance
- Computers / Telecommunications / Networks
- Electrics / electronics
- Engineering / architecture
- Manufacturing
- Mass media / publishing
- Medicine / health
- Real estate
- Restaurant hotel
- Textile/ garment
- Transport/ shipping/ logistics
- Utilities
- Other

Q5 What is your business size (number of employees)?

- 0 -5
- 6 - 10
- 11 - 20
- > 20

Q6 How long has your business been operational?

- 1-5 years
- 6 -10 years
- 11 -15 years
- 16 - 20 years
- > 20 years

Q7 Is your business registered?

- Yes
- No

**Section 2 – Social Presence, Mobile phone usage and venture performance**

Q8 Please rate to what level you agree there is social presence on the digital platforms that you access on your mobile.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
There is a sense of human contact on social media applications	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There is a sense of personalness on social media applications	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There is a sense of sociability on social media applications	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There is a sense of human warmth on social media applications	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There is a sense of human sensitivity on social media applications	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q9 Please rate the performance of your business by answering the questions below.

	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree
Our business is satisfied with its market share	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Our business is satisfied with its annual sales	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Our business is satisfied with its net profits	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Our business is satisfied with its returns on assets	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Our business is satisfied with its access to capital	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q10 Please indicate how your mobile phone impacts on your productivity in conducting business.

	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree
My mobile phone allows me to stay in touch with my suppliers and customers.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My mobile phone helps me come and go without worrying about missing calls.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My mobile phone helps me find business opportunities.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My mobile phone helps me keep informed about prices in my business.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My mobile lets me get more done during the day.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q11 Please give us an indication on the type of support you get from your business network

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
I know my network members will always try to help me out if I get into difficulties	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I always trust my network members to lend me a hand if I need it	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can always rely on my network members to make my job easier	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel safe in sharing of my knowledge with my network members and this is always a wise move	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I always share my expertise obtained from education and training with my network members	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Table 25: Descriptive statistics from sample

Descriptive Statistics							
	N	Range	Minimum	Maximum	Mean	Std. Deviation	Variance
Please specify your gender	132	1	1	2	1,43	0,497	0,247
What is the highest level of schooling you have completed or the highest degree you have received?	132	4	1	5	3,92	1,031	1,063
What type of industry is your business in?	132	13	1	14	7,93	4,638	21,514
What is the size of your business (number of employees)?	132	3	1	4	1,84	1,076	1,158
How long has your business been operational?	132	4	1	5	1,61	1,090	1,187
Is your business registered?	132	1	1	2	1,09	0,289	0,083
Please rate to what level you agree there is social presence on the digital platforms that you access on your mobile. - There is a sense of human contact on social media applications	132	4	1	5	3,90	1,033	1,067
Please rate to what level you agree there is social presence on the digital platforms that you access on your mobile. - There is a sense of personalness on social media applications	132	4	1	5	3,80	1,066	1,136
Please rate to what level you agree there is social presence on the digital platforms that you access on your mobile. - There is a sense of sociability on social media applications	132	4	1	5	4,05	1,040	1,082
Please rate to what level you agree there is social presence on the digital platforms that you access on your mobile. - There is a sense of human warmth on social media applications	132	4	1	5	3,14	1,259	1,584

Please rate to what level you agree there is social presence on the digital platforms that you access on your mobile. - There is a sense of human sensitivity on social media applications	132	4	1	5	3,30	1,456	2,121
Please indicate how your mobile phone impacts on your productivity in conducting business - My mobile phone allows me to stay in touch with my suppliers and customers.	132	4	1	5	4,24	1,360	1,849
Please indicate how your mobile phone impacts on your productivity in conducting business - My mobile phone helps me come and go without worrying about missing calls.	132	4	1	5	4,23	1,282	1,643
Please indicate how your mobile phone impacts on your productivity in conducting business - My mobile phone helps me find business opportunities.	132	4	1	5	4,00	1,342	1,802
Please indicate how your mobile phone impacts on your productivity in conducting business - My mobile phone helps keep me informed about prices in my business.	132	4	1	5	3,70	1,376	1,892
Please indicate how your mobile phone impacts on your productivity in conducting business - My mobile phone lets me get more done during the day.	132	4	1	5	3,98	1,275	1,625
Please give us an indication of the type of support you get from your business network - I know my network members will always try to help me out if I get into difficulties	132	4	1	5	3,26	1,221	1,490
Please give us an indication of the type of support you get from your business network - I always trust my network members to lend me a hand if I need it	132	4	1	5	3,27	1,217	1,482

Please give us an indication of the type of support you get from your business network - I can always rely on my network members to make my job easier	132	4	1	5	3,19	1,085	1,178
Please give us an indication of the type of support you get from your business network - I feel safe in sharing of my knowledge with my network members and this is always a wise move	132	4	1	5	3,15	1,226	1,504
Please give us an indication of the type of support you get from your business network - I always share my expertise obtained from education and training with my network members	132	4	1	5	3,55	1,309	1,715
Please rate the performance of your business by answering the questions below. - Our business is satisfied with its market share	132	4	1	5	2,89	1,321	1,744
Please rate the performance of your business by answering the questions below. - Our business is satisfied with its annual sales	132	4	1	5	2,70	1,301	1,694
Please rate the performance of your business by answering the questions below. - Our business is satisfied with its net profits	132	4	1	5	2,76	1,255	1,574
Please rate the performance of your business by answering the questions below. - Our business is satisfied with its returns on assets	132	4	1	5	3,08	1,227	1,506
Please rate the performance of your business by answering the questions below. - Our business is satisfied with its access to capital	132	4	1	5	2,86	1,335	1,783