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A mobile social networking framework
to create a virtual community of
practice in aid of rural small, medium
and macro-sized enterprise support
and development

A mobile social networking framework to create a virtual community of practice in aid of
rural small, medium and macro-sized enterprise support and development

by

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(200417177)

Thesis

submitted to fulfil the requirements for the degree
Doctor of Philosophy

in

Information Systems

in the

Management and Commerce Faculty

of the

University of Fort Hare

Supervisor: Professor Marlien E. Herselman

Date when submitted (December, 2015)

Abstract

Rural community media are identified as a critical component of the rural community communication process. These SMMEs are however struggling to achieve sustainability and operate effectively due to the various challenges and constraints impacting them. This study seeks to address this by developing a Rural Community Media Mobile Social Networking Framework that will create a virtual community of practice for the purposes of support of rural entrepreneurs in small, medium and macro enterprises (SMMES) in the Eastern Cape Province of South Africa.

The author has specifically scoped this research to focus on Rural Community Media as a specialised sub-segment of entrepreneurs operating in rural areas. The reasons for this decision were in part due to the effect and impact of community media on socio-economic development due to the role they play in enabling access to information and knowledge and giving a voice to poor and isolated communities

The study proposes that provision of access to relevant information and knowledge via a mobile social networking framework would assist in cutting implementation costs through utilisation of a platform that is already there (known as rural community media).

This study is scoped to focus specifically on rural community media with fieldwork conducted in the province of the Eastern Cape, South Africa. In summary the Research Methodology applied is as follows:

- **Research Philosophy:** The interpretive research philosophy was chosen for this study
- **Research Design:** This study will apply qualitative design
- **Research Approach:** The case study approach will be used in the study
- **Data Collection Techniques:** Source data will be comprised of primary and secondary data. Primary data will be collected through implementation of a questionnaire and expert reviews, while the secondary data will be collected through literature review. Hermeneutics will be used as the data collection technique in this study.
- **Data analysis:** Cross-case data analysis will be applied

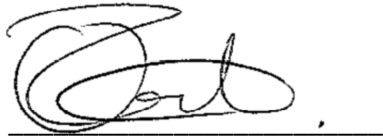
Key findings included that rural community media already utilise mobile technology and social media/networking to conduct business. Rural community media required access to information and knowledge pertaining to internal business process, funding, governance, training and access to skilled resources. Mobile social networking is identified as a suitable vehicle for delivery.

A Rural Community Media Social Networking Framework was developed as a result of this study. Framework elements were supported, and in some cases modified, by case study findings and expert review feedback.

Key words: Rural SMMES, Rural Community Media, Knowledge Ecosystems, Mobile Social Networks

Declaration

I declare that the research on, **A SOCIAL NETWORKING FRAMEWORK TO CREATE A VIRTUAL COMMUNITY OF PRACTICE IN AID OF RURAL SMALL MEDIUM AND MICRO-SIZED ENTERPRISE SUPPORT AND DEVELOPMENT**, represents my individual work , all sources utilised in this research have been acknowledged through utilisation of complete references. This thesis has not been previously submitted fully or partially in order to fulfil an equivalent or higher qualification at any other tertiary institution. This thesis has obtained ethical clearance from the University of Fort Hare.

A handwritten signature in black ink, appearing to read 'Oliva', is written over a horizontal line.

Oliva Muwanga-Zake

200417177

Publication Submission

No.	Date	Article Title	Journal
1	December 2015	<i>An Investigation into Possibilities for Implementation of a Virtual Community of Practice delivered via a Mobile Social Network for Rural Community Media in the Eastern Cape South Africa</i>	South African Journal of Information Systems
2	December 2015	<i>A Mobile Social Networking Framework in Aid of Rural Community Media Support and Development</i>	African Journal of Information Systems

Conference Submission

No.	Date	Article Title	Conference
1	August 2013	<i>Social Media for Community Education and Engagement</i>	ICEE/ICIT 2013

Acknowledgments

The author would like to acknowledge the people listed below for their contributions and support in completion of this research:

- Professor Marlien Herselman for her advice and guidance
- My father Dr. Muwanga-Zake for his sterling example of hard work, diligence and lifelong learning.
- My mother Rose Namugga Muwanga-Zake for instilling in me strength, courage, perseverance and the motivation to continuously strive for success
- My brothers Semeyi, Apollo and Joshua Muwanga-Zake for their persistent faith and limitless support
- The love of my life, Abongile Maqwazima, for his infallible belief in me and my dreams and for holding me to the highest standards
- To the SMMEs and the Experts who participated in the field work portion of this study, thank you for giving of your time and knowledge

Thank you all for your contribution and support without which completion of this research would have not been possible.

Dedication

I had the privilege to meet a Queen; the most unassuming of Queens. Humble, courageous and with a smile that could light up the darkest room and warm up the coldest of days; a touch that healed and words that spun dreams from nothingness. She taught me selflessness. She taught me strength, honour, courage and love; and was gone all too soon. No measure of time could have ever been enough.

You are my wind and my wings...the magic I draw on to overcome, to persevere, to achieve...The magic that still makes my world beautiful.

This is for you Mama.

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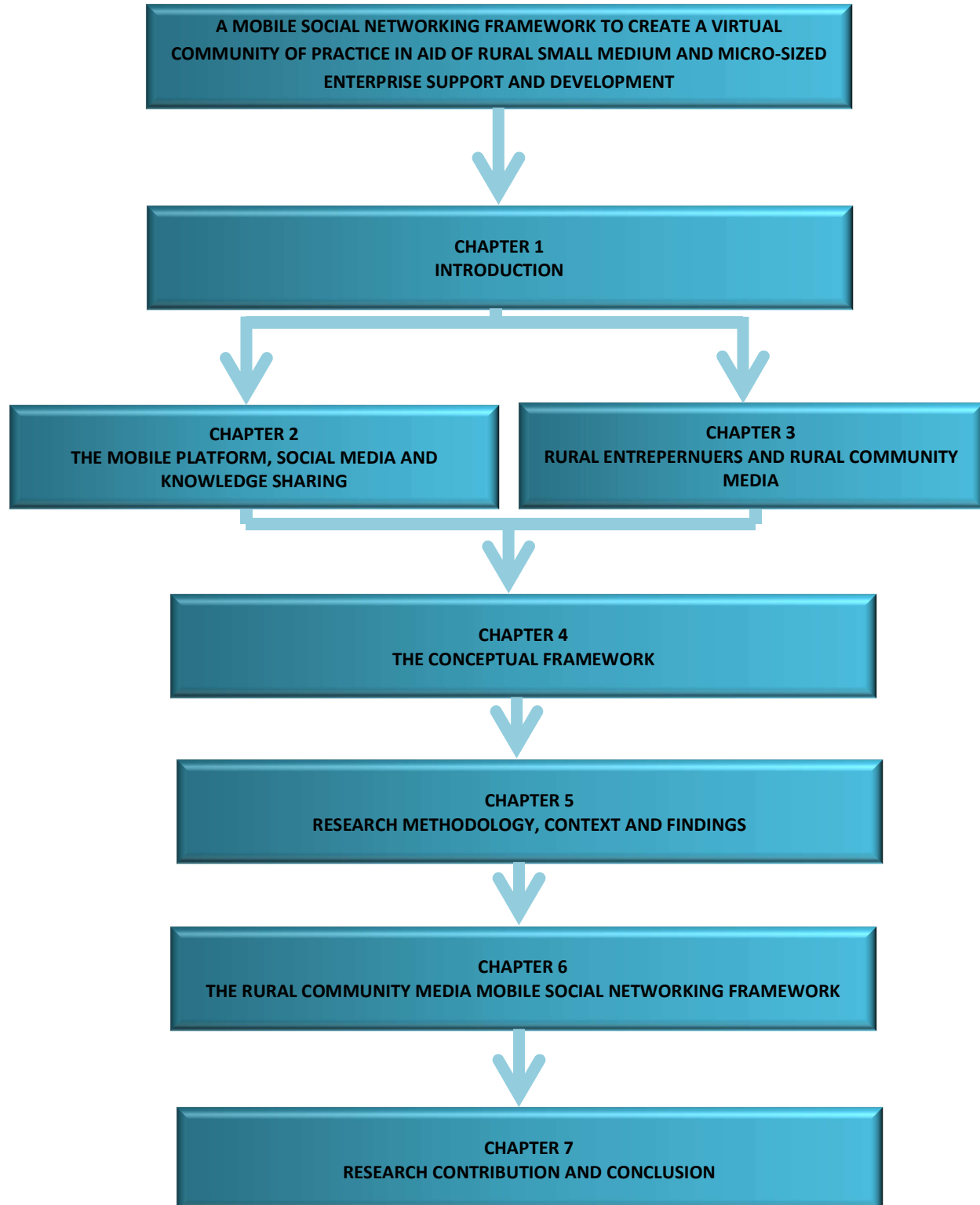
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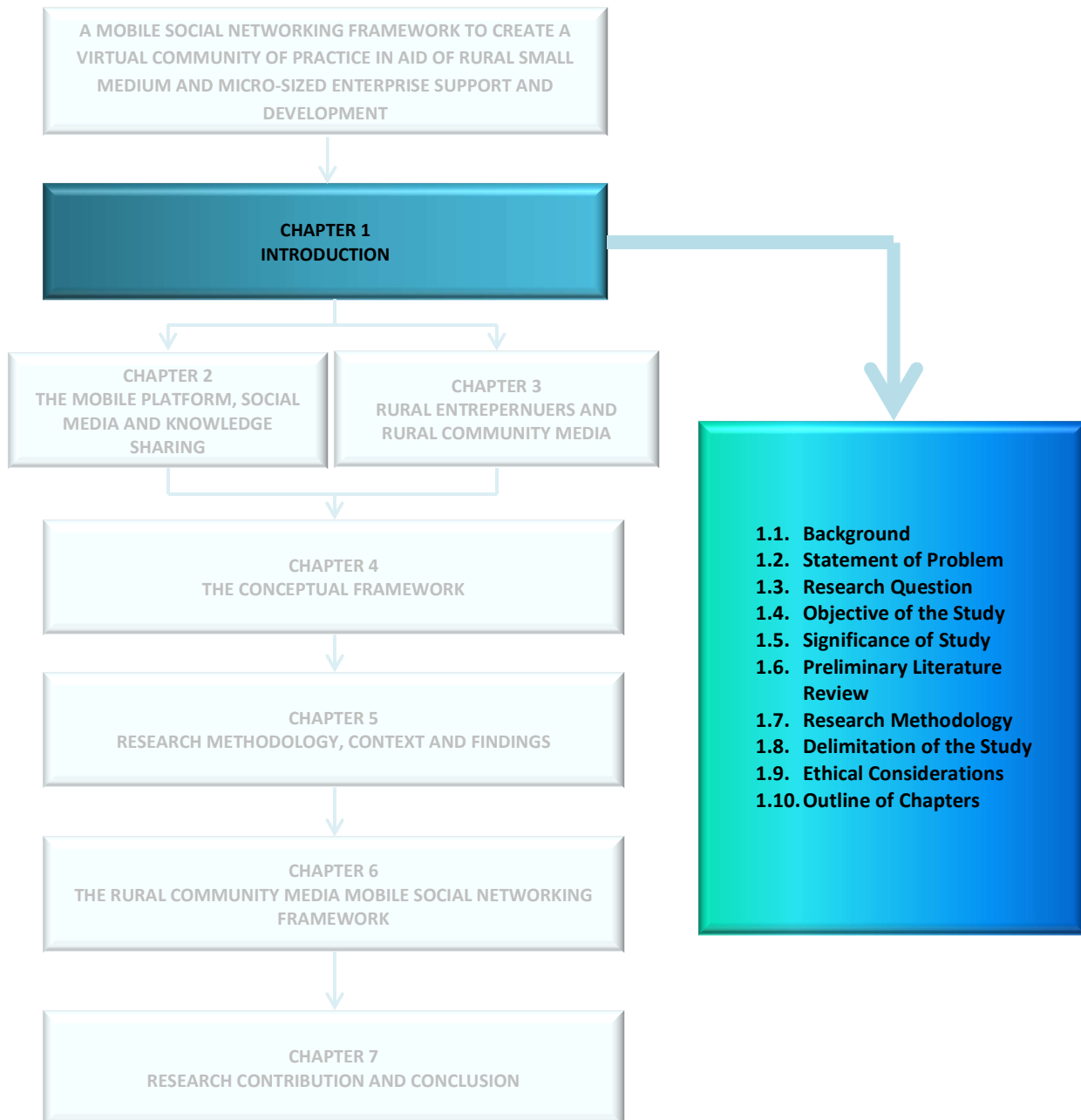
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Diagrammatic Overview of Thesis Chapters



Chapter 1 - Diagrammatic Overview



Chapter 1 – Introduction

1.1 Background

Content, communities and Web 2.0 technology are components that make up social media (Nicholson, 2011). In general the term social media represents applications built on content generated by users or in which content generated by users and the actions of users play a role in growing the value of an application and/or the value derived from the service it provides (Nicholson, 2011). Social media started out as a tool for people to engage online, but has since also been utilised for business (Durham, Cragg and Morrish, 2009). Online business presence via social media is now more a norm than an exception.

Literature indicates a significant objective of social media as comprising the engagement of people in the following ways (Nicholson, 2011):

- Communication
- Collaboration
- Education
- Entertainment

Sites that allow users to post a profile and connect to other users are called social networking sites (Durham, Cragg and Morrish, 2009). Recently social media has also developed to allow for networking with professionals or same interest groups and community engagement (Durham *et al*, 2009). Durham *et al* (2009) add that low barriers to entry allow SMMEs to utilise social media in a manner similar to that of big business without the requirement for extensive resources. They (Durham *et al*, 2009) further advise it likely that SMMEs could benefit from social media through creating value together with other stakeholders.

The main advantages of transactions via mobile technology also apply to social media, as the former appears to be a key enabler of the latter. According to Murthy (2010) these advantages include:

- Ubiquity (available everywhere)
- Personalisation (tailored to the individual)
- Convenience (anytime, anywhere)
- Localisation (location based engagement)

Trends in social media indicate increased use by business. It is observed by Nicholson (2011) that social media has now graduated from being a fashionable trend to a strategic tool. This has resulted in increased attention on the technology together with improved skills to better utilise the technology and models to explore business value.

1.2 Statement of Problem

The problem this research aims to address is how social networking can be applied in a rural business setting in order to assist with resolving the issue of access to information and knowledge by rural entrepreneurs and SMMEs. This ultimately can have an impact on their success and failure rates, capability for development and poverty alleviation.

Rural based SMMEs experience problems with successfully running their businesses due to their relative isolation from organisations and entities that can provide support and advice, as well as their relative isolation due to the nature of the environment they operate in (Freire-Gibb and Nielsen, 2014). The proposed framework can assist rural based SMMEs by providing ready access to support organisations and entities and facilitating access to information that could support their various operations. The proposed framework will facilitate access to information and support organisations and entities through the creation of an online community of practice accessible via mobile devices such as the mobile phone. The lack of access to enabling information and support organisations and entities ultimately limits the success and impact of rural based SMMEs. Improving the success rates of rural based SMMEs will enable enhanced socio-economic stimulation and development. Rural based SMMEs are seen as significant vehicles for socio-economic growth (Mule, 2010).

Heeks (2009) advises that the ICT for development community are at a crossroads regards ICT access. What needs to be ascertained is whether to continue with the provision of PC-based access, even though only 0.5% of Africans are able to access the internet in this way or to move to utilisation of a technology that has already extended to numerous poor communities (Heeks, 2009). Khalil, Dongier & Qiamg (2009) tend to sway towards the latter as a more viable option adding that mobile technology is now pervasive, with mobile phones representing the world's largest distribution platform. According to Heeks (2009) this form of technology is now utilised by approximately two thirds of African people. Letsie, Kabanda and Chigona (2015) support this, stating that access and use of mobile devices has grown in South Africa during the last couple of years, with the numbers making use of mobile having increased by 20% and approximately 84% either owning or accessing a mobile device.

However as innovative and auspicious as technology may be in providing possibilities for development, the fact is that it still remains merely a tool. A tool which if applied correctly to a cause that perhaps also holds similar possibilities for development could assist in improving the lives of poor communities. The challenge lies in coupling ICT and social media with the right opportunity and leveraging both optimally in order to meet these aims. One such opportunity is the application of ICT and social media to the facilitation and support of rural entrepreneurs and SMMEs.

It is evident that SMMEs in rural communities experience difficulty in accessing relevant information and knowledge that could facilitate their business operations, the creation of a virtual community of practice through use of social media might be useful in resolving this situation. The author has specifically scoped this research to focus on Rural Community Media as a specialised sub-segment of entrepreneurs operating in rural areas. The reasons for this decision were in part due to the effect and impact of community media on socio-economic development due to the role they play in enabling access to information and knowledge and giving a voice to poor and isolated communities.

1.3 Research Question

How can a framework for mobile social networking support/enhance rural SMME's through the creation of virtual communities of practice?

1.3.1 Research Sub-questions

Sub-problem 1: What are the building blocks for a mobile social networking framework for SMMEs, which utilises virtual communities of practice as a vehicle?

This sub-problem seeks to identify and describe the key building blocks of a mobile social networking framework which utilises communities of practices as an engagement vehicle. The sub-problem will provide the context for the research, by defining the components of the framework from which the remaining research questions will follow and relate back to.

Sub-problem 2: What are the knowledge sharing needs of rural SMME's?

Access to social networks means access to knowledge and the enhanced ability to share and build knowledge. In order to develop a service that can facilitate the growth and success of rural SMME's it is important to first determine and understand their knowledge sharing needs.

This sub-question seeks to uncover the knowledge sharing needs of rural SMME's through discussing and categorising them as well as the barriers to relevant knowledge and knowledge sharing constraints faced in rural areas. The purpose of this sub-question is to provide the background and context on which the research paper itself is based.

Sub-problem 3: How can a virtual community of practice facilitate knowledge sharing, improved business support and socio-economic impact for rural SMME's?

Knowledge sharing can be utilised as a means to support SMME operation within the rural context through the creation of knowledge networks between SMME's, the community, various support and advisory organisations and the wider environment.

The proposed framework will support socio-economic development as it will allow for the sharing of best practices and experience which can also act as a catalyst for sustainability of the SMMEs as they will have a soundboard through the virtual community of practice for accessing support and guidance. This may result in their improved socio-economic sustainability.

This sub-problem explores the possible use of virtual communities of practice in support of SMME operation.

Sub-problem 4: How do SMME's make use of mobile social networking to enhance their businesses?

SMME business enhancement can be achieved through improved access to government, private sector, SMME support and advisory organisations as well as the community at large. This sub-problem serves to highlight how ICT utilised to access mobile social networking can facilitate and support SMME's.

It is proposed that improved understanding of the rural SMME contextual needs and priorities will assist stakeholders and support organisations to improve services to this business sector. SMME's will also be in a position to access and share relevant information that could facilitate their growth and operation more easily. This sub-question seeks to uncover the means with which mobile social networking can be of use to rural SMME's.

Sub-problem 5: What different social networking possibilities exist that can support SMME's?

This research identifies social networking as means through which improved support of rural SMME's can be facilitated. However, in order to utilise social networking as a tool with which to achieve this, the various possibilities with which social networking can be implemented need to be reviewed, with the aim of identifying an optimal fit for purpose option.

This sub-problem will explore the various social networking possibilities that can be utilised for SMME support.

1.4 Objective of the Study

On a high level, this research identifies ICT, and specifically social media, as a tool and Entrepreneurship as a concept which, if leveraged correctly, can facilitate socio-economic growth and development in rural areas.

More specifically this research aims to develop a mobile social networking framework which can assist with improving the operational efficiency of SMMEs in the Eastern Cape Province, specifically rural community media, through the establishment of a virtual community of practice. Therefore the study will assess the means with which Social Networking can be effectively applied to address development in rural areas through SMME support and development. The research will present a mobile social networking framework that will enable a virtual community of practice to facilitate information and knowledge sharing as means to address the operational efficiency of SMMEs.

More fundamental research is necessitated for the purposes of deepening analysis of dynamics which influence the success and failure of ICT based development initiatives (Heeks, 1999). This research seeks to contribute to the domain of knowledge that currently exists on mobile social networking frameworks that support knowledge sharing within the rural context, in aid of improved SMME operational efficiency.

In summary the objectives of this study are as follows:

Research Question	Objective
What are the building blocks for a mobile social networking framework for SMMEs, which utilises virtual communities of practice as a vehicle?	To identify, define and describe the building blocks of a mobile social networking framework for rural based SMMEs, specifically rural community media, as an integral component of the rural community communication system, which utilises virtual communities of practice as an

	engagement vehicle
What are the knowledge sharing needs of rural SMME's?	To identify the key information and knowledge sharing needs of rural based SMME's
How can a virtual community of practice facilitate knowledge sharing and business support for rural SMME's?	To describe how a virtual community of practice can support and facilitate knowledge sharing and business support for rural SMMEs
How do SMME's make use of mobile social networking to enhance their businesses?	To understand current practices of SMMEs regarding use of mobile social networking to support their business operations
What different social networking possibilities exist that can support SMME's?	To assess the means with which social networking can be effectively applied to address development in rural areas through SMME support and development

Table 1: Research Questions and Objectives

1.5 Significance of Study

This study is significant due to the following:

- The study will enable the creation of rural SMME virtual communities of practice that focus on connecting rural entrepreneurs, government and other support organisations within the same network accessible via mobile phones. This will allow for improved support and access to this segment whilst limiting the need for expensive infrastructure outlay
- The study will enable us to understand the means with which rural SMMEs currently utilise ICT to support their business operation, as well as clarify the knowledge sharing needs and practices of rural entrepreneurs. This will also possibly assist in an improved service offering to this business segment, as well as a clearer view of the various barriers and facilitators to successful rural SMME operation
- The study will develop a mobile social networking framework for the support of rural SMME operation, specifically rural community media. Current literature review indicates that no such framework presently exists

1.6 Preliminary Literature Review

The Eastern Cape is one of the poorest provinces in South Africa with a comparatively high rural population impacted by both unemployment and poverty (The Eastern Cape Development Corporation, 2015). It is stated that the reason poverty is more prevalent in rural areas is due to a lack of information (Heeks, 1999).

Rural areas in South Africa are generally associated with poor service delivery due to economic and other disadvantages, studies have shown that ICTs can be used to address the challenges brought about by distance and facilitate resolution of the various challenges faced by enabling communication and access to information (Pashapa and Rivett, 2015). Pashapa and Rivett (2015) further state that the new ICTs relate specifically to mobile devices, mobile networks and mobile tools which expedite data flow, quoting Heeks (2009) as stating that ICTs form the basis for development due to their ability to provide access to information.

1.6.1 Rural Entrepreneurs and SMMEs

Entrepreneurship is linked to socio-economic development. RUPRI (2012) states that entrepreneurship is identified as a significant development strategy for rural areas advising of numerous motives for increased interest, particularly in rural communities:

- Traditional methods of recruitment and retention within the formal sector appear inadequate; with many searching for other feasible employment options
- Increasing indications of the key role played by entrepreneurs in supporting economic growth
- Rural economies tend to generally be made up of small businesses, which are responsible for a large proportion of socio-economic growth and activity in their respective areas

Given the above-mentioned points, when considering rural development and socio-economic growth, thought must be given to means with which to inculcate, encourage and support the culture of entrepreneurship and existing entrepreneurs and SMMEs within rural communities.

Thurik (2009) states that entrepreneurship is a vital component in the organisation of economies adding that differences in economic growth tend to be credited to differences in the speed with which countries embrace entrepreneurship. Capital and labour were seen as being essential input elements for large-scale production in developed economies until the late 1980s (Thurick, 2009). The Asian Development Bank (2007, p.8) further adds that “knowledge has increasingly become an important means for value creation.”

While entrepreneurship exists in under-served areas, its ability to positively affect socio-economic growth will be impacted by the context and constraints of the surrounding environment (Freire-Gibb and Nielsen, 2014). Means with which to support rural entrepreneurs and foster more conducive conditions for their growth and operation need to be uncovered. Access to knowledge and information has been identified by various sources, cited above, as significant facilitators for effective business operation. Further investigation and assessment of knowledge as a concept and how it can be leveraged to benefit rural entrepreneurs and SMMEs is necessitated, this is discussed in a bit more detail in the section that follows.

1.6.2 Knowledge Sharing and Communities of Practice

Pott (2003, p.16) states that “poor countries and poor people differ from rich ones not only because they have less capital but because they have less knowledge.” Norris, Mason, Robson, Lefrere and Collier (2003) argue that knowledge is a social construct and that knowledge can only be understood in context. This implies the need for interactivity and communication with others.

They (Norris *et al*, 2003, p.3) go on to say that interactivity and knowledge sharing remain crucial for developing knowledge in order to create new meaning adding that “knowledge can be regarded as the only unique resource that grows when shared, transferred, and managed skilfully.” Breu and Hemmingway (2001) concur, stating that knowledge is context dependant and produced through location and action, thus highlighting the observation by Lahotonen (2001) that it is difficult to detach knowledge from the community in which it was created. Uriatre (2008) supports the views shared by Breu and Hemmingway (2001) and Lahotonen (2001) stating that knowledge is linked to the context in which it is produced.

Norris *et al* (2003) further state that it is useful to view knowledge based on the following perspectives:

- **Know What:** incorporating knowledge management, information structure, knowledge management systems, semantics and e-learning
- **Know Who:** incorporating networks, individuals, authorities, practitioners and collaboration
- **Know How:** incorporating networking, learning , consulting, educating , researching, training, innovating, navigating and managing
- **Know Why:** incorporating context, strategy , business planning and reasons to learn
- **Know Where:** incorporating where-from , where-to, strategic positioning, reflecting and planning
- **Know When:** incorporating pacing , timing, context , scheduling , planning and just-in-time concepts
- **Know If:** incorporating scenario development, scenarios and foresight

Knowledge ecology is a sub-element of knowledge management that focuses and targets the development and mobilisation of collective intelligence (Lorndon, 1999). Knowledge ecology differs from knowledge management in that it adds context, synergy and trust relationships which are viewed as critical for transforming information into knowledge (Malhotra and Galleta, 2000).

The knowledge ecology framework consists of an environment that comprises various interacting and inter-dependent social, cultural and political subsystems which shape the “creation, flow and use of knowledge” within that environment (Malhotra and Galleta, 2000, p.54). In this way an environment’s knowledge ecology would influence the knowledge produced and stored, knowledge availability and the manner in which knowledge is valued in daily activities (Malhotra and Galleta, 2000). It is in this way that knowledge ecology is able to fill the gap between “static repositories of knowledge management and the dynamic adaptive behaviour of natural systems” (Por, 2001).

Knowledge ecology is put in practice through the creation and application of knowledge ecosystems. The knowledge ecosystem is a framework within which “critical perspectives, new needs and circumstances, and better solutions to meet them, are introduced” (Lorndon, 1999, p.34). In order to reap benefits from knowledge ecosystems, the static knowledge bases and dynamic conversations as well as the links between them must be carefully nurtured. A community of practice represents a mechanism through which this can be achieved.

Communities of practice are groups of people who share a profession, evolve naturally based on mutual interest in a particular subject area, or are created purposefully in order to attain specific goals (Uriatre, 2008). Through sharing information and experiences members are able to learn and develop. Communities of practice are the building blocks of a knowledge ecosystem (Uriatre, 2008).

Por (2001, p.12) states that knowledge ecosystems are similar to biological ones in that they are “self-sustaining, self-regulating and self-organising, with permeable boundaries through which they interact with other systems”. Knowledge ecosystems typically comprise people networks, knowledge networks and technology networks, collectively known as the triple network, and is depicted graphically below (Por, 2001):

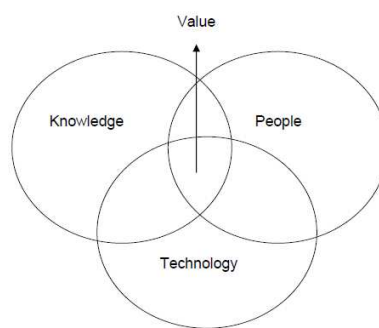


Figure 1: The Triple Network (Por, 2001)

- **People Networks:** in respect of this research refer to the rural entrepreneurs or SMMEs and the ways in which they organise collaboration
- **Knowledge Networks:** these refer to the connections between the ideas that rural entrepreneurs generate through undertaking their daily business activities, as well as the interaction of knowledge between them, their wider community and various enabling organisations/institutions
- **Technology Networks:** these refer to the technology that supports and enables collaboration and communication for the purposes of knowledge creation, sharing and utilisation

UNCTD (2005) advise that ICTs have the potential to contribute to poverty alleviation, adding that entrepreneurs are now utilising mobile phones for business. In addition affordable internet connections are becoming a reality for people located in rural and under-served areas (UNCTD, 2005). Mobile technology therefore represents an opportunity for the creation and implementation of a sustainable knowledge sharing platform. The section that follows expands on mobile technology and social networking in order to establish an understanding of the proposed technology as it relates to this research.

1.6.3 Mobile Technology and Social Networking

Growth of Social Network Sites (SNS) indicates that digital technology is changing the way we communicate. Nicholson (2011) concurs, adding that mobile technologies present exciting opportunities for access to information and knowledge.

According to Murthy (2010) mobile technology growth in the developing world increased from 53% in 2005 to 73% in 2010. This growth is made possible largely due to declining technology costs and the sharing of devices among friends and family (Murthy, 2010). Murthy (2010) further adds that exceptional growth and the use and access of mobile devices has made communication easier and positively impacted socio-economic growth, leading to the development of mobile applications to meet local needs.

African countries are starting to benefit from using mobile digital devices. Examples cited include non-profit organisations utilising mobile to provide mobile health services, farmers utilising mobile to share key information on farming and agriculture and tertiary institutions embracing and applying m-learning (mobile learning) (Nicholson, 2011).

The combination of mobile technology and social networking uncovers a broad range of possibilities, specifically when applied to the development, facilitation and support of rural entrepreneurs or SMMEs. The combination of these two phenomena is known as Mobile Social Networking (MSN) and is defined as social networking in which individuals who share common interest connect through a mobile device (Nicholson, 2011).

The digital revolution has the potential to facilitate enabling partnerships through easing access to information and enabling the creation and sharing of new knowledge. This will in turn strengthen development efforts, specifically the ability of rural entrepreneurs to successfully operate in a constrained environment, for the purposes of facilitating development and socio-economic growth. This research will seek to uncover how the mobile social networking (MSN) innovation can be applied to enable knowledge sharing through the creation of a virtual community of practice, to support the operational efficiency of rural entrepreneurs and SMMEs, and more specifically rural community media.

1.7 Research Methodology

The research methodology section of this study makes use of the model from Saunders, Lewis & Thornhill (2015). This model illustrates multiple layers of a research onion demonstrating various perspectives to be considered when designing and implementing a suitable research methodology. The sub-components of research philosophy, design, approach, data collection and analysis methods make up the research onion, which is depicted in figure 2 below (Saunders *et al*, 2015).

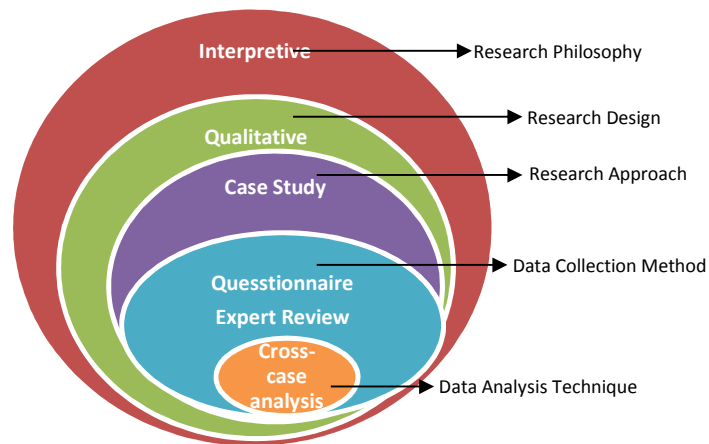


Figure 2: The Research Onion, (Saunders, Lewis and Thornhill, 2015)

The research onion (Saunders *et al*, 2015) presented above, compares the research processes to peeling different layers of an onion until the centre has been reached, with the centre of the process being the analysis of collected data.

The research process to be followed in this study will be based on the Saunders *et al* (2015) research onion and is depicted graphically below:

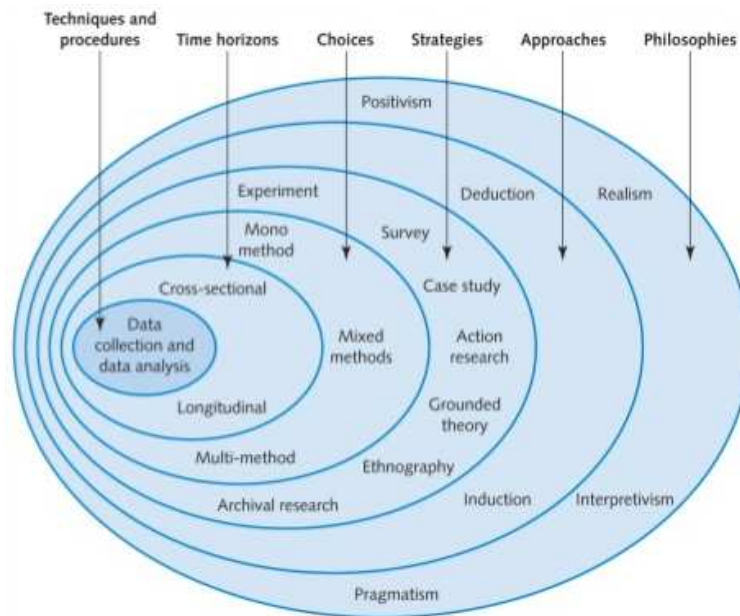


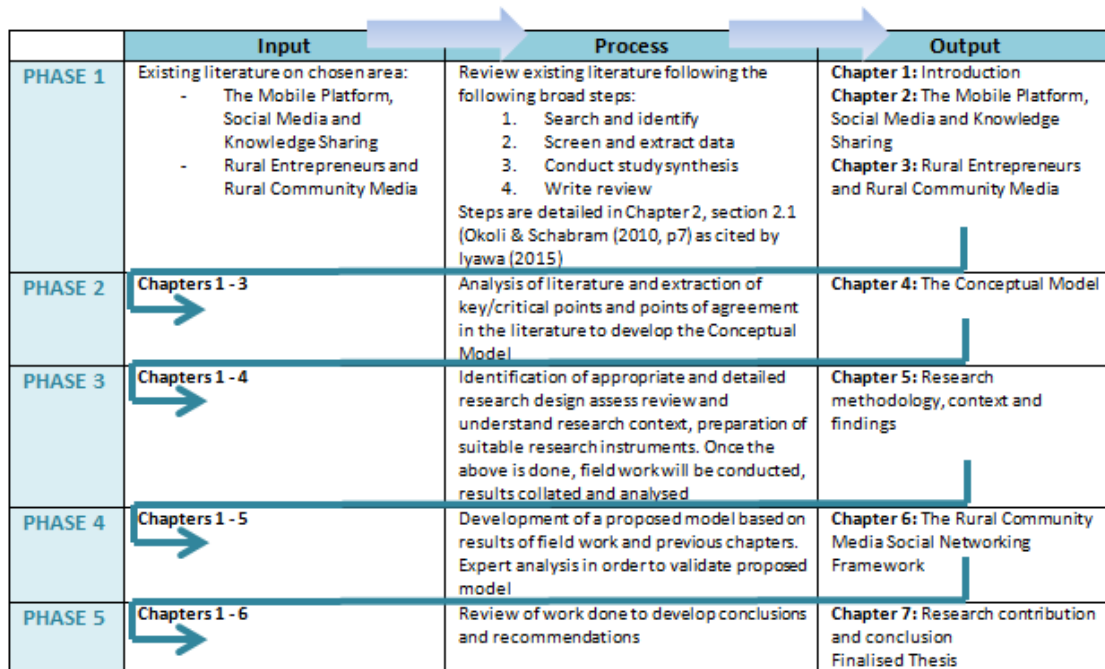
Figure 3: The Research Process, (Saunders et al, 2015)

The process regards research methodology starts from the identification and implementation of philosophy followed by approach, strategy, method, time horizon and lastly techniques and procedures. Each of the layers of the research onion represents a step in the research process to be followed and is discussed in more detail in Chapter 5 of the research. In summary the Research Methodology is as follows:

- **Research Philosophy:** The interpretive research philosophy was chosen for this study
- **Research Design:** The qualitative design was chosen for this study
- **Research Approach:** The case study approach will be used in the study
- **Data Collection Techniques:** Primary and secondary data will be used as the source of data in this study. Primary data will be collected through implementation of a questionnaire and expert reviews, while the secondary data will be collected through literature review. Hermeneutics will be used as the data collection technique in this study.
- **Data analysis:** Cross-case data analysis will be applied

Further detail regards applied research methodology can be found in Chapter 5.

This research process employed in this study will be carried out in a series of five phases, this is depicted graphically below:



	Input	Process	Output
PHASE 1	Existing literature on chosen area: - The Mobile Platform, Social Media and Knowledge Sharing - Rural Entrepreneurs and Rural Community Media	Review existing literature following the following broad steps: 1. Search and identify 2. Screen and extract data 3. Conduct study synthesis 4. Write review Steps are detailed in Chapter 2, section 2.1 (Okoli & Schabram (2010, p7) as cited by Iyawa (2015))	Chapter 1: Introduction Chapter 2: The Mobile Platform, Social Media and Knowledge Sharing Chapter 3: Rural Entrepreneurs and Rural Community Media
PHASE 2	Chapters 1 - 3	Analysis of literature and extraction of key/critical points and points of agreement in the literature to develop the Conceptual Model	Chapter 4: The Conceptual Model
PHASE 3	Chapters 1 - 4	Identification of appropriate and detailed research design assess review and understand research context, preparation of suitable research instruments. Once the above is done, field work will be conducted, results collated and analysed	Chapter 5: Research methodology, context and findings
PHASE 4	Chapters 1 - 5	Development of a proposed model based on results of field work and previous chapters. Expert analysis in order to validate proposed model	Chapter 6: The Rural Community Media Social Networking Framework
PHASE 5	Chapters 1 - 6	Review of work done to develop conclusions and recommendations	Chapter 7: Research contribution and conclusion Finalised Thesis

Figure 4: The Research Process

1.8 Delimitation of the Study

This research aims to develop a framework for use by rural based SMMEs, specifically rural community media, which will support business operation through leveraging communities of practice.

This research will discuss whether mobile social networking can be effectively applied to support SMME operation in rural areas through the creation of a virtual community of practice and resultant facilitation of access to information and knowledge sharing. This will include an assessment of the specific knowledge sharing needs of rural entrepreneurs, and more specifically rural community media, and how mobile social networking can be utilised to meet those specific needs.

This research makes use of specific definitions of Rural Areas, ICTs, Rural Entrepreneurs and SMMEs and discussion will be limited to this context. It is important to note upfront that in the context of this research rural refers to areas with some rudimentary infrastructure. The objective of this research is to develop a mobile social networking framework that will facilitate and support creation of a virtual community of practice in order to enable knowledge sharing between rural entrepreneurs and supporting organisations/bodies in aid of development. The study will be limited to SMMEs, specifically rural community media operating within rural areas in the Eastern Cape Province.

1.9 Outline of Proposed Chapters

Chapter one will introduce the study in regards to research questions, aims and objectives.

Chapter two of the research will comprise a discussion on the mobile platform, social media and knowledge sharing.

Chapter three will focus on rural entrepreneurs and rural community media.

Chapter four of the research will present the conceptual model.

Chapter five present the research methodology, context and findings.

Chapter six will present the Rural Community Media Mobile Social Networking Framework.

Chapter seven will conclude the study detailing the research contribution and conclusion.

The chapters of the research are depicted graphically below:

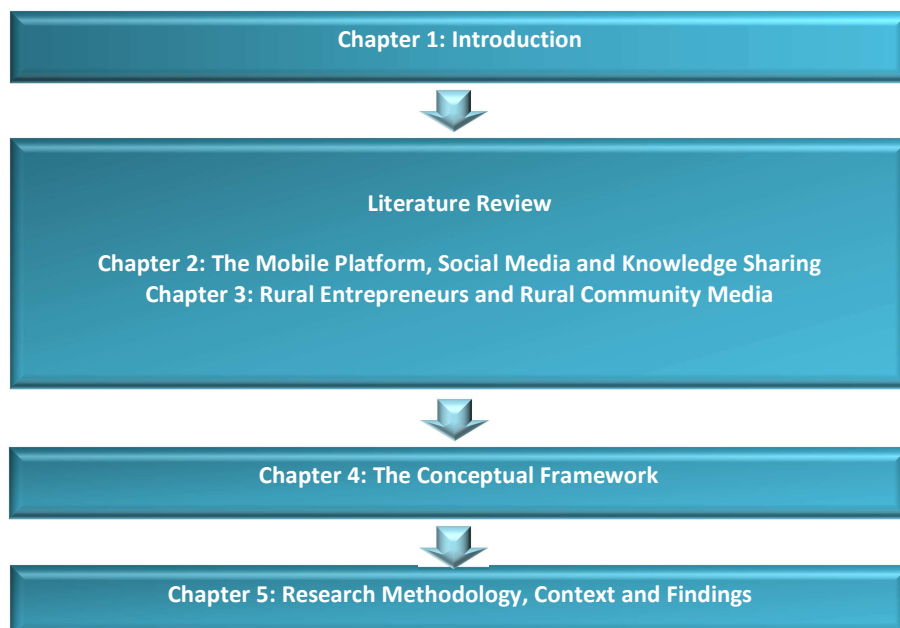
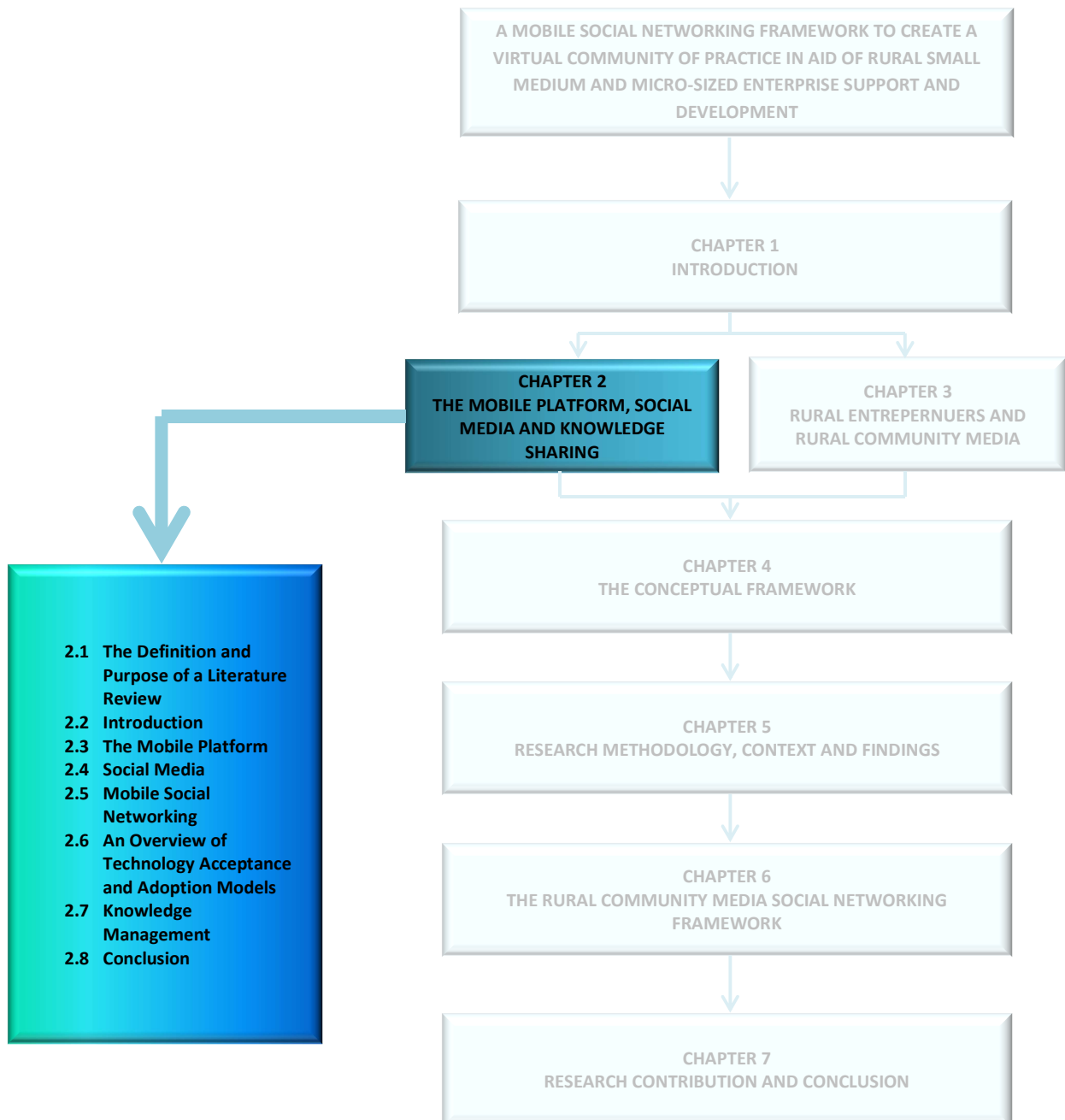




Figure 5: Chapter Outline

Chapter 2 – Diagrammatic Overview



Chapter 2 – Literature Review: The Mobile Platform, Social Media and Knowledge Sharing

2.1 The Definition and Purpose of Literature Review

Chapter 2 and 3 comprise the Literature Review sections of this study. Chapter 2 covers the mobile platform, social media and knowledge sharing and Chapter 3 covers rural entrepreneurs and rural community media. These two chapters are included in order to provide a discussion of the two broad subject areas of this study, indicating the views of key authors. This is for the purposes of providing the literature content and discussion that will assist in developing a mobile social networking conceptual framework that has the necessary elements to create a virtual community of practice that can assist improved operational efficiency for rural SMMEs, and more specifically rural community media.

Prior to commencing the discussion in Chapter 2 the author would like to touch on the aim and intent of literature review generically.

Leedy and Omrod (2005) state that literature reviews are conducted to evaluate the views of other researchers regarding a specific research area. Cronin, Ryan & Coughlan (2008) state that literature reviews aim to ensure extensive enquiry on a research area and to provide a sound foundation for additional research on an area of interest. Okoli & Schabram (2010) identify the following steps to be followed in conducting a literature review:

- **Determine the purpose of the literature review:** Ensuring clarity regards why the literature review is being conducted will ensure that it remains in line with identified goals and maintains this focus throughout
- **Define protocol and conduct training for joint reviewers:** Literature reviews employing more than one reviewer require agreement regards detailed procedure to be followed. In order to do so a detailed written protocol and associated training is necessitated to ensure consistency in execution
- **Conduct search for literature:** In this step it's important to justify and ensure comprehensiveness via employing various search methods utilising various mediums
- **Conduct screening and quality appraisal for inclusion:** This point comprises two steps. The process of reviewing various studies for inclusion and elimination will be based on the literature review goals. The quality of the various studies found will also be assessed. Only studies relevant to the research and of suitable quality should be included, all else should be discarded
- **Conduct data extraction:** This step involves extraction of all data suitable for the literature review from the studies identified for inclusion
- **Conduct study synthesis:** This step involves combining the data extracted from the studies using various techniques
- **Write the review:** Utilising the data extracted and synthesised in the preceding steps and based on standard principles for writing research articles, the author can now proceed with writing the literature review

In addition to the above Saunders *et al* (2015) define the three source of a literature review as comprising primary, secondary and tertiary origins. This is depicted graphically below:

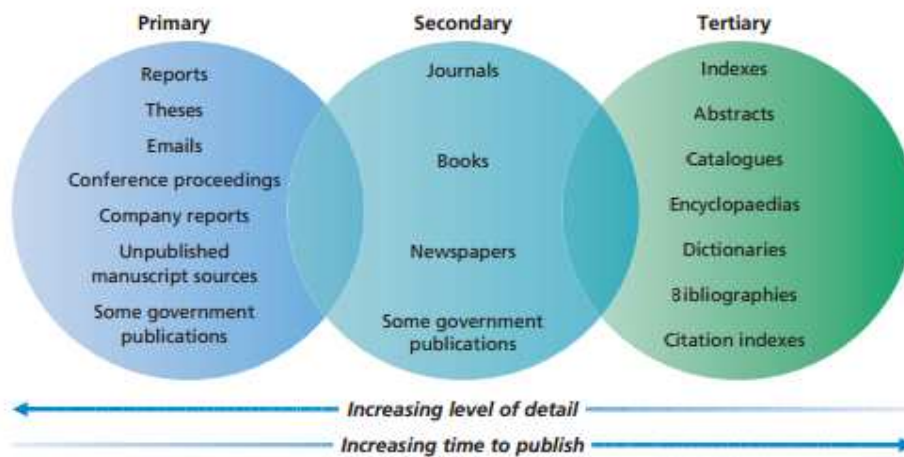


Figure 6: Sources of Literature Review (Saunders et al, 2015)

In conducting this literature review the author utilised the steps indicated above as a guide. The author also utilised all sources of data as indicated above in order to ensure comprehensiveness, depth and validity of the literature review.

2.2 Introduction

In the previous chapter the research area for this study was introduced and the research objectives stated. This is the first of two literature chapters for this study. The chapter sets the contextual base for the study by presenting a literature review on the mobile platform, social media and knowledge sharing and how these can be leveraged in order to improve the operational efficiency of rural based SMMEs.

In the 1990's access to the internet was branded as the ICT for development solution that would address the digital divide (Han, 2012). At that stage though, many internet access projects in developing countries were not sustainable, with access requiring huge investment in infrastructure, resulting in access to the web remaining far from pervasive (Han, 2012). In the 2000's the concept of mobile for development was introduced (Han, 2012). Best, Smyth, Etherton and Wornyo (2010) add that though initial and substantial focus has been placed on the role of information and communication technologies as development tools that can be applied in order to facilitate development within Africa, growing levels of enthusiasm are now focused on the utilisation of mobile phones and the possibilities they provide for development, concluding that mobile now plays a significant role in development.

Han (2012) states that mobile fanatics tend to see mobile phones as key enablers of development in less developed environments. "The ubiquitous mobile phone in the hands of millions of Africans working as a primary tool for communication is fast becoming the core technology for supporting social change and the empowerment of citizens (Ekine, 2009 as cited by Han, 2012, p1). Han (2012) further argues that more

research and a close collaboration representing various interests in mobile for development are necessary to advance and expand the socio-economic influence of mobile.

The primary aim of this research is to develop a mobile social networking framework that will enable the development of a virtual community of practice in order to support more efficient and effective operation of rural SMMEs. This chapter specifically focuses on the mobile platform, social media and knowledge sharing as a key focus of this study. This section will discuss the mobile platform as one of the chosen delivery components for a mobile social networking framework in support of rural SMMEs.

2.3 The Mobile Platform

Substantial progression in mobile access has eased and facilitated communication, encouraging socio-economic benefits in many countries (Murthy, 2011). Holt (2010) adds that developing country increase in mobile usage is driven partly by a belief that access to information and communication creates opportunity and partly due to pure economics. Cranston and Davies (2009) state that indication of global desire to connect online can be seen through the consistent growth in Internet activity, with an increasing number of users in developing countries finding means to address broadband rental costs. In South Africa as an example one third of PC owners connect online as compared to users accessing the internet via mobile phone, which is almost double that of PC-based users (Cranston and Davies, 2009).

Over the last five years there has been extraordinary growth in mobile phone subscriptions possibly due to mobile phone costs being cheaper than landline or broadband costs in certain developing countries (Cranston and Davies, 2009). Tiago, Koitlaine, Vapa, Kokkinen and Nurminen (2008) concur, stating that mobile phone computational power is approaching the capability of general purpose computers, adding that it is now possible to host a web site on a mobile device. UNESCO (2013) notes this quick progression in mobile technological development and the resultant broader use of the Internet. Mobile phones have greater computational power than many older mainframe computers, with added items such as cameras and GPS capability allowing utilisation in environments previously hostile to computers in general (UNESCO, 2013). UNESCO (2013) adds that entrepreneurs are uncovering creative ways to make phones utilising older technology and operating systems work similar to smart phones, indicating that features which previously required infrastructure investment may no longer pose such challenge in the future.

Deloitte (2012) states that increased consumerism and the growing African middle class is the key cause for the expansion in the use of mobile phones. Currently Africa represents the second largest mobile phone market after Asia, with greater than 700 million mobile subscriptions and increases in mobile connections projected at almost 1 billion by 2016 (Deloitte, 2012). Deloitte (2012) further states that a larger numbers of Africans are being familiarised with the internet through utilisation of mobile phones and as a result of mobile infrastructure rollout. This trend is largely due to numerous constraining issues, including insufficient investment in fixed line infrastructure and prohibitive broadband costs; they (Deloitte, 2012) further add that Africa has advanced the need for fixed line internet connectivity with the growth of fixed line internet being outperformed by mobile. Africa's mobile data usage currently aggregates to 14.85% of total internet traffic,

second only to Asia (Deloitte, 2012). As a result of this pace of growth, Facebook specifically has chosen to tailor its various services and products to the African market through roll-out of local language versions of their website, commencing with Swahili (Deloitte, 2012). Deloitte (2012) further states that approximately 80% of Facebook logins in both South Africa and Nigeria are conducted via a mobile device.

Wide World Worx (WWW, 2012) adds that in 2011, South Africa had roughly 8.5 million Internet users, this figure had increased by 25% from 2010 indicating maintenance of the extraordinary progression in Internet usage was largely driven through the introduction of smartphones in South Africa, bringing Internet penetration to an approximate 17%. Despite this South Africa lagged some of the larger Internet user bases on the continent, namely; Nigeria, with 29% penetration and 45 million users, Egypt with 26% penetration and 21.6 million users, Morocco with 49% penetration and 15.6 million users and Kenya with 25% penetration and 10.4 million users (WWW, 2012). One of the main reasons for the comparatively lower penetration in South Africa is price (WWW, 2012).

ADSL and phone line costs amount to approximately R140 a line, with lower-income users spending an average of R100 a month in total (WWW, 2012). Although uptake of data services appears relatively low in comparison to other countries, Africans are being introduced to internet connectivity largely through the phones they use, with social networks representing the main access route to the Internet even for rural users (WWW, 2012). As a result most users will see mobile devices as an everyday tool as opposed to a complicated technological device, boding well for interventions utilising mobile as a delivery platform (WWW, 2012). Further to this, Africans are known to find means to make tools of distinct capability more relevant to local needs through creativity and innovation (WWW, 2012).

UNICEF (2012) agree with the views expounded above, stating that economic development in Africa has been facilitated by the mobile industry; with mobile services applied in agriculture, banking, education, and healthcare. UNICEF (2012) adds that young people are identified as the key adopters of mobile technology in South Africa with approximately 72% of mobile devices owned by those within the age group of 15 to 24 years. According to UNICEF (2012) most technological development in South Africa has taken place through mobile, this in turn has led to a notable increase in mobile ownership and usage. South Africa's mobile telephony, and mobile telephony in numerous developing countries, has facilitated reduction of the communication gap between urban and rural populations, this is due to the fact that mobile provides access to areas lacking main telephone lines and related ICT infrastructure (UNICEF, 2012). Further to this, UNICEF (2012) note that in many poorly developed countries, including South Africa, mobile devices utilising prepaid as a payment mechanism are the only means of communication for rural households. Zigkolis, Kompatsiaris and Vakali (2007) add that evolution in technology has altered the role of mobile phones from that of standard communication to powerful devices for uploading and consuming content.

The figure below depicts global telecommunication trends from 2001 through to 2013 (Heeks, 2014):

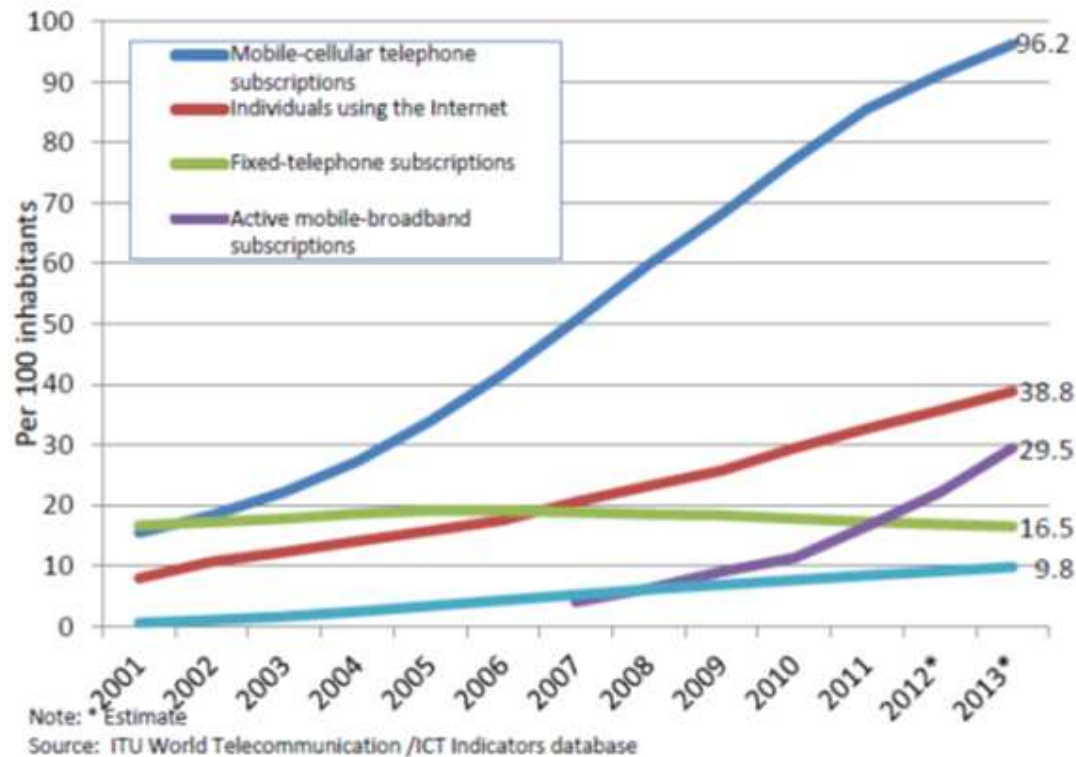


Figure 7: Global ICT Developments 2001-2013 (Heeks, 2014)

This section provided background regarding the growth and popularity of the mobile platform in Africa and South Africa generically. The popularity of the mobile platform supports the selection of mobile as a delivery component of a social networking framework. The pervasiveness of mobile as described in this section of the research indicates that users would likely already be comfortable with it as a delivery component, with most users likely already accessing mobile platforms regularly in their day to day lives.

The following sub-sections deal with specifics regards the mobile platform, namely the mobile device, mobile operating systems, mobile device challenges and wireless internet. This is to ensure common understanding of components that comprise and enable the mobile platform. This process would assist in understanding the mobile component as it relates to a mobile social networking framework and the sub-components to be considered and incorporated in this respect.

2.3.1 The Mobile Device

This section will provide definitions and characteristics of a mobile device in order to ensure a clear interpretation of what is meant by this term and the means with which it enables online access and communication capability.

Souppaya and Scarfone (2012) state that due to the fact that mobile device characteristics are constantly evolving defining the term can be problematic. They (Souppaya and Scarfone, 2012) agree that the following hardware and software features provide an appropriate standard definition for mobile devices:

- Small form factor
- A wireless network interface for internet access, generally making use of cellular networking, Wi-Fi, or other technologies that connects the mobile device to various networks in order to enable internet access
- Built-in storage
- An operating system (not as complex as those found on desktops or laptops)
- Embedded applications or applications made available via third parties or accessed via the internet
- Built-in features for synchronising data

Souppaya and Scarfone (2012) list the following characteristics as optional characteristics of mobile devices:

- Network services:
 - A minimum of one wireless network interface, for example Bluetooth
 - A minimum of one wireless network interface for voice communication
 - Global Positioning System (GPS) enabling various location services
- At least one digital camera
- A Microphone
- Storage comprising the following:
 - Removable media capability
 - Utilisation of the device as removable storage

Souppaya and Scarfone (2012) add that mobile devices should also satisfy various security criteria. These can be attained through various built-in features and security controls, with the most prevalent security objectives defined as follows (Souppaya and Scarfone, 2012):

- **Confidentiality:** ensure that unauthorised parties are unable to access data saved on the device
- **Integrity:** the ability to track any changes to data that is either transmitted or stored by the device
- **Availability:** ensure accessibility of resources when required

Huang (2008) contributes that the quantity of mobile devices in the market is about 5 to 10 times more than that of personal computers, with mobile devices growing faster than PCs. Huang (2008) defines a mobile device as pocket sized handheld technical equipment with a small screen for output and a mini keyboard or touch screen for input.

Ouma (2013) cites Ballard (2007), describing various mobile device characteristics as follows:

- **Personal:** owned by a specific individual
- **Handheld:** with wireless characteristics, varied functionality, small enough to keep on your person
- **Communicative:** are used as communication devices via email, voice or instant messaging

The table (adapted from Ouma, 2013) below provides a summary of the types of mobile device and associated features.

Device	Features
Basic phone	- Limited speed - Limited memory capacity - Display is mainly grey scale - Uses infra-red data association - Uses a numeric pad for text input - Cell interface constituted of voice and limited data
Feature phone	- Improved speed - Improved memory - Coloured display, resolution typically 1 to 200 pixels - MiniSD or MMCmobile memory cards - Camera - Numeric keypad or soft keyboard - Voice and high speed data for cell interface - Infrared or Bluetooth for wireless connectivity
Smartphone	- Superior speed - Superior capacity, built-in hard drive capabilities - Large display typically minimum of 320*240 pixels - MinoSDO or MMCmobile. memory cards - Camera with video capabilities - Various forms of text input, including handwriting recognition and QWERTY keyboard. - IrDA, Bluetooth or Wi-Fi for wireless connections

Table 2: Types of Mobile Devices and Associated Features (Ouma, 2013)

Ouma (2013) further cites Ketola (2002) as identifying the following mobile device design components which affect user experience:

- **Industrial design:** relating to how the device looks and feels, associated with mechanical design factors
- **Mechanical design:** comprises the devices physical attributes including orientation, display, cover style, navigation tools, and interaction capabilities
- **Hardware design:** determines the overall device performance and comprises details related to memory, storage, display or battery capability
- **Software design:** determines and influences user interaction with the device

2.3.2 Mobile Operating Systems

This sub-section discusses mobile operating systems as an element that enables the mobile device by providing specific functionality. The most common mobile operating systems are discussed below.

Nosrati, Karimi and Hasanvand (2012) identify and discuss a number of mobile application platforms or mobile operating systems as follows:

- **Symbian:** Symbian is a smartphone mobile operating system that was originally created by Symbian Ltd. and maintained by Accenture (Nosrati *et al*, 2012). The Symbian platform succeeded Symbian OS and Nokia Series 60 (Nosrati *et al*, 2012). The latest version, Symbian ver.3, was released officially towards the end of 2010 and first used in the Nokia N8 (Nosrati *et al*, 2012). The Ericsson R380 smartphone was the first Symbian phone with touchscreen and was released in 2000; it was also the first device to be promoted as a 'smartphone', combining PDA functionality with a mobile phone (Nosrati *et al*, 2012).
- **Windows:** Microsoft Windows CE was officially also identified as Windows Embedded Compact and previous to this Windows Embedded CE (Nosrati *et al*, 2012). Microsoft Windows CE is an operating system developed by Microsoft and represents a distinctive operating system and kernel, and is not a simpler version of desktop Windows (Nosrati *et al*, 2012).
- **Blackberry:** BlackBerry is a collection of phones developed and designed by Research in Motion (RIM) (Nosrati *et al*, 2012). In 1999 the first Blackberry was released, these smartphones were designed to function as PDAs, portable media players, internet browsers, cameras and gaming devices (Nosrati *et al*, 2012). The ability to send and receive push email and instant messages as well as maintenance of a high level of security through on-device message encryption is what made Blackberry popular (Nosrati *et al*, 2012). The most popular Blackberry instant messaging feature is the Blackberry messenger service, although the smartphone supports a variety of instant messaging services (Nosrati *et al*, 2012).
- **iOS:** iOS (previously known as iPhone OS) is an operating system for mobile devices developed and distributed by Apple Inc. (Nosrati *et al*, 2012). iOS was initially made available in 2007 for the iPhone and iPod Touch, since then the operating system has been extended to support other Apple devices such as the iPad and Apple TV (Nosrati *et al*, 2012). The Apple operating system is only licensed for use on Apple hardware (Nosrati *et al*, 2012). By 2012 Apple's App Store contained more than 700,000 iOS applications, which had been jointly downloaded more than 30 billion times (Nosrati *et al*, 2012). The user interface of iOS is based on the direct manipulation concept, which is based on multi-touch gestures based on slider, switch, and button components to achieve interface control (Nosrati *et al*, 2012). Interaction vis this OS includes swipe, pinch and tap gestures (Nosrati *et al*, 2012).

- **Android:** Android, an operating system intended mainly for touchscreen mobile devices is a Linux-based operating system utilised on smartphones and tablets, and developed through the Google and Open Handset Alliance collaboration (Nosrati *et al*, 2012). Android was financially backed and later purchased by Google in 2005 and initially developed by Android Inc. (Nosrati *et al*, 2012). Android and the Open Handset Alliance were jointly revealed in 2007(Nosrati *et al*, 2012). The Open Handset Alliance is a group of 86 telecommunications, software and hardware companies committed to evolving open standards for mobile devices (Nosrati *et al*, 2012). The android code is open-source and developed by Google under the Apache License (Nosrati *et al*, 2012). Led by Google the Android Open Source Project (AOSP) aims to maintain and ensure further development of Android (Nosrati *et al*, 2012).

2.3.3 Mobile Device Challenges

As well as introducing certain benefits the mobile characteristic of mobile devices also introduce certain challenges. Awareness of these will assist in the development of a superior mobile social networking framework through ensuring that means to overcome these challenges where applicable are introduced.

Harrison, Flood and Duce (2013) cite and discuss various limitations for mobile devices. The introduction of mobile resulted in fresh usability challenges which proved challenging to model based on traditional usability models. Harrison *et al* (2013) identify the following as issues introduced by mobile devices:

- **Mobile Context:** this relates to challenges introduced by the mobility characteristic of mobile devices in that the user is unconfined to specific locations and could also be engaging objects, people and various environmental components nearby, leading to distracted attention or focus (Harrison *et al*, 2013).
- **Connectivity:** Connectivity can often be unreliable and slow impacting mobile application performance negatively (Harrison *et al*, 2013).
- **Small Screen Size:** small form factor and the resultant small screen size are to ensure that the device remains portable and limits the amount of information that can be displayed (Harrison *et al*, 2013).
- **Different Display Resolution:** Due to the small screen size screen resolution is also reduced resulting in poorer quality images (Harrison *et al*, 2013).
- **Limited Processing Capability and Power:** the portability characteristic of mobile devices means that they also have decreased power and processing capability, this limits the nature of applications suitable for mobile (Harrison *et al*, 2013).

- **Data Entry Methods:** Data entry methods are also impacted by the small form factor requiring some level of proficiency, the likelihood of erroneous input tend to be higher with decreased speed of data entry (Harrison *et al*, 2013).

2.3.4 Wireless Internet

Mobile devices once enabled by applicable mobile operating systems access the internet generally through wireless means in order to maintain their mobile characteristic. This section delivers a high-level synopsis of the technology that enables wireless connectivity. The purpose of including this section is to ensure understanding of how wireless internet connectivity works and the elements that must be considered in order to enable it as these elements may need to be represented in the mobile social networking framework.

Goodwins (2013) states that increasingly the internet is being accessed through mobile devices with tablets and cell phones being provided as examples, this is mainly due to the convenience provide by hand-held devices which allow users to access the internet from practically any location. The pervasiveness of this trend is more clearly evident amongst younger users who commonly conduct web browsing via a phone or other mobile device rather than with a computer (Goodwins, 2013). Portability of the internet has been made possible due to improvements in mobile, with mobile network advances and progression in how content is delivered over internet (Goodwins, 2013).

Goodwins (2013) states that wireless is a distinctive technology, adding that regardless of its age wireless continues to improve substantially over time. It is observed that all improvements in wireless stem from better engineering (Goodwins, 2013). According to Goodwins (2013) the first wireless signal utilised practically was Morse code. The invention of tuning capability allowed for a single spectrum to be shared by multiple signals; better antennas allowed for frequency reuse and minimised interference while amplitude and frequency modulation allowed for increased information per signal (Goodwins, 2013). Currently recent methods such as 802.11ac, LTE and 60GHz rely on the combination of multiple signals across various channels with the ability to process multiple channels at one time being common place (Goodwins, 2013). Goodwins (2013) states that the replacement of the transistor by the valve is still seen as one of the major breakthroughs in wireless. From the 50s to current day Moore's Law provided means for lower power requirements and cost when working with signals (Goodwins, 2013).

802.11ac was identified as the next generation wireless due to be approved in 2014 (Goodwins, 2013). 802.11ac was built on concepts from 802.11n, which preceded it, having presented MIMO (Multiple In, Multiple Out) to the mass market (Goodwins, 2013). 802.11n specified four analogous spatial channels, each individually limited to 40MHz bandwidth as a maximum; 802.11ac increased this to eight parallel channels with a minimum of 80MHz each with more efficient data coding and transmission (Goodwins, 2013). In 2013 LTE could enable a maximum of 100Mbps utilising up to twenty frequency bands globally (Goodwins, 2013). In spite of LTE being extensively sold as '4G', LTE-Advanced or LTE-A is anticipated to deliver the proper 4G for mobile broadband (Goodwins, 2013).

According to GSMA (2013) LTE/4G networks will account for 1 in 5 broadband subscriptions by 2017. Projected LTE/4G growth is depicted in the figure below:

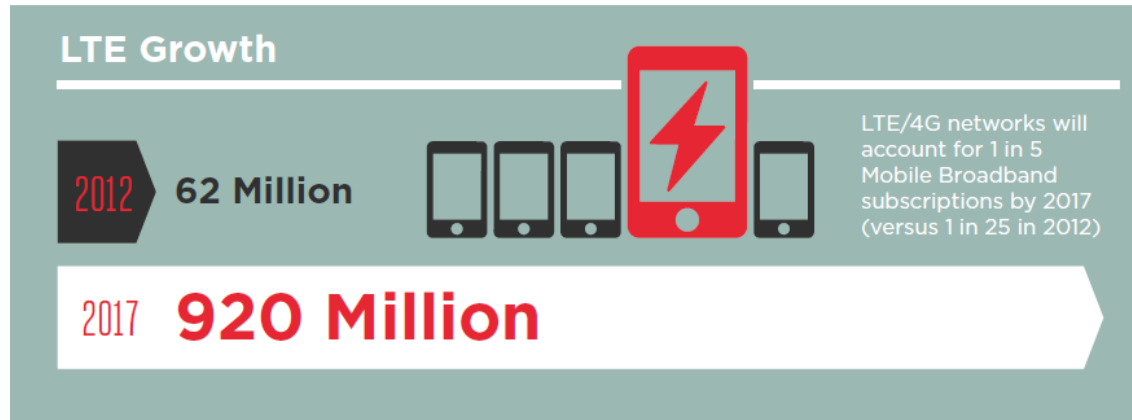


Figure 8: Projected LTE/4G growth (GSMA, 2013)

Blycroft Ltd (2012) projected LTE growth in Africa and the Middle East as follows:

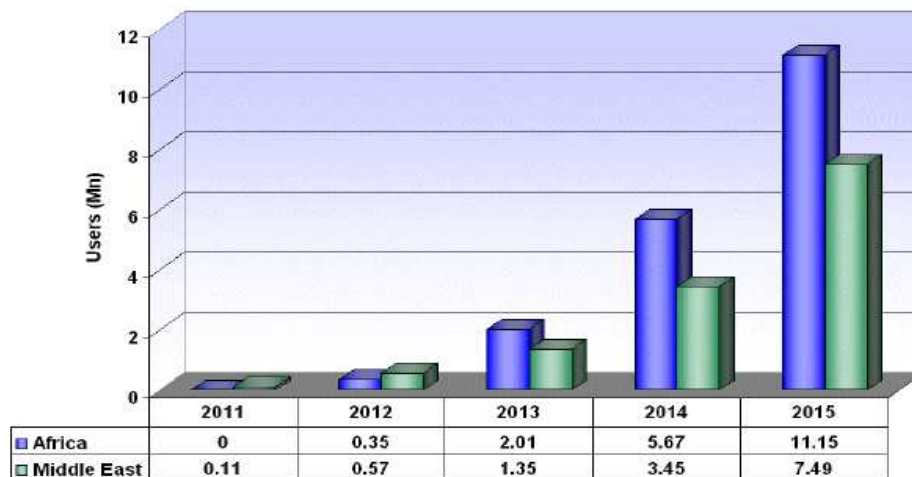


Figure 9: Projected LTE growth (Blycroft Ltd, 2013)

The mobile platform section provided an overview of mobile technology. The author also specifically touched on the mobile device, mobile operating systems, mobile device challenges and wireless internet. This section assisted with an understanding of the mobile platform and the components that enable it. It can be concluded from the discussions above that certain categories of mobile devices are developed with all the capability required to function and access the internet. From a user perspective, the ability to utilise a mobile social networking framework, once implemented, would require a mobile device that is capable of connecting to the internet. The mobile social networking framework needs to consider elements that would make it user friendly

in a mobile context, once implemented. This has implications for design criteria should the framework be implemented.

Having discussed the mobile platform the author will now introduce and discuss social media as one of the key subject areas of this study.

2.4 Social Media

The Arab Springs represent a recent, dramatic and now well-known example of the power and pervasiveness of social media used to facilitate mass access to information and knowledge.

Xu (2013, p.1) states that “when Mohammed Bouazizi doused himself with gasoline and lit his fatal match, he ignited not only his flesh but the spirit of a revolution that would transform the face of North Africa and the Middle East. His last words “How do you expect me to make a living?” resounded with the Arab world in which 40% of people live in poverty and young people make up over half of the unemployed. At that time a different Tunisia was “as Bouazizi’s mother described it, “a dream we dared not dream”” (Xu, 2013, p.1).

“Connected in new ways by social media, broad based anger transformed into an organised movement that redefined the relationship between citizen and government, with many having found liberation in the free flow of information online” (Xu, 2013, p.1). Social media operated as a medium for candid political dialogue, enabling people to think critically about issues impacting them (Xu, 2013). This research seeks to apply social media inward towards improving the operational efficiency of rural SMMEs and thereby their impact in society.

In order to effectively leverage social media one need start with an understanding of social media as a concept and tool. The sections that follow will cover the evolution of communication technology providing a view of the origins of social media, followed by discussion on the types of social media and social media use in Africa. This will provide a base understanding of social media, its pervasiveness and assist in ascertaining whether social media is a suitable delivery and communication component for a mobile social networking framework designed for the purposes of developing a virtual community of practice to assist rural SMME operational efficiency.

2.4.1 The Evolution of Communication Technologies

This section provides a high level view of the combination of technologies that contributed to the birth of social media, providing the background context on which to build further discussion.

Dewing (2012) states that broadband internet became popular in the late 1990’s when websites allowing for the creation and upload of content began to appear. SixDegrees.com, the first recognised social networking site, appeared in 1997 (Dewing, 2012). The late 2000s saw widespread acceptance of social media with Twitter attaining 517 million users in July 2012 and Facebook attaining of 1 billion users in November 2012 (Dewing, 2012).

Zigkolis, Kompatsiaris and Vakali (2007) add that the advancement of communication technology such as GPS, 3G, WiMAX and Wi-Fi combined with advancement in hardware such as the storage, microprocessor and touchscreen has enabled the capability to develop user orientated services that are able to collaborate with existing web technologies and services. Web 2.0 technologies have increased interest in socialising and web-based user-contributed content (Zigkolis *et al*, 2007).

Web 2.0 applications and social networks generally allow for the creation and sharing of content, exploration of online information and socialising within virtual communities (Zigkolis, *et al*, 2007). Neuman (2009) states that new technologies were set to increase our interaction capacity resulting in new ways to structure business, organise companies and assist customers. Today these developments are not just impacting business, but have also significantly impacted daily life. Recently technology that allowed for improved two way interaction via the internet increased in popularity, this capability essentially associated with Web 2.0 technology is also referred to as social media.

2.4.2 Types of Social Media

This section touches on the broad definition and types of social media. Inclusion of this section allows for the understanding of the various categories of social media and various resultant characteristics that a social networking based framework would comprise as a result. This would speak to functionality or capability that would be inherent in the framework based on its social networking component.

Neuman (2009) states that social media is difficult to define as it can refer to an activity, a tool and also a platform. Social media generally incorporates the term user-generated content. Dewing (2012) states that social media can be defined as an extensive variety of internet based and mobile services which enable online user participation and exchange, contribution of user-created content and interaction with online communities. According to Dewing (2012) internet services associated with social media include the following:

- **Blogs:** this stands for web log and is basically an online journal with pages displayed chronologically from newest through to oldest (Dewing, 2012). Blogs can be hosted at no cost on various websites such as Blogger, Tumblr and WordPress (Dewing, 2012).
- **Wikis:** are defined as collective websites that enable users to create and modify pages via a web browser. Well-known examples include Wikipedia, which is a free online user created encyclopaedia based on wiki technology (Dewing, 2012).
- **Social Bookmarking:** sites which enable organising and sharing links to websites, examples are StumbleUpon, Digg and Reddit (Dewing, 2012).
- **Social Network Sites:** these comprise web based services which allow users to build public or semi-public profiles within a defined system, connect to selected users and view and alter user connections

created by themselves and other system users, examples include LinkedIn and Facebook (Dewing, 2012).

- **Status-Update Services:** these are described as microblogging services which allow users to share concise status updates based on a variety of topics which are then viewable by others within the system, an example of this is Twitter (Dewing, 2012).
- **Virtual World Content:** are sites which provide virtual reality, game-like environments within which users can interact, examples include Second Life which enables the development of avatars with which one can interact with other users (Dewing, 2012).
- **Media-Sharing Sites:** allow for posting and sharing of videos or photos that can be accessed and viewed by others, examples include YouTube, Pinterest and Instagram (Dewing, 2012).

Dewing (2012) cautions that the broad social media categories described above also often overlap, for instance Twitter is a social networking site and a status-update service, Facebook enables the sharing of photos while also allowing for interaction with other users.

According to Milanovic (2015) the most popular social media sites and apps include the following:

- **Twitter:** is often defined as the simplest social media platform when compared with others and is also stated as being one of the most interesting and fun (Milanovic, 2015). Messages are allowed a maximum of 140 characters with the application delivered via a simple and easy to use interface (Milanovic, 2015).
- **Facebook:** extremely popular and often seen as being synonymous with “social media” by many due to its popularity. Facebook is generally based on sharing personal photos, links, and thoughts with users able to demonstrate support for various brands and organisations by liking them and becoming fans (Milanovic, 2015).
- **LinkedIn:** is a business focused media site (Milanovic, 2015). LinkedIn is stated as being a great meeting place for customers, vendors and employees, enabling users to keep abreast of the latest in business or industry news (Milanovic, 2015).
- **Xing:** is a professional recruitment and networking site which has managed to attain the focus and global presence that LinkedIn lacks (Milanovic, 2015). Xing is often mistaken as a job search portal, however the site also has various communities and features that facilitate the development of relationships with industry thought leaders, colleagues and suppliers (Milanovic, 2015).

- **Renren:** is China's leading social networking site, it is similar to Facebook and tends to be largely popular with the younger generation (Milanovic, 2015). The site allows for mood updates, connection with others, sharing of thoughts and adding posts (Milanovic, 2015).
- **Google+:** is an up-and-coming, relatively new media site (Milanovic, 2015). Google+ is a combination of Twitter and Facebook backed by Google, one of the world's major search engines (Milanovic, 2015). The site allows for the creation of content, highlighting of topics with hashtags, and organisation of contacts in circles (Milanovic, 2015).
- **Disqus:** is a social engagement platform utilised for commenting on and managing website feedback as well as managing spam (Milanovic, 2015). Social monitoring is one of the advanced features offered by the site (Milanovic, 2015).
- **LinkedIn Pulse:** Pulse is theoretically a LinkedIn sub-product but is seen as significant and pervasive enough to deserve specific focus (Milanovic, 2015). Pulse is seen as a medium for keeping up with the industry thought leaders and sharing new ideas (Milanovic, 2015).
- **Snapchat:** described as an addictive app that allows users to take a picture and decorate it by adding art and/or text, the pictures are sent to recipients for a specific time period after which photos are deleted and removed from company servers (Milanovic, 2015).
- **Tumblr:** this platform basically hosts user microblogs (Milanovic, 2015). Companies and individuals are also able to add multimedia, such as short videos and pictures, to their blogs (Milanovic, 2015). Tumblr is fast-paced making it idyllic for various forms of viral content (Milanovic, 2015).
- **Pinterest:** is a large virtual inspiration and idea board (Milanovic, 2015). Over the last few years the site has had significant impact on social media becoming extremely popular with the do-it-yourself (DIY) crowd and women. The site allows for the sharing of pictures and ideas which others can duplicate, like, save and pin (Milanovic, 2015).
- **Twoo:** is a Belgian social network site that targets the 25 and below age group (Milanovic, 2015). In addition to basic features such as posting, photo sharing and updating the site also comprises chat and online and is utilised extensively by younger users who want to connect and stay entertained at the same time (Milanovic, 2015).
- **MyMFB:** is an alternative to Facebook geared towards Muslim users previously called Millat Facebook (Milanovic, 2015). The site seeks to connect 1.5 billion users, representing the total global Muslim population, into a single social platform (Milanovic, 2015). The site has demonstrated rapid growth

offering similar, share, update and post functionality of Facebook and is very common in certain areas (Milanovic, 2015).

- **YouTube:** is a site that enables the sharing of videos (Milanovic, 2015). YouTube's extremely wide directory of videos, makes it the world's second largest search engine (Milanovic, 2015). Videos available via the site comprise product reviews, promotions and how-to videos on various topics with users able to share, rate, and comment on content consumed (Milanovic, 2015).
- **Instagram:** is a social media site that links the camera feature on user smart phones to their social profile (Milanovic, 2015). Instagram allows users to share pictures via its own website and a number of other social media sites inclusive of Facebook and Twitter for example (Milanovic, 2015). Users are able to peruse, select and apply various photo filters to their pictures and to invite friends to comment on them (Milanovic, 2015).
- **Vine:** this site allows users to view, share and view brief video clips and is also available as an application (Milanovic, 2015). Vine content tends to be focused on entertainment with a preference for easy to share viral or meme clips (Milanovic, 2015).
- **WhatsApp:** enables users to send messages in text format to any other users utilising the platform with limited data charges (Milanovic, 2015). Currently WhatsApp, based on a straightforward idea, has 700 million users and is the world's most popular messaging platform (Milanovic, 2015).
- **Vk.com:** essentially the Russian version of Facebook identifies itself as Europe's largest social media site with similar messaging, profiles and games. Users are able to capture professional and personal information as well as show support for and follow people and various organisations (Milanovic, 2015).
- **Meetup:** is a social media site utilised for organising local groups around specific interests (Milanovic, 2015). Meetings or meetups as is the case for this platform are based on a variety of topics including hobbies and music, with sessions generally open to newcomers (Milanovic, 2015). Meetup is seen as useful for discovering and engaging interests while making new friends at the same time (Milanovic, 2015).
- **Secret:** is basically about joining a group of friends (or creating one's own group), and then sharing messages anonymously (Milanovic, 2015). Secret is fun for initiating new ideas, casual interactions or sharing (Milanovic, 2015). It was noted in May 2015 that the co-founder, David Byttow, decided to shut down the site. David Byttow plans to publish post-mortems for others to learn from distinct mistakes and obstacles faced by site founders based on its 16 months of operation (Milanovic, 2015).

- **Medium:** is a social engagement site that comes with updated manuals written by experts comprising helpful advice, tips, and articles on how to connect online (Milanovic, 2015).

2.4.3 Social Media in Africa

This section speaks to social media use in Africa, touching on specific African nuances of use that may also ultimately impact attitude towards and use of a social networking based framework.

Deloitte (2012) states that in Africa in addition to entertainment and consumption of media; social media is also used as an economical communication platform. Obstacles for usage of social media include cost of mobile devices and cost of data, these have resulted in Facebook and the like structuring deals which enable their users to utilise their applications at no cost, resulting in increased uptake and improved growth opportunities (Deloitte, 2012). The potential also exists for the development of social media platforms in Africa, with MixIt and Jamble serving as examples of social media innovations developed in South Africa (Deloitte, 2012). Deloitte (2012) add that the provision of African communication and technology based solutions is only expected to increase going forward, and combined with mobile phones, serves as a facilitator for solving various social issues.

The figure below provides a view of Facebook proliferation in Africa:

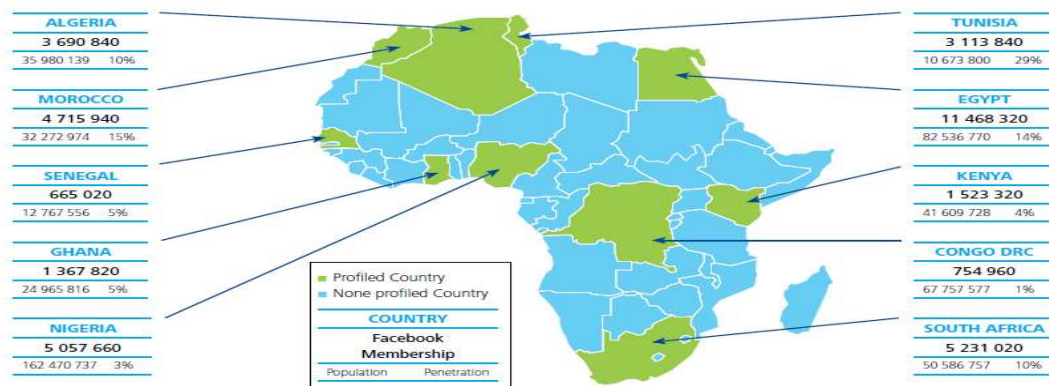


Figure 10: Facebook Proliferation in Africa (Deloitte, 2012)

It can be seen from the above Facebook example that social media use in Africa is quite popular, representing an opportunity as indicated by Deloitte (2012) above for the development of interventions utilising this medium as a platform.

2.4.4 Use of Social Media by SMMEs

This section deals specifically with use of social media by SMMEs. Inclusion of this section will provide a view as to the extent of social media use by SMMEs, what categories of social media SMMEs utilise and what SMMEs utilise social media for. Inclusion of this section will provide justification of possible usefulness of social

media as a business tool, thereby providing further support for social media as a high level component to be included in the resultant mobile social networking framework which aims to facilitate SMME operational efficiency.

Vitis Public Relations (2014) cites a recent infographic from Sage in ascertaining how small businesses use social media and which sites they prefer for business. It was not surprising to find that Facebook tops the list of most commonly utilised social media sites for business followed by LinkedIn, with Twitter third and Google+ fourth. Only seven per cent of small businesses were found to have their own business blog (Vitis Public Relations, 2014).

The figure below depicts percentage of time spent on social media sites per social media site.



Figure 11: Percentage time per social media site (Vitis Public Relations, 2014)

The figure below depicts popular small business uses of social media by percentage.



Figure 12: Uses of social media by percentage (Vitis Public Relations, 2014)

The figure below depicts the percentage of small businesses who perceive social media as being useful and the percentage of small businesses that use social media to engage other businesses and service providers.

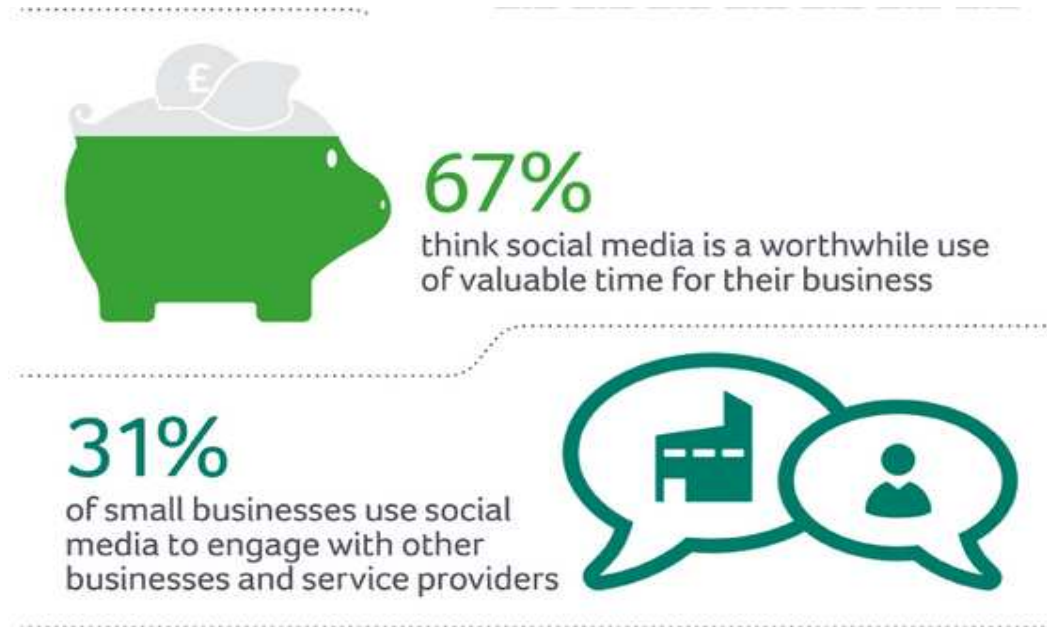


Figure 13: Social media value and use (Vitis Public Relations, 2014)

The above figures and discussion indicate that small businesses do make use of social media for various activities, as well as indicate preferences relating to specific social media sites. This section assists in confirming that use of social media is not an entirely foreign concept to SMMEs, and that social media is

perceived as useful for conducting business, boding well for the inclusion of social media in the envisaged framework.

2.5 Mobile Social Networking

The research suggests development of a mobile social networking framework for the purposes of creating a virtual community of practice that would assist rural SMME operational efficiency. This section deals specifically with mobile social networking, discussing the combination of mobile delivery with a type of social media, social networking, represented by Facebook and the like. The inclusion of this section provides an understanding of the mobile social networking component for the suggested framework, indicating characteristics and sub-components that may need to be taken into account when designing a suitable framework.

Lane, Walton-Flynn and Benlamlih (2008) define mobile social networking as the technological means that enable the transmission and communication of information using a combination of voice and data over specific networks. Mobile Social Networking comprises all facilitating components required to contribute and consume social media content via a mobile network (Lane *et al*, 2008). Lane *et al* (2008) state that mobile social networking services were originally introduced as chat services in Japan, Scandinavia, Italy, France and the US in 1999, these then morphed into texting communities and chat rooms over time.

2004 saw the introduction of 3G networks and camera-phones as second generation platforms mainly utilised for dating services, evolving into third generation services based primarily on WAP 2.0 and MMS over time (Lane *et al*, 2008). Fourth generation services appeared in 2008, allowing for higher levels of control over information sharing via profiles or via mobile device services (Lane *et al*, 2008). This evolution adapted from Lane *et al* (2008, p.6) is summarised in the table below:

Generation	Description
1st Generation	Began in 1999/2000, continues to be offered Features: text-only chat via chat rooms, most people are anonymous Technology: is application based and pre-installed on mobile handsets Business model: pay as you go (pre-paid) or subscription based
2nd Generation	Began in 2004 through to 2006, based on region, usually coinciding with launches of 3G and camera phones, continues to be offered Features: uploading of photos, mobile search for person based on simple profile (gender, type of relationship sought, hair colour, age, zip code), contact/flirt with person anonymously, rating/voting Technologies: SMS for purchase confirmation, pre-installed handset and user downloaded applications, WAP 1.0 for navigation (no Web 2.0 features) Regional Distribution: Japan, Korea, Australia, Western Europe and US Applications: mostly dating

	Business Model: pay as you go (pre-paid) or subscription based
3rd Generation	Experiments/trails in 2006, widespread adoption in 2008/2009 Features: richer user experience, automatic publishing to web profile and status update, some Web 2.0 features, search by group/join interest groups, alerts of updates to favourite profiles, location-based services emerging, free/ad-supported content (games, ringtones, etc.), UGC content ratings, content sharing, mobile, audio, asynchronous conversation online via the cell (Utterz) Technologies: WAP 2.0, Java on the server, MMS, voice capture in WAP 2.0 Applications: general interest, music, mobile specific content distribution Regional distribution: Japan, Korea, Western Europe, North America, going global Business models: advertising and ad-supported content became increasingly important, pay as you go (pre-paid) and subscription based on popular networks
4th Generation	Begins in 2008 reaches maturity in 2010 Features: in addition to the above, presence, ability to hide/mask presence, asynchronous video conversation, multipoint audio chat conversation with one button, multiplayer mobile gaming Technologies: Web 2.0 widgets, flash lite, open social, open handset alliance Business models: all of the above plus virtual currency purchase and trade of virtual goods Environment: mobile/online network consolidation, silos between communities are breaking down

Table 3: Mobile Platform Evolution (Lane et al, 2008, p.6)

Factors contributing to the rapid growth of social networking included increased broadband tools, improved software and development of computers and mobile devices that were more powerful (Dewing, 2012).

Attributes such as persistence, replicability, searchability and accessibility have only further entrenched the popularity and spread of social networking (Dewing, 2012).

The figure below depicts use of mobile data to access social media

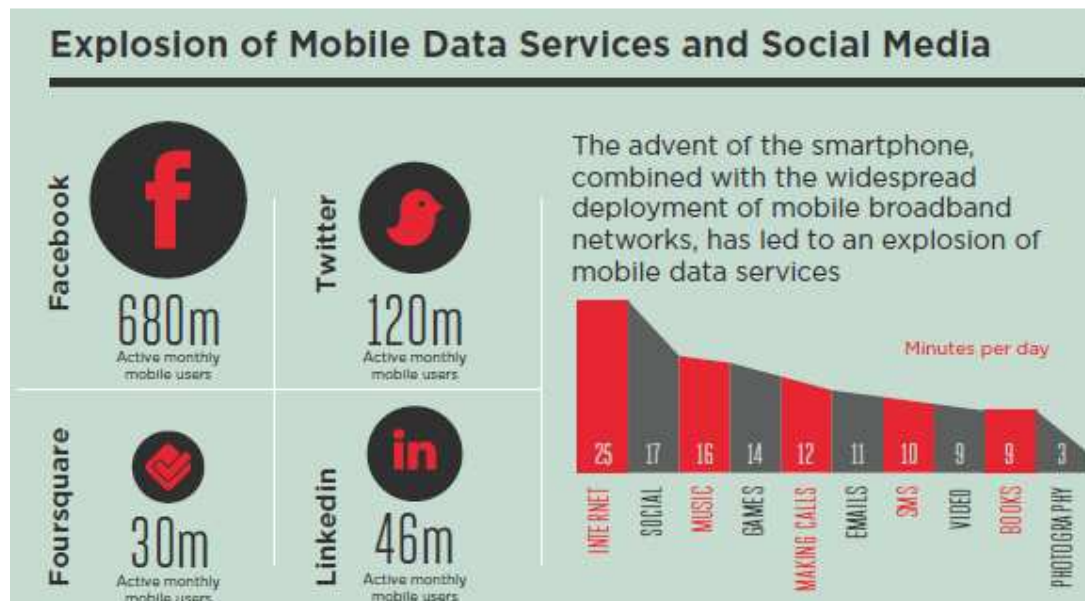


Figure 14: Mobile Data Services and Social Media (GSMA, 2013)

This section makes it apparent that use of mobile social networking is popular as a communication medium, and a trend that is on the increase due to various advancements in technology. The discussion above indicates that the technology to enable mobile social networking exists and is popular in Africa and South Africa. The sections also indicated use by SMMEs of social media to assist their various business operations. The discussions above support the selection of mobile social networking as a key component of the envisaged framework. In order to conclude the discussion on technology, the author must also discuss issues that may impact user acceptance and use of new technology. This is important as it would allow for the identification of factors that could be introduced to ensure that the proposed framework as it relates to technology, specifically mobile social networking, is user friendly and capable of acceptance and use by the proposed user community.

2.6 An Overview of Technology Acceptance and Adoption Models

A number of models have been proposed for technology acceptance and usage, each of the models presented have a different focus but are however based on the same concept, which is that end users of technology tend to have various reactions to utilising new technology based on a diverse set of factors.

Review of the various technology acceptance and adoption models below will assist in understanding key factors that influence technology acceptance, adoption and use, as they relate specifically to mobile social networking as the technology component of the envisaged framework. A total of seven technology acceptance and adoption models will be discussed in order to identify common elements that would relate specifically to technology acceptance and adoption in the context of this research.

2.6.1 The Technology Acceptance Model

In considering the choice of appropriate technology it is important to take into account implications of the Technology Acceptance Model. The Technology Acceptance Model (TAM) represents significant delivery of means to understand ICT usage and acceptance behaviour (Malhotra and Galleta, 2000).

The Technology Acceptance Model (TAM) was developed to explain user response to new technology. TAM aims to contribute justification for determinates of ICT acceptance and to provide means of clarifying user behaviour across a variety of technology types and user groups. TAM is based on the Theory of Reasoned Action as its hypothetical basis, specifying causative links amongst two items: (1) Perceived Usefulness (PU) and Perceived Ease of Use (PEOU), and (2) user's attitude (A), behavioural intentions (BI) and actual technology usage behaviour (Malhotra and Galleta, 2000). The diagram below, adopted from Malhotra et al (2000) graphically depicts TAM:

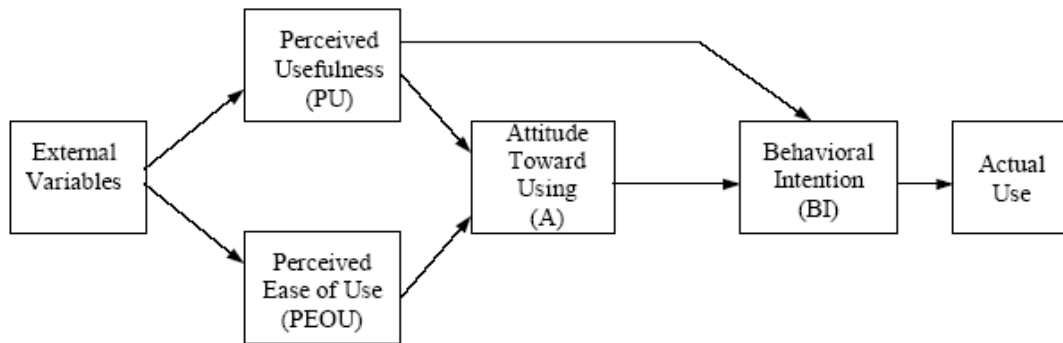


Figure 15: The Technology Acceptance Model (Malhotra and Galleta, 2000)

In explanation of the diagram, it is apparent that two significant variables for consideration when introducing new technology into an environment are the perceived usefulness of the technology, coupled with its perceived ease of use. As a result it is important that any perceived technical complexity is minimised in order to facilitate perceived ease of use.

If perceived usefulness and perceived ease of use are high, it follows that the end-user will develop a positive attitude towards utilising the technology. The attitude towards use and perceived usefulness together both translate into behavioural intention and actual use of the technology. This means that if the attitude towards the use of the technology is positive and the perceived usefulness good, then the end-user will be able to positively identify how they will use the technology and proceed to do so.

The Technology Acceptance Model proposes that perceived usefulness and perceived ease of use of technology are highly significant factors in determining the eventual actual use of technology. It therefore

follows that the choice of appropriate technology is highly critical to the actual use of the technology and thereby the attainment of key objectives.

2.6.2 Model of PC Utilisation

This model, by Thompson, Higgins, and Howell (1991), proposes that PC use is influenced by six factors. This model examines the impact of prior user experience on the current utilisation of technology (Thompson *et al*, 1991), and is depicted graphically below:

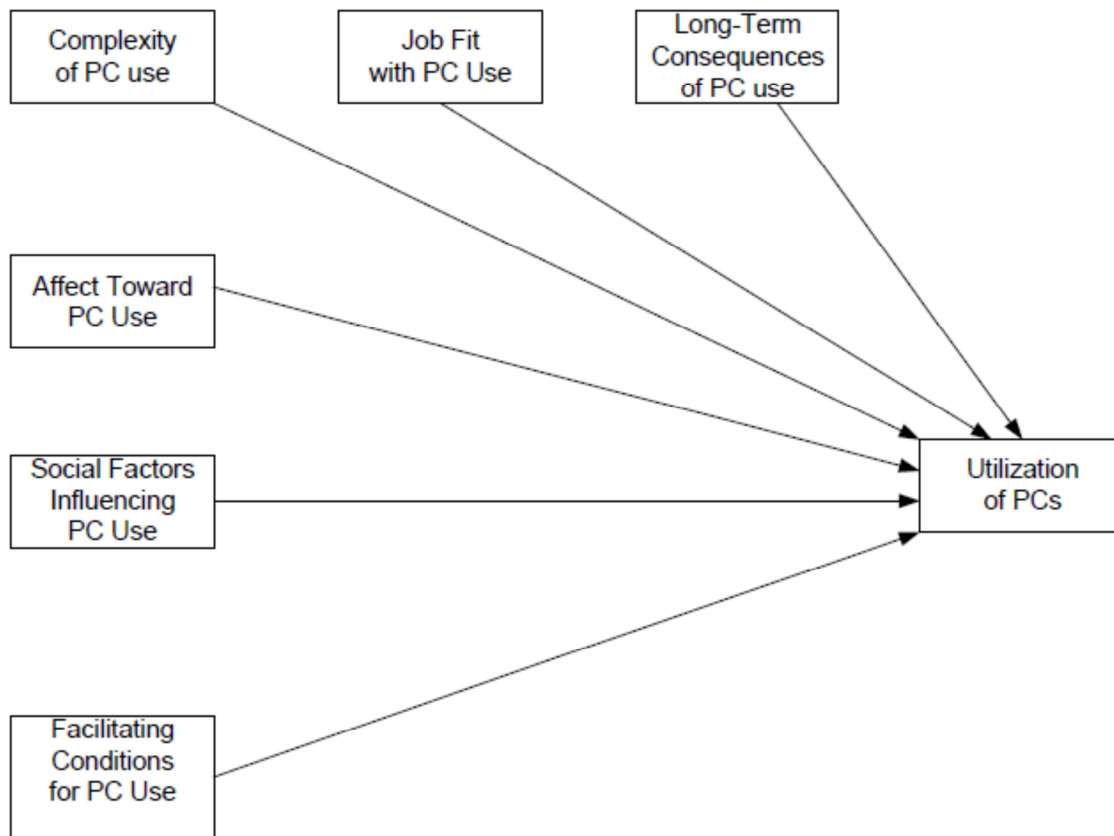


Figure 16: Model of PC Utilisation (Thompson et al, 1991)

Findings related to this model specify six key factors as important forecasters of PC utilisation, with a noteworthy inverse relationship between perceived complexity and the use of PCs (Thompson *et al*, 1991). In this case PC use would be could be replaced with mobile device use in order to ensure relevance to this study. In this respect the six factors would be adjusted as follows:

- Facilitating conditions for mobile device use
- Social factors influencing mobile device use
- Affect toward mobile device use

- Complexity of mobile device use
- Job fit with mobile device use
- Long term consequences of mobile device use

Based on this model the above-mentioned factors, in the context of this study, all contribute to actual mobile device use.

2.6.3 The Equity Implementation Model

In this model Hess, Joshi, & McNab (2010) argue that users make equity evaluations of technology based on the following three constructs:

- **Equity-self:** defined as the net benefit of utilising a particular technology
- **Equity-instruction:** defined as the comparison of the user benefits of utilising the technology against those of management
- **Equity-other:** defined as the comparison of the user benefits of utilising the technology against the benefits of other users

Hess *et al* (2010) argue that perceptions of equity determine eventual use of technology.

2.6.4 The Diffusions of Innovations Model

Rogers (2003) claims that individual comprehension of the following characteristics predicts the rate at which an innovation is accepted:

- **Compatibility:** is concerned with the match between values, experiences and needs of potential users and new innovation (Rogers, 2003).
- **Relative advantage:** is concerned with the perception of whether a new innovation is better than what superseded it (Rogers, 2003).
- **Complexity:** is concerned with perceived difficulty vs. ease of use of the new innovation (Rogers, 2003).
- **Observability:** is concerned with visible or observable results of new innovation implementation (Rogers, 2003).
- **Trialability:** is concerned with opportunity to experiment with a new innovation prior to implementation (Rogers, 2003).

It is suggested that innovations with greater perceived advantage, compatibility, simplicity, trialability and observability have a higher probability of being adopted faster (Rogers, 2003).

2.6.5 The Technology, Organisation and Environment (TOE) Framework

The TOE assists in the process of defining organisational components which affect the decision to adopt a technology based on the following three elements (Tornatzky and Fleischer, 1990):

- **Technological context:** defining existing and new technology relevant to the organisation that may be useful in improving productivity
- **Organisational context:** defining resources within the organisation, including organisation structure
- **Environmental context:** defining the broader environment within which the organisation operates

These elements are depicted graphically below:

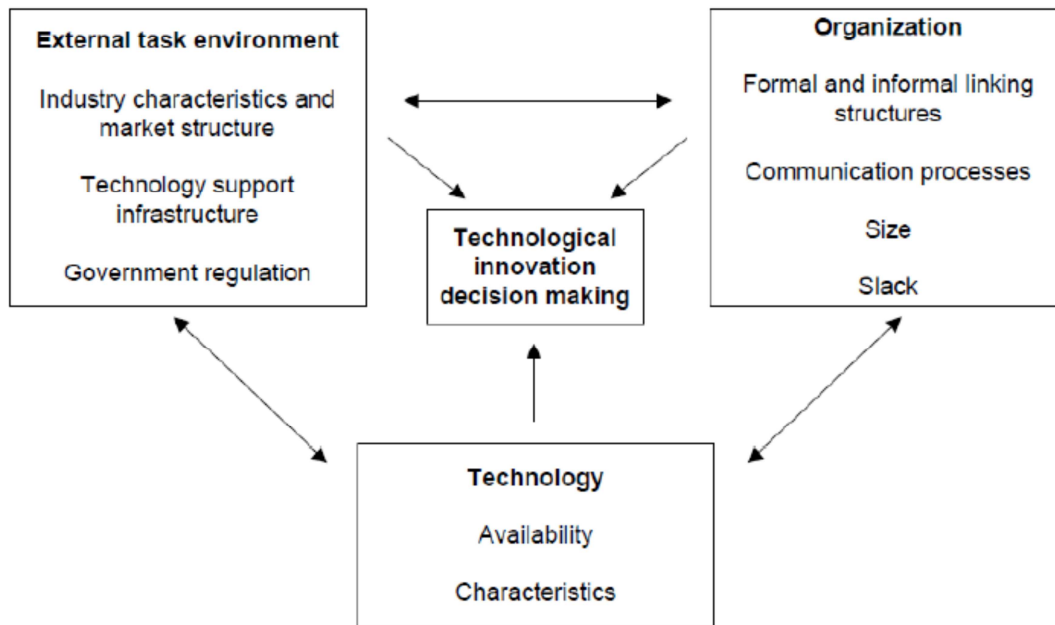


Figure 17: The TOE Framework (Tornatzky and Fleischer, 1990)

2.6.6 The Unified Model of Technology Acceptance and Use (UTAUT)

Venkatesh, Morris, Davis, & Davis (2003) define the UTAUT as an attempt to consolidate various views on technology acceptance and adoption. Elements of the UTAUT are summarised below (Venkatesh *et al*, 2003):

- **Performance expectancy:** is concerned with the ability of users to benefit from the new technology (Venkatesh *et al*, 2003).
- **Social influence:** is concerned with whether peers support use of the technology (Venkatesh *et al*, 2003).
- **Effort expectancy:** is concerned with how easy the technology is to use (Venkatesh *et al*, 2003).
- **Hedonic motivation:** is concerned with whether use of the technology is enjoyable (Venkatesh *et al*, 2003).

- **Facilitating conditions:** is concerned with support available for use of the technology (Venkatesh *et al*, 2003).
- **Price value:** is concerned with whether the technology is deemed as being worth what was paid to attain it (Venkatesh *et al*, 2003).
- **Habit:** is concerned with the extent of learnt behaviour from using the technology (Venkatesh *et al*, 2003).

2.6.7 The Task Technology Fit (TTF) Model

Goodhue and Thompson (1995) define task technology fit as the degree to which technology facilitates tasks, this is depicted graphically below:

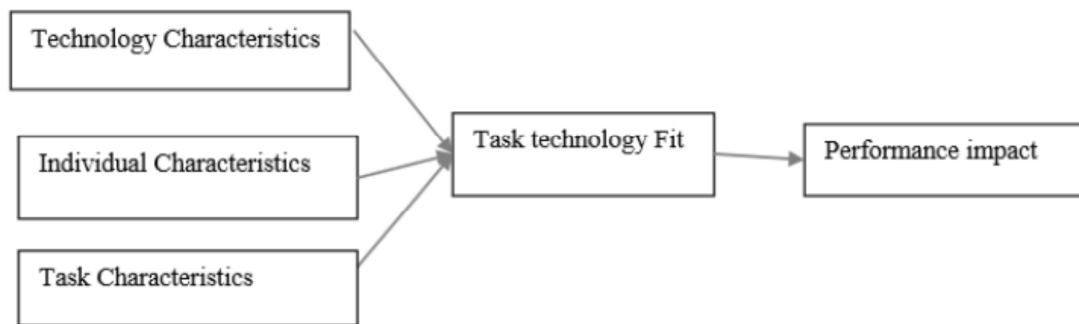


Figure 18: The Task Technology Fit (TTF) Model (Goodhue and Thompson, 1995)

This model argues that for technology to be of value it must fit the tasks for which it acquired.

Each of the technology acceptance and adoption models discussed above contributes important factors to consider with regards to the introduction of new technologies into an environment. Notable across all the models is the importance of ease of use, simplicity and fit for purpose. Proposed technology must be measured against these criteria in order to ascertain user response to the technology. In the case of mobile social networking, a technology that is already pervasive and utilised widely, if not for business purposes then for social and personal purposes, the ease of use and simplicity component is already catered for and can be stated as being inherent in the nature and design of the base technology itself. This can be objectively seen based on the wide uptake and use of the technology as discussed in the preceding sections of this study.

In regards to the mobile social networking framework envisaged as an outcome of this study, the author must take care to ensure that technology acceptance and adoption considerations are catered for specifically relating to the technology component of the framework. This has software design and implementation considerations as well should the framework be implemented.

Having discussed the technology component of the proposed framework, mobile social networking and related technology acceptance and adoption considerations, the author must touch on the envisaged outcomes as a

result of utilising the technology. This research seeks to develop a mobile social networking framework for the purposes of creating a virtual community of practice in aid of improved operational efficiency for rural based SMMEs. The virtual community of practice is envisaged to assist with information and knowledge sharing, themes that relate in some way to the broader subject area of knowledge management. In order to create an understanding of these themes and the manner in which they link to the envisaged social networking framework, the author will discuss the broad subject area of knowledge management next.

2.7 Knowledge Management

Mansell (2012, p5) observes that “by the time the Millennium Development Goals (MDGs) were announced, then UN Secretary-General Kofi Annan, like so many others, seemed to have become captivated by the potentially wealth-creating advantages of technology”. To this end “MDG Goal 8 called upon governments, in cooperation with the private sector, to make available benefits of new technologies, especially information and communications” (Mansell, 2012, p5). By 2010 this goal was understood as relating to the pervasiveness of Internet access points and mobile phones (Mansell, 2012). Motivation for investment in technology was linked to their potential to stimulate economic growth with the view that “closing this gap was expected to help close the ‘knowledge gap’ as well” (Mansell, 2012, p5).

UNESCO (2013) hold the view that a society is able to advance due to the networks or connections established between individuals and enabled by technology. They (UNESCO, 2013) further observe that in more totalitarian and repressive society’s access to information and knowledge is generally more restricted. An outcome of free exchange of information and knowledge is the creation of a more inclusive society with populations empowered to participate fully in social, cultural and economic life.

Access to information and knowledge allows for increased and improved contribution and participation in social development and economic processes while simultaneously facilitating the ability for one to make better choices (UNESCO, 2013). Marker *et al* (2002) concur, adding that in societies where there are no obstacles to information and communication, market and government institutions tend to be more efficient, transparent and accountable.

For development, knowledge management offers a variety of new possibilities. Focus on knowledge within the development domain is anticipated as development initiatives tend to be comprised of numerous knowledge-based practices (Weigel and Waldburger, 2003). The sharing and use of relevant information and knowledge through the use of technology can be an effective tool for cultivating, facilitating and supporting rural development. Grundstein (2012) concurs adding that technology is key to unlocking the value of knowledge.

The ability to use and adapt technology has become an important factor in producing and retrieving the knowledge, power and wealth necessary for development (Pott, 2003). Acquiring knowledge within a developing country context involved two complementary steps, these are 1) obtaining knowledge by opening up to boarder knowledge for example knowledge from abroad, and 2) generating knowledge that is not easily accessible and available in other locations (Mansell, 2012). Mansell (2012) goes on to state that, based on the

above arguments, the policy implications and emphasis clearly relate to two things; that of knowledge transfer and investment in technology.

The section of the research will introduce knowledge management as a concept and discuss in depth various aspects of knowledge management as an area of interest. The section will specifically discuss the definition of knowledge management, followed by knowledge ecology, the knowledge ecosystem and communities of practice.

2.7.1 The Definition of Knowledge Management

This section provides a detailed definition of knowledge management, providing the background context for discussion and understanding of information and knowledge sharing as an objective and outcome of the envisaged mobile social networking framework.

Grundstein (2012) states that the practice of knowledge management can be defined in one of two ways with the first view arising from information management and seeing knowledge as a higher-level order of information and progressing from data, to information, knowledge, and wisdom. Knowledge from this perspective is seen as an item that can be distributed and managed through use of technology (Grundstein, 2012). The second approach sees knowledge from a sociological basis, defining knowledge as the capability to act (Grundstein, 2012). Drucker (1999, p5) appears to concur with the Grundstein's (2012) sociological view further defining knowledge as "information that changes something or somebody either by becoming grounds for action or by making an individual or an institution capable of different or more effective action". As a result various country donors, institutions and the development community as a whole seem to have recognised and accepted that knowledge is central to development (World Bank (1998) as cited by Cummings *et al*, (2003)).

UNESCO (2013, p24) defined access to information and knowledge as meaning "accessing, evaluating and maintaining information for the creation and diffusion of knowledge using appropriate technologies to build inclusive, pluralistic, equitable, open and participatory knowledge societies". UNESCO (2013) goes on further to identify information and knowledge as principal means for development, social engagement and economic growth with the added ability of addressing existing challenges of inequity and exclusion. The figure below demonstrates the building blocks of a knowledge society (UNESCO, 2013).

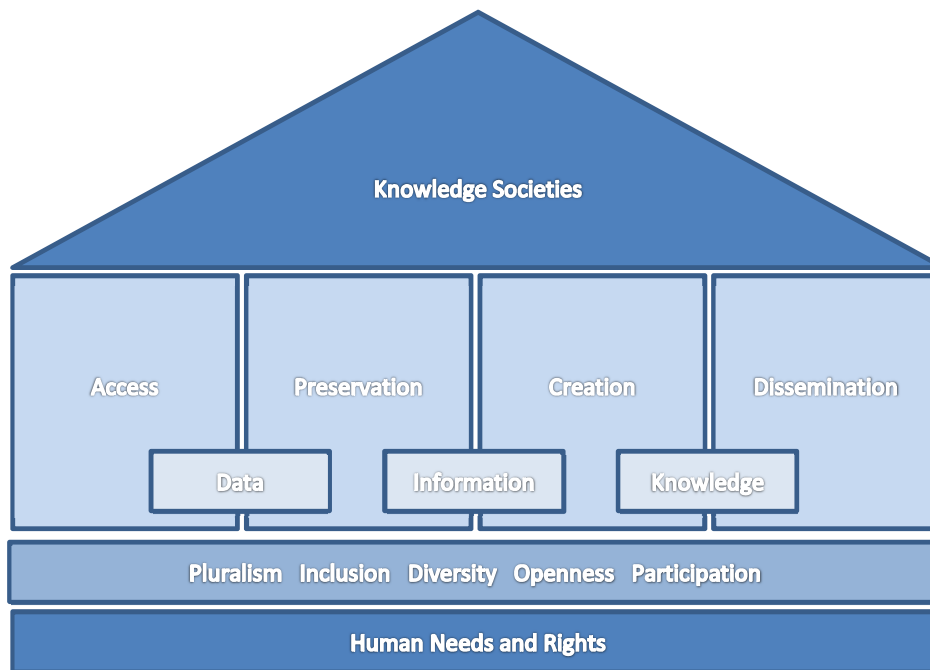


Figure 19: Building Blocks of a Knowledge Society UNESCO (2013)

Grundstein (2012) further defines knowledge as a collection of resources that can be measured and utilised through the application of standard management techniques. Uriarte (2008) contributes that there is no generally recognised way of defining knowledge management; however numerous definitions have been put forward. These include that knowledge management comprises the transformation of tacit to explicit knowledge and includes distributing it within a particular context or work space (Uriarte, 2008). In the aforementioned definition, tacit knowledge is understood to be knowledge that exists within people's minds, is intangible and not easily accessible, while explicit knowledge is codified knowledge, tangible and accessible to many (Uriarte, 2008).

Uriarte (2008) further states that in order to understand knowledge management completely it is useful to view it as comprising four pillars. According to Uriarte (2008) these include:

- **Management and organisation:** management commitment is essential to ensuring the successful outcomes of knowledge management initiatives. This requires the implementation of a structure to support knowledge management. Management has to lead by being good examples of desired behaviour and communicating this clearly with all levels of the organisation (Uriarte, 2008). Knowledge management requires a structure to support it; the structure should ideally comprise assigned technological, financial and human resources (Uriarte, 2008). One way to do this is to create a knowledge management department, which holds clear responsibility and mandate for promotion and implementation of knowledge management and headed by a designated Chief Knowledge Officer (CKO) (Uriarte, 2008). Department responsibilities should include the establishment of relevant infrastructure and actions to collect, categorise and monitor the use of knowledge (Uriarte, 2008). As

the system becomes entrenched, the role of the CKO will switch to that of facilitator, focusing on creating awareness, promoting further progress and monitoring improvements (Uriarte, 2008). Knowledge management also touches on the organisational value chain, this includes making sure that customer and other related feedback is shared with all relevant persons within the organisation (Uriarte, 2008).

- **Infrastructure:** knowledge management systems require technology and infrastructure support in order to be effective. Knowledge management can only be implemented fully through suitable ICT application (Uriarte, 2008). Adequate ICT infrastructure is needed for the creation, organisation, sharing and application of knowledge; ICTs can be seen as relevant enablers in this respect (Uriarte, 2008). The need for ICT enablers is greater in organisations that are located across many different geographic locations. Generally three primary technology infrastructures are needed; these include technology infrastructure required to organise content; search information and to locate appropriate expertise (Uriarte, 2008). Preparation of a relevant taxonomy or knowledge map is the first step in organising content; during this step information is classified and categorised based on the content and structure of the organisation in an orderly and systematic manner (Uriarte, 2008). The structure of the taxonomy or knowledge map tends to typically represent the way workers in the organisation think when carrying out work processes and are generally strongly reflected in the structure of the catalogue. As the knowledge management system matures, the quality and comprehensiveness of the taxonomy will grow and improve (Uriarte, 2008). Currently the preferred approaches for navigation and searching for content and information comprise internet browsing, exploration of electronic databases and accessing documents online (Uriarte, 2008). Numerous document and content management solutions exist which facilitate information search and provide users with Internet access interfaces and the ability to locate information stored in file servers and databases (Uriarte, 2008). The effective utilisation of document and content management solutions tends to result in more efficient organisations through enabling quicker access to relevant information (Uriarte, 2008). The table below indicates appropriate tools per knowledge management approach (Uriarte, 2008) as follows:

Repository Model	• Internet, HTML, XML • Full text search engines • Document management systems
Communities of Practice	• Web conferencing • Threaded discussion groups • Automated workflow

	• Expert Directories
Continuous Learning	• Learning management systems • Electronic performance support systems (EPSS) • Performance management
Business Intelligence	• Databases • Data Mining Tools • Enterprise Databases • Decision Support Tools

Table 4: Technology Appropriate to Knowledge Management Approach (Uriarte, 2008).

- **People and culture:** Tacit knowledge is held by people, the sharing of tacit knowledge is key for successful knowledge management implementation (Uriarte, 2008). As a result of this the knowledge management process must acknowledge the people by whom knowledge is generated. According to Uriarte (2008) knowledge management is enabled by people and culture based on the following three elements, these are: 1) organisational structure, 2) human resource practices, and 3) organisational culture. A horizontal structure which empowers employees tends to be suited to organisations that value innovation and creativity as essential business assets, the flatter organisational structure with fewer layers of hierarchy tends to be more conducive to knowledge management and knowledge sharing (Uriarte, 2008). Human resource management practices, as the second item under people and culture, comprises the human resource processes of acquisition (recruitment), empowerment (training), evaluation (performance measurement), development (career management) and acknowledgement (compensation) (Uriarte, 2008). These processes effectively implemented result in the development of a consistently positive organisational culture that enables knowledge management and knowledge sharing. Further to this a climate of trust and openness that supports experimentation and continuous learning further enables a supportive and conducive organisational culture to flourish, this also requires support of all employees (Uriarte, 2008).
- **Content management systems:** Internal and external information and knowledge assets support the creation, management, sharing and administration of information and knowledge via the implementation of content management systems (Uriarte, 2008). Content management systems comprise programs for managing content and roles and responsibilities for updating and maintaining

content (Uriarte, 2008). Content management systems also include models for processes and workflow which define the creation and dissemination of information and knowledge throughout the system (Uriarte, 2008).

Gretsch, Mandl and Schätz (2012) concur with Uriarte (2008) adding that human, organisation and technology form the three fundamental elements of knowledge management. The *human* component is concerned with the creation and promotion of knowledge, holds the required competencies and skills, represents the carriers of primary knowledge and information and provides the means through which continuous learning takes place (Gretsch *et al* (2012). The *organisation* component represents the context within which the creation of an enabling environment and culture and implementation of a supporting framework takes place (Gretsch *et al* (2012). The *technology* component addresses the design and implementation of infrastructure and applications that are able to support related knowledge management activities and processes (Gretsch *et al* (2012).

Uriarte (2008) adds that in addition to the pillars or components comprising knowledge management, knowledge management is also a process through which various knowledge based assets are utilised to generate value. This definition highlights that knowledge management comprises the steps of identifying, acquiring, distributing and maintaining knowledge (Uriarte, 2008). Bose (2002) concurs stating that knowledge management as a process consists of, knowledge creation, structuring, dissemination and application. This is depicted graphically below:

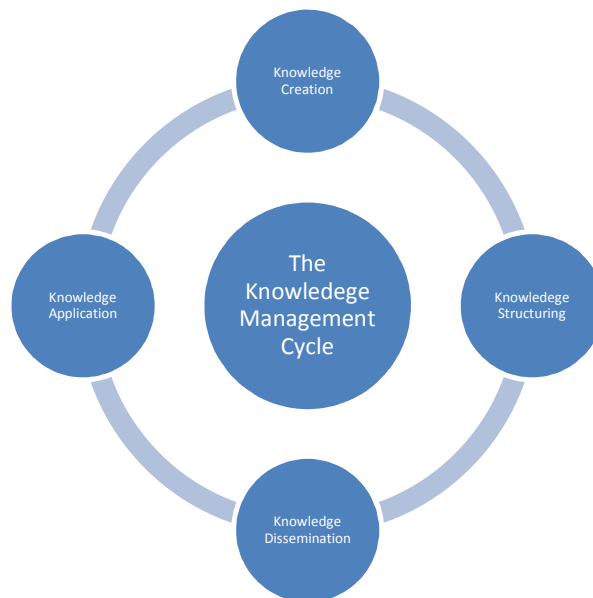


Figure 20: The Knowledge Management Cycle (Bose, 2002)

Knowledge dissemination, specifically, forms a key focus of this study and primarily involves knowledge sharing and collaboration between individuals or groups of individuals (Bose, 2002 and Uriarte, 2008). In other words it is concerned with the transfer of knowledge where it is required and can be efficiently used. According to Bose (2002) knowledge collaboration establishes interfaces between various knowledge community members that would allow for the sharing and grouping of knowledge which is then made available for the benefit of all community members. Campbell (2012) concurs with Bose (2002), adding that knowledge collaboration or transfer is not one directional and often results in improved competence simply due to the fact that knowledge is not lost when it is transferred. Rather than being depleted the value of knowledge expands each time it is transferred (Campbell, 2012). Gretsche *et al* (2012) state that competitive advantage is the result of knowledge sharing by individuals based on a shared area of interest or within an organisation.

Numerous approaches to knowledge collaboration exist. This research will focus on knowledge ecology as the broader framework within which knowledge collaboration is discussed and communities of practice as a specific vehicle with which to facilitate it.

2.7.2 Knowledge Ecology

The following section discusses knowledge ecology as the selected knowledge collaboration approach. The discussion conveys the reasons for this choice as it relates to the envisaged mobile social networking framework, illustrating the more flexible and evolving nature of knowledge ecology as opposed to the inflexible and rigid structure of knowledge management.

The pursuit for information ecology was inspired by frustration with the dominant paradigm of information systems (Mansell, 2012). Although these paradigms worked well within the unnatural and rigid context of the business environment, it limited the ability to apply such systems to real world issues. This required a model that allowed for more flexibility and was able to accommodate the vibrantly changing nature of real world environments (Mansell, 2012).

Lorion (1999) defines knowledge ecology as a field of management theory and practice which is interdisciplinary and emphasises behavioral or relational aspects of knowledge creation and utilisation in order to better cultivate and support them. Knowledge ecology is about reviewing and improving the means with which knowledge-generating systems interact with one another (Por, 2001).

The framework of knowledge ecology places emphasis on the need for designing more flexible systems (Malhotra, 2002). Knowledge ecology is a more responsive model and thrives on sporadic and drastically changing situations as a result of its flexibility, thus taking a more preemptive approach to information and knowledge management (Malhotra, 2002). Por (2001) adds that knowledge ecology is about providing a framework that aids to maximise the benefits of emerging technologies in order to facilitate more effective collaboration.

Knowledge ecology is a form of knowledge collaboration that defines the environment within which various knowledge creating systems interact. The knowledge ecology framework consists of an environment that

comprises various relating and dependent cultural, political and social subsystems that shape the “creation, flow and use of knowledge” within that environment (Malhotra and Galleta, 2000, p.54). In this way an environment’s knowledge ecology impacts the knowledge produced and stored, its availability to others and the means with which it is utilised and valued in daily activities (Malhotra and Galleta, 2000).

While traditional knowledge management focuses chiefly on information, knowledge ecology adds the synergy, trust relationships and context required to translate information into knowledge that can influence action (Malhotra, 1999). Whilst knowledge managements target is to collect and utilise knowledge, knowledge ecology focuses and targets the development and mobilisation of communal intellect (Lornond, 1999). In this way knowledge ecology is able to connect static knowledge repositories and flexible, adaptive natural systems (Por, 2001). This has implications for nurturing and cultivating collective knowledge, specifically as it relates to the envisaged mobile social networking framework, with the aims of creating a virtual community of practice within which knowledge and information can be shared in order to improve rural SMME operational efficiency. The figure below depicts the cycle of knowledge ecology:

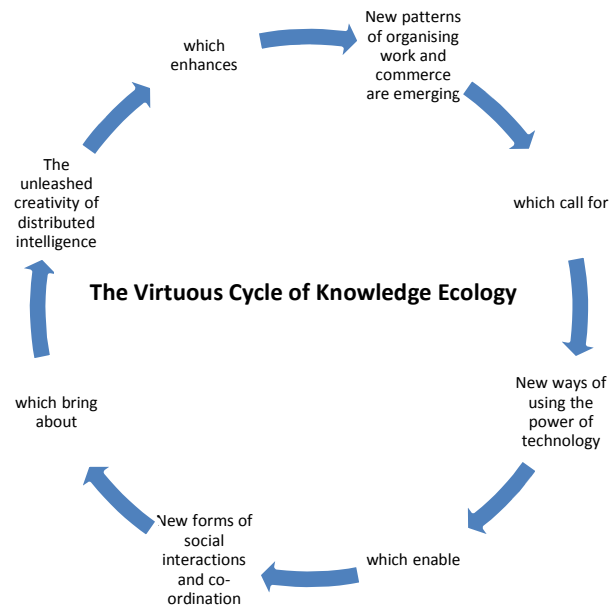


Figure 21: Cycle of Knowledge Ecology (Por, 2001)

It can be concluded from the above that knowledge ecology’s key focus is the support and design of knowledge ecosystems in which ideas, information and inspiration enable the growth and creation of new knowledge (Por, 2001). “The simplest form of a knowledge ecosystem is: a) a network of conversations, face-to-face and electronic meetings facilitated for results, richly hyperlinked with, and fed by b) knowledge repositories of what, who, why, how, where, and when” (Lornond, 1999, p7).

At the core of knowledge ecology is the skill and discipline of creating knowledge and adding value based on productive dialogue (Por, 2001). Shrivastava (2014) concurs with Por (2001), contributing that knowledge ecology processes are about the creation, distribution, use and exchange of knowledge in order to create

value. “This practice represents an art in that it involves the sensitive, spontaneous realm of human relations. It is a science in that it relies on the best of today’s new technologies for bringing people and their ideas together across time and space” (Por, 2001, p6). The value of this is the ability to understand how to cultivate and foster productive conversation in a manner that would allow for the accumulation of the most meaning and value.

2.7.3 The Knowledge Ecosystem

This section discusses the knowledge ecosystem which represents the active component within knowledge ecology. Inclusion of this section is to discuss more specifically how knowledge ecology works, through discussing the sub-elements that comprise it. Doing so may have implications for components of the envisaged mobile social networking framework developed in aid of improved rural SMME support through the creation of a virtual community of practice.

The knowledge ecosystem represents the structure within which new knowledge can be created, nurtured and shared (Lornond, 1999). The diagram below represents the contrast between relatively static knowledge bases and networks of vibrant conversation. In order to reap benefits from knowledge ecosystems, the static knowledge bases and dynamic conversations as well as the links between them must be carefully nurtured.

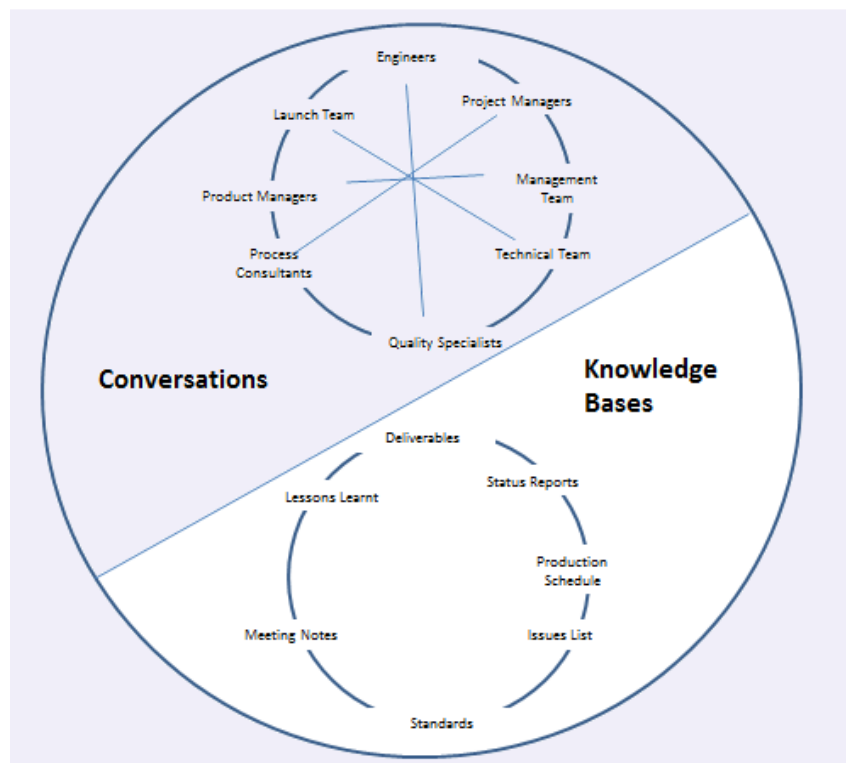


Figure 22: The Duality of Conversations and Knowledge Bases (Por, 2001)

(Please note that the above diagram makes use of an engineering project as an example and is utilised here for illustrative purposes only)

Por (2001) states that knowledge ecosystems are similar to natural ones in that they are self-sustaining, self-regulating and self-organising, with penetrable frontiers through which they can interact with other systems. Shrivastava (2014) adds that knowledge ecosystems, like natural ones, comprise inputs, throughputs and outputs functioning in unrestricted exchange within a specific context. Various sub-systems may be assimilated to create one holistic system that provides an online knowledge base that is always accessible comprising intertwined knowledge resources, human experts, databases and artificial knowledge agents (Shrivastava, 2014). Knowledge ecosystems are multifaceted and dynamic systems (Por, 2001). Their advantage is based on the malleable and progressing interactions among the various components of the system, which relate in complex and unexpected ways (Por, 2001). Knowledge ecology focuses on how information and knowledge can alter or affect social activity through providing the structure, tools, and practices necessary for creating and supporting varying networks of relationships within which knowledge emerging from social activity can be embedded (Por, 2001).

Por (2001) adds that in knowledge ecology knowledge, people and technology networks interact to form the triple network, and is depicted graphically below:

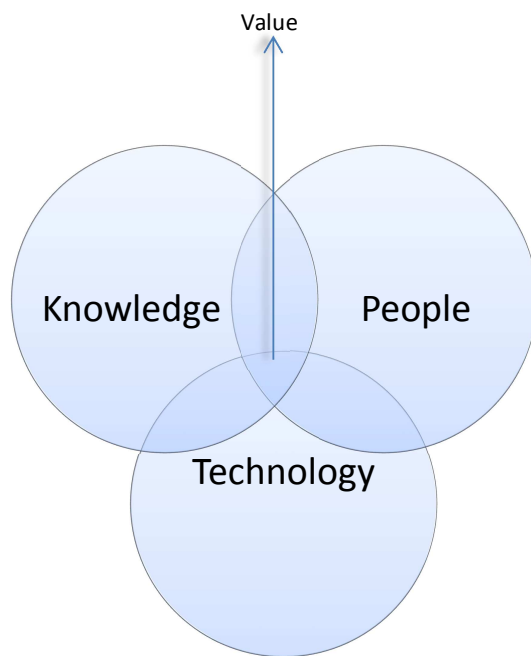


Figure 23: The Triple Network (Por, 2001)

Por (2001) defines the three segments of the triple network as follows:

- **People Networks:** in the context of this research these refer to the rural community media members and relevant stakeholders and the ways in which they organise collaboration

- **Knowledge Networks:** these refer to the connections between the ideas generated by rural community media members in the course of normal day to day activities, as well as the interaction of knowledge between them and relevant stakeholders
- **Technology Networks:** these refer to the technological means that enable knowledge creation, sharing and utilisation through providing the medium through which communication and collaboration can take place

Similarities between the triple network of Por (2001) and the digital literacy model of Ng (2012) must be noted. The digital literacy model is depicted graphically below:

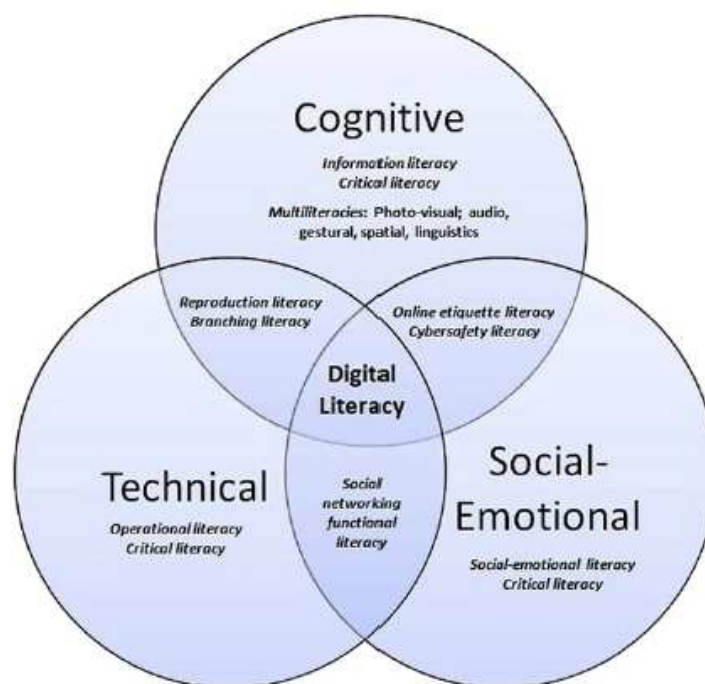


Figure 24: The Digital Literacy Model (Ng, 2012)

The digital literacy model as cited by Johnson (2014) was developed by Ng (2012) who defined digital literacy as having three dimensions, namely; cognitive, technical, and socio-emotional. Johnson (2014) further cites Hague and Payton (2010) who define digital literacy as facilitating important, creative and safe behaviour based on the application of relevant knowledge, skills and understanding when engaging with online via digital technology. Johnson (2014) adds that people who are able to engage, create, share, evaluate, collaborate, communicate and locate information online in a safe manner are defined as being digital literate.

Ng (2012) defines the dimensions of this model as follows:

- **Technical dimension:** represents the ability for an individual to utilise ICT for learning in daily activities as a result of having the technical and operational skills to do so (links to the technology networks in the triple network)
- **Cognitive dimension:** related to the application of critical thought while searching for, evaluating and creating digital information (links to the knowledge networks in the triple network)
- **Social-emotional dimension:** involves the ability to utilise ICT in a responsible manner in the process of communicating, socialising and learning (links to the people network in the triple network)

Analysis of the two models above and similarities between them will add value to the development of a mobile social networking framework aimed at creating a virtual community of practice in order to enable knowledge sharing in aid the improved operational efficiency of rural SMMEs.

Within the broader context of knowledge ecology and eco-systems, the author requires the creation of a focused environment within which knowledge collaboration can take place. This research will focus on communities of practice as a specific vehicle with which to facilitate knowledge sharing.

2.7.4 Communities of Practice

The previous section discussed the broader context of knowledge ecology and knowledge ecosystems and the manner in which these enable knowledge sharing through facilitating productive conversation. In the current section the author discusses, communities of practice, a more domain focused environment for knowledge sharing arising from the fore mentioned theories. The reason for inclusion of this section is to review whether the community of practice is a suitable vehicle for knowledge sharing as it relates to the envisaged mobile social networking framework developed for the purposes of improving the operational efficiency of rural SMMEs.

Closely related to the notion of learning organisations are knowledge communities and knowledge ecology which recognise “the systemic and holistic nature of knowledge and aspire to go beyond knowledge management to develop shared intelligence and collective wisdom” (Karvalics, 2012, p2). Generally members of various communities of practice engage in broader communities, with communities defined as the connection of components of knowledge into self-organising networks which share knowledge (Karvalics, 2012). According to Karvalics (2012, p2) the practice of knowledge ecology seems to be “more distributed and discipline-transcending than communities of practice”

Karvarlics (2012, p2) states that the notion of communities of practice is based on the field of organisational learning and refers to “interest groups that get together at work and in social settings into which newcomers can enter and learn the socio-cultural practices of the community”. Karvalics (2012, p2) defines a community of practice as “a unique combination of three elements: a domain of knowledge, which defines a set of issues;

a community of people who care about this domain; and the shared practice that they are developing to be effective in their domain". These elements correlate with the elements of the knowledge ecosystem discussed previously. Uriarte (2008) adds that communities of practice represent outstanding means to share knowledge amongst people with common interest.

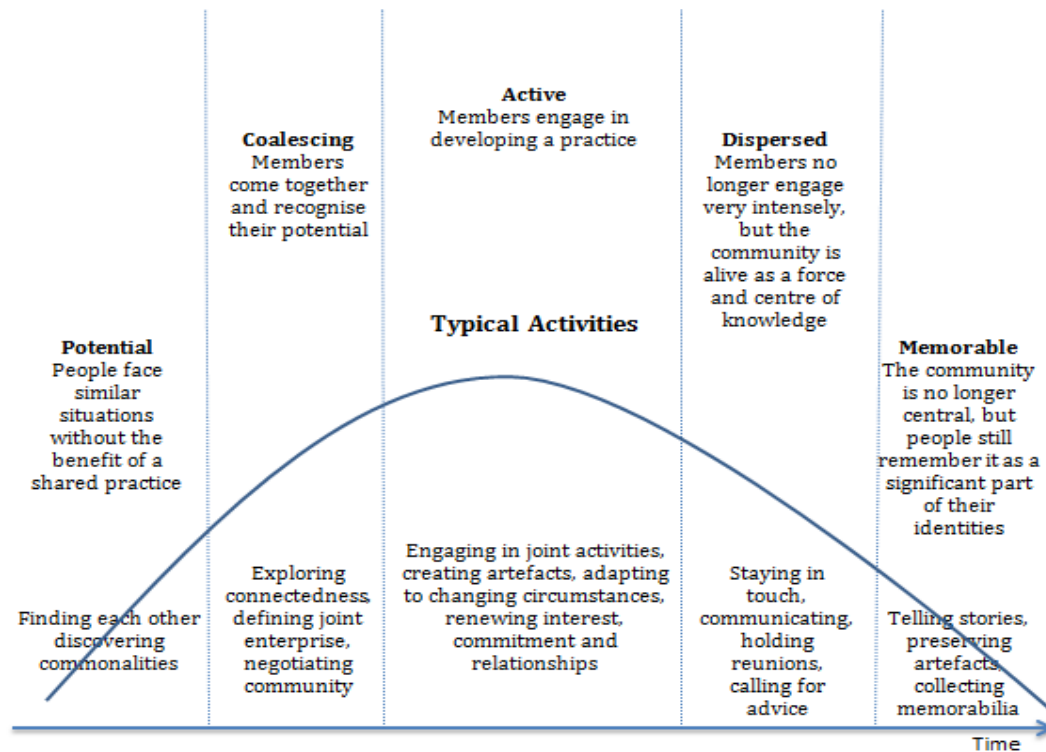


Figure 25: Stages of Development of Communities of Practice (Uriarte, 2008)

The figure above adopted from Uriarte (2008) depicts the typical development stages of a community of practice. Uriarte (2008) adds that communities of practice are not the same as task teams or project teams formed for a defined time period and a specific purpose, instead communities of practice are generally peers who congregate in order to improve their understanding of a domain of mutual interest and to learn from one another. Communities of practice are united by a common and shared desire to improve knowledge in a specific area and to learn from each other, it's generally through implementation of 'story telling' processes that the exchange of tacit knowledge occurs (Uriarte, 2008).

Keyes (2006) states that a community of practice is a group of individuals who share mutual work practices but are not necessarily part of a formal work team and may not even be part of the same organisation. Communities of practice enable the sharing of knowledge and may assist individuals in acquiring new and relevant knowledge faster. In addition to this Keyes (2006) states that communities of practice also lead to enhanced networks of contacts, supply opportunities, and support continuous learning. Communities of

practice represent valuable means for sharing tacit knowledge and are of specific significance in cases where the sharing of tacit knowledge leads to better performance results (Keyes, 2006).

Wenger (2000) adds that communities of practice are formed by people engaging in a process of collective learning in a shared domain. The definition provided by Wenger (2000) allows for intentionality, meaning that learning can either be the reason for the community coming together or an incidental consequence of member interaction. Wenger (2000) identifies three characteristics of communities of practice as crucial; stating that by developing these three elements in parallel one is able to cultivate a community of practice. These elements are:

- **The domain:** Wenger (2000) states that a community of practice has an identity defined by a shared domain of interest, implying membership commitment to the domain and a shared competence that distinguishes members from others
- **The community:** Wenger (2000) states that community members engage in joint activities and discussions regarding their domain of interest in order to assist each other and share information, ultimately building relationships that enable them to learn from one another
- **The practice:** Wenger (2000) states that members of a community of practice are practitioners who develop a shared practice through interaction with each other. This process requires sustained interaction over a period of time

Keyes (2006) adds that circumstances where knowledge is constantly changing and growing represent good opportunity for the implementation of communities of practice as sharing knowledge in these cases would be beneficial to accomplishing shared goals. Lave (1991) adds that knowledge sharing and learning should be recognised as a social phenomenon which occurs through ongoing social practice or interaction. Lave (1991) further suggests that learning should ideally be recognised as a process of becoming a member of a sustained community, adding that developing an identity as a member of a community and becoming skilful are part of the same process. Lave and Wenger (1991) aver that learning should ideally take place through social interaction as it allows for a more fluid and authentic process, adding that use of the term community implies participation in an environment in which members share knowledge about what they are doing and what it means for them and their community. This view of knowledge sharing and learning within a community and through social interaction or participation has proved to be a useful and influential application to more rigid and mechanised knowledge sharing and learning practices and paradigms (Lave and Wenger, 1991).

Keyes (2006) further notes that different kinds of communities of practice exist, ranging from those that exist to develop best practices, create guidelines as well as share mutual problems and solutions. Communities of practice can either meet through face-to-face engagements or electronically via ICT (Keyes, 2006).

In setting up a community of practice, practitioners need to decide which kind of community is best suited to task at hand by determining the knowledge that needs to be shared, how close the community is, and the extent of the link between knowledge and daily activities (Keyes, 2006). Resources need to be availed to assist in managing and maintaining the community by providing, logistical, technical and other support (Keyes, 2006). Keyes (2006) goes on to identify the following as guidelines for forming a community of practice:

- **Define community purpose:** community purpose should be linked to a profession or shared goals and objectives (Keyes, 2006). Examples include forums for the support of daily work challenges; best practice communities; communities to organise, manage, and oversee a specific body of knowledge and innovation communities to facilitate the creation of novel ideas and practices (Keyes, 2006).
- **Explain roles and responsibilities:** Keyes (2006) identify the following possible roles:
 - *Functional sponsors:* who enable community growth and commitment by sponsoring and believing in the value of knowledge to the organisation.
 - *Core group:* Keyes (2006) states that the core group comprises experienced and knowledgeable subject matter experts who assist with community start-up and provide ongoing support.
 - *Community leaders:* Keyes (2006) states that community leader's focus on administering and managing the community through focusing, planning and scheduling various meetings and events.
 - *Members:* Keyes (2006) states that membership is voluntary and will continue based on perceived value add of the community to members and members interests.
 - *Facilitator:* Keyes (2006) defines a facilitator as one who utilises relevant process and tools to create and maintain community collaboration through application of related process expertise.
 - *Logistics coordinator:* Keyes (2006) defines a logistics co-ordinator as one who co-ordinates community calendars, meetings and events
 - *Functional support staff:* Keyes (2006) states that functional staff assist with establishing mechanisms for engagement online through arranging database storage and assisting with other technical aspects.
 - *Project historian:* Keyes (2006) states that a project historian assists with documenting all related community decisions, processes and procedures.
- **Identify community members:** Keyes (2006) states that it is useful to identify individuals who could learn and benefit from involvement in the community and also add value to the community regardless of voluntary membership.

- **Devise mechanisms for communication and collaboration:** Keyes (2006) states meetings face to face or enabled by technology, messaging, databases and chat rooms are all mechanisms that could enable community communication and collaboration. In developing the community it is suggested that those to be utilised by the community be selected (Keyes, 2006).
- **Hold an initial community workshop:** Keyes (2006) state that it is useful to hold an initial workshop to get community members together in order to stimulate and engage member interests and means to ensure their continued involvement. It is suggested that the following activities are carried out during the initial workshop (Keyes, 2006):
 - Initiated actions to build relationships
 - Determine ground rules, establish and clarify roles
 - Discuss how knowledge will be created, captured and shared
 - Discuss key community knowledge requirements
 - Attend to obstacles that may impact community success

In the preceding sections the author discussed knowledge management, knowledge ecology, knowledge ecosystems and finally communities of practice. The discussion on knowledge management indicates that knowledge ecosystems and communities of practice represent domains that would be useful components within a mobile social networking framework, re-enforcing the choice of community of practice as the selected knowledge sharing vehicle.

2.8 Conclusion

This chapter focused on the following sub-problems:

Sub-problem1: What are the building blocks for a mobile social networking framework for SMMEs, which utilises virtual communities of practice as a vehicle?

This sub-problem seeks to identify and describe the key building blocks of a mobile social networking framework which utilises communities of practices as an engagement vehicle. The sub-problem will provide the context for the research, by defining the components of the framework from which the remaining research questions will follow and relate back to.

Sub-problem 3: How can a virtual community of practice facilitate knowledge sharing, improved business support and socio-economic impact for rural SMME's?

Knowledge sharing can be utilised as a means to support SMME operation within the rural context through the creation of knowledge networks between SMME's, the community, various support and advisory organisations and the wider environment.

The proposed framework will support socio-economic development as it will allow for the sharing of best practices and experience which can also act as a catalyst for sustainability of the SMMEs as they will have a

soundboard through the virtual community of practice to provide support and guidance. This may result in improved socio-economic sustainability.

Sub-problem 4: How do SMME's make use of mobile social networking to enhance their businesses?

SMME business enhancement can be achieved through improved access to government, private sector, SMME support and advisory organisations as well as the community at large. This sub-problem serves to highlight how ICT utilised to access mobile social networking can facilitate and support SMME's.

It is proposed that a better understanding of the contextual needs and priorities of rural SMME's will assist stakeholders and support organisations to improve services to this business sector. SMME's will also be in a position to access and share relevant information that could facilitate their growth and operation more easily. This sub-question seeks to uncover the means with which mobile social networking can be of use to rural SMME's.

Sub-problem 5: What different social networking possibilities exist that can support SMME's?

This research identifies social networking as a means through which improved support of rural SMME's can be facilitated. However, in order to utilise social networking as a tool with which to achieve this, the various possibilities with which social networking can be implemented needs to be explored, with a view to identifying an optimal fit for purpose option.

This sub-problem will explore the various social networking possibilities that can be utilised for SMME support.

This chapter contributes suggestions for the following elements /considerations related to technology for inclusion in the conceptual framework:

Elements/Considerations	Author	Section
Delivery via mobile platform	Murthy (2011) Cranston and Davies (2009) UNESCO (2013) Deloitte (2012) World Wide Worx (2012) UNICEF (2012)	2.3
Compatibility with mobile device/mobile OS	Souppaya and Scarfone (2012) Huang (2008) Ouma (2013)	2.3.1
Means to overcome mobility challenges	Harrison, Flood and Duce (2013)	2.3.3
Delivery via social media	Xu (2013)	2.4

Compatible with web 2.0 technologies, allow for web-based user-generated content, capabilities for creating and sharing content, exploring information spaces, and socialising within a virtual community	Zigkolis, Kompatsiaris and Vakali (2007)	2.4.1
User-generated content	Neuman (2009)	2.4.2
Web based services that allow creation of a public profiles within a confined system, identify other users with whom they engage. Examples are Facebook and LinkedIn	Dewing (2012)	2.4.2
cost effective communication platform section	Deloitte (2012)	2.4.3
Transmit information or communicate using a mixture of voice and data devices over networks. contributing and consuming social media across a mobile network, 4 th generation services	Lane, Walton-Flynn and Benlamlih (2008)	2.5
Allow/enable ability to: - Increase brand awareness - Market services - Provide product and service info - Provide business advice - Engage with other businesses	Vitis Public Relations (2014)	2.4.2
Usability considerations/Technology acceptance and adoption considerations	Malhotra and Galleta (2000)	2.6.1
	Thompson, Higgins, and Howell (1991)	2.6.2

Hess, Joshi, & McNab (2010)	2.6.3
Tornatzky and Fleischer (1990)	2.6.5
Venkatesh, Morris, Davis, & Davis (2003)	2.6.6
Goodhue and Thompson (1995)	2.6.7

Table 5: Summary of Suggested Technology Elements/Considerations

This chapter contributes suggestions for the following elements /considerations related to knowledge management for inclusion in the conceptual framework:

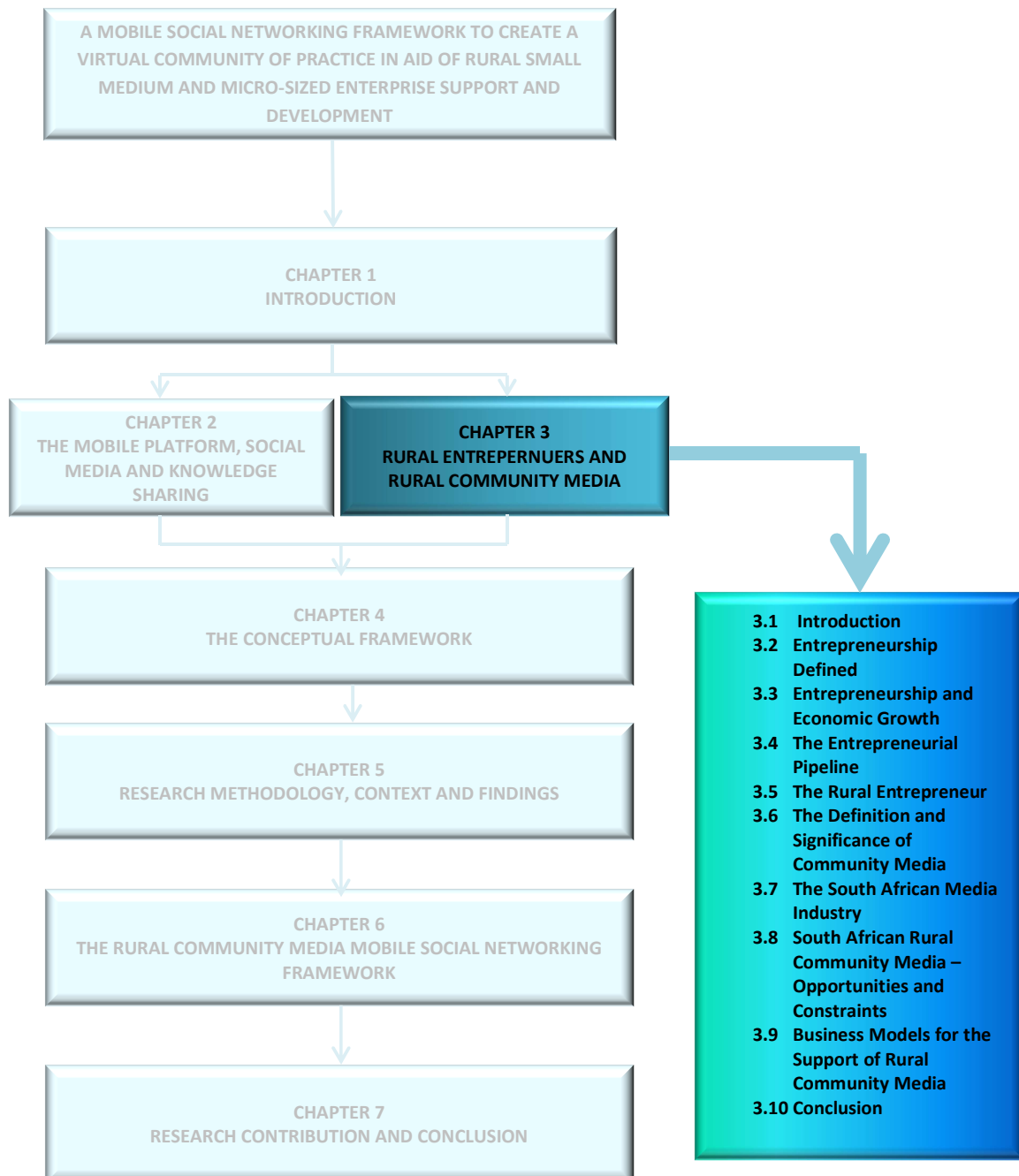
Elements/Considerations	Author	Section
Knowledge Management	UNESCO (2013)	2.7.1
<i>appropriate technologies/infrastructure</i> - Ability to organise, search, locate - Including the following: - Taxonomy/knowledge map - Internet/electronic database - Content management solutions/document management - Web conferencing - Threaded discussion groups - Automated workflow - Expert Directories - Data mining/decision support tools (BI) - content management systems: comprising information assets, both internal and external, supported by systems which enable the administration and creation of information and knowledge - programs for managing content and roles and responsibilities that enable the updating and maintenance of content	UNESCO (2013)	2.7.1
	Uriatre (2008)	2.7.1

- workflow which define how content is created and routed throughout the system - technology: implementation and design of ICT to support various knowledge management processes and activities	Gretsch, Mandl and Schätz (2012)	2.7.1
Knowledge domain	Uriatre (2008)	2.7.1
- specific context or work space - shared practice, common interest	Karvalics (2012) Keyes (2006)	
Management and organisation/supportive structure	Uriatre (2008)	2.7.1
- People and culture: org structure, hr practices, org culture - HR process: recruitment, training, performance man, career management, compensation - human: promotion and creation of knowledge, skills and competencies forming continuous learning - organisation: development of an enabling environment and culture - creation of a supporting framework	Gretsch, Mandl and Schätz (2012)	2.7.1
KM Process	Uriatre (2008)	2.7.1
- knowledge creation, structuring, dissemination and application - interfaces between knowledge community members, sharing and grouping of knowledge	Bose (2002) , Campbell (2012)	2.7.1
Knowledge Ecosystems	Por (2001) Karvarlics (2012) Lornord (1999)	2.7.2
- flexibility - self-sustaining, self-regulating and self-organising, with penetrable boundaries	Malhotra (2002) Por (2001)	2.7.2
- framework, technology, collaboration - tools, and practices	Por (2001)	2.7.2 2.7.3
- relating and dependent cultural, social and	Malhotra and Galleta	2.7.2

political subsystems	(2000)	
- the creation, use and flow of knowledge within an environment		
- knowledge valued in the performance of daily activities		
- development and mobilisation of collective intelligence	Lornord (1999)	2.7.2
- knowledge repository	Lornord (1999)	2.7.2
- intertwined knowledge assets, databases, experts, and artificial knowledge agents	Por (2001) Shrivastava (2014)	
- productive conversations	Por (2001)	2.7.2
- open exchange	Shrivastava (2014)	
- people networks, knowledge networks and technology networks		2.7.3
- Technical dimension, Cognitive dimension, Social-emotional dimension	Ng (2012)	2.7.3
Community of practice	Karvalics (2012)	2.7.4
- shared intelligence and collective wisdom		
- self-organising networks that share knowledge		
- organisational learning, a knowledge domain, community, shared interest		
- peers that congregate in order to learn from each another, subject of common interest	Uriatre (2008)	
- group of individuals who share common working practices	Keyes (2006)	
- Resources to manage, maintain and support the community	Keyes (2006)	2.7.4

Table 6: Summary of Suggested Knowledge Managements Elements/Considerations

Chapter 3- Diagrammatic Overview



Chapter 3 – Literature Review: Rural Entrepreneurs and Rural Community Media

3.1 Introduction

In the previous chapter the author discussed the mobile platform, social media and knowledge sharing. The chapter concluded having identified the research sub-questions addressed by the chapter and the elements and considerations suggested by the literature for the envisaged mobile social networking framework. This study aims to develop a mobile social networking framework in order to create a virtual community of practice in aid of improved rural SMME operational efficiency.

Having identified the technology and knowledge sharing elements and considerations in the previous chapter, the author will now discuss rural SMMEs. This chapter sets further context for the study by discussing entrepreneurship and rural entrepreneurship in particular, in order to understand the context and identify the challenges experienced by rural SMMEs. Rationale for focus on rural SMMEs includes the stated dynamic role of rural entrepreneurs in rural communities as “necessary engines for achieving national development goals such as economic growth, poverty alleviation, employment and wealth creation...” (IFAD, 2011, p.7). In addition to this, in an efforts to increase the advancement and growth in developing countries, numerous development organisations have made the support and progression of rural entrepreneurs a key priority (IFAD, 2011), highlighting the current significance of rural entrepreneurs as a key vehicle for driving socio-economic growth and development.

Further to this, the author has selected rural community media as a sub-set of rural SMMEs that can benefit from application of the envisaged mobile social networking framework. This is due to the view that community media create opportunity for rural populations to participate in the broader communication process, allowing for the receipt and disclosure of news and information and the articulation of rural needs, views and opinions (Boafo, 2000). In addition to this media is also generally seen as aiding in democracy, transparency and accountability – critical for improving the socio-economic realities of rural areas (Leurdijk, Slot and Nieuwenhuis, 2012).

In the sections that follow the author will discuss the definition of entrepreneurship, how entrepreneurship facilitates economic growth, the entrepreneurial pipeline and rural entrepreneurs. Subsequently the author will discuss the media industry and news publishing value chain, the definition and significance of community media, followed by the South African media industry, South African rural community media opportunities and constraints, and lastly business models for the support of rural community media.

3.2 Entrepreneurship Defined

This section discusses entrepreneurship as defined by various authors. Inclusion of this section is for the purposes of establishing an understanding of what entrepreneurship is, leading to further discussions on how entrepreneurship can be encouraged and what is required to support entrepreneurship. The mobile social networking framework is for the purposes of creating a virtual community of practice in aid of improved rural SMME operational efficiency. Understanding rural entrepreneurs will assist in understanding and identifying

components or elements that must be incorporated in the framework in order to ensure improved operational efficiency of rural SMMEs.

Rosa and Kodithuwakku (2002) define entrepreneurship as the innovative process of deriving socio-economic value from an environment. They (Rosa and Kodithuwakku, 2002) add that the entrepreneur's path to attaining their goals is linked to innovation and opportunity. Hart, Stevenson and Dial (1995) define entrepreneurship as the means through which individuals seek opportunities regardless of the resources currently within their control. Timmons (1994), on the other hand, likens entrepreneurship to the problem solving task of constructing a puzzle, in which pieces are invariably unavailable or unclear with the requirement to be able to see and anticipate patterns before others do.

The United Nations Conference on Trade and Development (UNCTD, 2005) cites a functional definition of entrepreneurship that provides a holistic view of entrepreneurs as that of Wennekers and Thurik (1999, p.46) who define entrepreneurship as "...the manifest ability and willingness of individuals...to perceive and create new economic opportunities ...and to introduce their ideas in the market, in the face of uncertainty and other obstacles, by making decisions on location, form and the use of resources and institutions", concluding that entrepreneurship is fundamentally a social characteristic.

In relation to behavioural characteristics, Freire-Gibb and Nielsen (2014) state that creativity as an attribute of an individual is frequently cited when defining entrepreneurs based on the view of entrepreneurs as being able to recognise and realise new opportunities, innovate processes, arrange ideas and resources in unique ways and experiment and learn through trial and error. Furthermore, an entrepreneur is also recognised as thinking in unusual ways, often challenging existing assumptions and implementing a problem solving approach that is flexible and adaptive (Freire-Gibb and Nielsen, 2014).

Various authors have recognised entrepreneurs as having a number of the following personality traits; need for achievement, tolerance of ambiguity, ability to take risks, self-confidence, and need for independence (Freire-Gibb and Nielsen, 2014). Generally an entrepreneur's motivations tend to be intrinsic rather than extrinsic, meaning that they tend to be motivated by the type of work they do. Increased learning and creativity tend to be the result of intrinsic motivations as individuals motivated in this fashion act for the fun or the challenge of the endeavour rather than due to external stimulation, pressure or reward (Freire-Gibb and Nielsen, 2014).

Hisrich, Peters and Shepherd (2005) state that almost all the definitions of entrepreneurship agree that it comprises behaviour that includes taking initiative, creating profit through the organisation of social and economic components and acceptance of risk or failure. Hisrich *et al* (2005) add that economists generally define entrepreneurs as one who combines resources such as labour and materials in a manner that increases their value while concurrently introducing changes, innovations, and new order. Viewed from a psychology perspective an entrepreneur is typically driven by needs to experiment and to accomplish (Hisrich *et al*, 2005).

They (Hisrich *et al*, 2005) further state that entrepreneurship can be defined as the dynamic process of creating wealth by accepting risk.

UNCTD (2005) cites outcomes of various research in the fields of economics, psychology and sociology as indicating that entrepreneurship is a process as opposed to a static phenomenon. "Entrepreneurship has to do with change and is commonly associated with choice-related issues" (UNCTD, 2005, p.1). Florida (2002) concurs stating that entrepreneurship extends beyond economic processes and new business formation comprising various social processes stemming from a wide variety of socio-cultural circumstances.

The definitions shared thus far contain similarities such as novelty, organisation, creation, wealth attainment, and risk taking (Hisrich *et al*, 2005). Hisrich *et al* (2005) conclude by contributing the following definition as all encompassing, taking each of the previously mentioned into account, stating that the process of creating something of value through the dedication of time and effort and the management of risk is known as entrepreneurship, the results of which comprise rewards such as money, personal satisfaction and independence.

3.3 Entrepreneurship and Economic Growth

This section demonstrates the significance of entrepreneurship by elucidating the manner in which entrepreneurship facilitates economic growth. This section serves as additional motivation for the selection of entrepreneurship as an area of focus for this study, further highlighting the significance of developing a mobile social networking framework for the purposes of creating a virtual community of practice in aid of improved rural SMME operational efficiency.

The Global Entrepreneurship Monitor (GEM, 2012) states that many policy makers agree that entrepreneurs play a key role in the progression and health of societies. There is growing agreement within South Africa on the significance of entrepreneurship for economic growth and as a viable alternative to formal employment (GEM, 2002). Stephens, Partridge and Faggian (2013) state that various theories suggest that increasing the number of entrepreneurs within a community leads to economic growth, as such inculcating entrepreneurial skills would be vital in altering economy and society for the better. Stephens *et al* (2013) state that the development of new business usually results in the following general economic effects: 1) the direct effect of job creation, 2) the displacement effect of new businesses taking jobs over from existing businesses and 3) the induced or spill over effect on other businesses. As a result of this the full effects of entrepreneurial activity may only be realised over the longer term as certain effects may take some time to be realised (Stephens *et al*, 2013).

Being a source of innovation and change, entrepreneurship is said to also facilitate improvement in productivity and economic competitiveness (UNCTD, 2005). Rosa and Kodithuwakku (2002) state that because entrepreneurship holds the characteristics of being both flexible and dynamic it can lead to more sustainable development. It makes sense that due to the flexible and adaptive nature of entrepreneurship the entrepreneur is able to change their requirements and operations relatively easily as their context or

environment change, this characteristic is the key link between entrepreneurship and sustainable development (Rosa and Kodithuwakku, 2002).

Florida (2002, p.1) holds the view that economy is powered not only by information and knowledge, but also human creativity, with creativity defined as the ability to create “meaningful new forms”. This ability is now seen as the “decisive source of competitive advantage”, noting further that competitive advantage comes from “better recipes, not just more cooking” (Florida, 2002, p1). Rosa and Kodithuwakku, (2002) add that the entrepreneurial process delivers different methods for efficiently managing scarce resources and is more innovative and effective in accessing and leveraging new opportunities.

Heeks (2014) concurs with the above stating that growth and jobs are key elements in the post 2015 agenda. Compelled by the 2008 financial crisis and political instability in some parts of the world “economic growth is once again emerging as the dominant approach to development” (Heeks, 2014, p.17). RUPRI (2012) goes on to add that entrepreneurship is a vital rural economic development strategy, supporting Heeks’ (1999) view that entrepreneurial activity in rural areas has a direct and growing relationship to poverty alleviation. “The hypothesis that entrepreneurship is linked to economic growth finds its most immediate foundation in simple intuition, common sense and pure economic observation” (UNCTD, 2005, p.1). This is due to the fact that actions to create economic opportunity based on new ideas “lie at the very heart of entrepreneurship” (UNCTD, 2005, p.1).

OCED (2010) hold the view that entrepreneurship represents an underutilised reservoir for job creation and social cohesion. Zanakis, Renko and Bullough (2012) add that it is apparent that entrepreneurship has significant impact on economic growth, innovation and job creation. The development of entrepreneurship is extremely important to developing countries that wish to attain global competitiveness and achieve socio-economic growth (UNCTD, 2005). As a result the problem of how to nurture and encourage entrepreneurship remains a primary concern for policy makers in developing countries (UNCTD, 2005).

Recently a significant increase in the popularity of entrepreneurship has been observed (Duncombe and Heeks, 2001). This may be due to a variety of reasons, such as the decrease in the number of jobs available in the formal sector versus an ever-growing population of unemployed school leavers. In the short term entrepreneurship has a significant role to play in creating jobs and income that big business has failed to provide; in the long term entrepreneurship offers a more dynamic and lower cost alternative to big business (Duncombe and Heeks, 2001).

Development as a result of entrepreneurship is facilitated by the adoption or creation of a specific context which channels and encourages entrepreneurial activity in a direction that either spurs or discourages economic growth (Duncombe and Heeks, 2001). The context that entrepreneurs operate in directly influences their activity and their contribution to economic development. Therefore in assessing a countries entrepreneurial environment one must consider context and the manner in which it serves to either support or discourage successful entrepreneurial activity.

3.4 The Entrepreneurial Pipeline

This section discusses specific environmental factors that assist in supporting entrepreneurial activity. Identification of these factors will assist in identifying components or attributes that could be included in the framework in order to provide an enabling environment for rural entrepreneurs.

Entrepreneurial activity is seen as a process rather than a onetime incident (GEM, 2012). They (GEM, 2012) further state that society can benefit from entrepreneurs, as they tend to recognise valuable opportunities and also hold the belief that they have the skills to exploit them. GEM (2012) considers those falling within this category as potential entrepreneurs, differentiating them from those driven into entrepreneurship through necessity. However, meeting these criteria may not result in the resolve to start a business (GEM, 2012). In addition to these basic requirements entrepreneurs evaluate the opportunity cost, risks and rewards, versus available employment options (GEM, 2012). Further to this, the environment in which entrepreneurs exist needs to be adequately empowering and supportive (GEM, 2012).

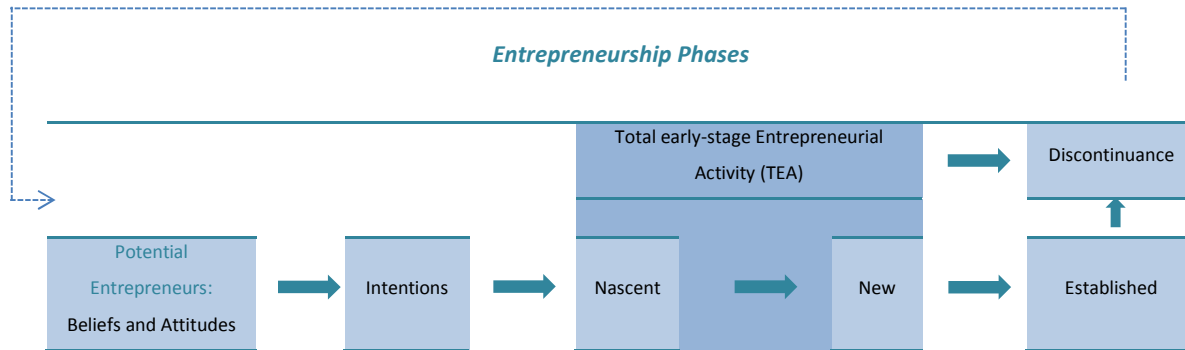


Figure 26: Phases of Entrepreneurship (GEM, 2012)

GEM (2012) describes the entrepreneurial pipeline as comprising the following phases as depicted diagrammatically above:

1. Potential Entrepreneurs
2. Entrepreneurial Intentions
3. Early Stage Activity
4. Established Business Ownership

According to the World Economic Forum (WEF), a country's institutions, economic stability, infrastructure, health and primary education represent fundamental requirements for the creation of an efficient and effective business environment (GEM, 2012). GEM (2012) states that South Africa is in the efficiency-driven phase, which means that the basic requirements as defined by the WEF should already be relatively established, however more effort is required in establishing training and education, market and labour efficiency, financial market stability and sophistication and technological capability. GEM (2012) goes on to say

that regrettably the WEF's Global Competitiveness Index show that South Africa fails to meet some of the above-mentioned fundamental conditions.

The figure below depicts the twelve pillars of competitiveness (GEM, 2012).

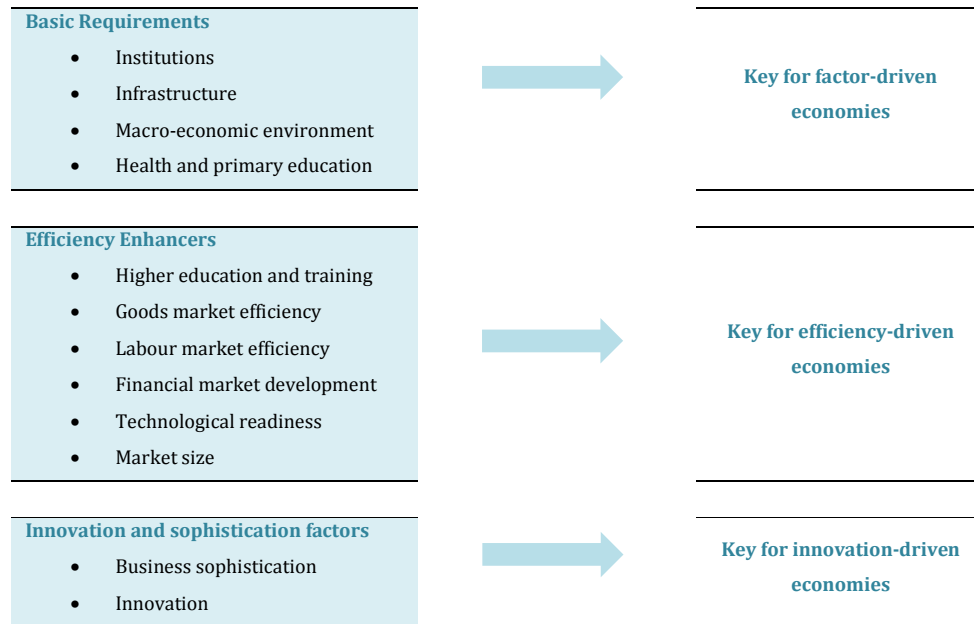


Figure 27: The Twelve Pillars of Competitiveness (GEM, 2012)

The table below depicts averages for perceived opportunities and capabilities based on economic development level (GEM, 2012):

Phase of economic development	Perceived opportunities	Perceived capabilities
Factor-driven economies: averages	63%	71%
Efficiency-driven economies: averages	41%	52%
South Africa (as an efficiency-driven economy)	36%	40%
Innovation-driven economies: averages	31%	36%

Table 7: Averages for Perceived Opportunities and Capabilities (GEM, 2012)

The table below depicts entrepreneurial perceptions in South Africa by gender (GEM, 2012):

	Perceive good business opportunities (% within each gender group)	Believe they have entrepreneurial capabilities (% within each gender group)
Male	37%*	43%
Female	34%	35%

Table 8: Entrepreneurial Perceptions by Gender (GEM, 2012)

The table below depicts entrepreneurial perceptions in South Africa by race (GEM, 2012):

	Perceive good business opportunities (% within each race group)	Believe they have entrepreneurial capabilities (% within each race group)
Black African	39%*	37%
Coloured	33%	45%
Indian	22%	63%
White	16%	50%

Table 8: Entrepreneurial Perceptions by Race (GEM, 2012)

The graphic below depicts South Africa's pool of potential entrepreneurs (GEM, 2012):

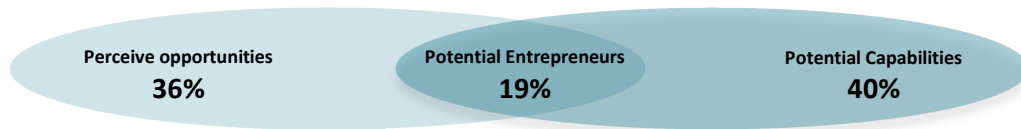


Figure 28: South Africa's Pool of Potential Entrepreneurs (GEM, 2012)

According to GEM (2012) comparison of the proportions of individuals who perceive there to be good opportunities with those who have entrepreneurial capabilities, reveals an overlap between the two of 19%, representing the proportion of potential opportunity entrepreneurs in South Africa.

The size of a country's pool of potential entrepreneurs is influenced by a number of conditions; GEM (2012) cites the following:

- **Market dynamics:** GEM (2012) states that 29% of national experts described South Africa's market dynamics as one of the most constraining factors for entrepreneurship in the country. Comparatively sluggish shifts in market demand and supply resulted in the assignment of an aggregated mean score of 2.81 (GEM, 2012).
- **Research & development:** GEM (2012) states that this condition refers to the probabilities of national research and development activities resulting in the creation of commercial opportunity for SMMEs. The quality of scientific research institutions ranks 34th out of 144 countries with university-industry collaboration ranked 30th out of 144 countries (GEM, 2012). South Africa however ranks poorly in scientist and engineer availability, coming 122nd out of 144 countries (GEM, 2012). As a result of the above experts assigned South Africa an extremely poor mean score of 2.16 for this condition, reasons for this being that SMME access to technology, science and broader knowledge is generally poor (GEM, 2012).

- **Education:** GEM (2012) states that one of the conditions or being in the efficiency-driven stage is the firm establishment of primary and secondary education. GEM (2012) ranks the education systems in South Africa as amongst the worst globally, assigning a mean score of 1.81.

The above-mentioned factors identified as influencing the group of potential entrepreneurs in South Africa are summarised and depicted below:

Entrepreneurial Framework Conditions	Mean score 2012	Mean score 2011	Mean score 2010	Mean score 2009
Internal market dynamics	2.81	2.45	2.85	2.76
Research and development transfer	2.16	2.25	2.08	2.04
Primary and secondary level entrepreneurship education	1.81	2.03	1.75	2.18

Table 9: Factors Influencing South Africa's Pool of Potential Entrepreneurs (GEM, 2012)

South Africa's entrepreneurial pipeline through the various entrepreneurial phases is depicted graphically below (GEM, 2012):

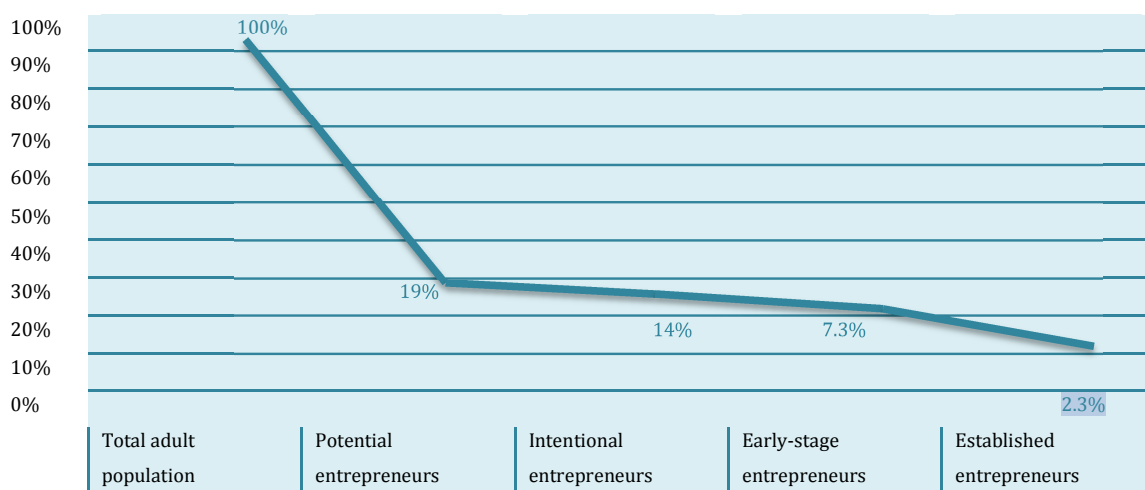


Figure 29: Proportion of South Africa's Entrepreneurial Pipeline proceeding through various Entrepreneurial Phases (GEM, 2012)

Focusing on increasing the numbers of individuals moving through the potential entrepreneur phase will result in more people moving through the entrepreneurial pipeline and hopefully result in an increased number of successful entrepreneurs. This would be the natural starting point for improving entrepreneurial activity in South Africa. GEM (2012) concurs; stating that in order to encourage economic development through entrepreneurship; a significant step includes establishment of a strong group of potential entrepreneurs by encouraging observation of good business opportunity and capability. GEM (2012) cautions, however, that it is

not enough to successfully increase the quantity and quality of potential entrepreneurs, it is also crucial that an enabling environment is created in which those that do pursue entrepreneurship can flourish.

3.5 The Rural Entrepreneur

The preceding sections of this chapter focused on entrepreneurship as a general concept, painting the broader context within which to locate more focused discussion of the rural entrepreneur as a key focus of this study. This section discusses rural entrepreneurs as the owners of rural SMMEs, in order to understand the environment they operate in and the various challenges they may experience. This discussion will allow the author to establish an understanding of rural entrepreneurship. Doing so will assist in developing a mobile social networking framework which aims to create a virtual community of practice in order to improve the operational efficiency of rural SMMEs.

GEM (2002) states that although South Africa has witnessed an explosion in media attention on entrepreneurs over the last number of years, the rural entrepreneur is yet to receive sufficient coverage. Not much is known about the needs of rural entrepreneurs, the challenges they face in their day-to-day activities or how they can be better supported. According to GEM (2002) what we do know is that urban entrepreneurs differ from rural ones primarily in their level of education, number of employees, monthly turnover, access to finance, transport and technology and the location of the business.

The International Fund for Agricultural Development (IFAD, 2011, p.7) states that in developing countries entrepreneurs and their micro and small-scale enterprises (MSEs) are recognised as “necessary engines for achieving national development goals such as economic growth, poverty alleviation, employment and wealth creation, leading to a more equitable distribution of income and increased productivity...” MSEs have become a major concern in an attempt to accelerate growth rates in low-income countries such as Africa (IFAD, 2011). These enterprises are faced with unique problems that affect their growth reducing their ability to contribute effectively to economic development (IFAD, 2011).

Saxena (2012, p.1) states that entrepreneurship can play an important role in rural development and if encouraged could be instrumental in “changing the face” of rural areas by solving problems of unemployment, poverty, economic disparity, poor utilisation of rural capacity and low standards of living. Saxena (2012) further states that institutions and individuals promoting rural development now see entrepreneurship as a strategic development intervention capable of accelerating rural development.

Freire-Gibb and Nielsen (2014) aver that entrepreneurship has been recognised as fundamental to regional economic development, with suggestions that entrepreneurship policy focus on addressing particular issues in specific regions. This is due partially to the fact that most studies on entrepreneurship have been carried out in urban areas; some researchers have put forward the theory that, subject to few exceptions, entrepreneurship is largely an urban phenomenon (Freire-Gibb and Nielsen, 2014).

Unfortunately studies that explore entrepreneurial characteristics based on review of personal and environmental factors are uncommon, resulting in the study of entrepreneurship in rural areas being under-

researched and ill-understood with Freire-Gibb and Nielsen (2014) concluding that thus far, the result of the interface between geographical and personal dynamics on entrepreneurship is vague. It is noted that generally rural entrepreneurs lack benefits related to market density, proximity to markets and access to information, labour, and most other resources (Freire-Gibb and Nielsen, 2014).

Considerable research has explained the higher performance of entrepreneurship in populated areas due to externalities (Freire-Gibb and Nielsen, 2014). The first set of externalities, explain that people congregate in cities with diverse talents and skills, spurring an exchange of knowledge that increases creativity and productivity across different industries (Freire-Gibb and Nielsen, 2014). The second set of externalities, focus on knowledge flows within the same industry, with entrepreneurs benefiting from access to higher education networks due to the proximity of large universities, providing not only formal education but also knowledge spill-overs that benefit entrepreneurs (Freire-Gibb and Nielsen, 2014).

The process of spill-overs can also be linked to the necessity of face-to-face interaction for certain activities, the higher population density in urban areas offer entrepreneurs (and potential entrepreneurs) more 'observation possibilities' (Freire-Gibb and Nielsen, 2014). Various innovation experts confirm this, highlighting the significance of proximity for specific entrepreneurial activities due to an element of innovation being based on action and interactivity (Freire-Gibb and Nielsen, 2014). Furthermore Freire-Gibb and Nielsen (2014) cite reasons for greater and more successful entrepreneurship in urban areas as being due to greater returns and supply of ideas, additional resources and dissimilarities in local culture and policies. They (Freire-Gibb and Nielsen, 2014) determine that the cycle of entrepreneurship is one that is self-reinforcing with entrepreneurial activity leading to conditions that encourage additional entrepreneurial activity, with the inverse of this cycle being true as well.

Having described reasons for more significant and successful entrepreneurship in urban areas, it should also be noted that entrepreneurship can also thrive in rural areas (Freire-Gibb and Nielsen, 2014). Reasons for this would include less competition, lower costs, access to established networks and knowledge of the area; this is in addition to the benefit of lower living costs and a more tranquil lifestyle could make rural entrepreneurship attractive to certain entrepreneurs (Freire-Gibb and Nielsen, 2014).

Baumgartner, Schulz and Seidl (2013) note that entrepreneurship in rural areas has specific attributes. These rural attributes align to those mentioned by Freire-Gibb and Nielsen (2014) and include distance from sales and labour markets (Baumgartner *et al*, 2013). They (Baumgartner *et al*, 2013) go on to state that the presence of these attributes will either shape the entrepreneurial process or merely serve as descriptors of the environment in which the entrepreneurial activity is taking place. Due to these two differing views Baumgartner *et al* (2013) decided to forge a third perspective through implementation of a Delphi study. This resulted in the development of the model below as an explanation of rural entrepreneurship or entrepreneurship taking place in rural areas.

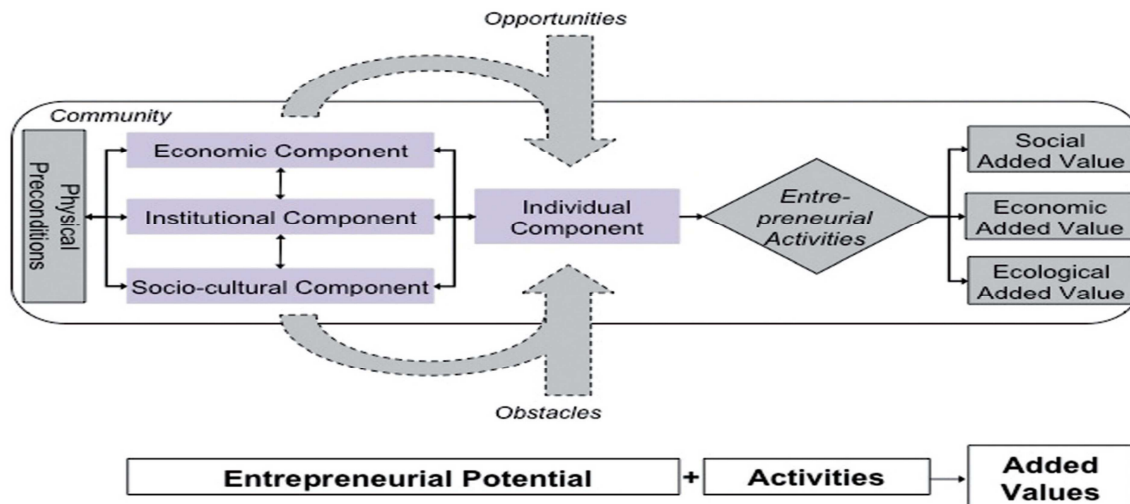


Figure 30: Concept of entrepreneurship as local potential in rural areas (Baumgartner et al, 2013).

Baumgartner *et al*'s (2013) resultant model defined entrepreneurship in this rural context as place-dependent local potential, describing entrepreneurship as the force or energy behind the creation of local value add. Entrepreneurship in rural areas may not be a distinctive 'rural' phenomenon, rather 'rural' is conceptualised as specific attributes measured by specific indicators (Baumgartner *et al*, 2013). Baumgartner *et al* (2013) add that this understanding corresponds with the 'milieu' perspective as cited by Moulaert and Sekia (2003) or the 'territorial' perspective as cited by (OECD 2009) in the regional economics and policy debate.

Specifically, the territorial perspective considers rural entrepreneurship to be embedded in particular geographic conditions. Baumgartner *et al*'s (2013) model reflects these as physical preconditions, incorporating natural landscapes, past infrastructure investment, cultural heritage and existing rural goods and services. Place-dependent goods and services may directly influence economic, institutional and socio-cultural components of a community's entrepreneurial potential (Baumgartner *et al*, 2013). The economic, institutional and socio-cultural components of entrepreneurship will in turn result in both opportunities and barriers to individual entrepreneurial potential (Baumgartner *et al*, 2013). The fourth component of entrepreneurship, as per Baumgartner *et al*'s (2013) model, the individual component, suggests that it is through the individual (or groups of individuals) that a community is able to discover, evaluate and exploit opportunities and barriers that emerge from within or outside the community into entrepreneurial activities (Baumgartner *et al*, 2013).

Baumgartner *et al* (2013) go on to state that their model defines 'entrepreneurship' as localised entrepreneurial potential, the presence of which is a crucial precondition for the implementation of neo-endogenous rural development approaches which aim to foster rural development and local economic performance by stimulating the entrepreneurial potential of territories rather than improving the production system or competitiveness in various local industry sectors.

Resulting from the argument above, that rural entrepreneurs are seen not as following a process unique to them, but rather operating within a distinctive context or environment, it becomes important to understand

the various challenges and constraints that their specific context or environment may place on their entrepreneurial endeavour. As cited earlier context plays a significant role in influencing an entrepreneur's success or failure. This implies the need to understand the various descriptors and characteristics of rural areas in general in order to understand how the rural context would impact and influence rural entrepreneurial activity.

3.5.1 Challenges and Constraints of the Rural Context

Having illustrated that rural entrepreneurship is unique only in regards to operational context; the author will now provide a high level view of some of the constraints imposed by the rural context. This section will assist in identifying environmental constraints that may need to be borne in mind when developing the envisaged mobile social networking framework.

Grimes (2000) defines rural areas as those areas of the economy that are the least affected by the process of urbanisation and are therefore associated with a more dispersed pattern of population distribution and economic activity. Rural areas are generally afflicted by the twin economic ills of poverty and unemployment, with human resources typically employed below their productive potential (The Eastern Cape Development Corporation (ECDC), 2015). Furthermore rural areas are additionally characterised by high populations with relatively low proportions of young and employed people and relatively high proportions of poorly paid employees (ECDC, 2015). As a result the allure of entrepreneurship as an alternative to formal employment may be high.

Rural areas typically share a number of common characteristics. As a result of the more dispersed pattern of population distribution; rural entrepreneurs are often relatively isolated from mainstream society and mainstream business. This isolation also inevitably makes itself felt in the area of access to information, knowledge and basic services.

- **Lack of access to relevant information and knowledge:** Information and knowledge often form the “lifeblood” of most economic and social activities (Duncombe, 1999, p.10). Areas struggling with socio-economic development often also characterise inefficiencies around provision and access to relevant information and knowledge (Duncombe, 1999 and Heeks, 2014).
- **Lack of Empowerment:** Empowerment is defined as “the process of increasing the capacity of individuals or groups to make choices and to transform those choices into desired action and outcomes” (The World Bank (2004), as cited by Soeftestad, Alinin, Flyman, Kleibl and Die, 2004). One of the many characteristics of rural areas is a lack of empowerment to participate and direct development efforts. There is a link between empowerment, access to accurate and timely information and knowledge and social inclusion and participation, all of which are critical elements in the creation of sustainable development (Soeftestad *et al*, 2004).

- **Lack of Participation and Inclusion:** By remaining unconnected to relevant information channels rural populations remain unheard and unable to shift the barriers that keep them poor (O'Farrell, 2000). Because rural communities are relatively isolated both from mainstream society and also ultimately from various enabling and support institutions and stakeholders, productive interaction supported by accurate information and knowledge poses a significant challenge.

- **Poor Communication and Information Flow:** Communication or information flow is a process originating with an information source or sender that transmits a message via a channel to the information destination or the receiver (Bryant, 2000). Noise interrupts the communication process making it inefficient. In the rural location noise not only affects information transmission but the feedback loop as well. The communication process is also prone to issues. Clark (2002) cites Weaver (1996) as holding the view that there are three general problems that could arise during communication:
 - **The level A problem** is technical and concerned with the transmission accuracy of communication symbols (Clark, 2002).
 - **The level B problem**, is concerned with semantics and the precision of transmitted symbols in conveying desired meaning (Clark, 2002).
 - **The level C problem** is concerned with effectiveness problem, and how effectively the understood meaning impacts behaviour in the desired way (Clark, 2002).

In addition to the aforementioned points, the very nature of the rural environment itself inhibits the existence and/or cultivation of precursors that could subvert poverty and encourage socio-economic development (Duncombe, 1999). Not surprisingly Chapman and Slaymaker (2002) characterise rural areas as being information poor with rural populations typically portrayed as lacking information vital to their lives and livelihoods. This environment of lack, exclusion and isolation embodies the broader context within which the rural entrepreneur is born.

Based on the above characteristics it is not surprising that entrepreneurs in rural areas face a host of difficulties (Horn and Harvey, 1998). Because these businesses are small and isolated, the people and information base needed to provide expert support for critical decisions and functions do not exist internally or externally within the rural location, further the needs of the enterprise are continuing not one-time and if the enterprise is successful, the needs grow (Horn and Harvey, 1998). This may explain the reason that only 2.3% of entrepreneurs in South Africa proceed to the established business stage, far below the sub-Saharan country average of 8% (GEM, 2012). The afore-mentioned figures relate to entrepreneurial activity as a whole and not specifically to rural entrepreneurial activity, noting though that rural figures are most likely lower.

Problems faced by rural entrepreneurs are informed by their rural context, including but not limited to lack of access to credit, inadequate managerial and technical skills, low levels of education, poor access to market information and an inhibitive regulatory environment (IFAD, 2011). The ability of rural entrepreneurs to realise

their potential depends largely on the availability and provision of appropriate and cost-effective business development support services (IFAD, 2011). The identification of suitable interventions and support services to facilitate rural entrepreneurship would need to be focused rather than generic, taking into account specific industry nuances and needs.

The author has specifically scoped this research to focus on Rural Community Media as a specialised sub-segment of entrepreneurs operating in rural areas. The reasons for this decision were in part due to the effect and impact of community media on socio-economic development due to the role they play in enabling access to information and knowledge and giving a voice to poor and isolated communities. In providing context to the rural community media discussion the author will first discuss the media industry and news publishing value chain. Subsequently the definition and significance of community media in Africa will be presented, followed by the broader context of media in South Africa, prior to introducing and discussing rural community media as a specific area of interest, focusing on their role relative to mainstream media. The author will then touch on the specific challenges faced by this group of rural entrepreneurs.

The sections that follow comprise discussions on the media industry and news publishing value chain, followed by the definition and significance of community media, the South African media industry, South African rural community media opportunities and constraints, concluding with a discussion on business models for the support of rural community media.

3.6 The Media Industry and News Publishing Value Chain

In order to understand how best to support rural community media it's important to understand the broader industry within which they are located. The purpose of this section is to provide this background.

Leurdijk, Slot and Nieuwenhuis (2012) state that the media industry has changed significantly in the past ten to fifteen years as a result of digitisation and internet growth. These developments have resulted in expansion in some media sub-sectors and contraction in others, transforming prevailing value chains and disrupting traditional business models (Leurdijk *et al*, 2012).). Leurdijk *et al*, (2012) state that products and services of the media and content industry are not just economic goods, but also have cultural value, and are considered important for democracy.

The news publishing industry generally comprises news agencies, radio and TV broadcasters and online news publishers (Leurdijk *et al*, 2012). This is depicted graphically below.

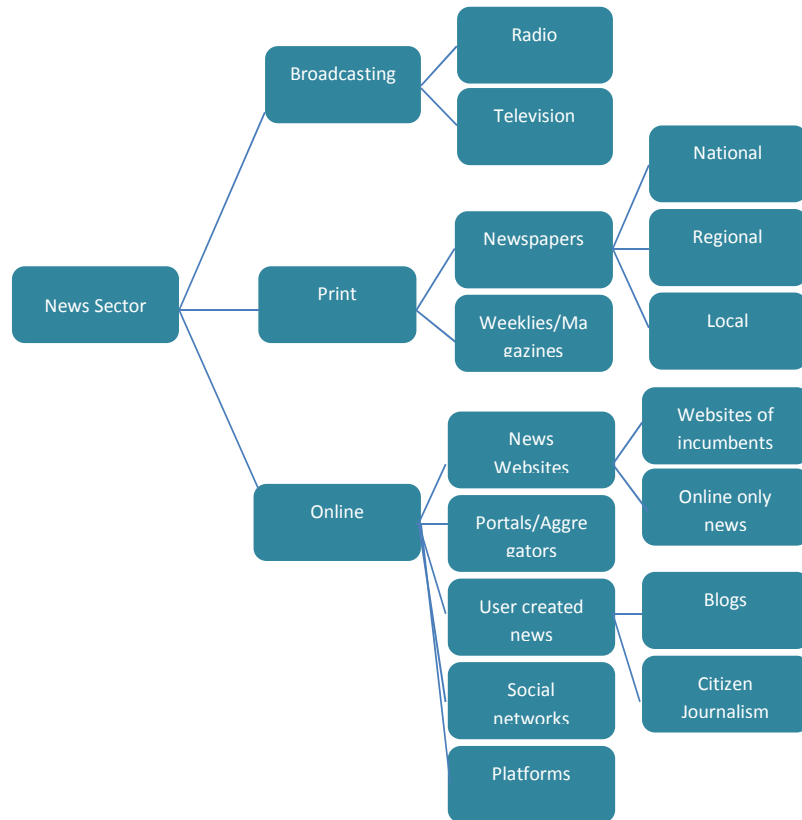


Figure 31: Actors in the News Sector (Leurdijk et al, 2012)

Newspapers particularly are singled out as having “democratic functions in informing citizens, setting the agenda for social debate and serving as a watchdog for political, economic, and social centres of power” (Leurdijk et al, 2012, p.17).

Furnes and Ravlo (2014) add that the newspaper industry has several distinctive characteristics; these include strict delivery deadlines, very low or no possibilities for keeping inventory and very short time-frames for production and distribution (Furnes and Ravlo, 2014). In addition to this news teams also have to balance the pressure from the newsroom to push the start of production as late as possible in order to cater for last minute news against the pressure from distribution to start production as early as possible in order to meet delivery deadlines (Furnes and Ravlo, 2014). One of the defining characteristics of the newspaper industry is that its products change on a daily basis and are virtually worthless by the end of the day (Furnes and Ravlo, 2014). “In addition newspaper products are never identical from day to day...and due to the perishable nature of the product, the time from the start of production to the delivery of the finished product to the end-customer is shorter than for most other industries” (Furnes and Ravlo, 2014, p.3).

Leurdijk et al, (2012) define the phases in the traditional news production value chain as follows:

1. Content creation

Various news production staff produce news stories according to their mandate, network and location (Leurdijk *et al*, 2012). Content is clarified and supplemented with additional or complimentary content from various sources (Leurdijk *et al*, 2012). Stories are generally made available in print, and also posted online. Some newspaper publishers also include videos with their online news services (Leurdijk *et al*, 2012).

2. Aggregation

Leurdijk *et al* (2012) state that newspapers typically combine various subject categories and sources in order to create stories. Once created stories are made available in various pre-defined formats for different sections of the newspaper or website with non-editorial content such as adverts also added (Leurdijk *et al*, 2012). Newspapers play a role as news aggregators by combining content from various news categories and sources, in different formats and sections (Leurdijk *et al*, 2012).

3. Production

In production newspapers are either outsourced to external printers or printed in-house at the publisher's printing plant (Leurdijk *et al*, 2012).

4. Distribution

This step comprises the transportation of the finished product to a distribution facility through which customers will access the product either by buying it or obtaining it for free depending on the business model. (Leurdijk *et al*, 2012). In the case of online services distribution is concluded through upload of new content onto the news website (Leurdijk *et al*, 2012).

5. Consumption

In this step of the value chain the news is read by the target consumers of the news content (Leurdijk *et al*, 2012). Users can access the news in various ways, either via subscription to a specific news service, purchase or collection of free copy at a selected distribution outlet, online or via a news app (Leurdijk *et al*, 2012).

Loyd (2015) adds an additional step in the value chain is building awareness or marketing the newspaper. This step would generally take place prior to the production and distribution of the paper. It involves educating the marketplace about your product. Marketing in this context is defined as the process of informing potential clients (readers and advertisers) about your product in a manner that positions it as a vehicle to meet their own needs. A final step in the value chain could be termed the monetise step, this is the stage whereby all revenue related to a particular copy is collected and set off against the costs of the copy. It is at this stage that the organisation would be able to ascertain whether a profit or loss had been achieved via production and distribution of that specific copy (Loyd, 2015).

Having provided an overview of the media and newspaper industry and provided an explanation of a generic news production value chain, the author will now delve into the definition and significance of community media and the state of the South African media industry as specific areas of interest for this study.

3.7 The Definition and Significance of Community Media

This section provides the definition of community media and their significance, discussing the role that community media play in the communities they serve. The purpose of this section is to provide clarity on what is meant by community media in order to accurately identify the categories of organisations this study relates to.

Recent years have witnessed a gradual liberalisation of media and a growing phenomenon of community media in African countries (Boafo, 2000). Notably though, many of the existing or emerging community media lack the economic, technical and human resources required for sustainability (Boafo, 2000). Boafo (2000) notes that UNESCO in its communication strategy and programme for Africa accords priority to encouraging the creation and support of community media. This is due to the view that community media create opportunity for rural populations to participate in the communication process, allowing for the receipt and disclosure of news and information and the articulation of rural needs, views and opinions on issues impacting their lives (Boafo, 2000).

The development industry has increasingly endeavoured to incorporate the principle of participation into its policy and project work, requiring greater recognition of the role of participatory communication in development (Wanyeki, 2000). Participatory communication by its very nature implies two-way communication. As a result information and knowledge from the community were sought in order to inform development initiatives taking place within the community (Wanyeki, 2000). In so doing information and communication initiatives emerged at the community level, with these initiatives later achieving prominence as community media initiatives (Wanyeki, 2000).

Neuman (2012) notes that ICT is fundamentally transforming the relationship between the audience and the media, shifting the relationship power dynamic from 'push' to 'pull', from one way to two way and from broadcasting and publishing to social networking. This revolutionary restructuring however does not necessarily result in a better informed, less polarised and more engaged populous (Neuman, 2012).

Boafo (2000, p.6) agrees, noting that "in the midst of the globalisation of communication and information highways, we need to constantly remind ourselves that access to highways is by small roads and paths leading from homes, localities and communities. African countries need to build these small roads and paths to ensure that local communities are not completely left out of the national communication and information grid". Community media represent the small roads connecting isolated and rural communities to a broader reservoir of information and knowledge, ensuring that each community is able to represent itself, highlighting its own issues, concerns and successes and contributing to the broader identity of the country as a whole.

The proliferation of community radio, newspaper, magazines and other community media tends to imply an understanding of the term 'community media'. Generally the notion of community media implies an understanding of the community underlying the media practice (Opubor, 2000). Today as a result of the introduction of ICT, the notion of community can also have a strong non-physical reference, in this respect one

is able to refer to virtual reality and consequently virtual communities (Opubor, 2000). However regardless of this the term 'community' still maintains strong physical reference to people residing in the same geographical area (Opubor, 2000). Generally people within a shared community tend to share various cultural characteristics and are able to access shared resources and institutions, all of which tends to result in a set of common and shared beliefs (Opubor, 2000). Eriksson, Franke, Granasen and Lindahl (2013) concur adding that technology can assist in creating virtual communities allowing for creation of an organised and networked identity.

Innovation in technology combined with challenges related to the growing digital divide highlighted the fact that the media concerns and aims were not only about defending and encouraging freedom of expression, information and association (Wanyeki, 2000). Rather the various goals of media now also comprise outlining the role of traditional communication, conserving native knowledge and realising collective access (Wanyeki, 2000). Community media was viewed as a tool that could assist in meeting these aims.

Opubor (2000) states that amongst other things, human communities are built on the interaction of ideas, information and meaning in the interest of collective community survival based on a process of describing, constructing and preserving a collective identity within a specific and defined space. In this way a community and its shared communication system co-create each other, comprising communication roles, needs and resources available to all within the shared community space (Opubor, 2000).

"Community media should be viewed then as an element of a community communication system"...serving as instruments for the performance of activities and utilisation of resources in order to respond to the communication needs of both individuals and organisational community members (Opubor, 2000, p.3). The diverse needs of the community require various means of expression in order to satisfy them, resulting in a view that suitable community media should be multi-channelled (Opubor, 2000). Community media should ideally be created within the structure of its current communication system (Opubor, 2000). In this light improving the operational efficiency of rural community media, as an element of the rural community communication system, will serve to also ultimately improve the efficiency of the rural community communication system.

Banda (2010) states that communication via community media could serve to build a sense of community amongst citizens. Banda (2010) further notes important implications for community media as follows:

- Greater citizen access
- Increased use of community voices in news stories
- Citizen ownership and operation of media
- More participatory communication

Twentieth century approaches to community media development have been dominated by exogenous definitions of communities and the imposition of narrow media-based solutions to the cultural,

communication and survival problems which communities face (Opubor, 2000). Unfortunately these initiatives were often not based on conceptual or practical foundations arising from a community communication system view point (Opubor, 2000). These inadequacies demonstrated the need for interventions based on a community communication strategy that would transform community media into informing, educating and entertaining tools that would empower non-privileged and marginalised people to think and speak for themselves (Opubor, 2000).

3.8 The South African Media Industry

This section specifically discusses the South African media industry in order to provide a view of the specific South African context impacting rural community media.

The 1990s were accompanied by noteworthy changes in Southern African political systems (Wanyeki, 2000). Wanyeki (2000, p.1) notes that “the shift from one-party to pluralist political systems and the first post-apartheid elections in South Africa were accompanied and, in part, achieved by popular movements seeking greater freedom of expression, information and association”. This change was also highlighted in the country’s media industry which had largely been ruling party owned and managed until that point (Wanyeki, 2000).

Today South Africa has a much more diverse print media sector. The country boasts 43 daily, weekly and bi-weekly newspapers ranging from business to tabloid publications focused on a broad range of topics (Milne and Taylor, 2006). The country’s media sector is largely owned by four dominating media groups, these include Naspers Ltd, Times Media, Caxton/CTP Publishers and Independent News and Media Plc (Milne and Taylor, 2006)..

Most publications obtain revenue from charging for consumption of their product as well as advertising, which tends to provide most of their revenue (Milne and Taylor, 2006). South Africa also has more than 50 local “free sheets” owned and distributed by the major media groups and mainly utilised as local advertising vehicles (Milne and Taylor, 2006). More recently a significant event in the South African media industry has been the introduction of the tabloid newspaper based on the model of tabloid newspapers emanating from Britain and aimed at black lower middle class readers (Milne and Taylor, 2006).

The South African newspaper market has seen rapid growth since 2000, with new market entrants and rising circulation for daily newspapers of up to 38.4% (Milne and Taylor, 2006). Two new publications, namely the Daily Sun (an English tabloid) and Isolezwe (an isiZulu daily) however completely account for this increase (Milne and Taylor, 2006).

Declining circulation and readership has been observed in traditional news and information focused papers in South Africa in line with global trends (Milne and Taylor, 2006). In spite of this total readership appears to be rising due to the introduction of tabloid and indigenous language newspapers (Milne and Taylor, 2006). All four major newspaper groups in South Africa have recognised local weeklies as a key expansion area and have

been utilising these as an expansion strategy by creating new or buying existing private local newspapers (Milne and Taylor, 2006).

3.9 South African Rural Community Media – Opportunities and Constraints

South African rural community media face specific challenges based on the broader South African media context. This section specifically focuses on the opportunities and constraints faced by rural community media as a result of this broader context. This section will assist in identifying specific areas where rural community media require support, assisting in identifying key components for the envisaged mobile social networking framework.

As the world moves towards an increasingly information based society, South Africa deemed it critical that all citizens have access to information and opinion in order to participate effectively in an increasingly globalised world (Milne and Taylor, 2006). It was in this light that the Media Development and Diversity Agency (MDDA) was established. The MDDA seeks to encourage transformation of the South African media sector (Milne and Taylor, 2006). Milne and Taylor (2006) quote a study conducted by Steyn and De Beer (2002) as finding three major skills shortages in community media journalism training, these include:

- Newsgathering (the ability to identify and develop stories)
- Accuracy (challenges in correctly reporting facts)
- Writing (42% of reporters were rated as having below average writing capability by news editors)

The Media Development and Diversity Agency (MDDA, 2008) notes that community media is fragmented, poorly researched, virtually invisible, lacking a coherent identity and commercially unrecognised. Only a minority of community media succeed through market growth to attain establishment as an authoritative community voice (MDDA, 2008). However in spite of this there appears to be no co-ordinated plan to extend support as the support stakeholders in this space themselves lack sufficient resources to do so (MDDA, 2008).

Due to increased focus on this segment, funding availability, though insufficient, has increased leading to exploitation within the sector by opportunists seeking to cash in, resulting in decreased overall sector credibility and unwillingness by advertisers to invest and support the sector due to prior bad experience (MDDA, 2008).

There is also general poor co-ordination, engagement and support within the sector by community media players themselves (MDDA, 2008). The MDDA (2008) envisages a preferred scenario of sector-wide strategy, voluntary affiliation, innovation, empowerment, public-private partnerships galvanised by a passion to reflect South African communities fairly and fearlessly (MDDA, 2008). In spite of this vision most community media are weak and struggling to survive. It is noted that very few start-ups are able to achieve effective operation with various media industry dynamics further exacerbating the situation (MDDA, 2008).

An Association of Independent Publishers (AIP) survey of the community media sector noted with concern that various conglomerates are tightening control regarding access to national and provincial advertising, often

aided by the presiding government procurement policy, in addition to tightening control of national media distribution networks (MDDA, 2008). The same survey also alleges staff poaching (MDDA, 2008). MDDA (2008) notes Professor Guy Burger (then Head of the Department of Journalism and Media Studies at Rhodes University) as stating that community media need to build on their strength of being a monopoly of unique, local information that no one else is positioned to provide and utilise this position to also actively celebrate and campaign for their community. Irrespective of this however it appears that big conglomerates are eyeing the community media space with a view to acquiring existing titles in order to further extend their own market reach (MDDA, 2008).

The Print and Digital Media Transformation Task Team (PDMTTT, 2013) concur with the above statements adding that reasons for slow transformation of the sector may be due to deliberate anti-competitive behaviour, with a number of titles being pushed out of the market through unethical practices. Allegations of unethical practices vary but include that of major players offering advertisers much lower rates, forcing the small commercial publishers who are unable to compete at this level to fold or sell (PDMTTT, 2013).

The PDMTT (2013) identified the major segments of the community print media value chain which directly contribute to their success or failure as follows:

- **Printing:** identified as an industry backbone and a major capital investment and cost (PDMTT, 2013). This segment of the value chain is dominated by a few big players with attachments to the major publishers (PDMTT, 2013).
- **Distribution:** identified as a demanding core activity contributing largely to the success of a publication (PDMTT, 2013). Generally the more publications distribute the greater the impact of the paper and the more advertising revenue they are likely to pull in (PDMTT, 2013). Major print media and distribution players tend to be aligned (PDMTT, 2013).
- **Marketing:** community media do not have access to the internal marketing systems that co-ordinate various offerings to advertisers and readers that mainstream media utilise (PDMTT, 2013). The advent of the Association of Independent Publishers (AIP) has assisted community media through related training and access to enabling resources (PDMTT, 2013).
- **Advertising:** advertising typically contributes revenue of 60% to 100% of publishing costs (PDMTT, 2013). Mainstream media are seen to be abusing their establishment within the industry through uncompetitive behaviour (PDMTT, 2013).

It is suggested that the establishment of a negotiated set of protocols is required to govern the community media space by creating a protected and supported environment within which these SMMEs can function which also protects their independence (MDDA, 2008). The protocols should also establish guidelines for how

the media conglomerates should provide support to fledgling community media organisations through providing practical assistance in a process labelled “co-opetition” (MDDA, 2008). The concern is that unless some agreement of this manner is reached it is conceivable that successful community media will continue to be taken over and merged into mainstream stables, boding poorly for media independence and diversity (MDDA, 2008).

The PMDTT (2013) notes that community media face challenges related largely to market power. It appears that ninety percent of the market share for mainstream newspapers is controlled by the big four media companies (PMDTT, 2013). A market structure such as this, characterised by the domination of a few firms is referred to as an oligopoly. The oligopolistic structure of the print media industry has consequences for the extent of market power that these firms possess, these include the following (PMDTT, 2013):

- **Vertical integration:** PMDTT (2013) states that the major media groups maintain control over their entire process as they are vertically integrated with ownership across the supply chain (PMDTT, 2013). This characteristic creates difficulty for community media, who are unable to exert the same level of control over their own value chain to effectively compete, often resulting in reliance on their competitors to complete their own value chain processes (PMDTT, 2013).
- **Need for market information:** PMDTT (2013) states that revenue from advertising should be at approximately 60% for commercially viable titles. It is alleged that major media players deliberately undercut community media by offering lower than market related rates in order to drive them out of business (PMDTT, 2013). This kind of activity makes fair competition impossible (PMDTT, 2013).
- **Barriers to entry:** PMDTT (2013) states that community media as new market entrants face significant barriers to effective operation, these include:
 - Access to printing facilities and favourable printing slots
 - Affordable printing prices, and access to vertically integrated printing facilities
 - Access to favourable and conducive distribution networks
 - Ability to secure sufficient advertising income
 - Access to capital or funding
 - Vertically integrated printing press (major players prioritise their own printing schedules)

In addition to issues from the external environment impacting rural community media, they also have internal factors impacting their operations. The Steyn and De Beer (2002) report concluded that reporters were in many cases ill-equipped to meet industry standards and effectively portray the essence of a diverse and changing society (Milne and Taylor, 2006). In addition to this news editors were found lacking in management experience, including human resource management, with specific gaps having been identified as lack of global awareness, self-management, communication, strategy, planning, administration and teamwork (Steyn and De Beer (2002) as quoted by Milne and Taylor (2006).

In finding means to counter the various challenges and constraints faced by community media, Opubor (2000) states that the entry point must be based at the community level. Traditional approaches to community media development have resulted in lessons which would assist future community media development strategy by making it more responsive to context specific community needs (Opubor, 2000).

Opubor (2000) states that media development should proceed from a basic understanding of the nature and needs of the community. A needs assessment is recommended ideally seeking answers to the following questions (Opubor, 2000):

- What information is needed to define the community communication system?
- What components need special attention and why?
- What media does the community already utilise and have access to?
- What media does the community need and want?
- What media can the community afford?
- What media channels or combinations would meet the community's needs?

The author is able to condense the discussion by the various authors above into the following categories of needs for community media:

- Management skills (HR, finance, strategy)
- Journalistic skills (industry specific)
- Value chain constraints (community media process i.e. marketing and advertising, distribution, sales)
- Market power (competitors, suppliers, barriers to entry)
- Access to Resources (skilled staff, finance, industry support)
- Community specific dynamics

The author has presented a view of the actual state or context of rural community media operation highlighting the constraints and challenges within their environment. It is clear from this discussion that rural community media require some assistance in navigating the various challenges encountered in their environment. The author will conclude this chapter by assessing, discussing and selecting a business performance and management model that may assist in framing and structuring rural community media operation. This process will assist in identifying key components to be included in the mobile social networking framework.

3.10 Business Models for the Support of Rural Community Media

This section discusses the significance of business management and performance models, as they relate to the current business climate, providing background for the selection of a suitable business model for the rural community context.

Adams (2008) contributes that we currently exist at the intersection of the industrial and the knowledge economies. The industrial economy is seen as the tangible economy, involving raw materials, machines and

products one can see and touch, whilst the knowledge economy is based on intangibles, involving knowledge, ideas and services that are invisible and impalpable (Adams, 2008). According to Adams (2008) models and tools that work in the tangible economy do not always work in the intangible economy (Adams, 2008). Adams (2008) adds that new concepts have emerged to assist managers to deal with the unique challenges of the intangible economy as it has become more prominent in recent years. Today business profit is derived from an ideal synthesis of tangible and intangible value (Adams, 2008). In this respect Adams (2008) shares the following views:

- **Knowledge is the new oil:** the fuel, of the intangible economy. Like oil, it can have a stand-alone value, is bought and sold in finished form and has value that can be embedded in other products (Adams, 2008). One critical difference between knowledge and oil is that knowledge is an infinite resource whose value is limited only by its potential (Adams, 2008).
- **Innovation is the new strategy:** In the tangible economy, strategy and strategic planning typically occurred within a defined market space, in the intangible economy, markets change quickly and as such the right strategy is not always as clear (Adams, 2008). New opportunities often come from leveraging intellectual capital in new ways (Adams, 2008). Innovation strategy is about crafting an ecosystem where new ideas can be created, developed and commercialised (Adams, 2008). This innovation ecosystem is a place where people share their knowledge and in co-operation with customers and partners, create new opportunities for growth (Adams, 2008).

Yadav and Sagar (2013) add that it is commonly agreed that the business environment is in constant flux. Huyett and Viguerie (2005) agree, adding that the combined pressure of global competition, technological advancement, interconnectivity and economic liberalisation have made the business environment tougher than ever before. Changes in business ecology emphasise the need for value creation, development and sustainment of competitive advantage and transformation in performance measurement (Huyett and Viguerie, 2005). In this dynamically changing business environment, the adoption of an appropriate business model and performance management and measurement (PMM) framework has been identified as a major challenge (Huyett and Viguerie, 2005). Traditional financial performance measures have been highly criticised with researchers having identified the need to integrate other non-financial perspectives, such as those comprising strategy, operations and quality as complementary views (Huyett and Viguerie, 2005).

Ferreira, Shamsuzzoha, Toscano and Cunha (2012) agree with Huyett and Viguerie (2005) stating that due to the more dynamic business environment more organisations, specifically SMMs are challenged to adapt to rapid market changes. This exerts extra pressure on organisations to concentrate on their core competencies and constantly innovate in pursuit of competitive advantage (Ferreira *et al*, 2012). Ferreira *et al*, (2012) agree further with Huyett and Viguerie (2005) contributing the view that while performance management through financial measures has long been used to assess organisational performance there are growing concerns that

due to increasing organisational complexity financial measures can no longer be used as the sole criteria for assessing an organisation's performance. Ferreira *et al*, (2012) add that the set of measures used to assess and classify organisational performance should be focussed on providing a balanced picture of the current business, reflecting global outcomes in terms of both financial and non-financial measures, internal and external measures, and efficiency and effectiveness measures.

Ferreira *et al*, (2012) go on to state that in the case of collaborative business, as would be the case in a community of practice, performance is usually measured and evaluated via key performance indicators (KPIs), key success factors (KSFs) and key performance factors (KPFs) across partner organisations. All these performance factors should provide a succinct overview of overall performance.

Generally performance management processes encourage organisations to continuously improve their performance. Ferreira *et al*, (2012) state that performance management is defined as consisting of three interrelated elements, these comprise 1) individual measures to quantify the efficiency and effectiveness of various actions; 2) a set of measures to assess the performance of the organisation as a whole; and 3) supporting infrastructure that enables data to be acquired, collated, sorted, analysed, interpreted and disseminated.

Brown (2013) states that although we know a lot about what makes a great organisation we know considerably less about what it takes to build and maintain that greatness. In order to manage business performance, it is necessary to implement some kind of methodology or framework that can contribute to supporting successful business operation (Ferreira *et al*, 2012). Business excellence frameworks such as the EFQM Model, Malcolm Baldrige Award and Australian Business Excellence Framework (ABEF) are used by organisations throughout the world as holistic models to guide their strategy, business processes and business improvement objectives (Brown, 2013). While the primary aim of adopting a performance management framework is to provide guidance for improving organisational performance as measured by various performance indicators, it is also a process which can involve benchmarking and internal self-assessment (Brown, 2013). Brown (2013) goes on to cite various studies as pointing to the importance of factors such as leadership commitment, training, engagement, human resource management and customer focus in ensuring organisations experience success when implementing a selected performance management framework.

Bendixen and Jepsen (2013) cite Lebas (1995) in defining performance as the deployment and management of components that lead to the timely attainment of stated objectives. The challenge is in selecting a business performance model that addresses these issues amongst others and assists in providing a holistic view of key business drivers and how these will be leveraged in order to ensure success.

3.11 The Business Model Canvas

This section specifically discusses the Business Model Canvas as the chosen business management and performance model, also stating reasons for this choice. This section will contribute key components related to business management and performance for the envisaged mobile social networking framework in order to

create a virtual community of practice for the purposes of improving rural community media operational efficiency.

The Business Model Canvas (BMC) was developed by Alex Ostwerwalder and Yves Pigneur, co-created by 470 practitioners, based on in-depth research and also enhanced and tested via the input of various practitioners (Burkett, 2013). The BMC enables businesses, both new and existing, to focus on operational and strategic management, a key requirement for enabling improved organisational operational efficiency (Burkett, 2013). The BMC is a chart comprising visual elements that describe an organisations value proposition, infrastructure (comprising key activities, key resources and partner network), customers, and finances, assisting organisations in aligning their activities through the illustration of potential trade-offs (Burkett, 2013). It is the authors view that these characteristics, ease of use due to its visual nature, concise set of elements that assist in illustrating potential trade-offs, focus on operational and strategic management and foundation on in-depth research based on the input of 470 practitioners, make the BMC a suitable choice and applicable management and performance model for rural community media.

Burkett (2013) states that the purpose of a business model is to assist stakeholders in understanding and articulating how a business should be structured in order to enable the creation and delivery of value. A business plan on the other hand is a more detailed document setting out the goals of the business, how these will be attained and the methods that will be employed in order to do so (Burkett, 2013). Cowan (2013) states that the BMC provides a summarised structure of a business plan. The BMC is depicted graphically below.

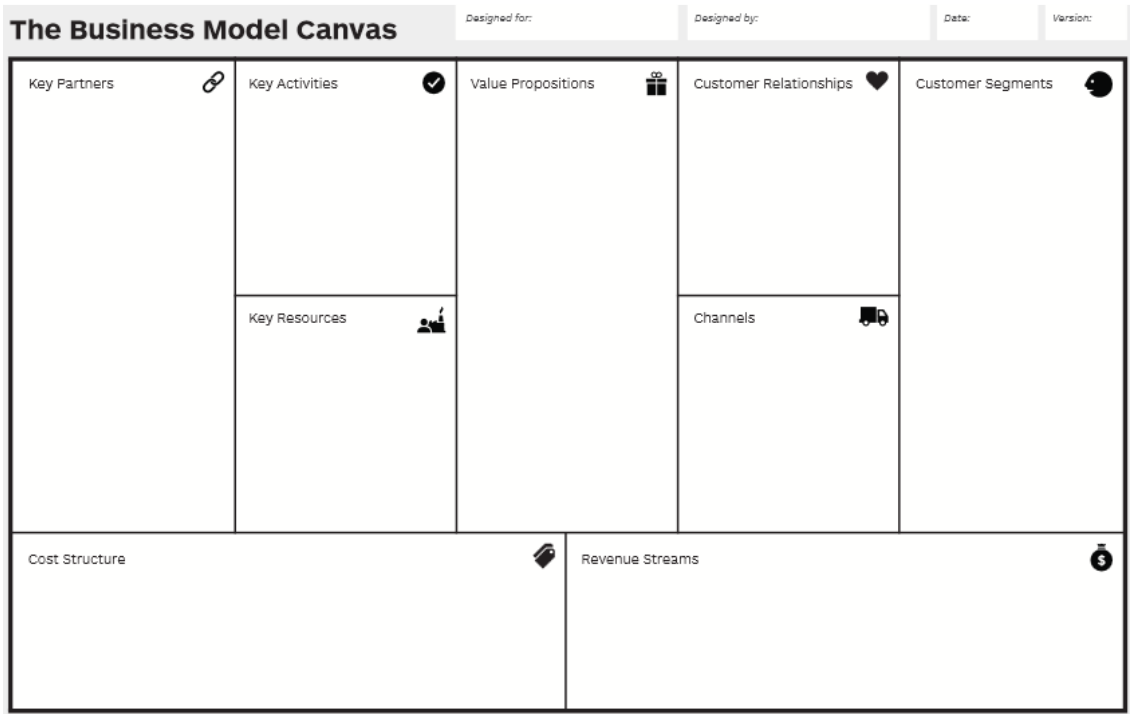


Figure 32: The Business Canvas (Cowan, 2013)

As can be seen from the graphic above the BMC is comprised of nine elements. Cowan (2013) states that these nine components provide a comprehensive view of the key drivers of a business, summarised as follows:

- **Customer Segments:** Who are the customers? Describe them (Cowan, 2013).

This comprises identifying and describing your customer in detail. The first step is to identify customer segment dimensions by clarifying whether the market is single or multi-sided (Cowan, 2013). An example of a multi-sided market is demonstrated by a media business like Fox News which comprises readers and advertisers as key generators of revenue (Cowan, 2013). The second item to be considered is segment composition; this will be assessed per segment dimension identified in the first step (Cowan, 2013). The outcome would be to be able to visualise and describe each customer segment dimension in detail (Cowan, 2013). The last step is to identify problems, needs, habits and current alternatives per customer dimension (Cowan, 2013). In doing so one need clarify what customer problems or needs are being addressed and identify alternatives to the product/service being provided (Cowan, 2013). The output of this element of the BMC is a list of customer dimensions organised by segment, each with detailed characteristics and prioritised based on significance to your business (Cowan, 2013).

- **Value Propositions:** What makes the value proposition convincing and worth pursuing? Why do customers purchase and utilise your product/service? (Cowan, 2013).

Which problems or needs are being fulfilled by your product/service? (Cowan, 2013). What unique value proposition do you provide and why would a customer prefer this to any current alternatives? (Cowan, 2013). It is important to rank items identified as an outcome of this step to ascertain the most critical value propositions provided (Cowan, 2013). The output of this step will be a prioritised list of value propositions linked to each customer segment (Cowan, 2013).

- **Channels:** How do you promote sell and deliver your product? Why these methods, are they working? (Cowan, 2013).

Channels include entities utilised to communicate business value proposition to identified customer sectors, including units which can be utilised to sell products and service customers (Cowan, 2013). The output of this step is a list of significant channels, linked to identified customer segments (Cowan, 2013).

- **Customer Relationships:** How does customer interaction happen throughout your value chain? (Cowan, 2013).

Customer relationships detail how the customer interacts with your business via sales and the product/service life cycle (Cowan, 2013). The output of this step will be a description of customer relationships (engagements) per customer segment or across the product/service lifecycle (Cowan, 2013).

- **Revenue Streams:** How does your business make money? (Cowan, 2013).

The aim of this step is to map customer segments to value propositions and revenue streams (Cowan, 2013). The output of this step will be a list of revenue streams, linked to segments and value propositions (Cowan, 2013).

- **Key Activities:** What does your business do to deliver on its value proposition? (Cowan, 2013).

These are the fundamental items the business must do in order to deliver on its stated objectives and ensure effective operation (Cowan, 2013). It's important to consider how the key activities drive business value propositions: The output of this step is a list of key activities linked to the identified value propositions (Cowan, 2013).

- **Key Resources:** What resources does the business need? (Cowan, 2013).

Key resources are the strategic assets required in order to effectively operate (Cowan, 2013). The output of this step is: a list of key resources linked to key activities (Cowan, 2013).

- **Key Partnerships:** What can the business outsource so it can focus on its Key Activities? (Cowan, 2013).

What activities and resources are important but not aligned with your unique value proposition? (Cowan, 2013). Identify what is outside your scope or capability and determine whether partners could assist with these (Cowan, 2013). The output of this step is a list of key partnerships and how they relate to key activities (Cowan, 2013).

- **Cost Structure:** What are the business' key cost drivers and how do they link to revenue? (Cowan, 2013).

It should be apparent at this stage how key activities drive business value propositions and revenue (Cowan, 2013). The stage aims to identify the manner in which key activities drive costs and whether the costs are suitably mapped to the key value propositions (Cowan, 2013). The output of this step is a list of cost structure components detailing their relationships to key activities (Cowan, 2013).

Cowan (2013) adds that the BMC is popular with entrepreneurs primarily because it delivers the following three things:

- **Focus:** because its concise the BMC assists users in clarifying their focus regards what drives the business
- **Flexibility:** because its concise the model is easy to tweak whilst planning
- **Transparency:** because the model can fit on a single page it provides for ease of understanding

Garner (2015) states that one of the primary ways of using the BMC is as a strategic planning and development tool. In this regard the BMC provides a clear foundation and direction based on its nine focus areas and the

simplicity of its layout (Garner, 2015). The BMC can also be used as a dashboard, in so doing organisations define a set of KPIs per building block and define a performance threshold per KPI (Garner, 2015). Both these applications of the BMC would prove useful in the rural community media space by providing a framework for strategic and operational planning that can also be utilised to manage and measure performance.

This chapter specifically sought to understand the context specific issues faced by rural community media and identified the BMC as a business model and performance management tool that could assist them. This section also defined entrepreneurship, providing a view as to the specific challenges faced by rural entrepreneurs due to their rural context. This chapter explained the significance and impact of the media industry, providing a view of the South African media industry and the challenges and opportunities faced by South African rural community media. The chapter concluded with the selection and description of the BMC as the selected business management and performance model.

3.12 Conclusion

This chapter focused on the following sub-problems:

Sub-problem1: What are the building blocks for a mobile social networking framework for SMMEs, which utilises virtual communities of practice as a vehicle?

This sub-problem seeks to identify and describe the key building blocks of a mobile social networking framework which utilises communities of practices as an engagement vehicle. The sub-problem will provide the context for the research, by defining the components of the framework from which the remaining research questions will follow and relate back to.

Sub-problem 2: What are the knowledge sharing needs of rural SMME's?

Access to social networks means access to knowledge and the enhanced ability to share and build knowledge. In order to develop a service that can facilitate the growth and success of rural SMME's it is important to first determine and understand their knowledge sharing needs.

This sub-question seeks to uncover the knowledge sharing needs of rural SMME's through discussing and categorising them as well as the barriers to relevant knowledge and knowledge sharing faced in rural areas. The purpose of this sub-question is to provide the background and context on which the research paper itself is based.

The primary focus of this chapter was rural entrepreneurs and rural community media. The chapter focused on the constraints faced by rural entrepreneurs and specifically rural community media, identifying their specific information and knowledge sharing needs.

This chapter contributes suggestions for the following elements /considerations related to business and performance management for inclusion in the conceptual framework:

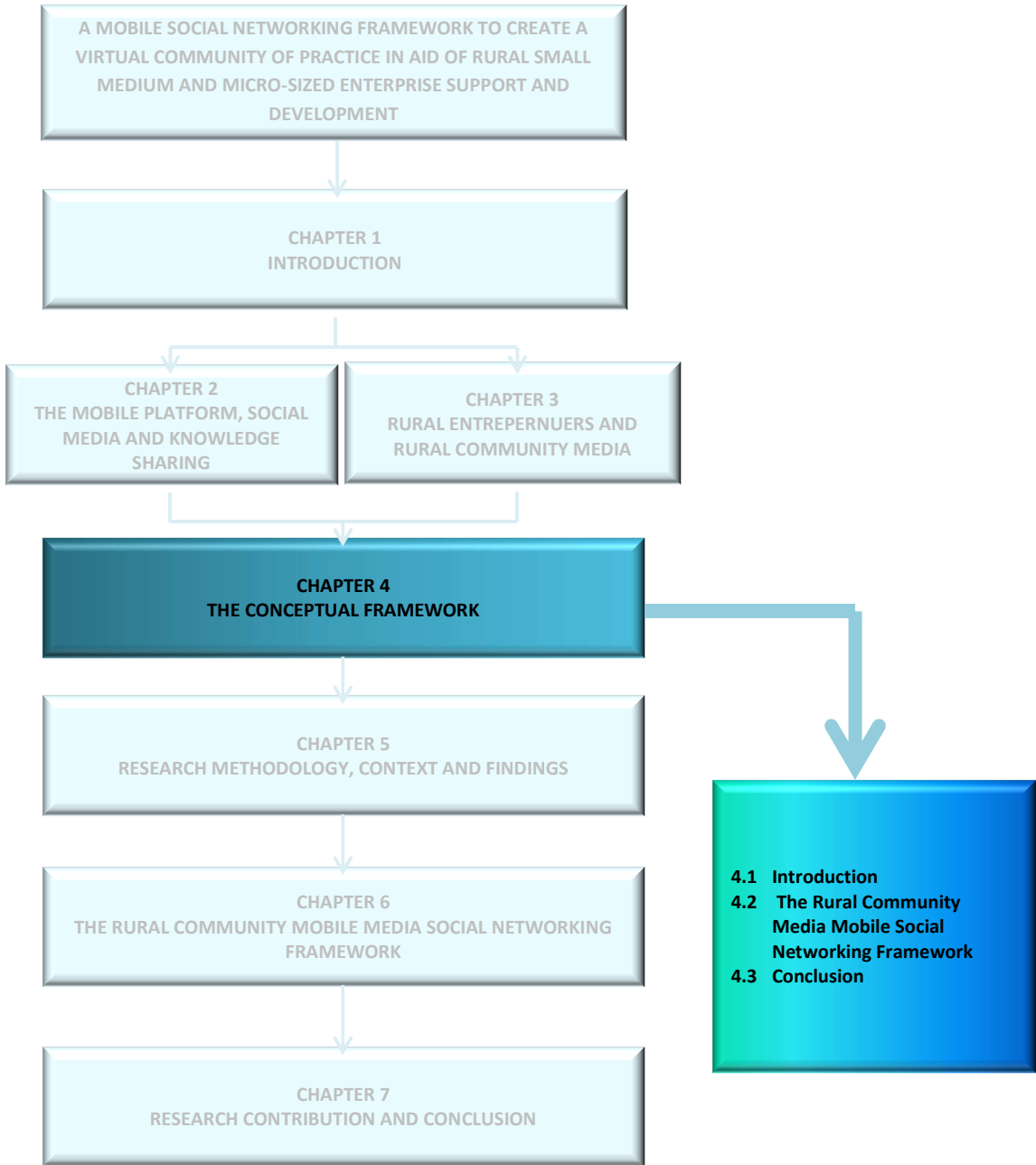
Elements/Considerations	Author	Section
News production value chain	Leurdijk, Slot and	3.6
Content Creation, Marketing	Nieuwenhuis (2012)	3.9
Production, Distribution,	The Print and Digital	
Consumption, Monetisation	Media Transformation	
	Task Team (PDMTTT, 2013)	3.6
	Furnes and Ravlo (2014)	3.6
	Loyd (2015)	
Training Resources/Support	Milne and Taylor (2006)	3.9
	Brown (2013)	3.10
- Training and skills	Freire-Gibb and Nielsen (2014)	3.5
- Education and training	GEM (2012)	3.4
- Increase the capability of individuals or groups to make choices and act on them	Soeftestad, Alinin, Flyman, Kleibl and Die (2004)	3.5.1
- Access to relevant info and knowledge	Duncombe (1999) and Heeks, (2014)	3.5.1
Community Context	Opubor (2000)	3.9
- Understanding of operational context	The Print and Digital Media Transformation Task Team (PDMTTT, 2013)	3.3
	Duncombe and Heeks (2001)	
Appropriate business model/performance management framework/BMC	Huyett and Viguerie (2005)	3.10 3.11
- Focus, flexibility, transparency	Ferreira, Shamsuzzoha, Toscano and Cunha (2012)	
	Burkett (2013)	
	Garner (2015)	
	Cowan (2013)	
	Bendixen and Jepsen (2013)	

Co-ordinated Plan for Support - co-ordination, engagement and support - voluntary affiliation, innovation, empowerment, public-private partnerships - negotiated set of protocols is required to govern the community, protected and supported environment	The Media Development and Diversity Agency (MDDA, 2008)	3.9
Performance Measures - Supportive Infrastructure for sharing Data/ Information/Knowledge - set of measures used to assess and classify organisational performance	Ferreira, Shamsuzzoha, Toscano and Cunha (2012) Huyett and Viguerie (2005)	3.10
Creation of enabling environment - institutional, socio-cultural, economic and personal support - Vertical integration support - Marketing info - Assistance to overcome barriers to entry	GEM (2012) Baumgartner <i>et al</i> (2013) PMDTT (2013)	3.4 3.5 3.9
Access to information and knowledge - information on market dynamics - access to research and development - information on labour and other resources - people and information base required to deliver proficient support for key choices and operations - sharing of ideas, information	GEM (2012) Freire-Gibb and Nielsen (2014) Chapman and Slaymaker (2000) Horn and Harvey (1998)	3.4 3.5 3.5.1 3.5.1

and meaning in the process of defining, creating and maintaining a shared identity	Opubor (2000)	3.7
Communication Platform		
- spurring an exchange of knowledge	Freire-Gibb and Nielsen (2014)	3.5
- two-way communication	Wanyeki (2000)	3.7
- productive interaction supported by accurate information and knowledge	O'Farrell (2000)	3.5.1
- communication or information flow	Bryant (2000)	3.5.1
- communication roles, needs and resources	Opubor 2000	3.7
- community communication system view point		

Table 10: Summary of suggested Business and Performance Management Elements/Considerations

Chapter 4 – Diagrammatic Overview



Chapter 4 – Conceptual Framework

4.1 Introduction

Following the literature review conducted in chapters two to four the author is now in a position to propose a conceptual model the implementation of which aids to facilitate improved support of the rural community media sector.

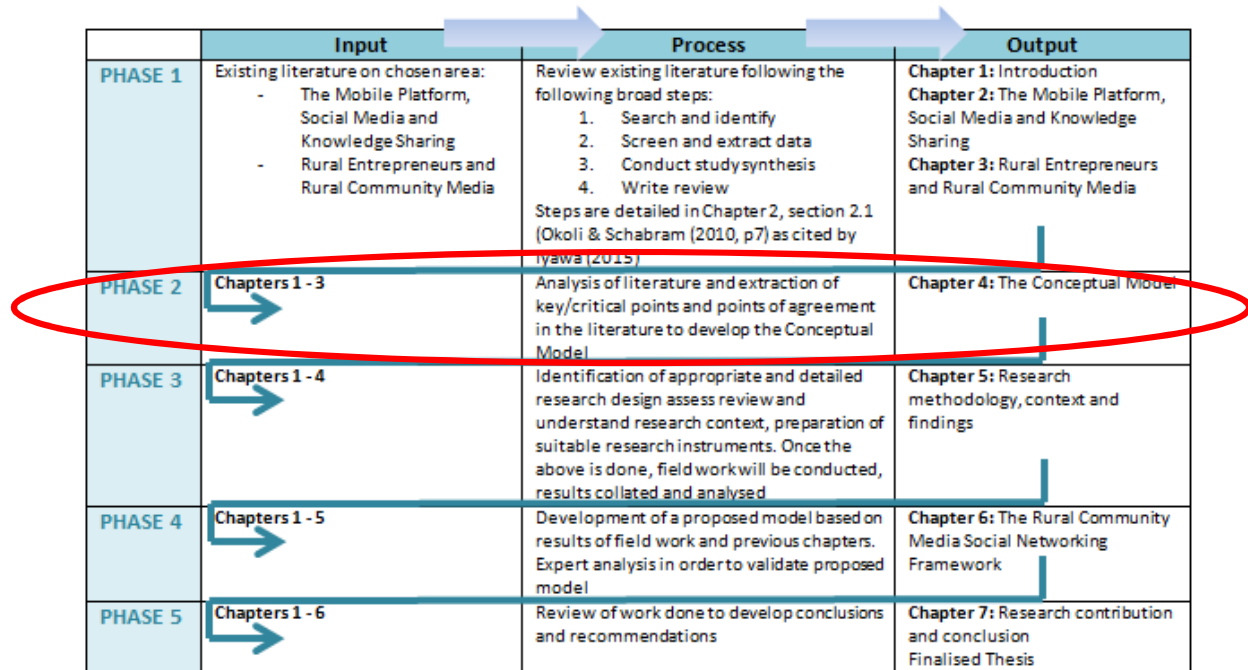


Figure 33: The Research Process Chapter 4

The figure above indicates the phase that the author will now be commencing. A detailed literature review has been undertaken, with the author compiling and discussing the thoughts of key authors related to the following subject areas:

- The mobile platform, social media and knowledge sharing
- Rural entrepreneurs and rural community media

The findings from these two literature sections have been summarised at the end of Chapters 2 and 3. These critical points will now be utilised to develop and present a conceptual model in the section that follows.

4.2 The Rural Community Media Mobile Social Networking Conceptual Framework

The author has completed the literature review component of this study. The outcome of this process is a conceptual framework that will be presented below. In so doing it is important that all the elements or considerations identified in each chapter of the literature review as significant for the development of a social networking framework for the support of rural based community media be presented holistically.

Key categories of findings based on the literature review conducted are as follows:

- Technology related conceptual elements/considerations
- Knowledge management related conceptual elements/considerations
- Business and performance management conceptual elements/considerations

Technology related conceptual elements/considerations are tabulated below:

Technology Conceptual Elements/Considerations		
Component	Author	Section
Delivery via mobile platform	Murthy (2011) Cranston and Davies (2009) UNESCO (2013) Deloitte (2012) World Wide Worx (2012) UNICEF (2012)	2.3
Compatibility with mobile device/mobile OS	Souppaya and Scarfone (2012) Huang (2008) Ouma (2013)	2.3.1
Means to overcome mobility challenges	Harrison, Flood and Duce (2013)	2.3.3
Delivery via social media	Xu (2013)	2.4
Compatible with web 2.0 technologies, allow for web-based user-generated content, capabilities for creating and sharing content, exploring information spaces, and socialising within a virtual community	Zigkolis, Kompatsiaris and Vakali (2007)	2.4.1
User-generated content	Neuman (2009)	2.4.2
Web based services that facilitate development of profiles within a defined system, identification of users with whom to engage. Examples are Facebook and LinkedIn	Dewing (2012)	2.4.2

cost effective communication platform section	Deloitte (2012)	2.4.3
Transmit information or communicate utilising combinations of voice and data devices on a network. contributing and consuming social media across a mobile network, 4 th generation services	Lane, Walton-Flynn and Benlamlih (2008)	2.5
Allow/enable ability to: - Increase brand awareness - Market services - Provide product and service info - Provide business advice - Engage with other businesses	Vitis Public Relations (2014)	2.4.2
Usability considerations/Technology acceptance and adoption considerations	Malhotra and Galleta (2000)	2.6.1
	Thompson, Higgins, and Howell (1991)	2.6.2
- Ease of use	Hess, Joshi, & McNab (2010)	2.6.3
- Fit for purpose	Tornatzky and Fleischer (1990)	2.6.5
- Simplicity	Venkatesh, Morris, Davis, & Davis (2003)	2.6.6
	Goodhue and Thompson (1995)	2.6.7

Table 11: Technology Conceptual Elements/Considerations

Technology elements/considerations can be summarised as follows:

- **Mobile platform:** mobile was identified as a delivery component due to its pervasiveness. In order to cater for mobile the framework needs to ensure compatibility with mobile devices and mobile OS as well as ensure means for overcoming the various challenges introduced by mobile

- **Social media:** specifically social networking represented by the likes of Facebook was selected as a delivery component. In so doing the framework must ensure compatibility with web 2.0 technologies, allow for web-based user-generated content, include capabilities for creating and sharing content, exploring information spaces, and socialising within a virtual community. The framework must enable basic social networking functionality which includes provision of web based services that facilitate development of profiles within a defined system, identification of users with whom to engage. Examples are Facebook and LinkedIn. In addition to this the framework if implemented should cater for communication in a cost-effective manner over both voice and data networks
- **Usability Considerations:** these were based on various technology acceptance and adoption models and specifically spoke to ease of use, fit for purpose and simplicity. The framework must cater for usability considerations in order to ensure that the technology element of the framework will be accepted and used by the selected user community

Knowledge management related conceptual elements/considerations are tabulated below:

Knowledge Management Conceptual Elements/Considerations		
Component	Author	Section
Appropriate technologies/infrastructure - Ability to organise, search, locate - Including the following: - Taxonomy/knowledge map - Internet/electronic database - Content management solutions/document management - Web conferencing - Threaded discussion groups - Automated workflow - Expert Directories - Data mining/decision support tools (BI) - content management systems: external and internal information resources and systems that support the creation and management of information and knowledge	UNESCO (2013)	2.7.1
	Uriatre (2008)	2.7.1

- programs for managing content and roles and responsibilities to enable the maintenance and upkeep of content - workflow which define how content is created and routed throughout the system - technology: implementation and design of ICT to support various knowledge management processes and activities	Gretsch, Mandl and Schätz (2012)	2.7.1
Knowledge domain - specific context or work space - shared practice, common interest	Uriatre (2008) Karvalics (2012) Keyes (2006)	2.7.1
Management and organisation/supportive structure - People and culture: org structure, hr practices, org culture - HR process: recruitment, training, performance man, career management, compensation - human: promotion and creation of knowledge, skills and competencies forming continuous learning - organisation: development of an enabling environment and culture - creation of a supporting framework	Uriatre (2008) Gretsch, Mandl and Schätz (2012)	2.7.1 2.7.1
KM Process - knowledge creation, structuring, dissemination and application - interfaces between knowledge community members, sharing and grouping of knowledge	Uriatre (2008) Bose (2002) , Campbell (2012)	2.7.1 2.7.1
Knowledge Ecosystems	Por (2001) Karvarlics (2012) Lornord (1999)	2.7.2
- flexibility - self-sustaining, self-regulating and self-	Malhotra (2002) Por (2001)	2.7.2

organising, with penetrable borders		
- framework, technology, collaboration	Por (2001)	2.7.2
- tools, and practices		2.7.3
- interrelating and dependent social, cultural and political subsystems	Malhotra and Galleta (2000)	2.7.2
- the creation, flow and use of knowledge within an environment		
- knowledge valued in the performance of daily activities		
- development and mobilisation of collective intelligence	Lornord (1999)	2.7.2
- knowledge repository	Lornord (1999)	2.7.2
- intertwined knowledge assets, databases, experts, and artificial knowledge agents	Por (2001) Shrivastava (2014)	
- productive conversations	Por (2001)	2.7.2
- open exchange	Shrivastava (2014)	
- people networks, knowledge networks, technology networks		2.7.3
- Technical dimension, Cognitive dimension, Social-emotional dimension	Ng (2012)	2.7.3
Community of practice	Karvalics (2012)	2.7.4
- shared intelligence and collective wisdom		
- self-organising networks that share knowledge		
- organisational learning, a domain of knowledge, community of people, shared practice/common interest		
- peers that formulate groups in order to learn from each another, subject of common interest	Uriatre (2008) Keyes (2006)	
- group of individuals who share common working practices		
- Resources to manage, maintain and support the community	Keyes (2006)	2.7.4

Table 12: Knowledge Management Conceptual Elements/Considerations

Knowledge management elements/considerations can be summarised as follows:

- **Appropriate technology:** the framework needs to comprise technology components to enable knowledge management, specifically content management, knowledge repositories, workflow and decision support
- **Knowledge domain:** the knowledge management component needs to be focused on a specific domain or specific area of interest. The chosen domain for this study is rural community media
- **Management/organisational support:** this item is identified as critical for the success of a knowledge practice. This component includes organisational structure, human resources/people and development of a culture that supports the knowledge practice
- **Knowledge management processes:** the framework needs to comprise the knowledge management process in order to ensure that the process is supported. Process steps include knowledge creation, structuring, dissemination and application
- **Knowledge ecosystem:** defined as interrelating and interdependent social, cultural and political subsystems that inform the creation, flow and use of knowledge within an environment, comprising framework, technology, collaboration, tools, and practices. A basic knowledge ecosystem is made up of people networks, technology networks and knowledge networks
- **Community of practice:** peers that form groups to learn from one another regards a subject of common interest and resources to manage, maintain and support the community

Business and performance management related conceptual elements/considerations are tabulated below:

Business and Performance Management Conceptual Elements/Considerations		
Component	Author	Section
News production value chain	Leurdijk, Slot and	3.6
Content Creation, Marketing	Nieuwenhuis (2012)	3.9
Production, Distribution, Consumption, Monetisation	The Print and Digital Media Transformation Task Team (PDMTTT, 2013)	
	Furnes and Ravlo (2014)	3.6
	Loyd (2015)	3.6

Training Resources/Support		Milne and Taylor (2006)	3.9
		Brown (2013)	3.10
	- Training and skills	Freire-Gibb and Nielsen (2014)	3.5
	- Education and training	GEM (2012)	3.4
	- increasing the capacity of individuals or groups to make decisions they can act on	Soeftestad, Alinin, Flyman, Kleibl and Die (2004)	3.5.1
	- Access to relevant info and knowledge	Duncombe (1999) and Heeks, (2014)	3.5.1
Community Context			
	- Understanding of operational context	Opubor (2000)	3.9
		The Print and Digital Media Transformation Task Team (PDMTTT, 2013)	
		Duncombe and Heeks (2001)	3.3
Appropriate business model/performance management framework/BMC			
		Huyett and Viguerie (2005)	3.10
		Ferreira, Shamsuzzoha, Toscano and Cunha (2012)	3.11
	- Focus, flexibility, transparency	Burkett (2013)	
		Garner (2015)	
		Cowan (2013)	
		Bendixen and Jepsen (2013)	
Co-ordinated Plan for Support			
	- co-ordination, engagement and support	The Media Development and Diversity Agency (MDDA, 2008)	3.9
	- voluntary affiliation, innovation, empowerment, public-private partnerships		
	- negotiated set of protocols is required to govern the community, protected and supported environment		
Performance Measures			
		Ferreira, Shamsuzzoha, Toscano and Cunha (2012)	3.10`
	- Supportive Infrastructure for sharing Data/	Huyett and Viguerie (2005)	

Information/Knowledge			
-	set of measures used to assess and classify organisational performance		
Creation of enabling environment			
	GEM (2012)		3.4
-	institutional, socio-cultural, economic and personal support	Baumgartner <i>et al</i> (2013)	3.5
-	Vertical integration support	PMDTT (2013)	3.9
-	Marketing info		
-	Assistance to overcome barriers to entry		
Access to information and knowledge			
-	information on market dynamics	GEM (2012)	3.4
-	access to research and development	Freire-Gibb and Nielsen (2014)	3.5
-	information on labour and other resources	Chapman and Slaymaker (2000)	3.5.1
-	people and information base required to provide suitable support for key choices and operations	Horn and Harvey (1998)	3.5.1
-	exchange of ideas, information and meaning in the process of defining, creating and maintaining a collective identity	Opubor (2000)	3.7
Communication Platform			
-	spurring an exchange of knowledge	Freire-Gibb and Nielsen (2014)	3.5
-	two-way communication	Wanyeki (2000)	3.7
-	productive interaction supported by accurate	O'Farrell (2000)	

information and knowledge		3.5.1
- communication or information flow	Bryant (2000)	3.5.1
- communication roles, needs and resources	Opubor 2000	3.7
- community communication system view point		

Table 13: Business and Performance Management Conceptual Elements/Considerations

Business and performance management elements/considerations can be summarised as follows:

- **News production value chain:** knowledge and support provided relevant to the news production value chain is critical. Rural community media challenges are related to certain or all elements of the news production value chain. Value chain steps include content creation, marketing, production, distribution, consumption and monetisation
- **Training resources/support:** a lack of employees with the required skill set is identified as a gap for these businesses. As such specific focus on training is required to provide support to rural community media
- **Community context:** an understanding of the community that the business is operating and the specific challenges experienced in that context is critical to ensuring adequate support
- **Business model canvas:** the BMC was identified as a model that could assist with planning and performance management in the rural community media space
- **Co-ordinated plan for support:** it was identified as critical to have a co-ordinated plan for support of the rural community media environment
- **Performance measures:** a set of measures used to assess and classify organisational performance was identified as a key framework component
- **Creation of an enabling environment:** specifically catering for institutional, socio-cultural, economic and personal support

- **Access to relevant information and knowledge:** this element speaks to access to domain specific information and knowledge that can facilitate the operation of rural community media
- **Communication platform:** comprising productive two-way interaction based on the community communication system viewpoint

The figure below provides a graphical representation incorporating the all the elements detailed above:

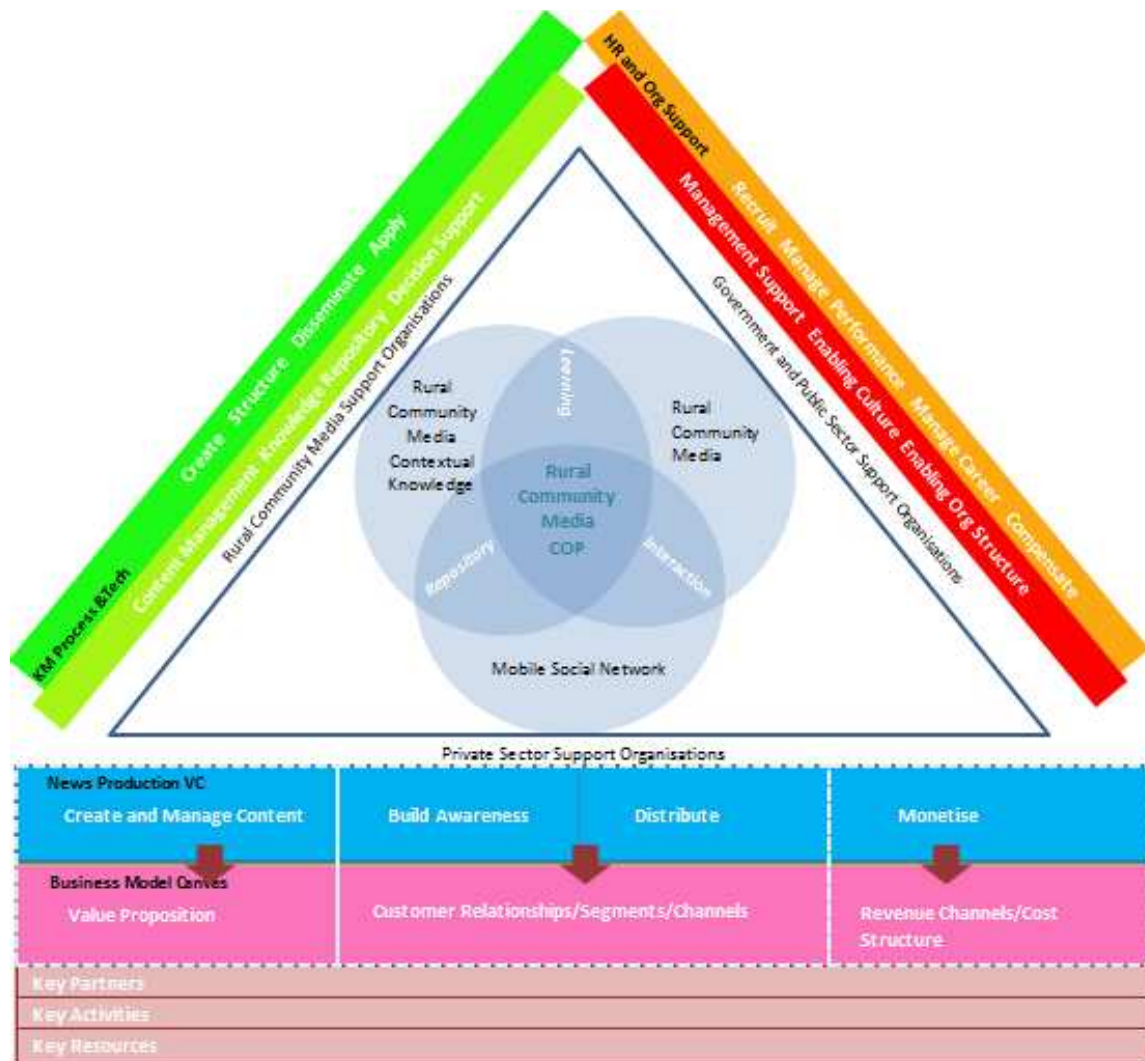


Figure 34: The Rural Community Media Mobile Social Networking Conceptual Framework

The model above is based on the triple network as defined by Por (2001) comprising the following elements:

- **People Networks**
- **Knowledge Networks**

- **Technology Networks**

In the context of this research the elements of the triple network are defined as follows:

- **Rural Community Media:** referring to the rural community media entrepreneurs and those employed within their SMMEs and the ways in which they organise collaboration.
- **Rural Community Media Contextual Knowledge:** referring to the connections between the ideas generated by rural community media entrepreneurs in the course of normal day to day activities and through their collaboration, as well as the interaction of knowledge between them.
- **Mobile Social Network:** referring to the mobile social network as the technology base that supports communication and collaboration for knowledge creation, sharing and utilisation amongst the rural community media entrepreneurs.

The above elements come together to create the rural community media community of practice and in so doing produce the following additional components:

- **Learning:** this takes place at the intersection of the rural community media entrepreneurs and rural community media contextual knowledge, involving the engagement of the entrepreneurs with knowledge and the creation and sharing of new knowledge amongst them
- **Interaction:** this takes place at intersection of rural community media entrepreneurs and the mobile social network, involving the engagement of rural community media entrepreneurs with the mobile social network, thus enabling communication and collaboration in various forms supported by technology
- **Repository:** this takes place at the intersection of rural community media contextual knowledge and the mobile social network, involving the ability to store knowledge generated by learning and interaction through technology. The repository also supports and captures continuous learning and interaction

The framework demonstrates the creation of public/private partnerships and a focused environment for rural community media SMME support represented by the triangle within which the community of practice resides. The components immediately surrounding the community of practice are the following:

- **Rural community media support organisations:** this refers specifically to organisations formed to support rural community media in the Eastern Cape.

- **Government and public sector support organisations:** this refers specifically to public sector organisations such as the MDDA formed to support rural community media
- **Private sector support organisations:** this refers specifically to private sector organisations formed to or existing organisations that agree to support rural community media

The framework is built on the news production value chain and the Business Model Canvas elements:

- **The news production value chain** is included for the purposes of ensuring support based on specific elements of the value chain enabling rural community media to engage and/or organise collaboration on any of the value chain elements.
- **The Business Model Canvas:** The BMC was identified as a suitable business model on which to base the development of business strategy, performance management and associated KPIs to enable effective operations of rural community media organisations.

The model also specifically indicates interaction and/or relationship between the following elements of the news production value chain and the BMC, summarised in the table below:

News Production VC Component	BMC Component	Relationship
Create and Manage Content	Value Proposition	The nature and type of content produced by the rural community media SMME is one of the key differentiating elements of their product, representing the value proposition that the SMME provides to their select customer base. Linking the two elements enables the SMME to ensure that it strongly differentiates itself in the market based on the nature of their product/service
Build Awareness/Distribute	Customer Relationship/Segment/Channels	The process element comprising building awareness and distribution will depend heavily on the rural community media SMMEs customer base as far as customer relationships, customer segment and customer channels are concerned. Identifying customers on the basis guided by the BMC will form a key influence for

		these two value chain components
Monetise	Revenue Channels/ Cost Structure	The ability to generate revenue, or monetise, at the end of the news production value chain links with the identified revenue channels and cost structure of the rural community media SMME products or service. Defining and understanding the revenue channel and cost structure of the specific SMME will enable the ability to effectively carry out the monetise step of the value chain process

Table 14: Relationship between News Production VC and the Business Model Canvas Elements

The infrastructure elements of the BMC; Key Activities, Key Resources and Key Partners represent enabling elements that cut across all process steps in the news production value chain. As a result they are depicted as cutting across and supporting all the news production value chain steps in the conceptual framework.

The conceptual framework specifically incorporates the knowledge management process and technology identified as supporting knowledge management. This is depicted to the left of the conceptual framework. Knowledge management process steps include the creation, structuring, dissemination and application of knowledge. The technology identified as supporting the knowledge management process specifically comprises Content Management, Knowledge Repository and Decision Support. The inclusion of the knowledge management process and supporting technology is to demonstrate the strong focus on knowledge management in the framework, not just knowledge sharing. The specific elements mentioned were identified as key during the literature review.

The conceptual framework also specifically incorporates HR and organisational support elements. The HR component is built to support the HR process by incorporating recruitment, performance management, career management and compensation. The organisation component includes management support, enabling culture and an enabling organisational structure. These elements were specifically identified in the literature review as key to enabling an effective knowledge management and knowledge sharing environment.

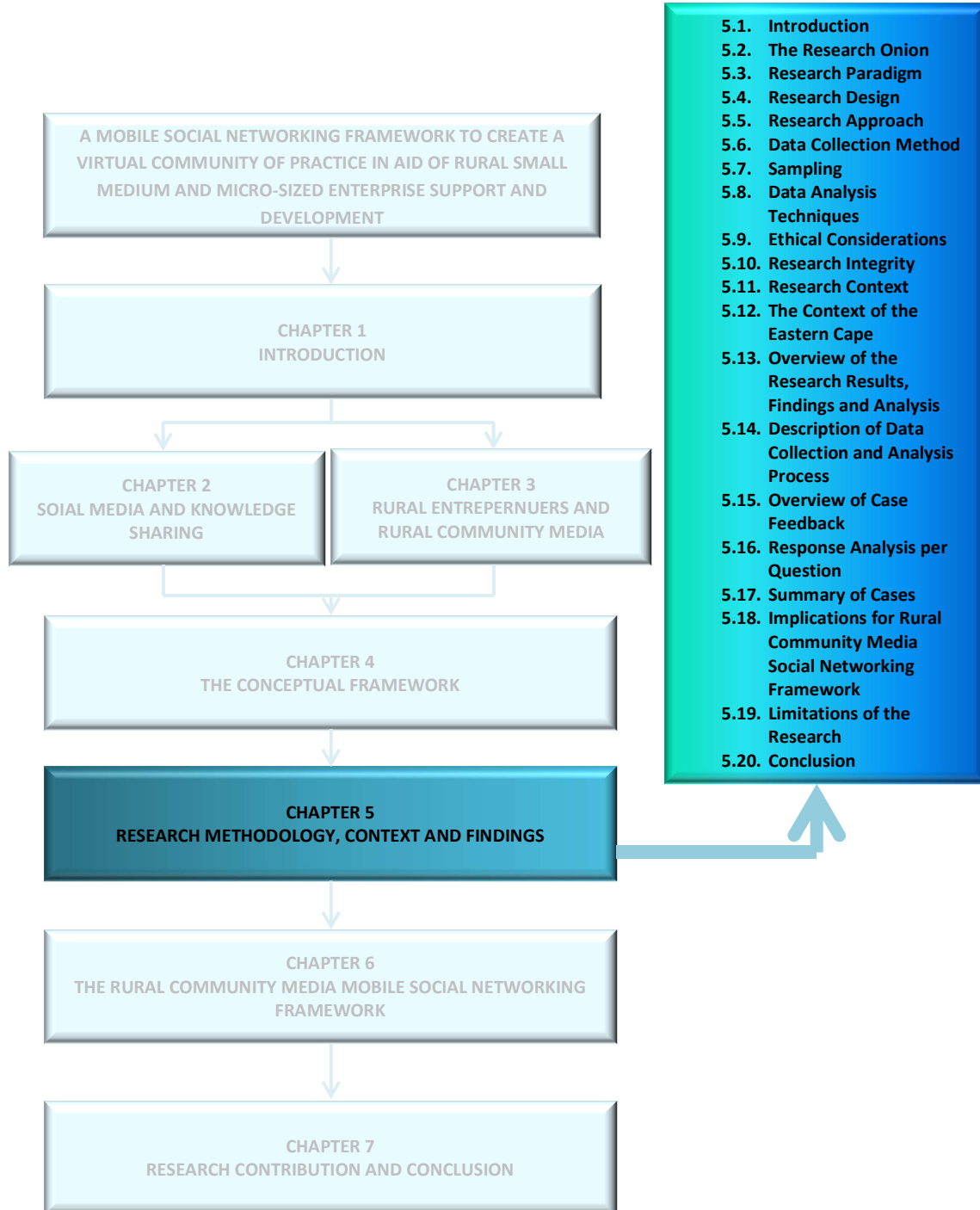
4.3 Conclusion

The conceptual framework depicted and described in this chapter contains all the elements identified as key in the literature for creating a mobile social networking framework to enable a virtual community of practice in aid of improved rural community media operational efficiency.

The author has now concluded development and explanation of the conceptual framework. In order to confirm the conceptual model and obtain additional validation for the elements suggested the author will

present the context of the Eastern Cape and findings of field work conducted as part of this study in the chapter that follows.

Chapter 5 – Diagrammatic Overview



Chapter 5 – Research Methodology, Context and Findings

5.1 Introduction

The author is now commencing Phase 3 of the research which involves identification and implementation of an appropriate and detailed research methodology, ensuring understanding of research context and the preparation of suitable research instruments. Following this the fieldwork will be conducted, data collected, collated, analysed and presented.

The figure below indicated the current phase of the research process:

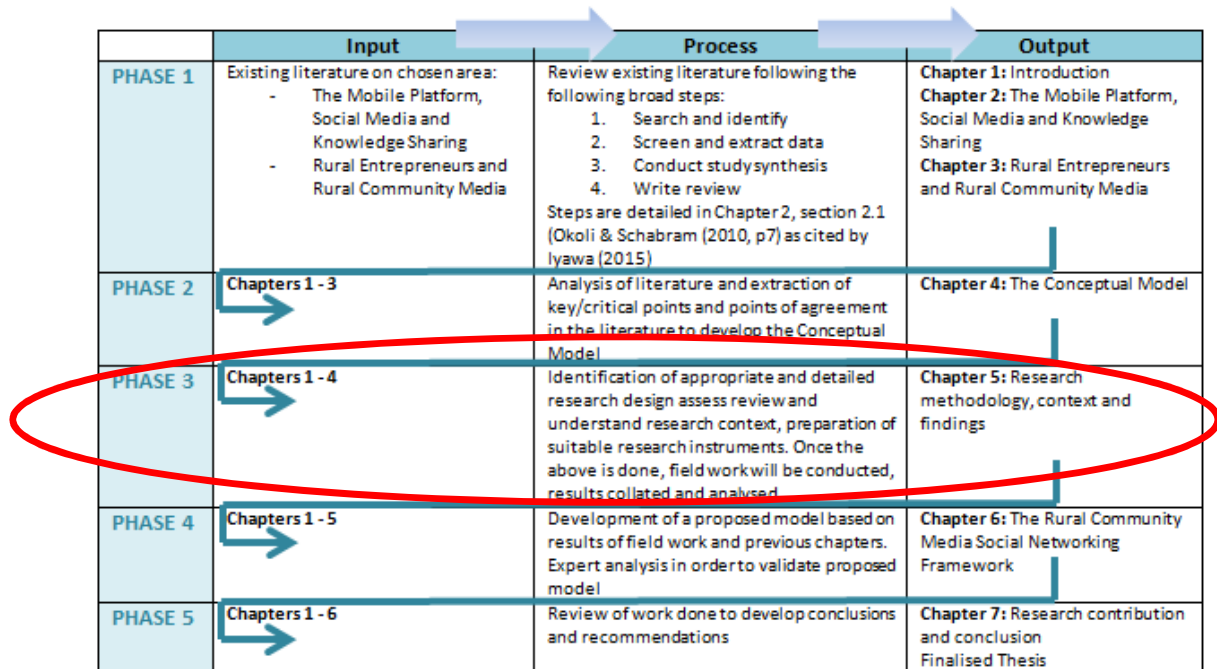


Figure 35: The Research Process Chapter 5

Quinlan (2011) advises that research methodology must suitably support the research as well as enable and facilitate its completion. Fit between research methodology and the research project is critical (Quinlan, 2011). Once the researcher develops clarity on the subject matter of the research, research design can take place. This process incorporates thinking about the nature and purpose of the study and the selection of a research methodology that can best derive and support stated research objectives (Quinlan, 2011).

This research seeks to answer the following research question:

How can a framework for mobile social networking support/enhance rural SMME's through the creation of virtual communities of practice?

The main research question is broken down into the following sub-questions:

Sub-problem1: What are the building blocks for a mobile social networking framework for SMMEs, which utilises virtual communities of practice as a vehicle?

Sub-problem 2: What are the knowledge sharing needs of rural SMME's?

Sub-problem 3: How can a virtual community of practice facilitate knowledge sharing, improved business support and socio-economic impact for rural SMME's?

Sub-problem 4: How do SMME's make use of mobile social networking to enhance their businesses?

Sub-problem 5: What different social networking possibilities exist that can support SMME's?

Methodological congruence can be defined as the fit between the research problem and the research question, the research question and the research method and the research method and research data (Morse and Richards, 2002). As a result it is important that the paradigm, design and method fit the stated aims and intent of the research.

The chosen research methodology provides a detailed guideline that delineates how the researcher seeks to go about answering the above-mentioned research question and sub-questions. The research methodology outlines the perspective that the researcher applied when conducting the research and specifies how various data sources were engaged. The methodology also comprises a comprehensive view of how the data was collected and analysed. Understanding the research methodology applied will assist readers in appropriately interpreting the research and the research outcomes. This study aims to develop a mobile social networking framework in order to create a virtual community of practice in aid of improved rural community media operational efficiency.

This research applies social constructivism as a basis. The researcher has chosen to utilise interpretive research methodology and a qualitative research design. The chosen research approach is the case study method. Data collection will be conducted via interview, documentation review and direct observation. The data will be analysed via application of the cross-case data analysis technique.

5.2 The Research Onion

In developing the research methodology the research onion from Saunders, Lewis & Thornhill (2015) was utilised. The research onion illustrates numerous layers depicting multiple perspectives to be considered when designing and implementing an appropriate research methodology. Layers of the research onion summarise the research design components of research philosophy, research design, research approach, data collection and data analysis methods. The research onion is illustrated in graphically below:

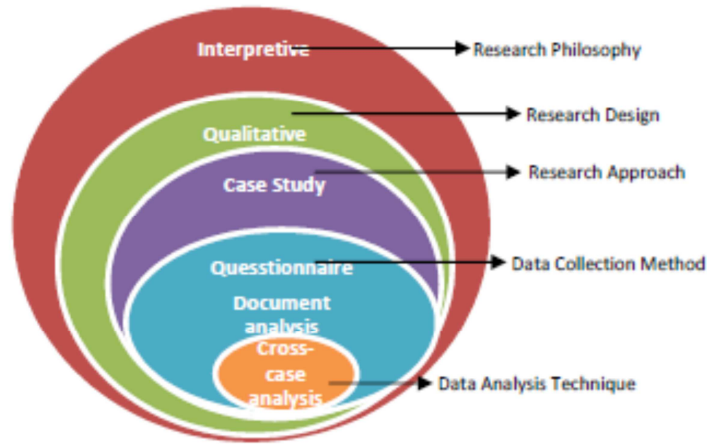


Figure 36: The Research Onion, (Saunders, Lewis and Thornhill, 2015)

The figure above indicates the choices of research philosophy, design, approach, data collection method and data analysis technique that will be applied in this research based on the Saunders *et al* (2015) research onion.

The research onion (Saunders *et al*, 2015) presented above, compares the research processes to peeling different layers of an onion until the centre has been reached, with the centre of the process being the analysis of collected data. Each of these layers is discussed in more detail below:

5.3 Research Paradigm

The aim of research philosophy is to broadly define what you are doing. This is depicted in the first layer of the research onion and assists in framing the context regarding how you will be embarking on your research exercise. This study makes use of interpretive research methodology.

5.3.1 Interpretive Research Methodology

Interpretive or hermeneutic philosophies undertake that truth is socially constructed. Their principal aim is to determine or produce meaning held by respondents through “transcending facts and causal analyses” in order to investigate how they are constructed (Gerhardt, 2004, p. 13). Gerhardt (2004) adds that interpretive research generally starts with observation followed by seeking supportive data which supports, contradicts, or leads to new conclusions. The search for supportive or mismatched data enhances the researcher’s ability to defend a position or examine processes further (Gerhardt, 2004).

The aim of interpretive research is the identification, exploration and explanation of related factors within a specific social setting for the purpose of creating an in-depth understanding of a unique context (Saunders *et al*, 2015). This meets the aims of this study, as this process will assist in understanding the context of rural community media entrepreneurs, the SMMEs they operate and the constraints that impact them in order to develop a framework that can facilitate their effective operation.

The table below details the interpretivist stance adopted in this study as it relates to research purpose, ontology, epistemology and the methodology based on Creswell (2009):

Assumptions	Description	This study
Research purpose	Understand and interpret social structures and the meaning people give to the phenomena	Understand the rural community media context and how to develop a mobile social networking framework in order to create a virtual community of practice in aid of improved rural community media operational efficiency
Nature of reality (ontology)	Reality is subjective and there are multiple and different constructs as perceived by participants in the study	Themes are used to present evidence of different perspectives.
Nature of knowledge (epistemology)	The researcher is a participant observer, making contact with the research subjects	The researcher collaborates with the participants in an interactive process while conducting the fieldwork
Methodology	The researcher uses inductive reasoning to provide rich data for theory building	The researcher describes the context of the study in detail in order to provide rich data

Table 15: Interpretivist Assumptions Applied in this Research (Creswell, 2009)

Paradigms are defined by Creswell (2009) as a worldview or set of beliefs that guide action. He (Creswell, 2009) goes on to define four different paradigms, highlighted in the table below:

Postpositivism	Constructivism
- Determination - Reductionism - Empirical observation and measurement - Theory verification	- Understanding - Multiple participant meanings - Social and historical construction - Theory generation
Advocacy/Participatory	Pragmatism
- Political - Empowerment issue-orientated - Collaborative - Change-orientated	- Consequences of actions - Problem-centred - Pluralistic - Real-world practice orientated

Table 16: Four Worldviews (Creswell, 2009)

5.3.2 Social Constructivism

The theoretical base for this study is Social Constructivism. Kim (2001) sites Derry (1999) and McMahon (1997) as stating that Social Constructivism emphasises culture and context as significant in understanding how

society functions and the manner in which it creates and shares knowledge. Creswell (2009) states that social constructivism is seen as an approach to qualitative research and is often combined with interpretivism. Social constructivists believe that individuals seek to make sense of the world they live in (Creswell, 2009) and believe that reality is constructed socially and culturally through human activity with meaningful learning taking place through engagement in social activity (Kim, 2001).

The objective of this kind of research is to rely on participants' views of the situation at hand by outlining comprehensive and wide-ranging questions allowing participants to build and expose the meaning of a situation (Creswell, 2009). Views uncovered tend to be socially negotiated and developed through interaction with others based on the historical and cultural norms operating in people's lives (Creswell, 2009). Creswell (2009) cites Crotty (1998, p. 8) as identifying several key assumptions made when utilising this paradigm:

- Meaning is constructed by people through their engagement with the world. Researchers utilising the qualitative method generally utilise open-ended questions in order to allow participants to share their views
- The historical and social perspectives of people form the basis on which they engage with and make sense of the world. As a result qualitative researchers pursue understanding of the setting and/or context of the participant environment by visiting this context and gathering information personally. In addition to this findings are interpreted based on their own experiences and background
- Meaning is always generated through social means arising from community interaction. The qualitative research process tends to be generally inductive, the researcher generates meaning from data collected in the field

This theoretical base suitably meets the aims of this research, which seeks to understand the experience of rural community media for the purposes of developing a mobile social networking framework in order to create a virtual community of practice in aid of improved rural community media operational efficiency. The context of business operation significantly impacts the experience of these entrepreneurs' in regards to the challenges faced and the methods employed in order to ensure success. As a result understanding context and individual experience becomes an important factor in this research.

5.4 Research Design

Research design is a plan, structure and strategy of investigating a stated problem in order to obtain answers to questions (Saunders *et al*, 2015). Gerhardt (2004) adds that research design generally falls into two broad categories, qualitative or quantitative, each with differing underlying approaches, tools and techniques.

Creswell (2009) states that research design also specify strategies of inquiry or models that provide a specific direction for various research procedures undertaken. Three broad strategies of inquiry are detailed in the table below:

Quantitative	Qualitative	Mixed Methods
- Experimental designs	- Narrative research	- Sequential
- Non-experimental designs such as surveys	- Phenomenology	- Concurrent
	- Ethnographies	- Transformative
	- Grounded theory	
	- Case study	

Table 17: Alternative Strategies of Inquiry (Creswell, 2009)

According to Morse and Richards (2002) creating research design involves the following steps:

- **Establishing Purpose:** This involves ensuring that you are clear on what you are doing and why
- **Methodological Location:** This involves selecting a research method that is appropriate to the research question
- **Scoping:** This involves defining the scope of the project
- **Planning the Nature of Data:** This involves deciding what kind of data will be relevant to the study
- **Thinking Ahead:** This means working with an end goal in mind in regards to what the research is meant to achieve

In regards to the above-mentioned points this research aims to develop a mobile social networking platform for the purposes of creating a virtual community of practice in order to improve the operational efficiency of rural community media. The current chapter aims to detail the selected research methodology, however in summary the chosen research methodology is as follows:

- **Research Philosophy:** The interpretive research philosophy was chosen for this study
- **Research Design:** The qualitative design was chosen for this study
- **Research Approach:** The case study approach will be used in the study
- **Data Collection Techniques:** Primary and secondary data will be used as the source of data in this study. Primary data will be collected through implementation of a questionnaire and expert reviews, while the secondary data will be collected through literature review. Hermeneutics will be used as the data collection technique in this study.
- **Data analysis:** Cross-case data analysis will be applied and triangulation

The fieldwork will be conducted on rural community media SMMEs based in the Eastern Cape Province of South Africa.

5.4.1 Qualitative Research

This research will make use of qualitative research design. Strauss & Corbin (1998) state any research which produces findings not based on statistical means or procedures is classed as qualitative. Qualitative research is stated as enabling all-inclusive data examination generally based on interviews, observations, or focus groups, concentrating predominantly on life experiences, social processes, and organisational structures and settings (Strauss & Corbin, 1998).

Every qualitative method characterises a distinct way of thinking about data and using techniques to manipulate data and achieve stated objectives. Achieving methodological congruence means that the method applied to solving the research problem provides the researcher with the “right” way of thinking in order to collect, analyse and order data such that they can arrive at an acceptable solution. It is necessary to highlight that irrespective of method all qualitative research seeks to understand data that is complex and can be approached only in context (Morse and Richards, 2002).

Morse and Richards (2002) state that qualitative research methods are the best in cases where:

- The research aims to understand an area that not much is known about or in which previous understanding seems inadequate
- The purpose of the research includes understanding a complex situation, multi-context data or changing and shifting phenomena
- The purpose includes learning from participants in a particular setting or processes from the perspective of how they experience it
- The purpose includes constructing theory or theoretical framework that reflects reality
- The purpose includes understanding a particular situation/experience in detail

The items listed above correspond with the stated aims of this study, confirming the qualitative method as suitable. Morse and Richards (2002) add that as the research purpose links to the research question, and the research question to the type of method, while the method points to the type of data to be collected.

Spoken and written text from the basis of information collected which is also generally not constrained by predetermined categories as is generally the case in quantitative research, allowing resulting theory to be inductive and “grounded” in the data with understanding and perception recorded to demonstrate circumstances as respondents perceive them (Gerhardt, 2004). In fact, Ulmer & Wilson (2003) as cited by Gerhardt (2004) identify advantages of qualitative research over quantitative research as having the ability to more accurately reflect the truth, this is due to quantitative research being unable to accurately quantify “abstract concepts such as emotions, culture, social organisation or social relationships...” with validity, implying difficulty in quantifying life experience and social processes (Gerhardt, 2004, p. 253).

Gerhardt (2004) adds that due to all of this qualitative research is valued due to its depth and ability to expose and understand mechanisms on which behaviour is founded and meaning is made, making it useful in meeting the stated aims of this research. Gerhardt (2004) adds that qualitative research that is triangulated, replicable and characterised by rich description is considered more successful. As such the research will also utilise triangulation in order to further validate results.

5.5 Research Approach

This section details the research approach to be applied in this study.

5.5.1 Case Study Method

The case study method has been selected as the research method to be used for this study. Quinlan (2011, p. 182) defines a case study as “an in-depth study of a bounded entity. “The reason for this choice includes the ability to collect evidence across a wide variety of sources ranging from documentation analysis to surveys. Utilisation of the case study method will facilitate description of the real-life context in which an intervention occurs, description of the intervention itself and explanation of causal links (Morse and Richards, 2002). This will be done in order to highlight the effect of context on rural community media operation and uncover components to be included in a mobile social networking framework that can support creation of a virtual community of practice in order to improve rural community media operational efficiency.

Olivier (2009) advises that the appeal of case studies is that they allow one to obtain in-depth information about specific cases. Quilan (2011) adds that instead of breadth, as far as numbers of participants go, case study research calls for depth, delving into the detail of specific cases. The multi-perspectival characteristic of the case study method means that the researcher is able to consider the opinion and perception of specific respondents, as well as the relevant groups of actors and the interfaces between them (Morse & Richards, 2002). This will allow the researcher to obtain a more holistic view of the rural community media operational context aiding in the identification of suitable framework components that can ultimately assist in strengthening the resultant framework and meeting the aims of applying it in order to improve rural SMME operational efficiency.

This study requires the analysis of the context through interaction with identified participants, the case study method has been chosen because it will facilitate this kind of analysis. Although the case study methodology has been scrutinised and criticised at various intervals since the 1930's, the case study becomes an appropriate research methodology as it is an ideal in situations where holistic, in-depth investigations are required (Feagin, Orum, and Sjoberg, 1991).

This study requires an analysis across a broad spectrum of sources while simultaneously remaining focused on uncovering specific issues pertinent to gaining a deeper understanding of the identified problem situation. The case study methodology selected for this research supports this requirement, as it is designed to uncover specifics based on the perceptions of the respondents by using multiple sources of data (Tellis, 1997). This

facilitates the goal of revealing various environmental issues while retaining the ability to remain discerning, concentrating on specific matters which may be key to understanding the case being studied (Tellis, 1997).

Yin (1994) described four applications for a case study, these included:

- To clarify intricate underlying associations in actual interventions
- To define actual sceneries in which the intervention has occurred
- To define the intervention itself
- To ascertain conditions in which the intervention being assessed has unclear consequences

In the context of this research the case study will be applied in order to explain the causal links in respect to the operational context and experience of rural community media, this will assist in establishing understanding regards the current rural community media context, the challenges they face and the opportunities present within their context that can be built upon to assist them. The case study will also assist in describing the real life context of rural community media.

5.5.2 Multiple Case Study

The research questions outlined as "how", "what", "who", "where", and "why" define the appropriate approach to be utilised (Tellis, 1997). The case study method includes a predominance of what and how questions. This means that the strategy chosen by the researcher falls under the exploratory sub category, where the researcher attempts to explore a specific situation with the aim of gaining clarity for the purposes of explaining it.

Yin (1994) states that there are two case study types, these are:

- **Single case study:** involving analysis of a single unit and used to examine a concept or to epitomise a distinct case
- **Multiple case studies:** this involves more than one case and enables the collection of big quantities of information from dissimilar sources.

A richer understanding of a specific phenomenon is generally realised through implementation of multiple case study (Yin, 1994).

This research will make use of multiple case study as a research method. This means that a number of cases are studied and then compared and contrasted with each other. The case studies will take place in the Eastern Cape province of South Africa.

Participants for the case study were all rural community media SMMEs operating in the Eastern Cape. The author obtained various directories of rural community media via various support organisations such as the Media Development and Diversity Agency, Association of Independent Press and Eastern Cape Communications Forum and randomly selected 7 cases from the directories provided.

A summary of the cases selected is indicated in the table below:

Case Name	Location	No. of Years in Operation
Case 1	East London	3
Case 2	Phedi	8
Case 3	Mthatha	8
Case 4	Port Elizabeth	2
Case 5	Alice	7
Case 6	Mount Ayliff	5
Case 7	Kokstad	4

Table 18: Summary of Selected Cases

5.5.3 Case Study Questions

Case study questions will be derived from the secondary data analysis and based on outcomes of the literature review conducted. The case study questions will also be based largely on the conceptual framework developed as a result of the literature review.

5.5.4 Analytic Strategy

Yin (1994) states that all research should comprise a general analytic strategy, in order to guide the decisions concerning what will be analysed and the reasons for the analysis. Yin (1994) enumerated various analytic techniques as including pattern-matching, explanation-building, and time-series analysis.

The analytic strategy selected for this research is explanation building. Explanation building comprises pattern matching, in which case study analysis is performed through developing an explanation of the case. While explanation building is largely useful in explanatory case studies, it can also be utilised in exploratory cases as well as forming part of a hypothesis-generating process.

5.5.5 Data Analysis Technique

Triangulation will be utilised as the data analysis technique for this study. Triangulation ensures trusted data, an inclusive view of the issues being studied and enables validation and comparison of findings (Morse & Richards, 2002). Quinlan (2011) defines triangulation as looking at phenomena under investigation from more than one perspective. Gerhardt (2004) supports this, adding that the validity of a study is supported through incorporation of multiple data sources. Quinlan (2011) defines the nature of triangulation that will be utilised in this study as between-method triangulation, due to the fact that this research will accomplish triangulation through the utilisation of different data sources.

Yin (1994) identifies the following as key sources of evidence for case study research:

- documentation,
- archival records,
- interviews,

- direct observation,
- participant observation, and
- physical artefacts

None of the data sources cited has a complete advantage over any of the other data sources rather, data sources may be complimentary when utilised in tandem (Tellis, 1997). As a result of this it is generally stated that case study should ideally utilise all data sources deemed applicable to the research. This study will utilise documentation, direct observation and interviews as primary sources of evidence. Expert reviews will be used to further validate and support findings.

In this research data will be collected through a process of interviews guided by semi-structured questionnaires. Morse and Richards (2002) state that in cases where the researcher knows enough about the topic to develop questions before hand, but not enough to anticipate the answers, semi-structured interviews should be the chosen method of gathering data. The researcher will design open-ended questions and arrange them in a logical order to cover the topic in question. In some cases yes/no questions will be utilised, not as questions to be posed to the respondents, but rather to assist in guiding data organisation and analysis subsequent to data collection.

5.6 Data Collection Methods

Data collection methods describe how data will be assembled for the purposes of scrutiny. This research study will utilise interview and documentation review as data collection methods.

5.6.1 Interviews

Interviews represent a noteworthy base for case study information. This research will utilise semi-structured interviews. Asking questions and seeking answers are seen to be routine practices of daily life (Mishler, 1996). Mason (2002) states that during an interview the interviewer actively engages the interviewee regards issues, topics and experiences relevant to the study. Kvale (1996), in turn describes interviews as means to construct knowledge, with the interviewer endeavouring to comprehend the world from the interviewees perspective. Both definitions describe interviews as being an interactive process of establishing understanding as well as sharing and creating new meaning. The above-mentioned views highlight the appropriateness of the interview process as a key technique for accumulating information and building new knowledge.

Creswell (2009) notes that semi-structured interviews provide a structure that directs the researcher, while also allowing the flexibility for additional information to be obtained and additional possibilities explored. Semi-structured interviews allow for the participant engagement to be initiated in an unstructured manner by presenting primary or generic questions, and then enabling control of the session through the utilisation of additional questions to elicit further information, the interviewer is able to revert to a set of pre-planned questions when interviewee appears to have exhausted their response to the first general question (Creswell, 2009)

The interviews will be conducted in a manner that facilitates participant ease and relaxation. This included enabling self-expression in local language where applicable, the author will make use of an interpreter where necessary in order assist this process.

The interviews were conducted in October 2015, based on the cases selected as described in section 5.5.2. The owners of the rural community media SMMEs were interviewed, this is due to the fact that being the creator and driver of the business they would be most familiar with business operations and various constraints impacting their operational efficiency.

5.6.2 Documentation Review

Secondly, in this study research data will be gathered from documentation review/content analysis. Content analysis is defined as the process or set of techniques for reviewing the material contained in documents for the purposes of obtaining an understanding of a specific context (Morse and Richards, 2002). Documents could be agendas, memoranda, letters, reports, or any items that could be added to a database of research information. The significant value of documentation analysis is the corroboration of evidence gathered from other sources (Tellis, 1997).

The author will review meeting minutes, business plans, and the actual newspaper product. Review of the selected documentation will provide a view of the manner in which the SMME is ran, the strength of governance and management processes and the quality of the product produced as a result of these. Copies of documentation were requested during the interview for review at a later stage where possible.

5.6.3 Observation

Morse and Richards (2002) state that observing is the most natural way of creating data. During observation the researcher examines the environment independently with no involvement of the respondent in order to deduce a specific outcome (Morse and Richards, 2002). Observation involves the physical act of noting specific events and taking notes of what is observed (Morse and Richards, 2002). The author will observe the operational environment of rural community media SMMEs in order to develop further understanding of the context they operate in and how it impacts them. Observation was conducted at the same time as the interviews.

5.7 Sampling

Research design is shaped by the method and is responsive to the context as well as the research participants. Creating design involves seeing the research project at different levels and identifying the research methodology to be utilised (Morse & Richards, 2002). As a result, in planning research design one should start by answering this question: What is the scope of the project and nature of the data required?

Identifying a sample is one of the first steps in undertaking a qualitative research study. The purpose of sampling in qualitative research is mainly to address the research question (Martella, Nelson & Marchand-

Martella, 1999). In order to determine whether a sample is adequate the research must continuously review the purpose of the research and determine if the sample allows for the generation of answers to the research questions. The sampling method used in qualitative research is termed “purposive sampling” (Patton, 1987 as cited by Martella *et al*, 1999).

Patton (1987) as cited by Martella *et al* (1999) indicates that purposive sampling is used to select cases rich in information to enable in-depth study. Teddie & Yu (2007, p. 77) define purposive sampling as a sampling technique involving specific settings, events or persons deliberately selected for the information they can provide which cannot be obtained as well from other sources.

In selecting the 7 cases utilised in this study the researcher approached key rural community media support organisations operating within the Eastern Cape South Africa, described the nature of the study being conducted and asked that they forward a directory of rural community media that could be included. The directories sent were long enough to still allow for random selection within the various lists provided. The organisations contacted were the MDDA, AIP and ECCF. All rural community media SMMEs included in this study operated within the Eastern Cape South Africa.

5.7.1 Sampling Technique

The sampling technique utilised in this research will be a maximum variation sampling. Maximum variation sampling involves capturing and describing central themes and/or principal outcomes that represent the norm. Palys (2010) states that maximum variation sampling involves searching for cases that cover a variety of situations and perceptions relative to the research study and can include typical or extreme cases as well as a range of positions that are recognised as significant to the study. In this way maximum variation sampling will provide a window into common experiences within a particular area of research.

The reason for this combination is to establish common experiences faced by rural community media SMMEs regardless of certain attributes such as number of years in operation and number of employees. The rural community media SMMEs selected for inclusion in this study demonstrated variation related to years of operation, number of employees and location within the Eastern Cape South Africa. This is depicted demonstrated in the table below.

Case Name	Location	No. of Years in Operation	No. of Employees
Case 1	East London	3	4
Case 2	Phedi	8	7
Case 3	Mthatha	8	4
Case 4	Port Elizabeth	2	6
Case 5	Alice	7	6
Case 6	Mount Ayliff	5	4
Case 7	Kokstad	4	6

Table 19: Demonstration of Sample Variation

5.7.2 Participants for the Study

Participants for the study will be limited to the Eastern Cape Province of South Africa. The table above provides a view of the specific location of the rural community media SMMEs included in this study. In this case rural is defined areas of the economy that are the least impacted by urbanisation and characterised by a more dispersed population and less economic activity (Grimes, 2000).

The table below provides an indication of the geographical span of the Eastern Cape Province.

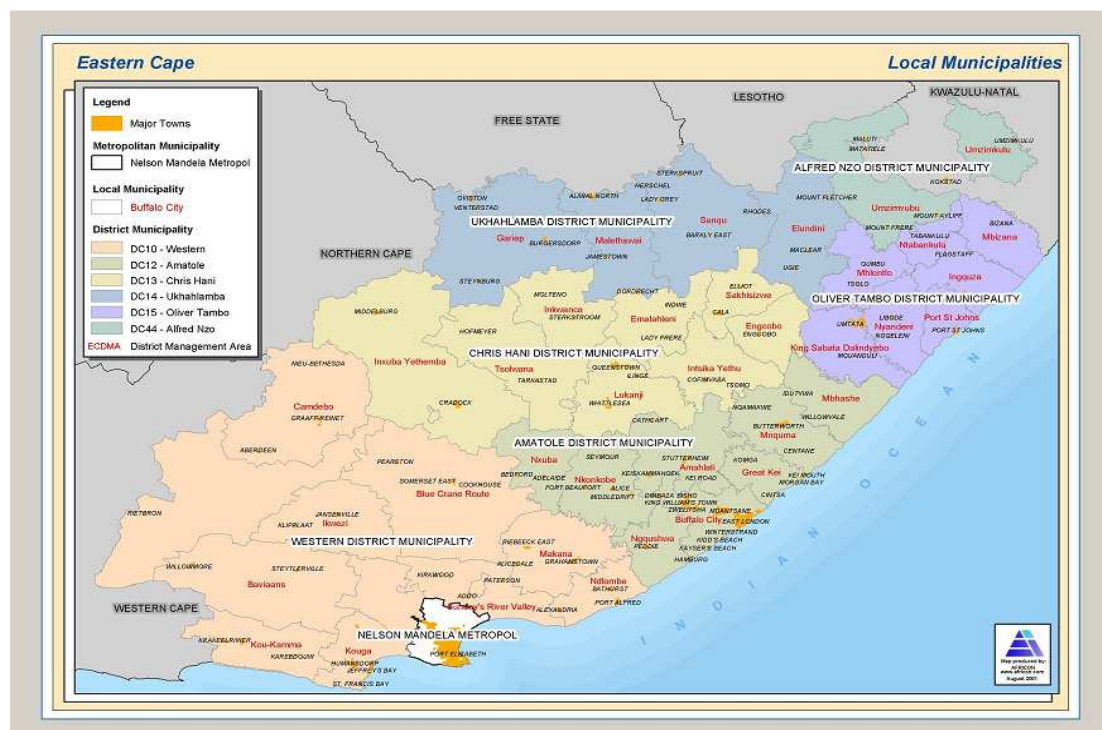


Figure 37: Map of the Eastern Cape (ECDC, 2015)

Additional broad factors for inclusion in the study include:

- Operate an SMME, specifically a rural community media SMME, in a rural area in the Eastern Cape

The reason for this choice is in order to establish the common experiences across a specific segment of SMMEs based on a common set of broad characteristics.

The author aims to include a total of 7 rural community media SMMEs in this research study. The owners of each rural community media SMME will be interviewed, resulting in a total of 7 interview participants.

5.8 Data Analysis Techniques

Morse & Richards (2002) state that qualitative research questions generally tend to lead to different classes of data analysis, namely within-cases, cross-cases and holistic-case analysis.

Onwuegbuzie & Leech (2007), define the various classes of data analysis methods as follows:

- **Within-Case Analysis:** involves analysing, interpreting and legitimising data which helps to explain phenomenon in a bounded context and make up a single case, department, organisation or community. This type of analysis may apply to either single or multiple studies.
- **Cross-Case Analysis:** involves analysing data across the cases, representing a thematic analysis across cases.
- **Holistic-Case Analysis:** involves examining an entire case and then presenting the description, themes, interpretation or assertions to the related whole case.

This study will utilise cross-case analysis (and triangulation), as different cases will be analysed in order to identify cross-cutting issues or themes that can be addressed by the resultant framework.

5.8.1 Units of Analysis

Social Research Methods (2012) advises that a unit of analysis is any key object that is being investigated in a research study and provides the following as examples:

- Groups
- Individuals
- Artefacts (books, photos, newspapers)
- Social interactions (dyadic relations, divorces, arrests)
- Geographical units (town, census tract, state)

The unit of analysis for this research have been identified as:

- Rural entrepreneurs operating as rural community media SMMEs in Eastern Cape Province

5.8.2 Evaluating Interpretive Case Research

Klein & Myers (2000) state that interpretive research can assist with developing understanding of the way humans think and act in social and organisational contexts. Research is generally classified as interpretive if the assumption that knowledge of reality is only gained only through social constructions such as language, consciousness, shared meanings, tools and documents is applied (Klein & Myers, 2000). Klein & Myers (2000) further state that interpretive research endeavours to comprehend occurrences based on the meaning people assign to them.

The concept of the hermeneutic circle suggests that we come to understand a complex whole from understanding of its parts and the interrelationships between them, with the process of interpretation starting from an initial understanding of the parts to the whole and then from a holistic understanding of the whole perspective back to an enhanced understanding of each part (Klein & Myers, 2000). The table below sets out principles proposed by Klein & Myers (2000) that will be applied when conducting and evaluating interpretive case research, as is the case in this research study:

Research Principle	Application in this Study
1. The Fundamental Principle of the Hermeneutic Circle	
This principle suggests that all human understanding is realised through iterating between understanding the meaning of the parts and the whole that they comprise. This principle of human understanding is essential to all the other principles.	This principle will be applied during data analysis. Multiple case studies will be conducted; each case will be assessed individually. Subsequently case study findings will be compared to each other in order to identify common trends or themes.
2. The Principle of Contextualization	
Requires serious consideration of the social and historical background in which the research is taking place, so that the intended audience is able to understand what led to the situation which is currently being investigated.	The context within which the rural community media SMMs operate form a key aspect of this study as it is the context of operation that impacts their performance. The framework proposed will be in an attempt to address the contextual challenges.
3. The Principle of Interaction Between the Researchers and the Subjects	
Requires serious consideration of how the research data was socially constructed based on the interaction between the researcher and research participants.	This principle will come into effect during case study implementation. The researcher needs to remain aware of the manner in which engagement with case study participants takes place and the impact this has on case study outcomes.
4. The Principle of Abstraction and Generalization	

Requires connecting the distinctive specifics exposed by data analysis through the application of the first two principles to concepts that define the nature of human understanding and social action.	This research will compare and contrast assertions made in the literature review to case study findings in an attempt to develop new knowledge on the selected subject matter.
5. The Principle of Dialogical Reasoning	
Requires sensitivity to likely contradictions between the hypothetical preconceptions guiding the research design and actual findings.	The research will conduct a literature review in order to reflect and discuss the current stance on the research subject. Case studies will be conducted to either validate or invalidate conclusions drawn from the literature. Results will be utilised to develop a supporting framework.
6. The Principle of Multiple Interpretations	
Requires sensitivity to likely dissimilarities in interpretations among research participants as expressed through numerous narratives or stories of the same sequence of events under investigation.	The research will make use of multiple case study and data triangulation in order to improve data validity. Expert reviews will also be utilised to further corroborate findings.
7. The Principle of Suspicion	
Requires sensitivity to likely bias and methodical distortion in the narratives collected from the research participants.	The researcher will remain impartial in relating and reflecting results of data collection and analysis. Where required data will be collected anonymously.

Table 20: Summary of Principles for Interpretive Field Research (Klein & Myers (2000))

5.9 Ethical Considerations

Orb, Eisenhauer & Wynaden (2001, p. 93) state that “ethics pertains to doing good and avoiding harm” and that “harm can be prevented or reduced through the application of appropriate ethical principles”. The Social Research Association (SRA, 2003) adds that researchers must seek to avoid harm and protect those who choose to participate in the research; this requires voluntary and fully informed participant involvement. Quinlan (2011) states that ethics in research involves the application of ethical principles and standards, enabling the capacity to differentiate right from wrong. On undertaking research the researcher represents both themselves and their institution in the broader community and therefore has a responsibility to ensure that research is conducted in a responsible manner that no harm comes to anyone involved.

As such the researcher will ensure that:

- participants consent is sought prior to their involvement

- the participants are fully informed of the research purpose, and
- the information collected will be confidential and participant anonymity will be ensured

Where necessary a translator will be present to ensure that use of the participants 1st language is possible during the case study. The researcher was the only data collector involved in this study and will ensure confidentiality of source data.

The University of Fort Hare has a comprehensive set of ethical guidelines that must be adhered to. In this respect ethical clearance must be obtained prior to proceeding with any research project. The researcher has completed and submitted the necessary forms. Proof of ethical clearance is attached in Annexure A.

5.10 Research Integrity

Research integrity assists with evaluating the extent of truth contained in the study (Saunders *et al.*, 2015).

Saunders *et al* (2015) indicate elements to be considered as dependability and trustworthiness, these are described briefly below:

- **Dependability:** refers to the ability to produce the same result if the study is replicated (Saunders *et al*, 2015). The following was done to ensure dependability:
 - The research design utilised aligned to theoretical guidelines provided in the research methodology chapter of the research
 - The use of standard questions in the questionnaires ensured participants responded to similar questions
 - A clear procedure was used to analyse the data
- **Trustworthiness:** is concerned with the accuracy of the collected data (Saunders *et al*, 2015). This item comprises two sub-elements, namely credibility; which is the ability of the study findings to fit into a given theoretical framework, and transferability; which is the ability to generalise the findings (Saunders *et al*, 2015). The following was done to ensure trustworthiness:
 - The study was guided by an experienced and knowledgeable research supervisor
 - The rural community media SMMES included in the study met all criteria as defined in the research methodology
 - The study utilised multiple case studies and cross-case analysis
 - Rural community media SMMES from various locations within the Eastern Cape province of South African were utilised in the study

5.11 Research Context Introduction

As the research will be based within South Africa it is important to provide some background information about the country that will assist in setting the context of the study. The context of South Africa has been greatly impacted by the policy of apartheid which was legally enacted and in effect from 1948 to 1994.

In April 1994, a considerable national project to remove the system of apartheid and replace it with a one that both promised and enabled well-being, respect, and equal expression for all South Africans began (The Department of Education, 2004). Rural communities in particular faced the brunt of the apartheid regime and continue to face massive backlogs in resources necessary for their efficient operation. Although today's government is intent on rectifying the imbalances caused by our past, the apartheid legacy still “lingers on” (Garson, 2005). Major challenges in this respect were faced in poorer, rural provinces like the Kwa-Zulu Natal and the Eastern Cape and with the more affluent provinces like the Western Cape, and Gauteng generally being better resourced.

5.12 The Context of the Eastern Cape

The Eastern Cape houses 6.7 million people; amounting to 12.8% of the South African population (Department of Economic Development, Environmental Affairs and Tourism (DEDEAT), 2013). The Eastern Cape comprises a comparatively younger population; a declining average fertility rate which remains higher than the national average; an increasingly female working age population; and below average life expectancy (DEDEAT, 2013).

The need to address poverty, income inequality, food insecurity, and unemployment remain key social challenges in the province (DEDEAT, 2013). Within the Eastern Cape, poverty is widespread with approximately 78% of households in the province classified as food insecure (DEDEAT, 2013). The tertiary sector is a key driver of the Eastern Cape economy and accounted for approximately 77% Gross Domestic Product (GDP) in 2011 (DEDEAT, 2013). The following sectors employ the most people in the Eastern Cape; community services (26.1%), trade (23.5%), and manufacturing (12.2%) adding up to 60% of the 1.3 million people employed in the province (DEDEAT, 2013). Utilities (electricity and water), construction, transport, and finance comprise key provincial activities with mining and trade identified as a weak areas requiring further development (DEDEAT, 2013). The Eastern Cape is the poorest province in South Africa.

Job creation within the Eastern Cape is identified as a key indicator of development and progress. Statistics indicate a continued disappointing trend in employment levels (DEDEAT, 2013). Age, race, gender, and education strongly influence for the ability to access employment in the province (DEDEAT, 2013). In the 3rd quarter of 2012 the province contributed 9.7% to the national employment rate with more than half of those employed located within the metros (DEDEAT, 2013). Generally the majority of the employed were employed in community services; this was regardless of the employment location (DEDEAT, 2013).

The Eastern Cape has extremely high levels of unemployment, with the unemployment rate increasing to 28.8% in the 3rd quarter of 2012 (DEDEAT, 2013). This trend is partly due to the growth of the labour force at a greater rate than the growth of new jobs (DEDEAT, 2013). An increase in the number of new job entrants combined with an increase in the number of people whose status changed from economically active to economically inactive jointly contributed to the reported increased size of the provincial labour force (DEDEAT, 2013).

5.12.1 Demographic Profile of the Eastern Cape

South Africa is a young country, with a median age of 25 (The Eastern Cape Planning Commission (ECPC), 2013). The Eastern Cape (median age 22), Limpopo (22) and KwaZulu-Natal (23) are the provinces with the youngest population (ECPC, 2013). 66% of the Eastern Cape population is under 34 years of age, 33% are children (1-14 years) and a further 33% are youth (15-34 years), given this youthfulness, more careful attention must be paid to the development needs of children and youth (ECPC, 2013).

According to the 2011 census, the Eastern Cape Province is a home to 6.7 million people (DEDEAT, 2013). This is equivalent to 12.7% of the national population making the Eastern Cape the third most populated province after Gauteng, with a population of 12.2 million and 23.7% of the national population; and KwaZulu-Natal, with a population of 10.2 million and 19.8% of the national population (DEDEAT, 2013). Compared with the 2001 census, the province grew by 4.5% (DEDEAT, 2013).

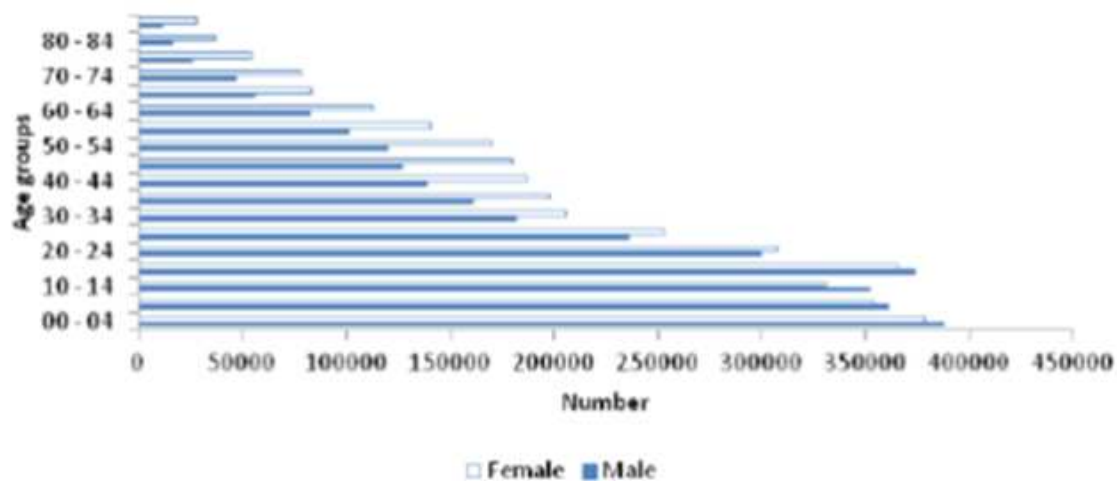


Figure 38: Population and Gender Distribution of the Eastern Cape (DEDEAT, 2013)

The figure above indicates that the age groups 0 to 4 years and 15 to 19 years are the highest population age group categories in the province; persons of age 30 and younger represent 57% of the province's population (DEDEAT, 2013). The province's average age is 22.4 years as compared to the national average of 24.4 years, making the Eastern Cape second youngest provincial population in South Africa (DEDEAT, 2013).

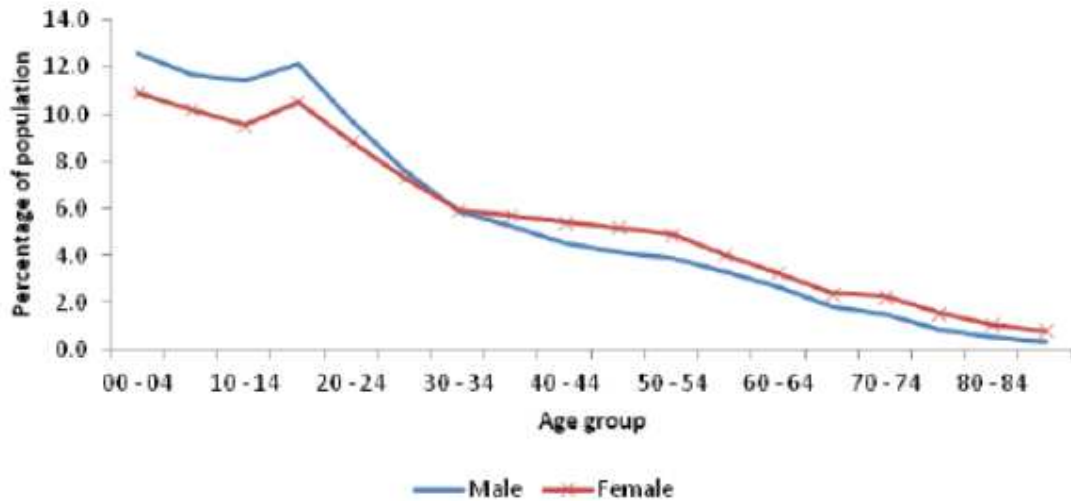


Figure 39: Share of Population Age Groups in the Eastern Cape (DEDEAT, 2013)

The figure above illustrates population distribution based on gender. This depicts the male population as being slightly larger than the female population in the first four age groups. The higher proportion of females in the province's working age group population is attributed to migration of males to better-off provinces in search of better employment opportunities (DEDEAT, 2013). A figure of 214 815 is quoted as representing the province's net migration; between 2006 and 2011, resulting in the Eastern Cape having the highest figures of net migration nationally (DEDEAT, 2013).

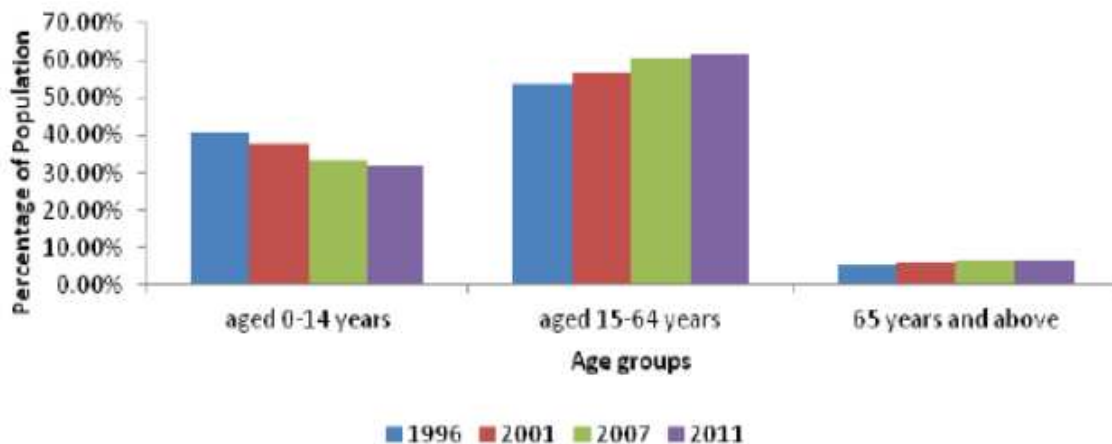


Figure 40: Population by Age Groups (DEDEAT, 2013)

The figure above contrasts population by age group in 1996, 2001, 2007 and 2011. It is apparent from the figure above that the population in the age group 0 – 14 years is declining, the age group 15 – 64 increasing and the age group of 65 and over remaining relatively unchanged (DEDEAT, 2013). Although growth in the population of working age may be good news when viewed specifically from the perspective of possible

benefits of an increased workforce, the high unemployment levels indicated that the workforce as it currently stands is underutilised (DEDEAT, 2013). This indicates a significant challenge of matching the growing workforce with growing job opportunities (DEDEAT, 2013).

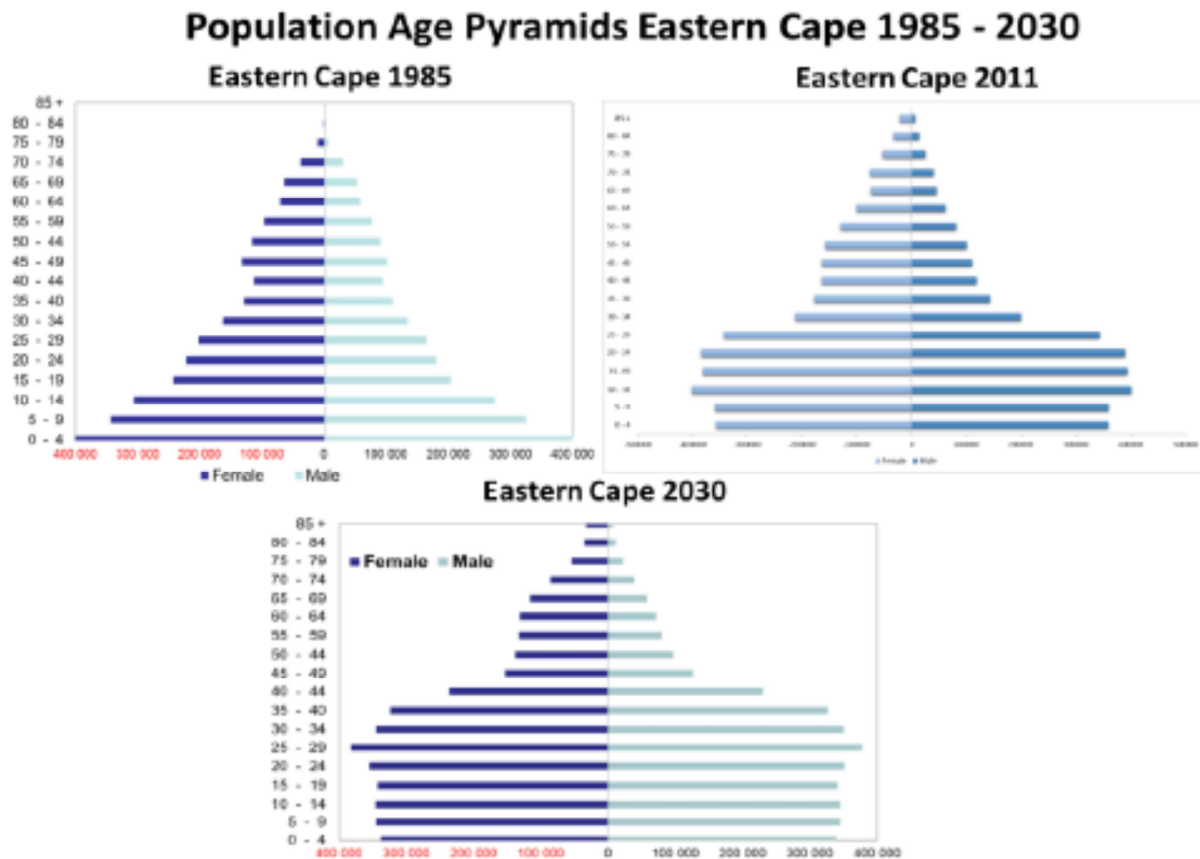


Figure 41: Population Age Pyramids for the Eastern Cape 1985 – 2030 (ECPC, 2013)

The narrowing bases of population pyramids for 2011 and 2030 illustrate declining fertility, which may point to a slower future rate of population growth (ECPC, 2013). ECPC (2013) further notes that the ability to suitably direct the distribution of resources, social services and projection of economic development opportunity is based on an enhanced comprehension of population location and dynamics it is added that given relative proportion attention should be directed towards the development and support of youth.

5.15.2 Poverty and Inequality

The DEDEAT (2013) made use of twelve indicators of well-being to determine poverty. This they termed the Fuzzy Index of Poverty (FIP) (DEDEAT, 2013). The indicators utilised included: employment, municipal services, dwelling type, income, education, size of household, and communication capability through devices such as cell phones (DEDEAT, 2013). The DEDEAT (2013) states that the FIP can be utilised in numerous ways and is

most commonly utilised to calculate typical and distinct deprivation indices in order to recognise persons most exposed to poverty and in crucial need of aid.

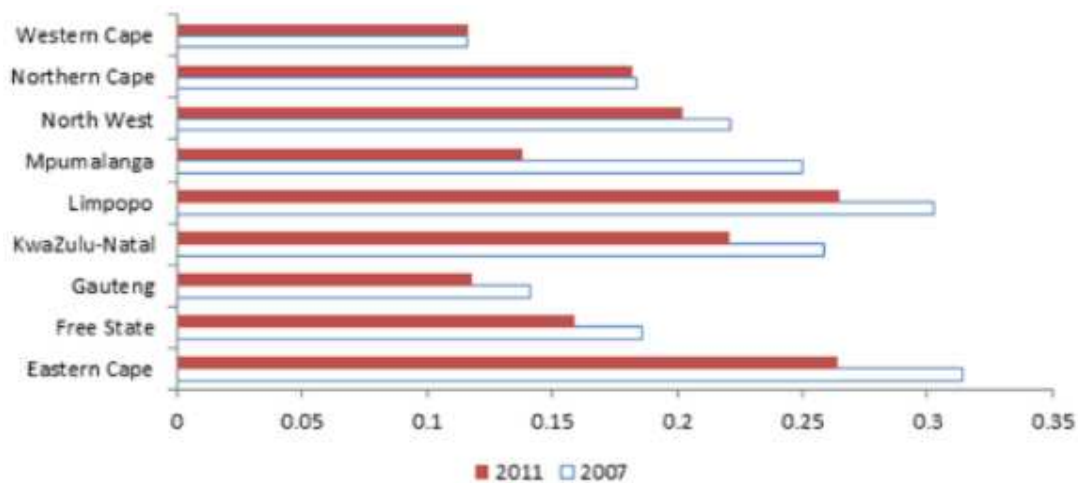


Figure 42: Poverty in South Africa (DEDEAT, 2013).

2007 and 2011 average poverty levels are depicted in the figure above. The average deprivation rates in 2007 and 2011 illustrate that the Eastern Cape remains the poorest province in the country, average poverty however is indicated to have fallen by 5% between 2007 and 2011 (DEDEAT, 2013).

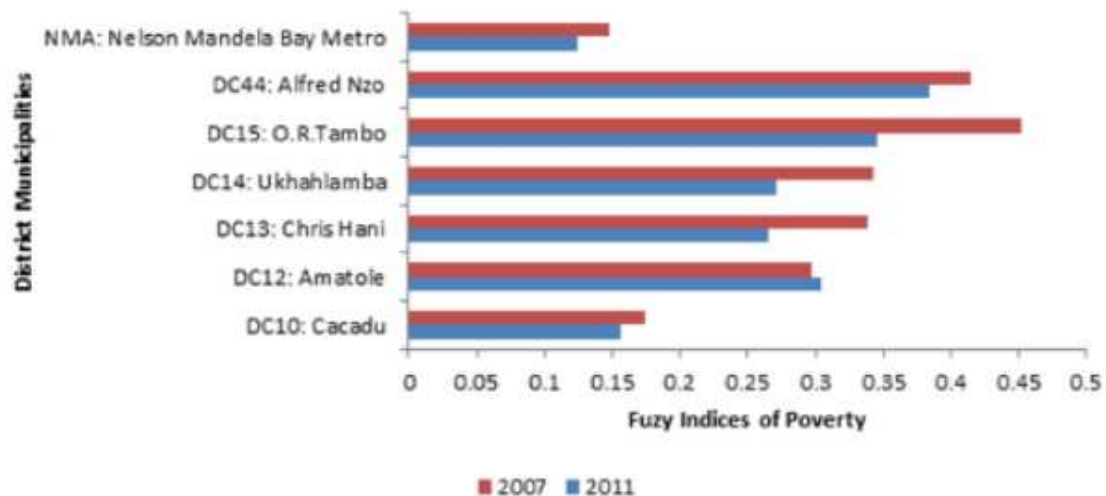


Figure 43: Poverty in the Eastern Cape (DEDEAT, 2013)

The figure above plots the Eastern Cape poverty level by District Municipalities (DM) in 2007 and 2011. The figure indicates a considerable drop in poverty across all DMs apart from the Amatole DM (DEDEAT, 2013).

5.12.3 Service Delivery

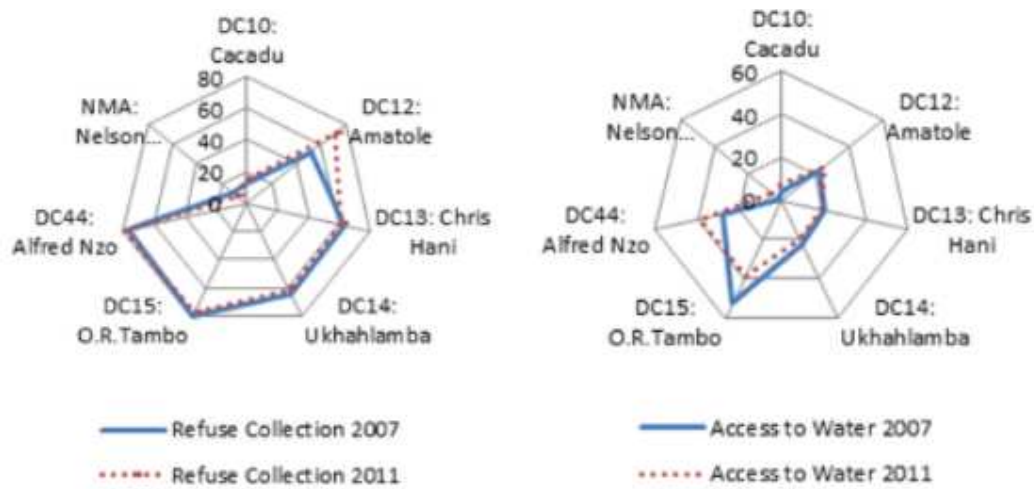


Figure 44: Deprivation in Refuse Collection (right) and Deprivation in Water Access (left) (DEDEAT, 2013)

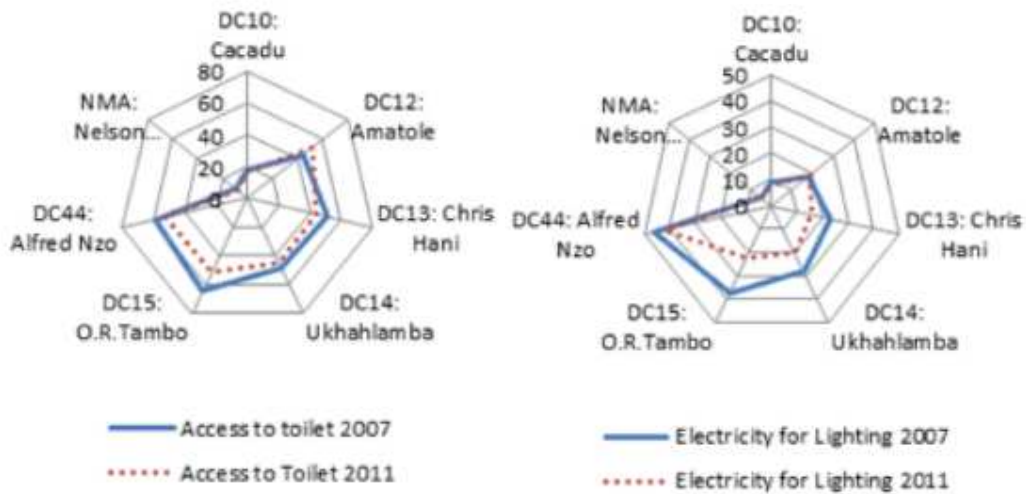


Figure 45: Deprivation in Access to Toilet Facilities (right) and Figure Deprivation in Access to Electricity (Left) (DEDEAT, 2013)

Overall, the figures above indicate that Eastern Cape households are exposed to high average municipal service deprivation levels (DEDEAT, 2013)

5.12.4 Inequality

Numerous research has supported the view that South Africa remains one of the most unequal societies globally (DEDEAT, 2013). The country achieved minor improvement in addressing inequality between 2002 and 2011 (DEDEAT, 2013).

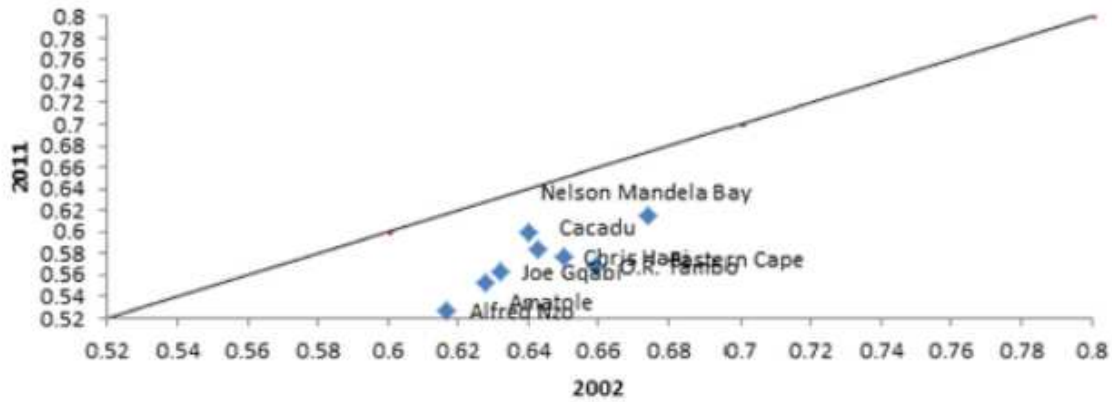


Figure 46: Income Inequality in the Eastern Cape (DEDEAT, 2013)

In the figure above all the points located beneath the line indicate that income inequality has decreased slightly in all DMs, with the decrease being moderately higher in some DMs as compared to others (DEDEAT, 2013).

5.12.5 Economic Profile of the Eastern Cape

In 2011 the Eastern Cape GDP increased by 3.42%, with Gauteng, KwaZulu-Natal, and Western Cape recording greater growth rates at of 4.04%, 3.64%, by 3.64% respectively (DEDEAT, 2013). In the same year the Eastern Cape was noted as contributing only 8% of the 3.46% domestic growth as compared to Gauteng, KwaZulu-Natal, and the Western Cape's more substantial contributions of 41%, 17% and 16% respectively (DEDEAT, 2013).

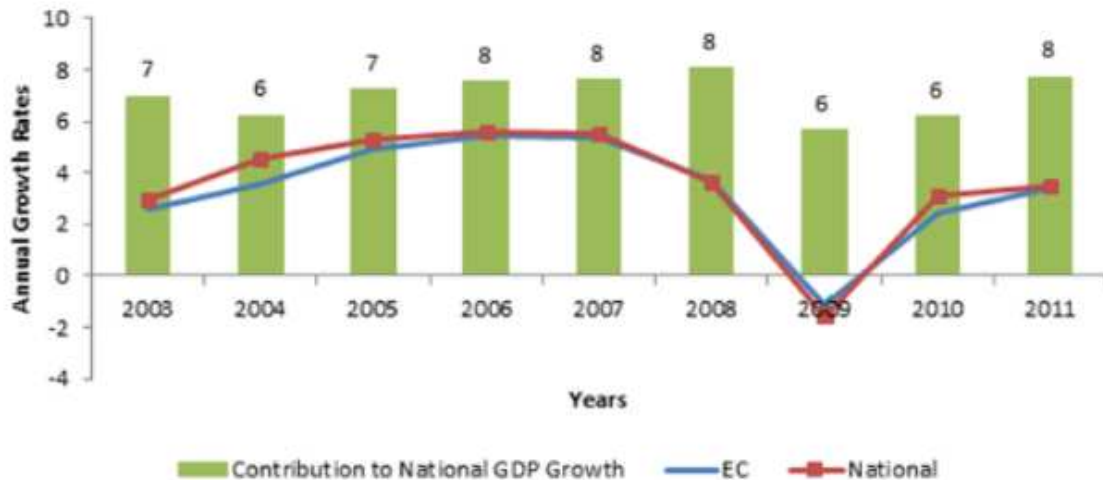


Figure 47: National and Provincial Growth Rates and Provincial Contribution to GDP (DEDEAT, 2013)

The figure above depicts the Eastern Capes contribution to national GDP in 2002, 2008, and 2011. The Eastern Cape Province's economic performance was noted as being slightly ahead of the North West, Mpumalanga and Limpopo, making it the fourth largest economy in South Africa (DEDEAT, 2013). The provinces 2011 7.8% GDP contribution has remained relatively unchanged since 2002, indicated possible economic growth challenges (DEDEAT, 2013).

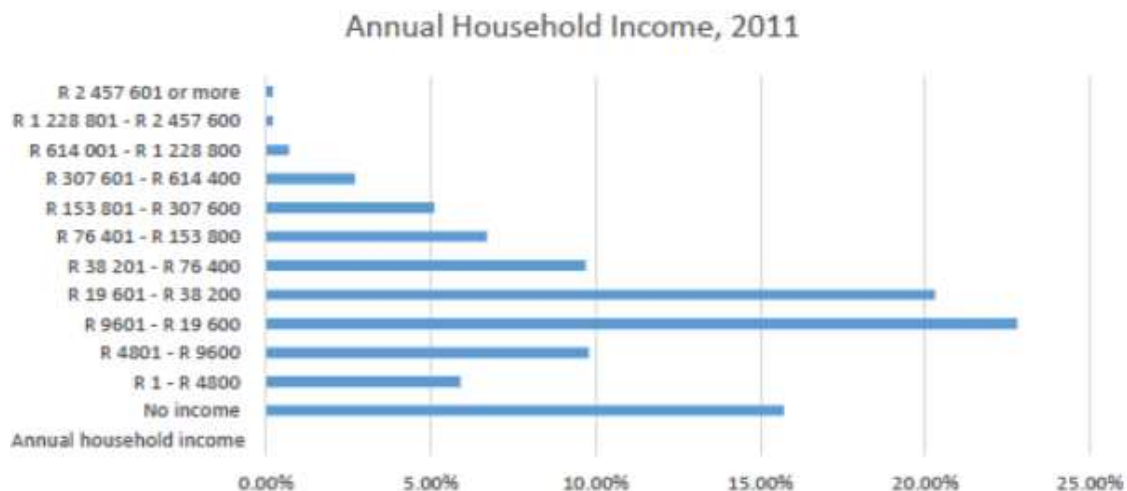


Figure 48: Annual Household Income based on 2011 Census (ECPC, 2013)

The breakdown of 2011 provincial household income by income bracket is depicted in the figure above. 22% of households fell within the income category of R9601-R19 600 per year (ECPC, 2013). Household income equivalent to R800 per month is reported by 31.4% of the population, while 52.8% of the population fell within the R9 601-R38 200 household income brackets and 90.9% of households living on less than R153 800 per annum (ECPC, 2013).

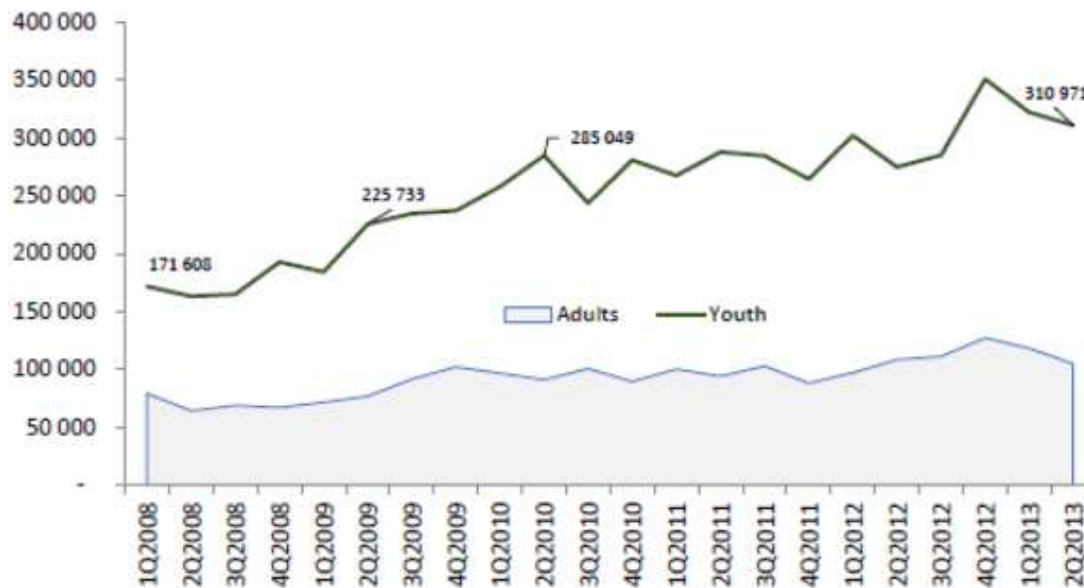


Figure 49: Youth and Adult Discouraged Work Seekers (ECPC, 2013)

The figure above illustrates the numbers of discouraged youth and adult work seekers between 2008 and 2013 in the Eastern Cape Province (ECPC, 2013). The figure illustrates that although youth and adult unemployment generally appear to be following the same trend, youth unemployment has increased over the past five years (ECPC, 2013). In the 2nd quarter of 2013, the Eastern Cape had a reported total of 722 000 youth comprising 437 000 unemployed youth and 331 000 discouraged work-seekers in the youth category (ECPC, 2013).

5.13 Overview of Research Results, Findings and Analysis Findings

The preceding section presented the research methodology that was applied in order to derive the research results and findings presented in this section of the study. The primary purpose of the study was to determine how a mobile social networking framework could support or enhance rural community media operations through the creation of a virtual community of practice. Fieldwork was conducted and data collected based on research instruments defined in the research methodology section of this paper. These included semi-structured interviews (guided by a standard questionnaire), document review, observation and expert reviews (which will be utilised to validate the resultant proposed model).

5.13.1 Background on Research Instruments Utilised

The researcher made use of semi-structured interviews guided by a standardised questionnaire as the primary data gathering tool. Observation and document analysis were used to provide additional information. Expert reviews were utilised towards the end of the process in order to validate the proposed model.

5.13.1.1 Semi-Structured Interview Guided by Questionnaire

The interviews were conducted on the premises of the rural community media SMMEs selected for this study. Semi-structured interviews were guided by a standard questionnaire. Questions in the questionnaire were categorised based on the sub-questions of this research as follows:

Category	Question
Background Questions	1. How long have you been in operation? 2. How many employees do you have? 3. What town/city is your business based in?
Sub-problem1: What are the building blocks for a mobile social networking framework for SMMEs, which utilises virtual communities of practice as a vehicle?	1. Do you think ICT can facilitate engagement and access to support services, information and knowledge sharing in a manner that can assist your business? YES/NO (circle relevant) a. If yes, what do you think you need in order to leverage ICT to support your business?
Sub-problem 2: What are the knowledge sharing needs of rural SMME's?	1. Do you need business advice/support? YES/NO (circle relevant) 2. If yes, what areas do you require support in (Please tick all that apply)? a. Financial Management/Funding Support b. Business Planning and Management c. HR Management d. Internal Business Process e. Training (Writing/Marketing/Management etc.) f. Stakeholder Engagement and Support 3. What are the most challenging issues impacting your business right now?
Sub-problem 3: How can a virtual community of practice facilitate knowledge sharing, improved business support and socio-economic impact for rural SMME's?	1. Do you engage other community media or community media stakeholders for advice/support? YES/NO (circle relevant) a. If yes, how often and what areas do you engage in for advice/support? 2. Do you feel that the advice/support/resources you

	need to thrive as a business are readily available/accessible? YES/NO (circle relevant) a. If no, why, what are the issues/challenges impacting you in this respect?
Sub-problem 4: How do SMME's make use of mobile social networking to enhance their businesses?	1. Do you make use of your cellphone for your business? YES/NO (circle relevant) a. If yes how do you use your cellphone to facilitate your business (e.g. phone calls, sms etc.)? 2. Do you access the internet for business purposes? YES/NO (circle relevant) a. If yes, how often do you access the internet for business purposes? b. What challenges do you experience around internet access, if any?
Sub-problem 5: What different social networking possibilities exist that can support SMME's?	1. Do you make use of social media for business purposes? YES/NO (circle relevant) a. If yes, which applications/sites do you make use of (Please tick all that apply)? i. WhatsApp ii. MixIT iii. Facebook iv. Linked In v. Twitter vi. Instagram vii. Pinterest viii. Other (please specify) b. If yes, how do you utilise social media for business purposes (advertising, networking)? c. If no, why not?

Table 21: Questions that Guided Semi-Structured Interviews

5.13.1.2 Observations

Observations were carried out during the course of interviews. Interviews took place at the premises of the rural community media SMME, this allowed for observation of the environment in which the interviews took

place. The researcher observed the operational environment and office location of the rural community media SMME and took note of items specifically related to set-up of the office and nature of the work being carried out. Observations assisted in clarifying or re-enforcing certain findings from the primary research instrument.

5.13.1.3 Document Analysis

The author requested copies of the following documents in order to conduct document analysis:

- meeting minutes
- business plans,
- the newspaper product

Unfortunately most rural community media owners were not too keen to share internal documents such as copies of their business plans and meeting minutes. The author managed to locate these documents for only two out of the seven cases. The author was able to access copies of the newspaper product for five out of the seven cases. Document analysis assisted in clarifying or re-enforcing certain findings from the primary research instrument.

5.14 Description of Data Collection and Analysis Process

As was indicated in the research methodology section of this study the author conducted the data collection and analysis personally. Data received via the primary research instrument was captured initially by hand on a printed copy of the document which detailed each of the questions with room for any further expansion or description of initial answers obtained due to the semi-structured nature of the interview. The author had the opportunity to observe the environment while waiting for the interview session to commence (before initiation of the interview) and in instances where the rural community media SMME owner was interrupted by calls or urgent business requiring their attention. The author also ensured early arrival for planned interview sessions in order to allow some uninterrupted time for observation. At the end of the interview the author requested copies of documents as described in the sections preceding, these were taken back with the author for review and analysis at a later stage.

Once an interview session had occurred the author took care to transcribe results and conduct the documentation analysis immediately thereafter in order to ensure that all data was captured while the conversation and observations were still fresh in the authors mind. During this process it was possible for the author to start picking up trends or themes and note items of specific interest related to the study.

Observation guidelines identified prior the process were as follows:

- What ICT is used by the SMME?
- What ICT equipment is visible?
- What visual evidence can be viewed of management approach and/or structured operations?

The observation process conducted was as follows:

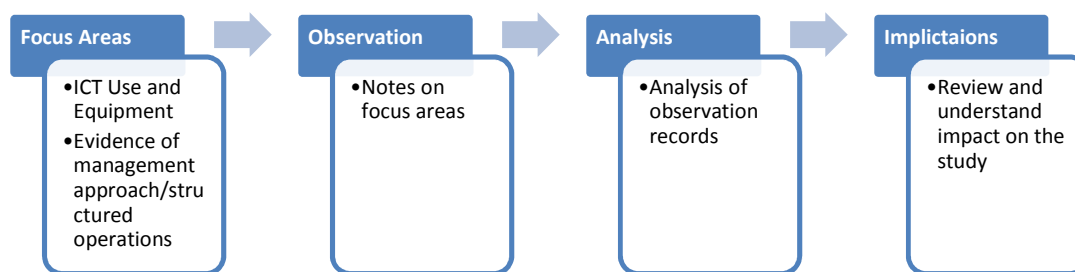


Figure 50: Observation Process (adopted from Rumo (2013))

The table below provides an example of notes captured during the observation process:

Observation Notes	
Case 1	ICT Use and Equipment: Two desktop PCs were observed in the open plan office utilised by the journalists. An additional desktop PC was observed in the editors' studio, including a laptop. Use of the internet and cell phone for business was observed as one of the journalists was in the process of conducting background research online, while the other was observed making a call to a source regards a specific news story. The office also had a printer/scanner device as well as wireless internet. All observed appeared comfortable and well versed in the ICT being utilised. Evidence of Management Approach/Structured Observations: Interaction between the journalists on site and the editor was observed. The editor had an open door policy approach, but also provided structured feedback and direction to the journalists. The researcher arrived just as the weekly News Diary meeting was concluding. The office was very neat, with documents filed away and files clearly labelled. Quick assessment of documents in files indicated minutes for meetings conducted weekly and monthly as well as a detailed business plan. The environment seemed to be formally structured and made use of formal governance to direct operations.

Table 22: Example of Observation Notes

The author made sure to follow the data analysis guidelines as set out in the research methodology section of this study. In this regard in the process of reviewing and transcribing results of the interviews, observation and documentation analysis themes from each case were then identified (within case analysis). The section that follows provides an overview of case study feedback.

5.15 Overview of Case Feedback

The author conducted a case study based on the research methodology described in the current chapter of this research. It must be noted that although the author has the names of all participants the results will be presented anonymously, as per the ethical clearance requirements, with participant SMMEs labelled as Case 1 through 7.

Case study questions were structured largely on the sub-problems of this research, presented above in section 5.13.1.1 with an added section seeking to provide high-level background information per case. Findings per case are as follows:

5.15.1 Feedback on Case 1

Case 1 indicated a total of four employees and is based in East London. They had been in operation for three years at the time of conducting this study.

They held the view that ICT can be utilised to provide access to support services, information and facilitate knowledge sharing but indicated suitable connectivity and hardware as requirements for this to happen having experienced issues with connectivity regardless of utilising a high speed adsl line.

Case 1 held the view that they do require additional business advice and support, specifically highlighting a need for funding as well as advertising and marketing as areas where assistance is required.

They engage their peers and stakeholders at least monthly for advice and support, identifying politics within the space and cartel like behaviour both by mainstream media and more established community media as challenges impacting them. They indicated that support is not easily accessible within the community media space.

Cellphones (both phone and sms services) are utilised as a business tool on a daily basis. The internet is accessed daily for business purposes, with cost and network issues being identified as constraints.

Case 1 makes use of WhatsApp, Facebook, Twitter and Linked In for business purposes. WhatsApp to co-ordinate work internally and engage team members and Facebook, Twitter and Linked In to engage their customers and other stakeholders on their product.

Observation revealed a very neat office area in an open plan office. A number of PCs were available and two employees were in office at the time of the interview, other employees were said to be in the field working on stories. Documentation analysis revealed regular meetings took place with employees. A detailed and comprehensive business plan that had been recently updated and a good quality product (well structured, good language/grammar, a number of adverts). Observation and documentation analysis revealed that Case 1 had some good management and operating structure in place.

5.15.2 Feedback on Case 2

Case 2 indicated a total of seven employees and is based in Phedi. They had been in operation for a total of eight years at the time of conducting this study.

They held the view that ICT can be utilised to provide access to support services, information and facilitate knowledge sharing but indicated no specific requirements for this to happen.

Case 2 held the view that they do require additional business advice and support, specifically highlighting a need for funding, advertising and training as areas where assistance is required.

They engage their peers and stakeholders for advice and support, specifically indicating membership of the Eastern Cape Community Print Media (ECCPM) and advising that though established this body is yet to gain traction. The Association of Independent Publishers (AIP) and Media Diversity and Development Agency (MDDA) were also mentioned as bodies approached for support. They also identified difficulty with obtaining access to certain support services and generally slow progress in the space as additional impediments. They advised that they are also trying to leverage government for support/assistance and shared the concern that community media is dying due to lack of support, with a number of SMMEs having folded as a result of this. They indicated that support is not easily accessible within the community media space.

Cellphones (both phone and sms services) are utilised as a business tool on a daily basis. The internet is accessed daily for business purposes, with no issues experienced regards access to the internet.

Case 2 makes use of WhatsApp for business purposes. They advised that they are in the process of setting up a Facebook page, but are illiterate when it comes to such things and require training and support in this respect.

Observation revealed an office location that was a bit disorganised. No employees were in office at the time of conducting the interview. The researcher was unable to locate any documents for document analysis from Case 2.

5.15.3 Feedback on Case 3

Case 3 indicated a total of four employees and is based in Mthatha. They had been in operation for a total of eight years at the time of conducting this study.

They held the view that ICT can be utilised to provide access to support services, information and facilitate knowledge sharing and indicated a need for training/engagement on how this can be done.

Case 3 held the view that they do not require additional business advice and support. They did however also mention that they had applied to the MDDA for funding and required graphic designer services to assist with the layout of their paper.

They engage their peers and stakeholders for advice and support, specifically indicating membership of the ECCPM. They also advised that funding is a specific issue impacting them and the environment in general, advising that they are unable to pay their employees much and that after investment in training and on-the-

job assessment their employees were often poached by mainstream media who are able to provide more competitive packages. In addition to this their print run is small, with printing done fortnightly due to the funding issue. Given the opportunity Case 3 would like to do weekly print runs, this however is also dependant on their securing more advertising. Case 3 advised of a general challenge with sourcing ads impacting the community media space, also sighting the ability to secure government and municipality ads as an issue. They indicated that support is easily accessible within the community media space.

Cellphones (both phone and sms services) are utilised as a business tool on a daily basis. The internet is accessed daily for business purposes, they specifically spend up to R100 weekly on data bundles, which is seen as a high cost given limited funds. Their main issue regards internet access is that it is expensive.

Case 3 makes use of Facebook for business purposes. They have employed a resource specifically to assist them with leveraging Facebook as a business tool.

Observation revealed a relatively neat office environment. All four employees were in office working at the time of this interview. Review of their product revealed relatively good quality in terms of structure, average language and grammar and few adverts.

5.15.4 Feedback on Case 4

Case 4 indicated a total of six employees and is based in Port Elizabeth. They had been in operation for a total of two years at the time of conducting this study.

They held the view that ICT can be utilised to provide access to support services, information and facilitate knowledge sharing and indicated no additional requirements for this to be done.

Case 4 held the view that they do require additional business advice and support. They specifically identified the need for Sales, Production and Distribution support/advice.

They engage their peers and stakeholders for advice and support, specifically indicating membership of the AIP and state led engagement initiatives. Case 4 specifically mentioned that the department of communications was active in engaging community media and creating opportunities for them to interact with government and their peers and stakeholders in order to address the various issues impacting this space. The structure of the market was identified as an impediment to community media, specifically the ability to secure advertising. A specific query/concern was regards what informs advertising buying decisions, noting a bias for established and mainstream media. Distribution channels were said to be inaccessible and operated like a cartel with mainstream media either in tight relationships with or outright owning print and distribution channels. They indicated that support is not easily accessible within the community media space.

Cellphones (both phone and sms services) are utilised as a business tool on a daily basis. The internet is accessed daily for business purposes, with Dropbox being utilised as a document management tool. High data costs were mentioned as a concern.

Case 4 makes use of Facebook and WhatsApp for business purposes. Facebook is utilised mainly to engage their customers and WhatsApp for co-ordinating internal operations.

Observation of the office revealed a neat and orderly environment. Only one employee was in office at the time of the interview. The researcher was provided access to meeting minutes which revealed regular meetings with staff. Copies of their product revealed good structure, language and grammar and fair spread of adverts.

5.15.5 Feedback on Case 5

Case 5 indicated a total of six employees and is based in Alice. They had been in operation for a total of seven years at the time of conducting this study.

They held the view that ICT can be utilised to provide access to support services, information and facilitate knowledge sharing and indicated old PC's as a possible impediment to this.

Case 5 held the view that they do require additional business advice and support. They specifically identified the need for Funding/Financial Management and Business Planning and Management as areas where support is required. Sustainability and advertising were also raised as concerns.

They engage their peers and stakeholders for advice and support, specifically indicating membership of a community media hub in the Eastern Cape, indicating that it was however not yet strong enough to effectively protect the interests of community media in the Eastern Cape. They indicated that support is readily accessible within the community media space.

Cellphones (both phone and sms services) are utilised as a business tool on a daily basis. The internet is accessed daily for business purposes. High data costs were mentioned as a challenge.

Case 5 makes use of Facebook and Twitter for business purposes. They specifically mentioned attendance of a social media course via AIP to assist them in leveraging social media for their business.

Observation revealed a small, relatively untidy office space (may have been due to size). Two employees were present at the time of the interview. Review of their product revealed relatively small newspaper in terms of number of pages as compared to others, not many adverts and poor grammar/structure.

5.15.6 Feedback on Case 6

Case 6 indicated a total of four employees and is based in Mount Ayliff. They had been in operation for a total of five years at the time of conducting this study.

They held the view that ICT can be utilised to provide access to support services, information and facilitate knowledge sharing and indicated no additional requirements for this to be done.

Case 6 held the view that they do require additional business advice and support. They specifically identified the need for Marketing and Advertising support.

They engage their peers and stakeholders for advice and support, specifically indicating membership of AIP. They indicated that support is not easily accessible in the space highlighting communication as a major issue.

Cellphones (both phone and sms services) are utilised as a business tool on a daily basis. The internet is accessed daily for business purposes. No challenges were mentioned in this regard.

Case 6 makes use of Facebook for business purposes.

Observation revealed a small but neat office environment. No employees were present at the time of conducting the interview. The researcher was unable to locate any documentation from Case 6.

5.15.7 Feedback on Case 7

Case 7 indicated a total of six employees and is based in Kokstad. They had been in operation for a total of four years at the time of conducting this study.

They held the view that ICT can be utilised to provide access to support services, information and facilitate knowledge sharing and indicated the lack of a business website as a challenge.

Case 7 held the view that they do require additional business advice and support. They specifically identified the need for Financial Management/Funding Support, Admin and Sales and Marketing as challenges, advising that they struggle to meet their sales and marketing targets.

They engage their peers and stakeholders for advice and support, specifically indicating membership of AIP. They felt that support in their business environment was readily accessible and mentioned securing advertising as a specific challenge.

Cellphones (both phone and sms services) are utilised as a business tool on a daily basis. The internet is accessed daily for business purposes. The lack of a business website was mentioned as a specific challenge in this respect.

Case 7 makes use of Facebook for business purposes.

Observation revealed a slightly disorganised office environment. One employee was in office at the time of this interview. The newspaper product was relatively small and of poor quality (poor grammar and structure, with no adverts)

Having provided a view of the findings per case the research will now present a thematic analysis of the research data in the section that follows.

5.16 Thematic Analysis

Creswell (2009) defines thematic analysis as a qualitative data analysis method that focuses on identifying patterns of meaning or themes across a data set. The aim is to provide an answer to the research question being addressed (Creswell, 2009).

The diagram below depicts the steps taken by the author in conducting the thematic analysis based on guidelines from Creswell (2009):

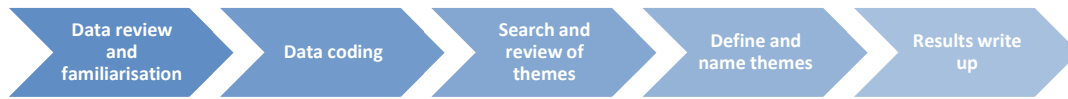


Figure 51: The Thematic Analysis Process

In conducting the first step of the thematic analysis, data review and familiarisation, the author performed an in-depth review of data through re-reading and ensuring understanding of the data that was collected. This was done to ensure familiarity with the data in order to aid the process of identifying and defining themes. In the data coding process the author developed codes or labels to identify data that was key to answering the research question. These codes or labels were then used to collate and group data extracts for further analysis. The third step of the thematic analysis involved searching the collated or grouped data for themes. Once potential themes were identified they were checked against the dataset in order to confirm their validity and that the themes were reflective of the data that was collected. Following the process of checking and confirming the validity of each theme the author then selected a descriptive name per theme as well as developed a definition per theme. The process concluded with a write up of the results of the thematic analysis which is detailed in the paragraphs that follow.

In conducting the thematic analysis the author developed the table below in order to assist with providing a summarised view of the objectives per section of the questionnaire as well as possible resultant themes.

Section	Content	Related Research Sub-Question	Objective	Possible Themes
A	1. How long have you been in operation? 2. How many employees do you have? 3. What town/city is your business based in?	None, background questions	Understand general background	General info
B	1. Do you think ICT can facilitate engagement and access to support services, information and knowledge sharing in a manner that can assist your business? YES/NO (circle relevant) a. If yes, what do you think you need in order to leverage ICT to support your business?	Sub-problem1: What are the building blocks for a mobile social networking framework for SMMEs, which utilises virtual communities of practice as a vehicle?	Understand views on ICT capability to assist in accessing required resources	ICT as an enabling resource
C	1. Do you need business advice/support? YES/NO (circle relevant)	Sub-problem 2: What are the	Understand rural	Support requirements

	2. If yes, what areas do you require support in (Please tick all that apply)? a. Financial Management/Funding Support b. Business Planning and Management c. HR Management d. Internal Business Process e. Training (Writing/Marketing/Management etc.) f. Stakeholder Engagement and Support 3. What are the most challenging issues impacting your business right now? _____ _____	knowledge sharing needs of rural SMME's?	community media support requirements	trends or key areas
D	1. Do you engage other community media or community media stakeholders for advice/support? YES/NO (circle relevant) a. If yes, how often and what areas do you engage in for advice/support? _____ _____ 2. Do you feel that the advice/support/resources you need to thrive as a business are readily available/accessible? YES/NO (circle relevant) b. If no, why, what are the issues/challenges impacting you in this respect? _____ _____	Sub-problem 3: How can a virtual community of practice facilitate knowledge sharing, improved business support and socio-economic impact for rural SMME's?	Understand stakeholder engagement practices and motives for initiating engagement	Stakeholder engagement practices and motives
E	1. Do you make use of your cellphone for your business? YES/NO (circle relevant) a. If yes how do you use your cellphone to facilitate your business (e.g. phone calls, sms etc.)? _____ _____ 2. Do you access the internet for business purposes? YES/NO (circle relevant) a. If yes, how often do you access the internet for business purposes? _____ _____ b. What challenges do you experience around internet access, if any? _____ _____	Sub-problem 4: How do SMME's make use of mobile social networking to enhance their businesses?	Understand use of mobile devices and internet access as well as challenges in accessing the internet	Mobile and Internet use for business. Challenges in internet access
F	1. Do you make use of social media for business purposes? YES/NO (circle relevant) a. If yes, which applications/sites do you make use of (Please tick all that apply)? i. WhatsApp ii. MixIT iii. Facebook iv. Linked In	Sub-problem 5: What different social networking possibilities exist that can support SMME's?	Understanding use of social media for business	Use of social media for business

- v. Twitter
- vi. Instagram
- vii. Pinterest
- viii. Other (please specify)

b. If yes, how do you utilise social media for business purposes (advertising, networking)?

c. If no, why not?

Table 23: Questionnaire Questions Linked to Possible Themes

Analysis of the data based on the process indicated in Figure 51 above revealed the following themes. Coding of the themes is based on Table 23 above. The author will now discuss each of the resultant themes in detail.

- A1: Years in Operation vs. Size of the SMME

Analysis of data obtained from Section A of the questionnaire resulted in the observation of the above mentioned theme in the data. The author observed that while Case 2 had been in operation for the longest period amongst the cases studied, eight years, and had a total of seven employees; Case 3 had also been in operation for a period of eight years but had only four employees. Case 5 had been in operation for seven years and had a total six employees, which is equal to the number of employees held by Case 4, which had only been in operation for a period of two years. Case 6 had been in operation for five years and had four employees, followed by Case 7 in operation for a total of four years with six employees and Case 1 in operation for three years with a total of four employees. As can be seen from the data shared above, there is no apparent correlation in the data between the number of years in operation and the number of employees, which may point to a growth challenge in the Eastern Cape rural community media space. It could be that the number of employees is likely determined by other factors such as cost of labour, funding availability or profitability of the business.

- B1: ICT as an Enabling Resource

Section B data analysis revealed that all seven cases surveyed indicated a view that use of ICT could positively impact their business operation by assisting with access to information and knowledge and by supporting communication. Case 1 held the view that ICT can be utilised to provide access to support services, information and facilitate knowledge sharing but indicated suitable connectivity and hardware as requirements for this to happen having experienced issues with connectivity regardless of utilising a high speed adsl line. Case 2, 4 and 6 conquered that ICT can act as an enabling resource for rural community media, but indicated no additional requirements for this to happen. While Case 3's views were aligned with those of Case 1 and 2 regards the usefulness of ICTs for business, they indicated a need for training/engagement on

how this can be done. Case 5 highlighted the concern of old PC's and technology being a possible impediment to fully realising the benefit of ICT application in the business context and Case 7 shared the specific concern of the lack of a business website as a challenge to fully realising the benefits of ICT for business. It is encouraging that rural business already has an appreciation for how ICTs could be useful enabling resources for business. Some are more aware than others regards impediments of use in rural or peri-urban settings, such as connectivity issues, aging equipment and training requirements. These issues could likely be assisted through knowledge sharing and support with stakeholders who could contribute to resolving the situation.

- **C1: Internal Business Process Support Requirements**

Analysis of section C data revealed that six of the seven Cases studied indicated that they could benefit and were in need of business advice and support. Assistance with internal business processes was a cross cutting theme in the data. Internal business process support had to do with support for certain segments of the news production value chain. A number of internal business processes were identified as areas where support is required. Case 1 specifically mentioned a requirement for support with funding, advertising and marketing. Case 2 concurred with Case 1 on advertising as an area that required additional support but added training as an additional requirement. Although Case3 stated that they did not require additional business advice and support, they did specify a need for graphic design services to assist with the layout of their paper. Case 4 specified requirements for sales, production and distribution support, while Case 5 specified funding, business planning and management, sustainability and advertising as areas where additional support was required. Case 6 concurred with Case 1, specifying marketing and advertising as areas where additional support was required. Case 7 highlighted the need for financial management and funding, admin, sales and marketing support. Case 4 specifically stated that the structure of the market was an impediment to community media, specifically the ability to secure advertising. A specific query/concern shared by Case 4 was regards what informs advertising buying decisions, noting a bias for established and mainstream media. Case 4 further stated that distribution channels were inaccessible and operated like a cartel with mainstream media either in tight relationships with or outright owning print and distribution channels. Cross cutting areas mentioned more than once were advertising, marketing, funding and financial management and sales. Means with which to ensure access to support for these specific areas would be a useful and required component for a proposed solution.

- **C2: Structured Operations & Quality of Product**

An item related to internal business process, governance – was identified as an element that appeared to impact ultimate quality of the end product. This theme was uncovered through assessment of the observation data and document analysis. There appeared to be correlation between cases with more structured internal business operations and a superior end product. Observation of Case 1 offices revealed a very neat and organised office area in an open plan office, all documents were neatly filed and labelled with documentation analysis revealing regular meetings with employees and detailed tracking of minutes and action items. A detailed and comprehensive business plan that had been recently updated and a good quality product (well

structured, good language/grammar, a number of adverts) were also observed at Case 1, serving as evidence of a good management and operating structure in place. Case 3 observations revealed a relatively neat office environment and a product of relatively good quality in terms of structure, average language and grammar but few adverts. Improvement opportunity in operations could be viewed at Case 3 as there was no evidence of regular office meetings or a comprehensive business plan, however documentation analysis revealed periodic meetings taking place irregularly together with a high level planning document, not detailed enough to serve as a business plan but indicative of some level of planning taking place with which to guide operational activities. Case 4 observations revealed a neat and orderly environment, access to meeting minute's revealed regular meetings with staff, with copies of their product revealing good structure, language and grammar and fair spread of adverts. Case 5 observation revealed a small, relatively untidy office space (may have been due to size), review of their product revealed relatively small newspaper in terms of number of pages and content as compared to others, not many adverts and poor grammar/structure. Case 7 observation revealed a slightly disorganised office environment, the newspaper product was relatively small and of poor quality (poor grammar and structure, with no adverts). As can be seen from the above the data analysed suggests that rural community media could benefit from a more structured environment with appropriate governance to direct operations, given the perceived positive correlation between this and a higher quality end product.

- D1: Stakeholder Engagement

Analysis of section D data indicated that all cases confirmed regular engagement with their stakeholders. Case 1 indicated that they engage their peers and stakeholders at least monthly for advice and support, identifying politics within the space and cartel like behaviour both by mainstream media and more established community media as challenges impacting them. Case 2 and Case 3 specified membership of the Eastern Cape Community Print Media (ECCPM), with Case 2 advising that though established this body is yet to gain traction. The Association of Independent Publishers (AIP) and Media Diversity and Development Agency (MDDA) were also mentioned by Case 2 as bodies approached for support. Case 4 specifically indicated membership of the AIP and involvement in state led engagement initiatives, advising that the department of communications was active in engaging community media and creating opportunities for them to interact with government and their peers and stakeholders in order to address the various issues impacting this space. Case 5 specifically indicated membership of a community media hub in the Eastern Cape, indicating that it was however not yet strong enough to effectively protect the interests of community media. Case 6 and Case 7 made specific mention of AIP membership. The data revealed that all cases see stakeholder engagement as crucial for their business operation, and also that a number of cases are members of the same associations. This shows that the concept of community and working together as well as attempting to learn through engagement already exists within this environment; means to further enhance this would prove beneficial.

- D2: Accessible vs. Inaccessible Support Services

There were mixed views on how accessible support services were, with four of the seven cases indicating that support services were not easily accessible. Case 1, 2, 4 and 6 indicated that support is not easily accessible

within the rural community media space, while case 3, 5 and 7 indicated the opposite. Case 2 added that obtaining access to certain support services and generally slow progress in the space were additional impediments. Case 2 further advised that they are also trying to leverage government for support/assistance and shared the concern that community media is dying due to lack of support, with a number of SMMEs having folded as a result of this. Case 6, further added that communication in the rural community media space was a major issue. The almost equal split between cases indicating ease of access to support services and cases indicating the opposite suggests that some of the cases surveyed may have knowledge or access to info that the others do not. The creation of an environment that facilitates knowledge and information sharing amongst rural community media may serve to remedy the situation.

- **E1: Cellphones and Internet Use for Business**

All cases indicated that they made use of cellphones and accessed the internet for business purposes. All cases specified use of cellphones (both phone and sms services) as a business tool on a daily basis. It was also specified by all cases that the internet is accessed daily for business purposes. Case 1 indicated cost and network issues as constraints they faced on a daily basis in this regard. Case 3 indicated a weekly cost of R100 for data bundles as a high cost given their limited funds, with their main issue regards internet use being that it is expensive. Case 4 and 5 echoed the concerns raised by Case 3 by sharing high data costs as a concern. Case 7 specifically raised their concern regards lack of a business website. Both Case 2 and 6 did not indicate any specific challenges regards use of the internet and cellphones for business purposes. The confirmed use of mobile devices and the internet by all cases indicates that these may be good delivery mediums for facilitating access to required support services. Support may be required regards cost of access to the Internet.

- **F1: Use of Social Media to Support Business Operations**

All cases indicated use of social media to support their business operations. The most utilised social media applications were Facebook, followed by WhatsApp, Twitter and Linked In. Of specific interest is that while Facebook was used to engage externally, WhatsApp was used for internal engagement. Case 1 makes use of WhatsApp, Facebook, Twitter and Linked In for business purposes. WhatsApp to co-ordinate work internally and engage team members and Facebook, Twitter and Linked In to engage their customers and other stakeholders on their product. Case 2 makes use of WhatsApp for business purposes, and also advised that they are in the process of setting up a Facebook page, but are illiterate when it comes to such things and require training and support in this respect. Case 3 makes use of Facebook for business purposes and have employed a resource specifically to assist them with leveraging Facebook as a business tool. Case 4 makes use of Facebook and WhatsApp for business purposes, with Facebook utilised mainly to engage their customers and WhatsApp for co-ordinating internal operations. Case 5 makes use of Facebook and Twitter for business purposes and specifically mentioned attendance of a social media course via AIP to assist them in leveraging social media for their business. Case 6 and 7 make use of Facebook for business purposes. Once again confirmed use of social media for business purposes bodes well for the development of a social media based framework in support of improved rural community media operational efficiency.

Having identified and discussed the various themes emerging from the data, the section following will provide a high level summary of the case findings.

5.17 Summary of Cases

The following conclusions can be drawn from the case findings:

- There is no obvious correlation between number of years in operation and number of employees indicating that there may be a challenge with business growth if an increased number of employees is seen as an indicator
- There is a view that ICT can facilitate access to support services, information and knowledge sharing
- Additional business advice/support is required. Internal business process (sales, marketing, advertising, distribution and production) and funding are raised by the majority of cases surveyed as specific areas where support is required, followed by training and business planning/management
- All cases engage their peers and stakeholders regularly for advice and support
- There are mixed views on how accessible support in the environment is with 57% indicating the view that support is not readily accessible
- All cases make use of cellphones and internet for business purposes, cost of data was raised as an impediment
- All cases make use of social media for business with Facebook leading, followed by WhatsApp, Twitter and linked in. Of note is the use of Facebook and the like for external engagement vs. the use of WhatsApp for internal engagement
- Cases that had regular team meetings and more orderly office setup also appeared to produce better products (based on observation and documentation analysis), there appeared to be general need for greater governance in the environment, based on these findings
- Finance, advertising and marketing were raised specifically by almost all cases as requiring special attention

There are specific challenges mentioned in the community media space. These include access to funds and the ability to secure advertising. There are comments made of cartel like behaviour in the media space leading to constraints in the production and distribution environments.

The table below provides a summary of the case findings in table format.

	Case 1	Case 2	Case 3	Case 4	Case 5	Case 6	Case 7
Sub-Q.1.1	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Comments	Connectivity	n/a	Training on how it works	n/a	Old PCs are a constraint	n/a	No website indicated as challenge
Sub-Q.2.1	Yes	Yes	No	Yes	Yes	Yes	Yes
Sub-Q.2.2	n/a	n/a	Applied to MDDA for funds	n/a	Funding, Business Planning	n/a	Financial Management and Funding Support
Comments	Funding, Advertising & Marketing	Advertising, Training	Graphic Designer skills required	Sales, Production Distribution	Sustainability, Advertising	Marketing and Advertising	Admin, Sales and Marketing
Sub-Q.3a	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Comments	Monthly on areas of required support	ECCPM, AIP, MDDA, engage on areas of required support	ECCPM	AIP, State-led	EC Hub	AIP	AIP
Sub-Q.3b	No	No	Yes	No	Yes	No	Yes
Comments	Politics, cartel behaviour	Slow progress, lack of support	Trained employees poached by mainstream media, Graphic design services required, small print run due to funding constraints	Unsupportive market structure, cartel behaviour, inaccessible distribution channels	n/a	Communication is an issue	Securing advertising is a challenge
Sub-Q.4.1	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Comments	daily	daily	daily	daily	daily	daily	daily
Sub-Q.4.2	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Comments	Cost constraints, network issues	no issues	Expensive	Document management via Dropbox	Cost is a challenge	No challenges	Website is not up yet
Sub-Q.5.1	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Comments	Whatsapp, Facebook, Linked-in, Twitter	Whatsapp	Facebook	Whatsapp, Facebook	Facebook, Twitter	Facebook	Facebook
	Advertising, market engagement	n/a	Has resources to update facebook	n/a	Attended AIP course for Social Media	n/a	n/a

Table 24: Summary of Case Findings

Having presented the case findings per case, conducted and presented findings of a thematic analysis and provided a high level summary of the findings the author will now present results of response analysis per question in order to provide an additional perspective of how each of the case questions were answered.

5.18 Response Analysis per Question

This section presents combined case responses per question and analysis of responses per question.

5.18.1 Background

Background questions sought to provide a high-level view of the case being studied.

- **Number of Years in Operation**

The number of years in operation of the Rural Community Media SMMEs varied with the lowest being 2 and the highest being 8. On average the SMMEs surveyed were in operation for 5 years. The results of this question are depicted graphically below.

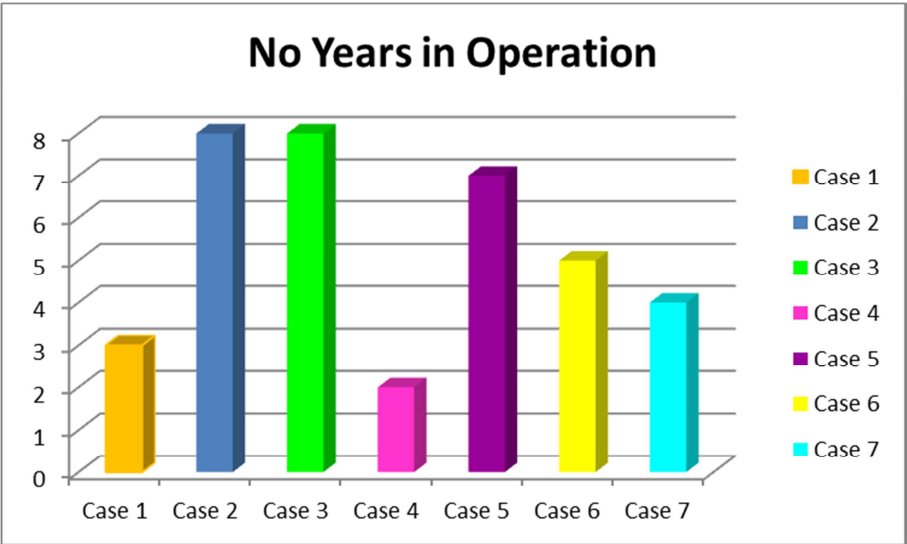


Figure 52: Number of Years in Operation

- **Number of Employees**

The number of employees of the Rural Community Media SMMEs varied with the lowest being 4 and the highest being 7. On average the SMMEs surveyed had 5 employees. The results of this question are depicted graphically below.



Figure 53: Number of Employees

- Location

The location of the cases studied was spread across the Eastern Cape as follows:

	Location
Case 1	East London
Case 2	Phedi
Case 3	Mthatha
Case 4	Port Elizabeth
Case 5	Alice
Case 6	Mount Ayliff
Case 7	Kokstad

Table 25: Case Location

5.18.2 Sub-question 1

This sub-question was based on the following:

Sub-problem1: What are the building blocks for a mobile social networking framework for SMMEs, which utilises virtual communities of practice as a vehicle?

The question is as follows:

2. Do you think ICT can facilitate engagement and access to support services, information and knowledge sharing in a manner that can assist your business? **YES/NO (circle relevant)**
 - a. If yes, what do you think you need in order to leverage ICT to support your business?

Responses to the question above were as follows:

All seven cases surveyed held the view that ICTs can facilitate access to support services, information and knowledge sharing to the benefit of their businesses. This is depicted graphically below:

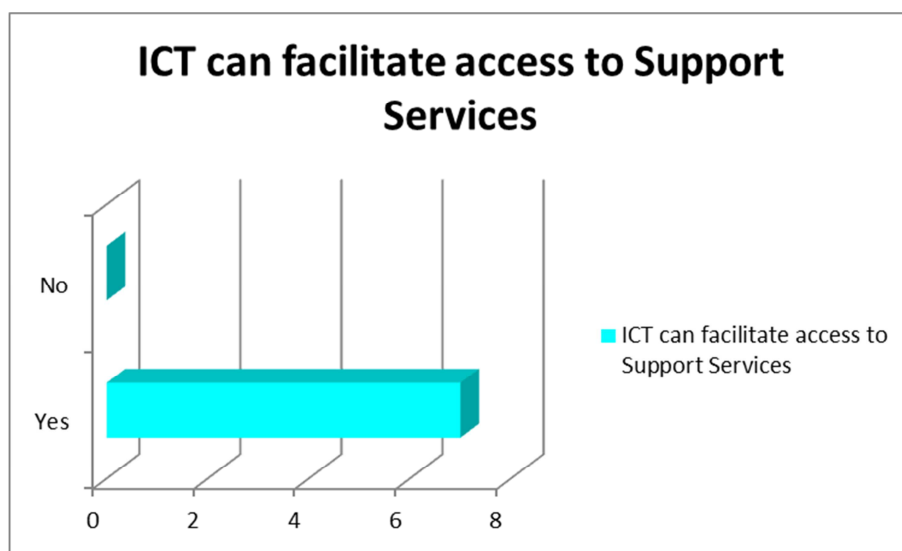


Figure 54: ICT can Facilitate Access to Support Services, Information and Knowledge Sharing

Comments highlighted the following as requirements for this:

- Suitable connectivity/access to the internet
- Appropriate hardware
- Training on ICT

5.18.3 Sub-question 2

This sub-question was based on the following:

Sub-problem 2: What are the knowledge sharing needs of rural SMME's?

4. Do you need business advice/support? **YES/NO (circle relevant)**
5. If yes, what areas do you require support in **(Please tick all that apply)?**
 - a. Financial Management/Funding Support
 - b. Business Planning and Management
 - c. HR Management
 - d. Internal Business Process
 - e. Training (Writing/Marketing/Management etc.)

f. Stakeholder Engagement and Support

6. What are the most challenging issues impacting your business right now?

Responses to the question above were as follows:

One out of the seven cases indicated that they did not need business advice/support. This is depicted graphically below:

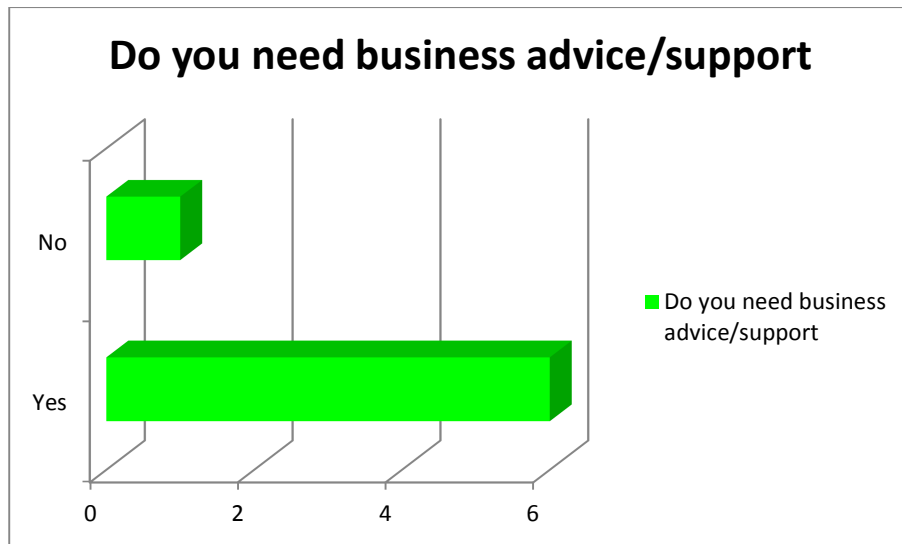


Figure 55: Access to Business Advice and Support

Areas for required support were indicated as follows:

Five out of the seven cases indicated a need for funding and financial management support as well as internal business process support specifically relating to sales, advertising, marketing and distribution. Two out of the seven cases indicated a need for training and business planning support. This is depicted graphically below.

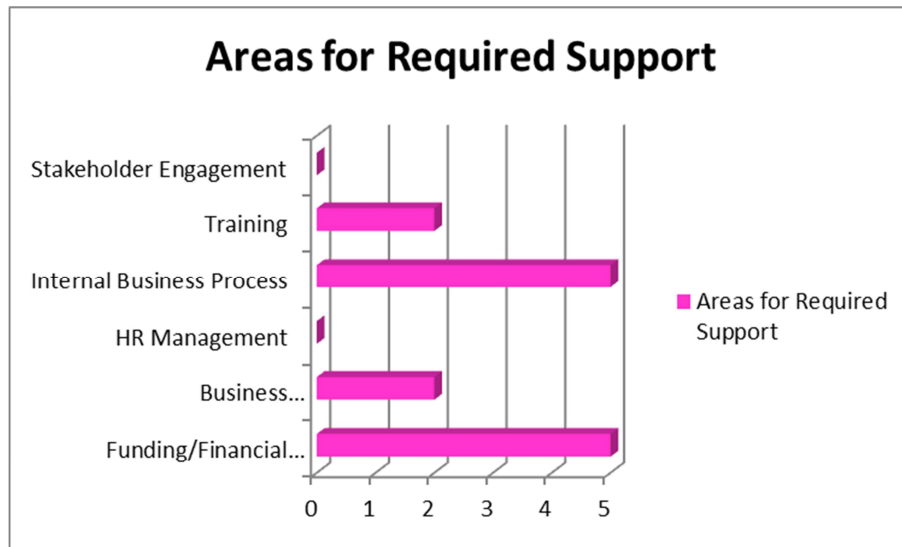


Figure 56: Areas for Required Support

The most challenging business areas were identified as follows:

- Advertising/marketing (Internal Business Process)
- Finance (Funding/Financial Management)
- Production and Distribution (Internal Business Process)
- Sustainability (Funding)
- Marketing (Internal Business Process)
- Administration (Internal Business Process)

These correlated strongly with the identified areas for required support in figure 54 above.

5.18.4 Sub-question 3

This sub-question was based on the following:

Sub-problem 3: How can a virtual community of practice facilitate knowledge sharing, improved business support and socio-economic impact for rural SMME's?

3. Do you engage other community media or community media stakeholders for advice/support?
YES/NO (circle relevant)
 - a. If yes, how often and what areas do you engage in for advice/support?
4. Do you feel that the advice/support/resources you need to thrive as a business are readily available/accessible? **YES/NO (circle relevant)**
 - a. If no, why, what are the issues/challenges impacting you in this respect?

Responses to the question above were as follows:

All seven of the cases responded affirmatively to engaging other community media and community media stakeholders for advice and support. This is depicted graphically below.

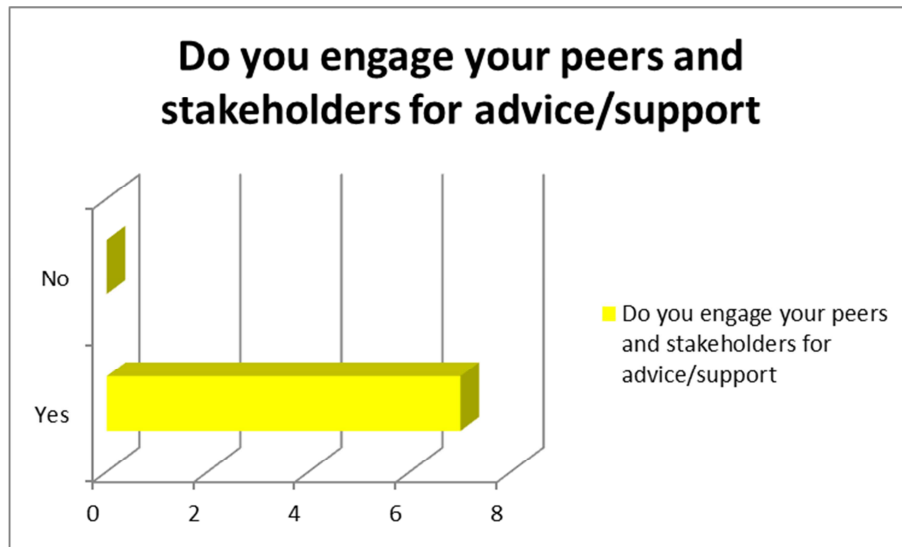


Figure 57: Engagement for Advice/Support

Of note is mention of association/membership of the Association of Independent Publishers (AIP) and Eastern Cape Community Print Media (ECCPM) by a total of five out of the seven cases.

Four out of the seven cases indicated that support was not readily accessible within the environment, with three out of the seven indicating that it was. This is depicted graphically below:

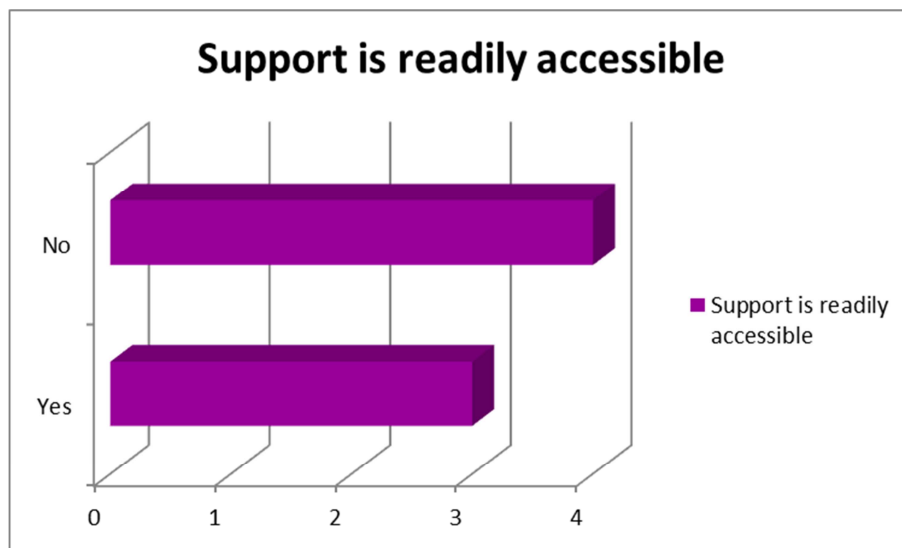


Figure 58: Support Services Readily Accessible

Challenges impacting the respondents in respect to access to support were indicated as follows:

- Politics within the environment, lack of combined effort
- Cartel behaviour, community media being shut out by mainstream

- Slow progress in the community media environment
- Poaching of trained staff by established mainstream media
- Funding constraints, impacting growth and sustainability prospects
- Structure of the market regards access to advertising
- Inaccessible distribution channels, also due to cartel-like behaviour
- Communication constraints with support organisations and within the community media space

5.18.5 Sub-question 4

This sub-question was based on the following:

Sub-problem 4: How do SMME's make use of mobile social networking to enhance their businesses?

3. Do you make use of your cellphone for your business? **YES/NO (circle relevant)**
 - a. If yes how do you use your cellphone to facilitate your business (e.g. phone calls, sms etc.)?
4. Do you access the internet for business purposes? **YES/NO (circle relevant)**
 - a. If yes, how often do you access the internet for business purposes?
 - b. What challenges do you experience around internet access, if any?

Responses to the question above were as follows:

All seven cases indicated that they made use of their cell phones and the internet on a daily basis in order to operate their business. This is depicted graphically below:

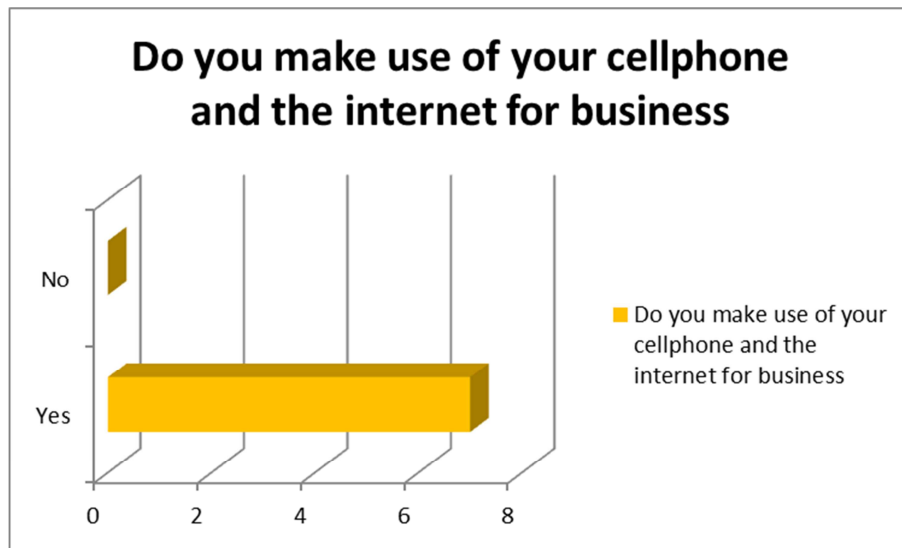


Figure 59: Use of Cell Phone and Internet for Business

Challenges regards internet access were indicated as follows:

- Cost
- Network issues

5.18.6 Sub-question 5

This sub-question was based on the following:

Sub-problem 5: What different social networking possibilities exist that can support SMME's?

2. Do you make use of social media for business purposes? **YES/NO (circle relevant)**
 - a. If yes, which applications/sites do you make use of **(Please tick all that apply)**?
 - i. WhatsApp
 - ii. MixIT
 - iii. Facebook
 - iv. Linked In
 - v. Twitter
 - vi. Instagram
 - vii. Pinterest
 - viii. Other (please specify) _____
 - b. If yes, how do you utilise social media for business purposes (advertising, networking)?
 - c. If no, why not?

Responses to the question above were as follows:

All cases surveyed made use of social media for business purposes. This is depicted graphically below:

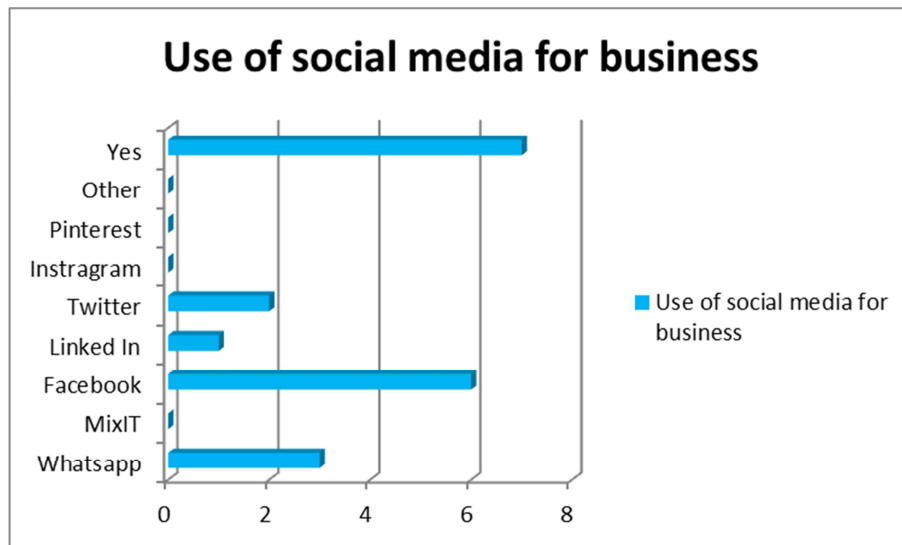


Figure 60: Use of Social Media for Business

It can be seen from the above that WhatsApp, Twitter and Facebook were the popular choices of social media amongst the cases surveyed. WhatsApp was mainly used to assist with internal operations and team engagement while Facebook and Twitter were used to engage their consumers and market their product.

The author will now provide feedback on the expert review conducted as part of this study.

5.19 Implications for Rural Community Media Social Networking Framework

The research findings above have the following implications for the proposed model:

- **Inclusion of governance component:** The governance component is suggested in order to assist rural based community media with structuring their operations better, by providing guidelines for regular meetings, office administration and management support. This is based on the finding that cases that had more structured environments also appeared to produce a better product
- **Inclusion of intensive support component:** Specific elements were mentioned by almost all cases as required special attention. These included training, marketing, advertising and funding
- **Inclusion of specific social networking functionality:** It was observed that almost all cases made use of Facebook to engage externally and WhatsApp to engage internally. It may be useful to build this functionality into the social networking component of the framework
- **Inclusion of skilled resource library:** It would be useful to include a skilled resource library related to the skills that rural community media require but struggle to access or retain. This component would need to be support or subsidised by government in order to ensure that the resources are not poached by mainstream media and remain assets that can be shared by the rural community media

The table below depicts areas of agreement/support between the framework elements/considerations suggested by the literature review and results of the fieldwork.

Component	Validated in Case Study (Yes/No)
Technology Elements/Considerations	
Delivery via mobile platform	Yes – all cases made use of mobile phones for business
Delivery via social media	Yes – all cases made use of social media for business
Usability considerations/Technology acceptance and adoption considerations	Not mentioned specifically, some cases advised that they required training and awareness on technology
-	
Knowledge Management Elements/Considerations	

Appropriate technologies/infrastructure	Not mentioned specifically, all cases make use of mobiles and social media for business
Knowledge domain	Yes - All cases made some reference to elements of the news production value chain that they require support in All cases were rural community media operating in the Eastern Cape
Management and organisation/supportive structure	Not mentioned specifically. Some cases mentioned that they required support
KM Process	No
Knowledge ecosystems/Community of practice	Yes - Most cases mentioned that they actively engaged their peers and support stakeholders for support. It was mentioned that better co-ordinated of the environment was required
Business Model and Performance Management Elements/Considerations	
News production value chain	Yes- All cases made mention of some element of the news production value chain that they required support in
Training of Resources/Support	Yes - Access to skilled resources and ability to retain skilled resources were mentioned as issues.
Community context/creation of an enabling environment	Not specifically mentioned, however there are common constraints placed on all community media due to the environment the operate in
BMC	No
Co-ordinated Plan for Support	Yes - Some cases mentioned that the environment was not well co-ordinated and support was required in this area
Performance Measures	No
Access to information and knowledge	Yes - Some cases mentioned the need for information and knowledge related to access to certain resources such as funding or certain news production value chain elements
Communication Platform	Not explicitly mentioned, however given the stated engagement with peers and support stakeholders a communication platform is necessitated

Table 26: Comparison of Suggested Conceptual Elements/Considerations against Fieldwork Findings

The table above indicates a high level of correlation between the overall fieldwork results and the conceptual framework elements/considerations. The results of the field work have suggested additional elements for the Rural Community Media Mobile Social Networking Framework. The updated framework will be depicted and described in the chapter that follows.

5.19 Limitations of the Research

A major obstacle faced in the completion of this research was access to information. The author found it very difficult to contact the relevant people for interview purposes. Numerous attempts were made until the author achieved success in this regard. In addition, co-ordinating environments such as the AIP and MDDA assisted by providing comprehensive lists of rural community media operating in the Eastern Cape, as a result there were a large number of potential cases from which to select and this balanced off against those who were not keen to participate or were uncontactable. Although the survey participants were friendly and agreeable, the major problem was in securing interview time with them.

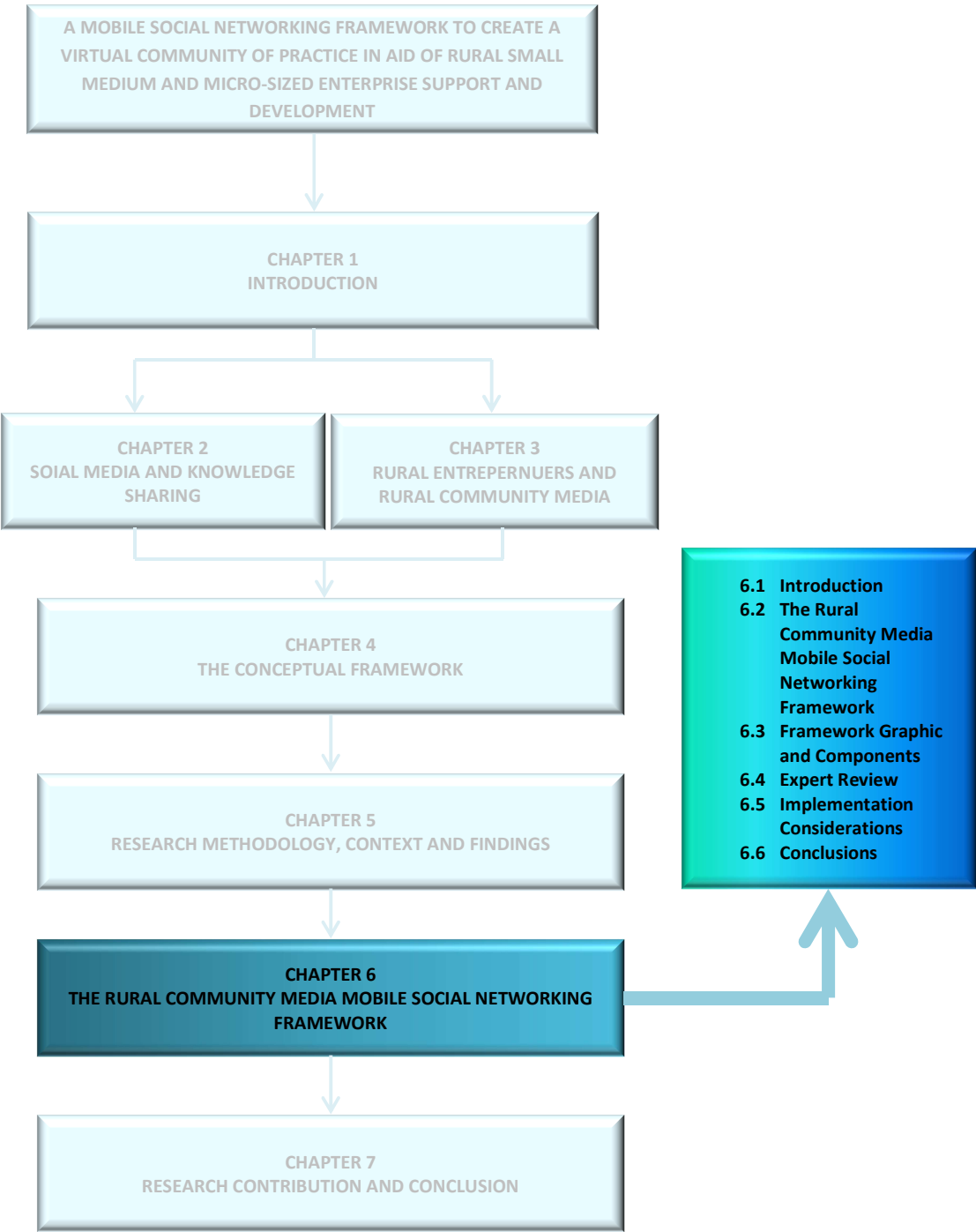
Numerous attempts were made in order to conduct the interviews resulting in the results presented in this research. There also appeared to be a literacy issue regards understanding of the questions, although all participants were fully literate in English as a language of correspondence it appeared that most case participants struggled to answer the questions as presented. It was on the third attempt of the case study and with the researcher taking the time to simplify the language used that answers were finally elicited.

There appeared to be a lack of interest, particularly on the part of the larger more established community media, to engage in a study of this nature. It seemed that those whom were relatively new and struggling somewhat were more open to participation. It appeared that it was often media organisations engaging their market in local African languages or a mixture of local African languages and English that appeared to be struggling relative to English and Afrikaans medium papers, which generally appeared to be more established and relatively financially secure.

5.20 Conclusion

This section detailed the research methodology applied in this research, provided a comprehensive description of the Eastern Cape Province as the broader context within which the study was taking place and provided the research results findings and analysis. The findings of this research have implications for the proposed model which will be discussed in the chapter that follows.

Chapter 6 – Diagrammatic Overview



Chapter 6 – The Rural Community Media Mobile Social Networking Framework

6.1 Introduction

The author has completed the research methodology, context and findings in the previous chapter. At this stage the author is commencing Phase 4 of the research which comprises development of the proposed model based on the literature review and findings from the field work conducted, as well as validation of the proposed model via expert review.

This is depicted graphically below:

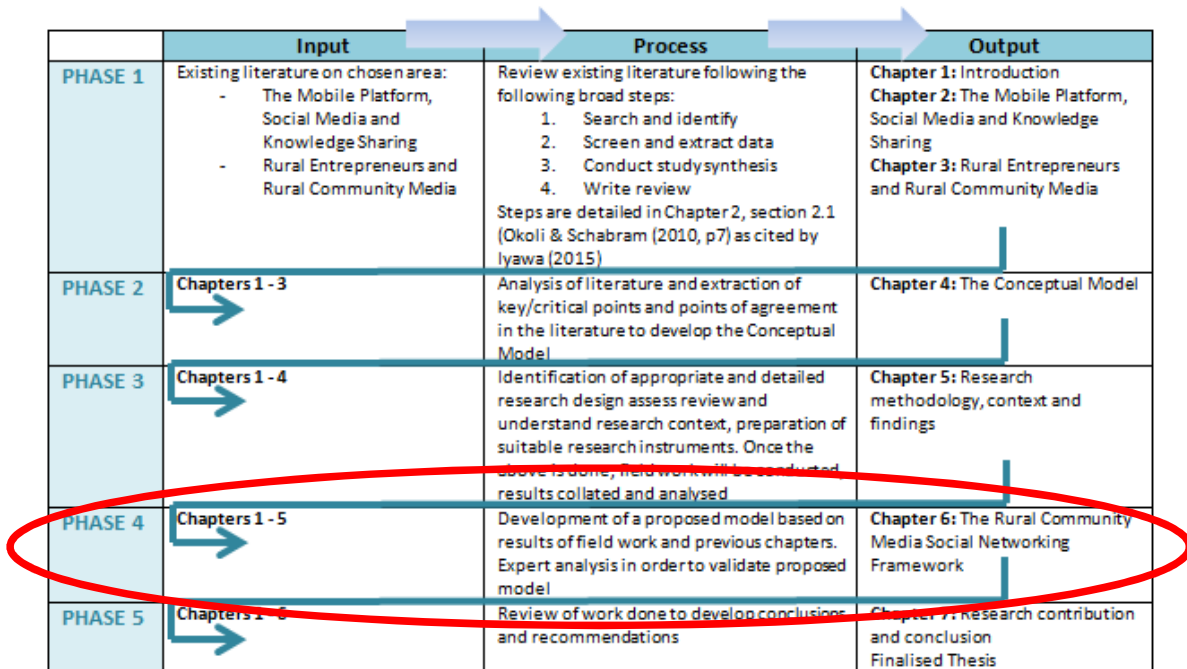


Figure 61: The Research Process Chapter 6

6.2 The Rural Community Media Mobile Social Networking Framework

The section comprises depiction and explanation of the Rural Community Media Mobile Social Networking Framework.

6.2.1 Changes Based on Case Study Findings

The research findings from the previous chapter suggested the following additions to the proposed model:

- **Inclusion of governance component:** to assist with structuring their operations better, by providing guidelines for regular meetings, office administration and management support
- **Inclusion of intensive support component:** specifically comprising training, marketing, advertising and funding

- **Inclusion of specific social networking functionality:** inclusion of Facebook and WhatsApp functionality
- **Inclusion of skilled resource library:** related to the skills that rural community media require but struggle to access or retain

6.2.2 Aims and Objectives of the Rural Community Media Mobile Social Networking Framework

The Rural Community Media Social Networking Framework has the following objectives:

- To create a virtual community of practice in order to enable knowledge sharing for improved rural community media operational efficiency
- To enable better communication amongst rural community media and support stakeholders
- To enable improved access to resources that can improve rural community media operational efficiency

6.2.3 Framework Graphic and Components

The proposed Rural Community Media Social Networking Framework is depicted graphically below:

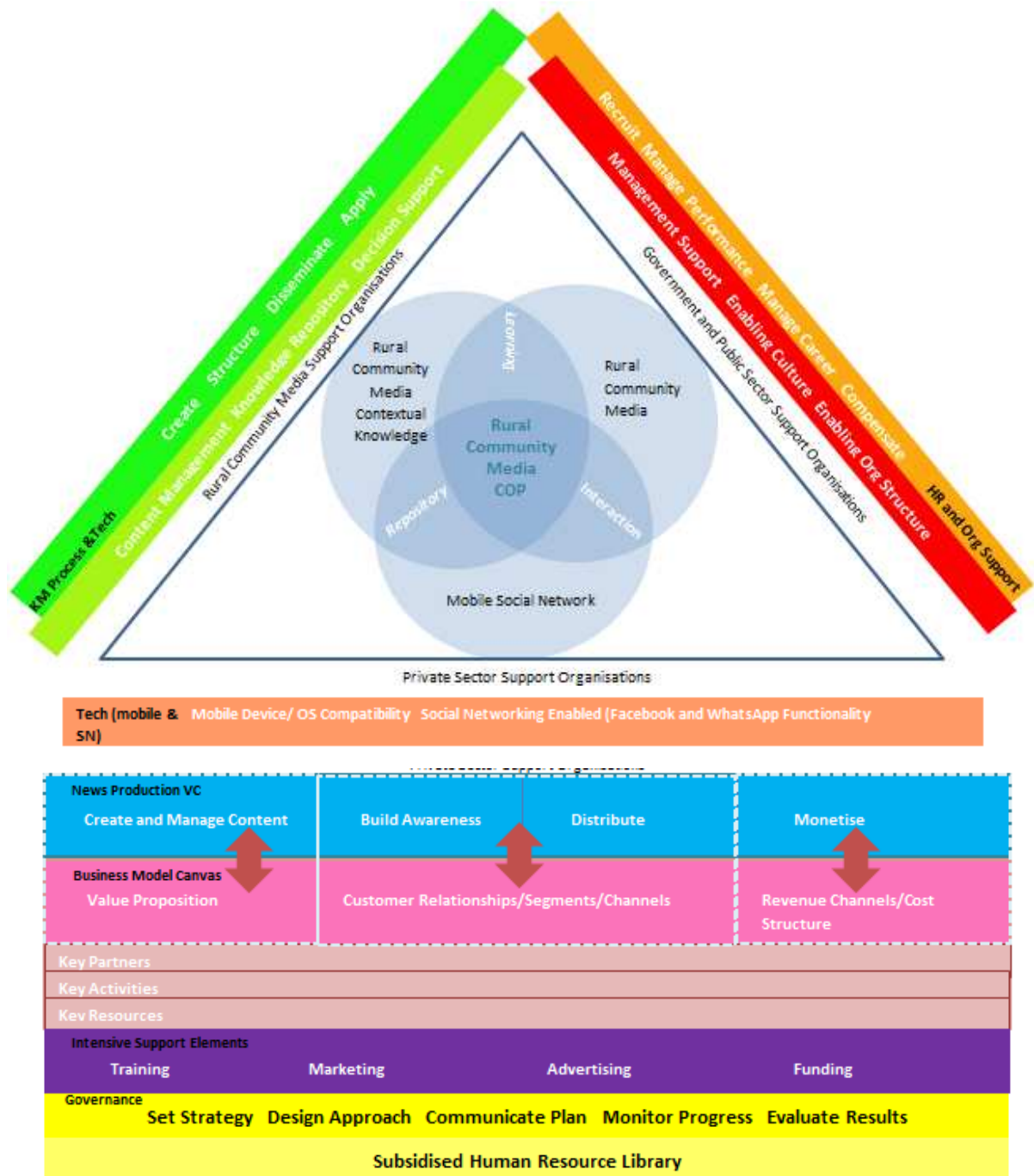


Figure 62: The Rural Community Media Mobile Social Networking Framework

The framework comprises a number of elements validated through the literature review and case study analysis as necessary for development of a mobile social network in order to create a virtual community of practice in aid of improved of rural community media operational efficiency.

Model components comprise the following:

- **Virtual Rural Community Media Community of Practice:** this component represents the collaboration and knowledge sharing environment created due to the intersection of the following components:
 - **Rural Community Media:** This component represents the people, the actual rural community media entrepreneurs and the people employed within their SMMEs.
 - **Mobile Social Network:** This is the technology component of the community of practice, this component is the item that enables the virtual characteristic of the framework allowing rural community media to organise collaboration in virtual space via social networking technology accessible via their mobile devices
 - **Rural Community Media Contextual Knowledge:** This component represents the context specific knowledge that the rural community media have, as well as new knowledge and ideas created due to collaboration enabled via the mobile social networking component
 - **Learning:** This component is the result of the intersection of the rural community media and the rural community media contextual knowledge, representing an outcome of their collaboration with each other
 - **Interaction:** This component is the result of the intersection of rural community media and the mobile social networking component, representing an outcome of collaboration between people and the social networking technology
 - **Repository:** This component is the result of the intersection of the mobile social networking technology and the rural community media contextual knowledge, representing an outcome of the interaction of knowledge with technology that has the capability of saving and capturing knowledge and information emerging from social interaction

- **Enabling Environment/Community Context:** This component is represented by the triangle enveloping the knowledge ecosystem that creates the community of practice. Organisations represented in this component of the framework would be able to interact with the rural community media via the mobile social networking framework. It is suggested that specific access/space is created for them within the framework in order to allow for specific engagement. All specific programs developed to support community media would be made accessible via the mobile social networking platform, including any negotiated platforms/procedures/policies/processes. This item is created due to the interaction of the following supporting elements that surround the community of practice:
 - **Rural community media support organisations:** This component specifically represents support organisations within the Eastern Cape Province of South Africa, created by the rural community media in order to provide additional support and structure to the Eastern Cape community media environment

- **Government and public sector support organisations:** This component represents various government and public sector organisations operating within this environment in order to support rural community media
- **Private sector support organisations:** This component represents various private sector organisations operating within this environment in order to support rural community media

Three additional supporting components of the knowledge ecosystem and community of practice flank the triangle representing the enabling environment/community context. These are:

- **Knowledge Management Processes and Technology:** This component flanks the triangle on the side where the knowledge component of the knowledge ecosystem is located. This was done to indicate that this element is also in support of the knowledge component of the knowledge ecosystem. The item comprises the following:
 - **Knowledge management process:** comprising the process elements of create, structure, disseminate and apply knowledge
 - **Knowledge management technology:** comprising content management, knowledge repository and decision support
- **Human Resource and Organisational Support:** This component flanks the triangle on the side where the people component of the knowledge ecosystem is located. This was done to indicate that this element is also in support of the people component of the knowledge ecosystem. The item comprises the following:
 - **Human resource process:** comprising the process elements of recruit, manage performance, manage career, compensate
 - **Organisational support elements:** comprising management support, enabling culture and enabling organisational structure
- **Mobile and Social Networking Technology:** This component flanks the triangle on the side where the mobile social network component of the knowledge ecosystem is located. This was done to indicate that this element is also in support of the mobile social network component of the knowledge ecosystem. The item comprises considerations and elements for mobile device and mobile OS functionality as well as social networking functionality, specifically incorporating Facebook and WhatsApp functionality.

Further supporting and foundation elements of the framework comprise the following:

- **News production value chain:** this element specifically comprises the following process steps; create and manage content, build awareness, distribute, monetise
- **The business model canvas:** this element specifically comprises elements of the business model canvas. These are:
 - Value proposition
 - Customer relationships, segments and channels

- Revenue channels and cost structure
- Infrastructure components: Key partners, key activities, key resources

The relationship between the VC and BMC components is indicated by bi-directional arrows that indicate elements which impact each other. The table below provide a view of the relationships between the VC and BMC elements:

News Production VC Component	BMC Component	Relationship
Create and Manage Content	Value Proposition	The nature and type of content produced by the rural community media SMME is one of the key differentiating elements of their product, representing the value proposition that the SMME provides to their select customer base. Linking the two elements enables the SMME to ensure that it strongly differentiates itself in the market based on the nature of their product/service
Build Awareness/Distribute	Customer Relationship/ Segment/Channels	The process elements comprising building awareness and distribution will depend heavily on the rural community media SMMEs customer base as far as customer relationships, customer segment and customer channels are concerned. Identifying customers on the basis guided by the BMC will form a key influence for these two value chain components
Monetise	Revenue Channels/ Cost Structure	The ability to generate revenue at the end of the news production value chain links with the identified revenue channels and cost structure of the rural community media SMME products or service. Defining and understanding the revenue channel and cost structure of the specific SMME will enable the ability to effectively carry out the monetise step of the value chain process

Table 27: Relationship between News Production VC and the Business Model Canvas Elements

The following additional components were added to the framework as an outcome for the fieldwork:

- **Intensive Support Elements:** This component comprises elements identified as requiring special support as an outcome of the case study. The elements identified for intensive support are as follows:
 - Training
 - Marketing
 - Advertising
 - Funding
- **Governance:** This component comprises a generic governance process. Governance was identified from the expert review and case study as an area required focus and support. Process steps include the following:
 - Set strategy
 - Design approach
 - Communicate plan
 - Monitor progress
 - Evaluate results
- **Subsidised human resource library:** This component was included as an outcome of the case study findings. The item specifically deals with the availability of skilled resources. The element aims to provide a pool of skilled resources required by the rural community media, subsidised by the supporting organisations that assist in creating an enabling environment, namely: rural community media support organisation in the Eastern Cape, Government, Public Sector and Private Sector support organisations. The human resource library aims to provide a steady set of skilled resources that is always available to rural community media and shared amongst them. Examples of resources would be Journalists, Editors, and Graphic Designers etc.

Having provided a view of the updated Rural Community Media Social Networking Framework, the researcher will now present the feedback received via the expert review.

6.4 Expert Review

This study made use of experts to validate the proposed model. The sections following will provide a view as to how the experts were selected and provide feedback from the experts engaged on this study.

6.4.1 Selection of the Experts

It was critical to select experts who were relevant to the study and who could add value to the research through critically analysing the proposed model and providing constructive feedback. The selection steps for the experts were as follows:

- Clarify and ensure understanding of the role of expert review for research
- Review major players in the Rural Community Media Space
- Develop a short list of possible experts who could add value

- Assess potential expert qualifications and experience in their respective fields
- Approach experts to confirm whether they would agree to participate
- Once agreed, share relevant info, submission details and schedule time and location for the discussion
- Analyse and transcribe results

Experts provided written feedback on the proposed model which was discussed verbally in order to confirm certain views and ensure understanding. Following this the feedback was then reviewed separately by the author, analysed further and transcribed.

Summary of experts engaged in this respect is detailed below:

	Highest qualification	Country	Present role	Reasons for Selection
Expert 1	Masters	South Africa	Executive Director within the media industry, her organisations specialises in support of community print media. Total of over 15 years in the print media industry	An expert in the community media space, specifically rural community media
Expert 2	Bachelors	South Africa	MD of two SMMEs operating in the Eastern Cape. A total of over 12 years in the SMME space, has a consultancy that has assisted SMME start-up in the Eastern Cape and provided advisory and support services	An expert in the SMME space, specifically SMMEs operating in the Eastern Cape

Table 28: Expert Demographics

6.4.2 Feedback from Expert 1

Expert one currently works in an organisation that has been operating in the rural community media space since 2006, which amounted to a total of nine years in the space. They have a total of only three employees however with their National office based in Johannesburg.

They held the view that ICT can facilitate access to support services, identifying connectivity and cost as constraints. The organisation indicated that community media do generally require advice and support across

all the items identified in the study, specifically mentioning advertising, sales and marketing as areas that required attention. They added that these business tend to be largely one man operations (generally pushing the entire value chain on their own) with additional human resources generally focusing on journalism, resulting in gaps in all other identified areas. Expert 1's organisation engages the rural community media regularly through training, AGMs and National conferences. As one of the organisation assisting with supporting rural community media the view is that support services are easily and readily accessible by them.

They readily engage community media via phone and encourage community media to utilise the internet and social media for business. Expert 1 indicated that although most rural community media SMMEs have their own websites, they experience challenges related to the creation and administration of their websites. They do caution on the use of Facebook in that sharing their content on this platform would mean consumers would not need to consume their actual product and advise that not many community media make use of twitter at the moment.

Expert 1 welcomed the idea of a technology enabled framework that could assist rural community media engage better and assist in strengthening their operations, advising that these kinds of interventions are required in order to strengthen the environment. Expert 1 agreed with outcomes of the case study specifically advising the author to include a governance component as an iterative process, suggesting the following process steps as follows:

- Set Strategic Objectives
- Design Approach/Develop Plan
- Communicate Approach/Plan
- Assess and Monitor Progress
- Evaluate Results

It was stated that the model appeared comprehensive. The knowledge management and sharing component of the process was specifically commended.

6.4.3 Feedback from Expert 2

Expert 2 is an expert in the SMME space in the Eastern Cape and also provides advisory services to SMMEs generally.

They held the view that application of ICT in the SMME space in the Eastern Cape specifically can assist with addressing the isolation and access to resources issue. Expert 2 mentioned that SMMEs often struggle with obtaining access to information, specifically mentioning delays in receipt of key information and knowledge as an impediment faced by many SMMEs. Access to funding was raised as a specific issue as well as requirements for skills development. SMMEs also struggle with the structuring of their businesses and establishment of key process that could enable their business, support in this specific area was also mentioned as necessary.

The framework was stated as being good overall; however concern was raised on the complexity, based on presentation of the framework. It was suggested that the framework be presented with comprehensive descriptors of the various elements as well as guidelines on utilisation and implementation. Expert 2 indicated that it would be useful to extend the work to assess implementation and actual use of the framework at a later stage.

6.4.4 Summary of Expert Review Feedback and Actions Taken

The table below summaries the feedback obtained via expert review:

Review Themes	Summary of Combined Feedback	Actions Taken
Relevance	The framework was seen as relevant by both experts. Comment was specifically made that more interventions of this kind are required in order to strengthen SMMEs in general and rural community media specifically	As nothing was disputed no changes were made in this regard
Comprehensiveness	The framework was seen to be comprehensive with one expert specifically stating concern that it may appear complicated to some. It was suggested that effort be made to carefully explain all the framework elements in detail and provide guidelines for implementation	The researcher ensured that all model elements were explained in this section of the paper. Implementation guidelines were also made available
Strengths and Weaknesses	It was specifically suggested that a governance process be added to the model which corresponded with case study feedback. It was specifically suggested that the researcher include an explanation of the elements that comprise the mobile social network, in order to assist those who may not be well versed in technology to understand what comprises this component. Strengths of the	The researcher included governance process steps in the framework. The researcher also ensured to include an explanation of the components of the mobile social network specifically and included a graphic that depicted the mobile and social networking components. The relationship between the VC and BMC elements was adjusted to be bi-directional

framework included that it seemed to be based on in-depth research and addressed current issues impacting SMMs and rural community media specifically. Relationship between the VC and BMC elements was advised to rather be bi-directional as opposed to one way

Table 29: Summary for Expert Feedback and Actions Taken

General feedback received from the experts was positive and helpful in further enhancing the Rural Community Media Mobile Social Networking Framework.

6.5 Implementation Considerations

Implementation considerations for the proposed framework can be divided into two portions:

1. Formal establishment of Rural Community Media Community of Practice
2. Development and Implementation of Mobile Application based on the Rural Community Media Mobile Social Networking Framework

In establishing and formalising the community of practice Keyes (2006) provides the following as guidelines (the detail can be obtained in Chapter 2):

- **Determine the community's purpose:** The community of practice is established for the support of Rural Community Media in the Eastern Cape, with the aim of improving efficiency and sustainability of these organisations. An initial group of resources or project implementation team members needs to be nominated to drive the community of practice establishment and formalisation.
- **Clarify roles and responsibilities:** Once the community purpose has been established roles need to be identified and interim resources assigned. Roles can include the following:
 - *Functional sponsors:* to encourage community growth and commitment.
 - *Core group:* comprising knowledgeable and experienced subject matter
 - *Community leaders:* play a leadership role by providing focus, planning and scheduling meetings and events
 - *Members:* a voluntary role dependant on the extent to which the community meets stated and shared needs,
 - *Facilitator:* to provide process proficiency and sustain the community of practice by ensuring a supportive and conducive environment.
 - *Logistics coordinator:* to manage meetings, events and calendars

- *Functional support staff*: to provide technical support
- *Project historian*: to ensure adequate documentation management

- **Identify community members**: it is recommended that individuals who have an interest in the success of the community be identified and cultivated. Efforts should be made to recruit experts and trusted information sources to add value to the community

- **Formulate tools for communication and collaboration**: this can be an amalgamation of face-to-face meetings or events, shared databases, instant messaging, videoconferencing, chat rooms, etc. A key aspect of this will be developed in step two of the suggested implementation process/approach through the development of a supportive application as suggested by the technology component of the framework

- **Arrange an opening community workshop**: to engage community members, establish interest in the community and encourage constant participation. During this meeting the community's objectives should be elucidated through engaging the following activities:
 - Begin work on constructing relationship between community members
 - Establish ground rules, assign and explain roles
 - Discuss methods for creating, capturing, and sharing knowledge
 - Discuss and agree on the prioritised needs as they relate to knowledge and information
 - Categorise and address identified obstacles that may hamper success

The above set of steps as provided by Keyes (2006) provides a good basis for establishment and formalisation of the community of practice. Once the community of practice is operational, the platform through which they choose to engage is variable. The proposed framework suggests engagement via a mobile social networking platform, which must be facilitated through application of appropriate technology.

In this regard the second implementation consideration involves development of an application to support community of practice engagement. The author suggests development based on the Systems Development Lifecycle (SDLC). Rhodes (2012) states that a more flexible and accurate depiction of the SLDC is as an iterative process, this is depicted graphically below:

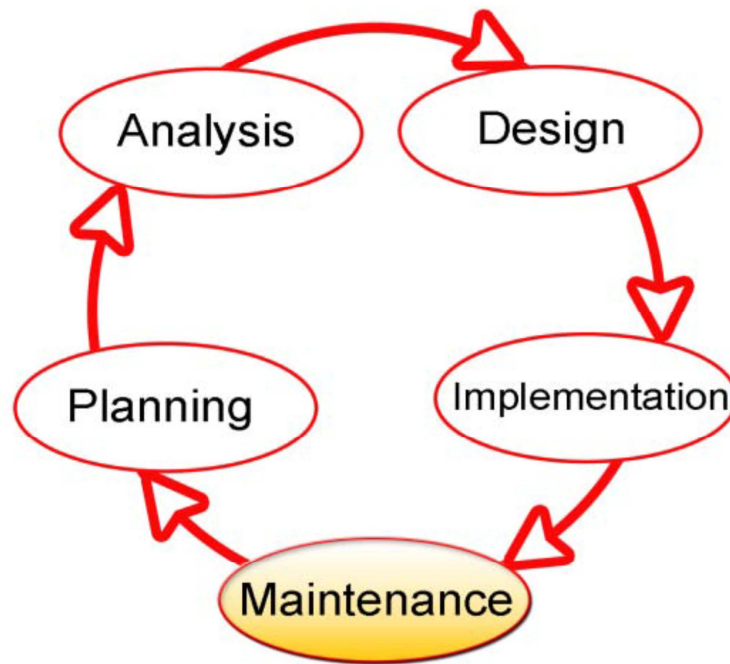


Figure 63: The SDLC as an Iterative Process (Rhodes, 2012)

- **Planning:** The planning portion of the process has to do with ensuring an understanding of the overall system development project and securing the resources required in order to deliver the system within stated time, cost and quality constraints (Rhodes, 2012). This step generally involves set up of the project team, confirmation of resources and sign-off of a detailed project plan
- **Analysis:** The analysis portion of the process above would incorporate requirements elicitation (Rhodes, 2012). The author suggests that this is done via the rural community media COP as established in step one of the implementation considerations. The aim of this phase would be to ensure that the user requirements are accurately captured and depicted via various analysis tools, scenarios and processes to ensure that the resultant system adequately meets user needs. The output of this step would be a signed user requirements specifications document, which would be utilised as input in the design step of the process. Specific consideration in the analysis stage is that the framework proposes a mobile social networking platform. Case study results suggest that the system should ideally combine aspects of Facebook and aspects of WhatsApp in order to enable external and internal engagement respectively. The framework also suggests that the system be linked to an information repository to enable engagement based on current information and knowledge and through interaction allow the creation of new information and knowledge. The system should ideally allow the creation of and interaction based on user profiles (similar to that of Facebook), allowing

users to engage other system users on this basis, to track history, to initiate chats and to share content

- **Design:** The design portion of the process has to do with designing the actual system and is based on the user requirements specification document (Rhodes, 2012). The result of the design phase is a design specification document that needs to be produced in sufficient detail to enable the technical resources to develop the system using appropriate code etc. The design specification document must also be signed off by user representatives
- **Implementation:** Implementation involves actual system development based on the design specification document (Rhodes, 2012). Implementation must also take testing into account and ensure that relevant TAM considerations are taken into account to ensure that the system will be accepted and appropriately utilised by the identified user community
- **Maintenance:** This step ensures that the system is consistently reviewed and updated to address changes, bugs, fixes etc. and remains usable as intended throughout the system lifecycle (Rhodes, 2012).

Following the steps above as indicated by the SDLC will enable design of a robust system that meets the requirements of the proposed framework. The technology acceptance and adoption theory considerations, detailed in Chapter 2 of this study, which specify fit for purpose, simplicity and ease of use, must be applied throughout the development lifecycle in order to ensure that the resultant application will be seen as useful by the selected user community and actually used as intended to facilitate their operations.

6.6 Conclusion

This section of the research presented the Rural Community Media Mobile Social Networking Framework, describing its various components in detail, followed by expert review findings and implementation considerations.

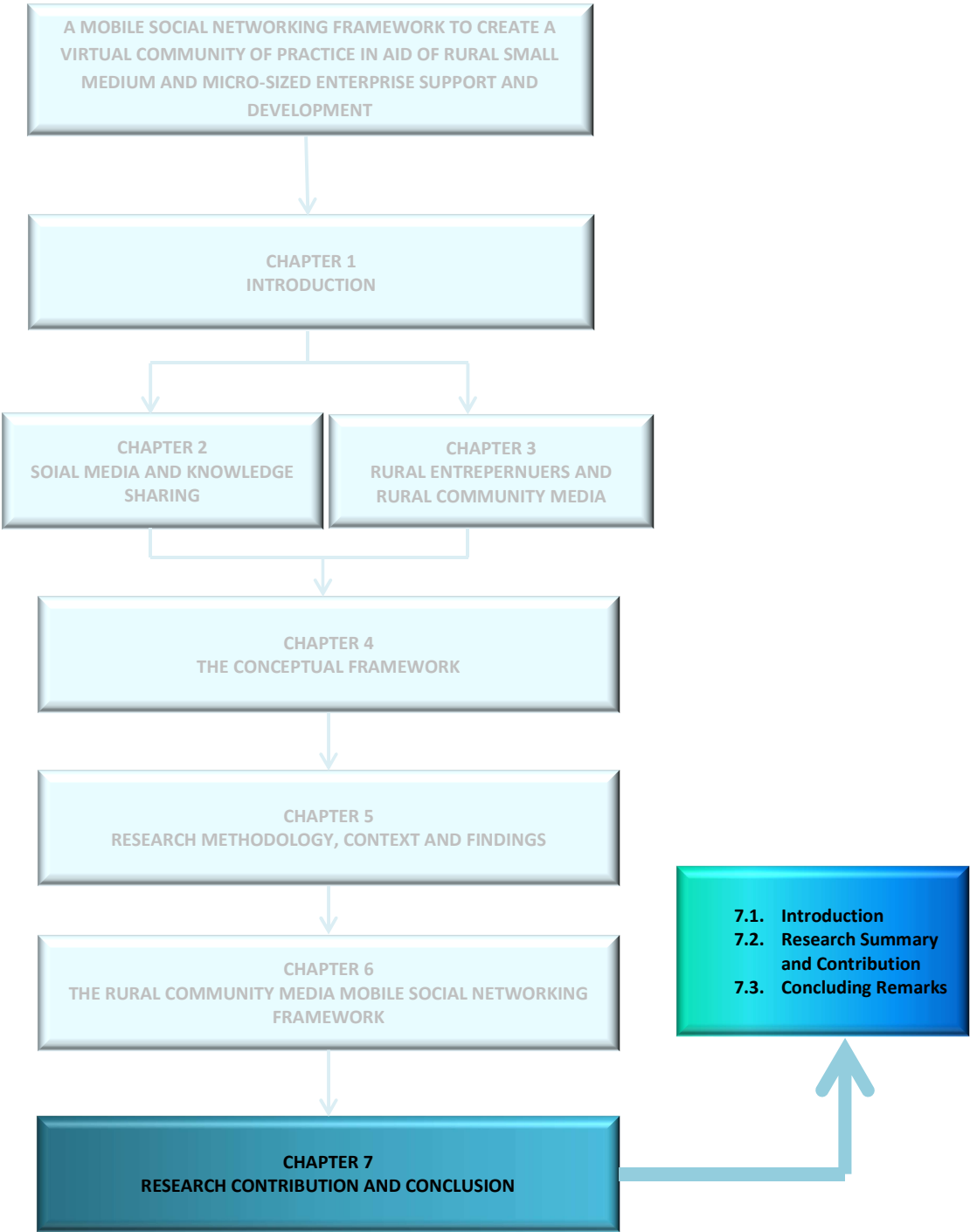
Expert review indicates that the Rural Community Media Mobile Social Networking Framework is relevant and useful for its intended purpose, which includes the following:

- To create a virtual community of practice in order to enable knowledge sharing for improved rural community media operational efficiency
- To enable better communication amongst rural community media and support stakeholders
- To enable improved access to resources that can improve rural community media operational efficiency

Having provided a view of the proposed framework developed as a result of this research, this chapter is followed by a concluding chapter, which details overall results of the research and ties them back to the

original research questions and sub-questions and stated objectives for which the research was initially carried out.

Chapter 7 – Diagrammatic Overview



Chapter 7 – Research Summary, Contribution and Conclusion

7.1 Introduction

The researcher has completed Phase 4 in the previous chapter and is now commencing Phase 5 of the research process. This phase comprises review of the work done in order to develop conclusions and recommendations.

The section of the research process that is now being carried out is depicted graphically below:

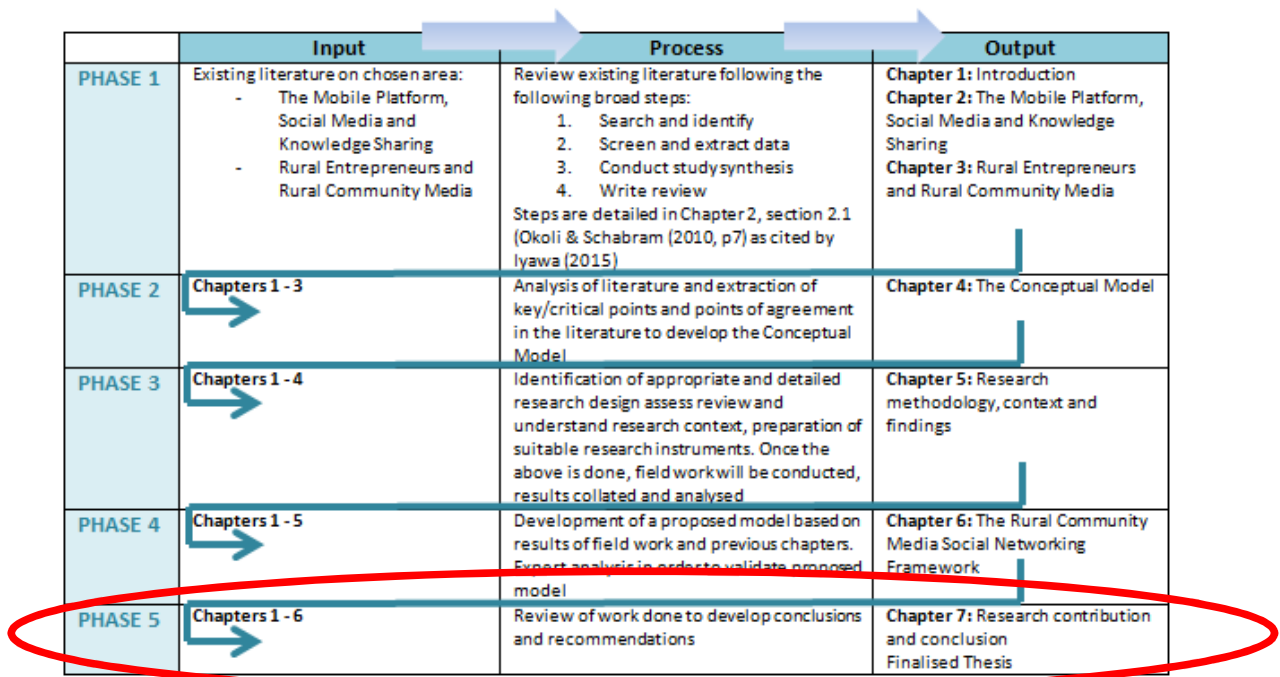


Figure 64: The Research Process Chapter 7

The sections that follow comprise the research summary, contribution and conclusion.

7.2 Research Summary and Contribution

This study has been structured into seven chapters. The first chapter provided the research introduction and delimitation, followed by literature review chapters' two to three, covering the mobile platform, social media and knowledge sharing, and rural entrepreneurs and rural community media. Chapter four presented the conceptual framework developed as a result of the literature review, with chapter five presenting the research methodology, context and findings. Chapter six presented the Rural Community Media Mobile Social Networking Framework and feedback from expert review. The current chapter is the last chapter of this study comprising research summary, contribution and conclusion.

Klein and Myers (2000) proposed a set of seven principles that can be used to effectively evaluate interpretive studies. Results of study review on this basis are presented in the table below, which summarises the analysis conducted in this study based on these seven principles:

Research Principle	Application in this Study
1. The Fundamental Principle of the Hermeneutic Circle	
This principle suggests that all human understanding is realised through iterating between understanding the meaning of the parts and the whole that they comprise. This principle of human understanding is essential to all the other principles.	This principle was applied during data analysis. Multiple case studies were conducted; each case was assessed individually. Subsequently case study findings were compared to each other in order to identify common trends.
2. The Principle of Contextualization	
Requires serious consideration of the social and historical background in which the research is taking place, so that the intended audience is able to understand what led to the situation which is currently being investigated.	The context within which the rural community media operate formed a key aspect of this study as it is the context of operation that impacts their performance. The framework proposed attempted to address the contextual challenges.
3. The Principle of Interaction Between the Researchers and the Subjects	
Requires serious consideration of how the research data was socially constructed based on the interaction between the researcher and research participants.	This principle came into effect during case study implementation. The researcher remained aware of the manner in which engagement with case study participants took place and the impact that had on case study outcomes.
4. The Principle of Abstraction and Generalization	
Requires connecting the distinctive specifics exposed by data analysis through the application of the first two principles to concepts that define the nature of human understanding and social action.	This research compared and contrasted assertions made in the literature review to case study findings in an attempt to develop new knowledge on the selected subject matter
5. The Principle of Dialogical Reasoning	
Requires sensitivity to likely contradictions between the hypothetical preconceptions guiding the research design and actual findings.	The research conducted a literature review in order to reflect and discuss the current stance on the research subject. Case studies were conducted that largely validated conclusions drawn from the literature. Results were utilised to develop a supporting framework.
6. The Principle of Multiple Interpretations	
Requires sensitivity to likely dissimilarities in interpretations among research participants as expressed through	The research made use of multiple case study and data triangulation in order to improve data

numerous narratives or stories of the same sequence of events under investigation.	validity. Expert review was be utilised to further corroborate findings
7. The Principle of Suspicion	
Requires sensitivity to likely bias and methodical distortion in the narratives collected from the research participants.	The researcher remained impartial in relating and reflecting results of data collection and analysis. Data was presented anonymously.

Table 30: Summary of Principles for Interpretive Field Research (Klein & Myers, 2000)

In view of the study evaluation conducted above, it is reasonable to conclude that the study has sufficiently met the threshold requirements to be considered methodologically and scientifically sound.

The next subsection provides a concluding summary of the five research sub-questions as well as the primary research question.

7.2.1 Summary of the Research Questions

Sub-problem1: What are the building blocks for a mobile social networking framework for SMMEs, which utilises virtual communities of practice as a vehicle?

This sub-problem sought to identify and describe the key building blocks of a mobile social networking framework which utilises communities of practices as an engagement vehicle. The sub-problem provided the context for the research, by defining the components of the framework from which the remaining research questions will follow and relate back to.

Building blocks for a mobile social networking framework were largely categorised as follows:

- Rural community media knowledge sharing elements/considerations
- Rural community media business and performance management model elements/considerations
- Mobile social networking technology elements/considerations

Detailed components of the framework were identified and presented in the Rural Community Media Mobile Social Networking Framework, presented in chapter six of this study.

Sub-problem 2: What are the knowledge sharing needs of rural SMME's?

Access to social networks means access to knowledge and the enhanced ability to share and build knowledge. In order to develop a service that can facilitate the growth and success of rural SMME's it is important to first determine and understand their knowledge sharing needs.

This sub-question sought to uncover the knowledge sharing needs of rural SMME's, specifically rural community media, through discussing and categorising them as well as the barriers to relevant knowledge and knowledge sharing constraints faced in rural areas. The purpose of this sub-question is to provide the background and context on which the research study itself is based.

It was established the rural entrepreneurs differ from urban ones only due to the context in which they operate. It was concluded that the nature of the rural location generally impacted rural community media negatively due to the relative isolation and lack of support perceived by businesses operating in the area. This highlighted the need for developing means to address this issue and contribute to facilitating sustainability and growth of these businesses.

Knowledge sharing needs spanned domain specific knowledge relating to the rural community media space and value chain. Information and knowledge pertaining to access to funding, internal business process and other support services was also identified.

Sub-problem 3: How can a virtual community of practice facilitate knowledge sharing, improved business support and socio-economic impact for rural SMME's?

Knowledge sharing can be utilised as a means to support SMME operation within the rural context through the creation of knowledge networks between SMME's, the community, various support and advisory organisations and the wider environment.

The proposed framework supports socio-economic development by allowing for the sharing of best practice and experience which can also act as a catalyst for sustainability of the SMMEs, specifically rural community media, as they will have a soundboard through the virtual community of practice to provide support and guidance. This may result in the improved operational efficiency of rural community media, impacting their socio-economic sustainability.

This sub-problem explores the possible use of virtual communities of practice in support of SMME operation.

It was concluded that the use of virtual communities of practice as a vehicle is possible given that all rural community media surveyed made use of their mobile phones and the internet on a daily basis to operate their businesses. It was also observed that all community media included in the case study conducted, as per chapter five of the research, were engaging their peers and stakeholders regularly via various forums in order to engage on advice and support. The rural community media mobile social networking framework will serve to support this practice.

Sub-problem 4: How do SMME's make use of mobile social networking to enhance their businesses?

SMME business enhancement can be achieved through improved access to government, private sector, SMME support and advisory organisations as well as the community at large. This sub-problem serves to highlight how access to mobile social networking can facilitate and support SMME's.

It is proposed that a better understanding of the contextual needs and priorities of the rural SMME's will assist stakeholders and support organisations to improve services to this business sector. SMME's will also be in a position to access and share relevant information that could facilitate their growth and operation more easily. This sub-question seeks to uncover the means with which mobile social networking can be of use to rural SMME's.

The research found that SMMEs utilised social networking to engage external customers on product offering and to market business and to engage external stakeholders for advice/support, it was also utilised to engage resources and employees internally for the purposes of navigating various business processes. Specific use of Facebook for external engagement and WhatsApp for internal engagement was noted.

Sub-problem 5: What different social networking possibilities exist that can support SMME's?

This research identifies social networking as a means through which improved support of rural SMME's can be facilitated. However, in order to utilise social networking as a tool with which to achieve this, the various possibilities with which social networking can be implemented needs to be explored, with a view to identifying an optimal fit for purpose option.

This sub-problem explored the various social networking possibilities that can be utilised for SMME support.

It was discovered via case analysis that most rural community media made use of Facebook and WhatsApp to conduct business. Facebook was utilised to engage externally while WhatsApp was utilised to engage internally. Based on the findings of the case study the social networking component of this framework should ideally be a combination of WhatsApp and Facebook to enable both internal and external engagement on business process and operations as well as marketing and consumer engagement respectively. The combination should enable social networking comprising an online profile driven service enabling engagement of peers, status updates, initiating chat etc. (Facebook functionality) and incorporate an instant messaging service enabling free messaging to a group of contacts (WhatsApp functionality) both accessible via mobile.

Main Research Question: How can a framework for mobile social networking support/enhance rural SMME's through the creation of virtual communities of practice?

It was found that a virtual community of practice created via development of a mobile social networking framework is a suitable vehicle for the provision of business support and advice. This is due to the fact that rural community media surveyed already make use of social networking and social media to enhance their business, they also access the internet regularly and utilise their mobile devices regularly while conducting business. It was also found that there is a need for specific business support services and advice in the rural community media space in order to improve the efficiency and sustainability of these organisations.

This research culminated in the development of the Rural Community Media Mobile Social Networking Framework which incorporates all the elements found in this research that would serve to assist community media by enabling access to information and knowledge allowing for improved operational efficiency on this basis and thus answering the main research question as presented above.

7.2.2 Contribution

Two types of contributions were made by this study to the current body of knowledge, namely, theoretical and practical contributions.

7.2.2.1 Theoretical Contribution

This study expands the domain of theories related to rural SMMEs, specifically rural community media, knowledge sharing and mobile social networking. The study has made theoretical contributions in various publications (see Annexures), emanating from this study. This research distinguishes itself from past studies in several respects. Within the current literature, there is little attention on mobile social networking frameworks for the support of rural community media in the Eastern Cape. Furthermore, there are few studies that provide a focus on establishing the link between the knowledge sharing requirements of rural SMMEs, specifically rural community media, their ability to succeed within the rural environment and their resultant contribution to the socio-economic upliftment of the rural communities they serve. This study also provides a discussion on rural vs. urban entrepreneur differentiators and definitions and how mobile social networking can assist within this particular context.

This study has made some practical contributions and these are discussed in the next subsection.

7.2.2.2 Practical Contribution

This study has proposed a framework that, if effectively adopted or implemented, has the potential to assist rural community media overcome some of the perennial challenges that have characterised their operation. These challenges are detailed throughout the study in the literature and case study findings and analysis and comprise access to enabling resources, access to information and knowledge, shortage of skills, internal business support and governance to name a few. Implementation of the Rural Community Media Mobile Social Networking Framework will assist in facilitating resolution of these challenges.

The framework presented can be implemented based on the implementation guideline provided in chapter six, with rural community media entrepreneurs and related stakeholders suitably guided through the process by knowledgeable practitioners.

7.3 Concluding Remarks

Rural community media have been identified as a significant component of the rural community communication process. They however face various challenges that negatively impact their ability to positively influence the environments they operate in

This study was conducted in order to uncover the reasons why support of these SMMEs is crucial. Stated reasons include acting as an agent for exposing rural populations to broader and relevant news and information and also serving as means to reflect the stories and experiences of rural populations to the broader environment.

Rural community media face challenges related to their rural context and the nature of the industry in which they operate, which was identified as being oligopolistic in nature. The nature of the industry introduced significant barriers to entry that limited the ability of rural community media to attain sustainability.

The Rural Community Media Mobile Social Networking Framework is developed in order to remedy this situation. Case study analysis and expert review confirm relevance of the framework. It is the authors considered view that implementation of the framework will assist in improving the operational efficiency of rural community media.

The author suggests a pilot project that implements and tests the framework developed as a result of this research as a way forward. This would facilitate modification of the framework in a manner that may make it more effective in meeting its stated objectives. In addition to this assessment of implementation considerations for other regions should be considered and should be initiated based on review of context specific issues or considerations in these environments that should be taken into account. As context specific issues may impact some of the supporting elements of the framework, these must be clearly understood and their possible impact on the framework assessed so that relevant framework and implementation amendments are made if necessary.

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9. Annexures

9.1 Annexure A: Ethical Clearance



University of Fort Hare
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ETHICAL CLEARANCE CERTIFICATE

Certificate Reference Number: HER051SZAK01

Project title: **Towards a social networking framework in aid of rural SMME support and development**

Nature of Project: PHD

Principal Researcher: Oliva Muwanga - Zake

Supervisor: Prof ME Herselman

Co-supervisor:

On behalf of the University of Fort Hare's Research Ethics Committee (UREC) I hereby give ethical approval in respect of the undertakings contained in the above-mentioned project and research instrument(s). Should any other instruments be used, these require separate authorization. The Researcher may therefore commence with the research as from the date of this certificate, using the reference number indicated above.

Please note that the UREC must be informed immediately of

- Any material change in the conditions or undertakings mentioned in the document
- Any material breaches of ethical undertakings or events that impact upon the ethical conduct of the research

The Principal Researcher must report to the UREC in the prescribed format, where applicable, annually, and at the end of the project, in respect of ethical compliance.

Special conditions: Research that includes children as per the official regulations of the act must take the following into account:

Note: The UREC is aware of the provisions of s71 of the National Health Act 61 of 2003 and that matters pertaining to obtaining the Minister's consent are under discussion and remain unresolved. Nonetheless, as was decided at a meeting between the National Health Research Ethics Committee and stakeholders on 6 June 2013, university ethics committees may continue to grant ethical clearance for research involving children without the Minister's consent, provided that the prescripts of the previous rules have been met. This certificate is granted in terms of this agreement.

The UREC retains the right to

- Withdraw or amend this Ethical Clearance Certificate if
 - Any unethical principal or practices are revealed or suspected
 - Relevant information has been withheld or misrepresented
 - Regulatory changes of whatsoever nature so require
 - The conditions contained in the Certificate have not been adhered to
- Request access to any information or data at any time during the course or after completion of the project.
- In addition to the need to comply with the highest level of ethical conduct principle investigators must report back annually as an evaluation and monitoring mechanism on the progress being made by the research. Such a report must be sent to the Dean of Research's office

The Ethics Committee wished you well in your research.

Yours sincerely


Professor Gideon de Wet
Dean of Research

01 October 2014

9.2 Annexure B: Case Study Questionnaire



University of Fort Hare
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Ethics Research Confidentiality and Informed Consent Form

Ms. Oliva Muwanga-Zake a student at the University of Fort Hare / Information Systems Department is asking your Organization as part of the Eastern Cape Community Media to answer some questions related to your operations, which we hope will benefit your business community in the future.

Ms. Oliva Muwanga-Zake a student at the University of Fort Hare / Information Systems Department is conducting research regarding the development of a Social Networking Framework to assist Rural SMME Development and Support. We are interested in finding out more about your experience specifically regarding the context you operate in, any support services you may utilise and whether you make use of technology to support your business operation. We are carrying out this research to help develop a framework to Support Rural SMMEs with accessing support through the use of appropriate technology.

Please understand that you are not being forced to take part in this study and the choice whether to participate or not is yours alone. However, we would really appreciate it if you do share your thoughts with us. If you choose not to take part in answering these questions, you will not be affected in any way. If you agree to participate, you may stop me at any time and tell me that you don't want to go on with the interview. If you do this there will also be no penalties and you will NOT be prejudiced in ANY way. Confidentiality will be observed professionally.

I will not be recording your name anywhere on the questionnaire and no one will be able to link you to the answers you give. Only the researchers will have access to the unlinked information. The information will remain confidential and there will be no "come-backs" from the answers you give.

The interview will last around 30 minutes. I will be asking you questions and ask that you are as open and honest as possible in answering these questions. Some questions may be of a personal and/or sensitive nature. I will be asking some questions that you may not have thought about before, and which also involve thinking about the past or the future. We know that you cannot be absolutely certain about the answers to these questions but we ask that you try to think about these questions. When it comes to answering questions there are no right and wrong answers. When we ask questions about the future we are not interested in what you think the best thing would be to do, but what you think would actually happen.

If possible, our organisation would like to come back to this area once we have completed our study to inform you and your community of what the results are and discuss our findings and proposals around the research and what this means for people in this area.

INFORMED CONSENT

I hereby agree to participate in research regarding the development of a Social Networking Framework to assist Rural SMME Development and Support. I understand that I am participating freely and without being forced in any way to do so. I also understand that I can stop this interview at any point should I not want to continue and that this decision will not in any way affect me negatively.

I understand that this is a research project whose purpose is not necessarily to benefit me personally.

I have received the telephone number of a person to contact should I need to speak about any issues which may arise in this interview.

I understand that this consent form will not be linked to the questionnaire, and that my answers will remain confidential.

I understand that if at all possible, feedback will be given to my community on the results of the completed research.

.....

Signature of participant

Date:.....

Field Questionnaire

Background Questions

4. How long have you been in operation?

5. How many employees do you have?

6. What town/city is your business based in?

Sub-problem1: What are the building blocks for a mobile social networking framework for SMMEs, which utilises virtual communities of practice as a vehicle?

2. Do you think ICT can facilitate engagement and access to support services, information and knowledge sharing in a manner that can assist your business? **YES/NO (circle relevant)**
- a. If yes, what do you think you need in order to leverage ICT to support your business?

Sub-problem 2: What are the knowledge sharing needs of rural SMME's?

4. Do you need business advice/support? **YES/NO (circle relevant)**
5. If yes, what areas do you require support in **(Please tick all that apply)?**
- a. Financial Management/Funding Support
 - b. Business Planning and Management
 - c. HR Management
 - d. Internal Business Process
 - e. Training (Writing/Marketing/Management etc.)
 - f. Stakeholder Engagement and Support
6. What are the most challenging issues impacting your business right now?

Sub-problem 3: How can a virtual community of practice facilitate knowledge sharing, improved business support and socio-economic impact for rural SMME's?

3. Do you engage other community media or community media stakeholders for advice/support? **YES/NO (circle relevant)**

- a. If yes, how often and what areas do you engage in for advice/support?

4. Do you feel that the advice/support/resources you need to thrive as a business are readily available/accessible? **YES/NO (circle relevant)**

- a. If no, why, what are the issues/challenges impacting you in this respect?

Sub-problem 4: How do SMME's make use of mobile social networking to enhance their businesses?

3. Do you make use of your cellphone for your business? **YES/NO (circle relevant)**

- a. If yes how do you use your cellphone to facilitate your business (e.g. phone calls, sms etc.)?

4. Do you access the internet for business purposes? **YES/NO (circle relevant)**

- a. If yes, how often do you access the internet for business purposes?

- b. What challenges do you experience around internet access, if any?

Sub-problem 5: What different social networking possibilities exist that can support SMME's?

2. Do you make use of social media for business purposes? **YES/NO (circle relevant)**

- a. If yes, which applications/sites do you make use of **(Please tick all that apply)**?

- i. WhatsApp
- ii. MixIT
- iii. Facebook

- iv. Linked In
- v. Twitter
- vi. Instagram
- vii. Pinterest
- viii. Other (please specify) _____

b. If yes, how do you utilise social media for business purposes (advertising, networking)?

c. If no, why not?

Note: All highlighted sections are for the purposes of categorising the questions in respect to the research and not for posing to the case study participants

9.3 Annexure D: Proof of Submission South African Journal of Information Management





SOUTH AFRICAN Journal of Information Management

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Dear Oliva Muwanga-Zake, Marlien Herselman

Ref. No.: 730

Title: An Investigation into possibilities for implementation of a Virtual Community of Practice delivered via a Mobile Social Network for Rural Community Media in the Eastern Cape South Africa
 Journal: SA Journal of Information Management

We confirm and thank you for submitting your manuscript. Please use the manuscript reference number given above in all future correspondence.

With the online journal management system that we are using, you will be able to track progress of the manuscript through the editorial process by logging into the journal's website:

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 Username: olva

Your new submission will undergo a preliminary review by the editor to assess whether the article is within the focus of the journal.

Thank you for considering this journal to publish your work. If you have any questions, please do not hesitate to contact me.

Kind regards
 Title Operations Coordinator
 SA Journal of Information Management

SA Journal of Information Management

9.4 Annexure E: South African Journal of Information Management Article

An Investigation into possibilities for implementation of a Virtual Community of Practice delivered via a Mobile Social Network for Rural Community Media in the Eastern Cape South Africa

- **Article title:** An Investigation into possibilities for implementation of a Virtual Community of Practice delivered via a Mobile Social Network for Rural Community Media in the Eastern Cape South Africa
- **Significance of work:** Rural community media represent a critical component of the rural community media communication process that enables access to information and knowledge. These SMMEs are however struggling with attaining sustainability due to constraints imposed by the rural location and industry specific constraints. This article details the results of research conducted to assess possibilities of utilising mobile social networking to create a virtual community of practice that can assist these SMMEs in accessing the required support and thereby improve their operational efficiency. Doing so would serve to assist these SMMEs in performing the function of informing and educating rural communities as well as serving as means for the rural community to reflect their reality to the broader environment more effectively
- **Full author details:** Ms. Oliva Muwanga-Zake, Student, University of Fort Hare (oliva.zake@gmail.com); Professor Marlien Herselman, Adjunct Professor in Department of Information Systems, Faculty of Management and Commerce, University of Fort Hare (East London Campus) & Chief researcher, Meraka Institute, CSIR, Pretoria (mherselman@csir.co.za)
- **Corresponding author:** Ms. Oliva Muwanga-Zake
- **Summary: Number of Words: 3379, No of Pages: 10, No. of Figures: 8**

An Investigation into possibilities for implementation of a Virtual Community of Practice delivered via a Mobile Social Network for Rural Community Media in the Eastern Cape South Africa

Abstract

- **Background:** The purpose of this article is to provide an overview of how a virtual community of practice can be delivered via a mobile social networking framework to support rural community media in the Eastern Cape Province of South Africa.
- **Objectives:** The article presents the results of a study conducted to ascertain the possibilities of utilising mobile social networking as a means to provide access to required information and knowledge to rural community media through creation of a virtual community of practice. Improving the operational effectiveness of rural community media as a component of the rural community communication process would serve to improve the entire rural community communication process as well, making them more effective tools for availing relevant news and information to rural communities and reflecting the realities of rural communities to their broader environment.
- **Method:** The study was conducted on rural community media SMMEs in the Eastern Cape Province of South Africa. The study applied an interpretive research philosophy, qualitative research design and multiple case study approach. Primary data was collected through semi-structured interviews supported by a questionnaire, with secondary data collected via literature review, observation and documentation analysis.
- **Results:** Findings were that rural community media do make use of social media and mobile devices in operating their business, require access to generic and domain specific support services and actively engage their peers and stakeholders in this respect, although no formalised structure existed. The authors' recommendation is to create a formalised virtual community of practice through establishment of a mobile social network.
- **Conclusion:** Due to the fact that rural community small micro and medium enterprises (SMMEs) already utilise mobile devices and social media to operate their businesses, development of a solution based on mobile social networking platform could be a useful tool in providing support to these SMMEs.

Introduction

The International Fund for Agricultural Development (IFAD, 2011, p7) states that in developing countries entrepreneurs and their micro and small-scale enterprises (MSEs) are recognised as “necessary engines for achieving national development goals such as economic growth, poverty alleviation, employment and wealth

creation, leading to a more equitable distribution of income and increased productivity..." MSEs have become a major concern in an attempt to accelerate growth rates in low-income countries such as Africa (IFAD, 2011). These enterprises are faced with unique problems that affect their growth reducing their ability to contribute effectively to economic development (IFAD, 2011).

Baumgartner, Schulz and Seidl, (2013) conducted a study that concluded that entrepreneurship in rural areas may not be a distinctive 'rural' phenomenon, rather 'rural' is conceptualised as specific attributes measured by specific indicators. As a result, rural entrepreneurs are seen not as following a process unique to them, but rather operating within a distinctive context or environment. Rural areas are generally afflicted by the twin economic ills of poverty and unemployment, with human resources typically employed below their productive potential (The Eastern Cape Development Corporation (ECDC), 2015).

The very nature of the rural environment itself inhibits the existence and/or cultivation of precursors that could subvert poverty and encourage socio-economic development (Duncombe, 1999). Based on this it is not surprising that entrepreneurs in rural areas face a host of difficulties (Horn and Harvey, 1998). Because these businesses are small and isolated, the people and information base needed to provide expert support for critical decisions and functions do not exist internally or externally within the rural location, further the needs of the enterprise are continuing not one-time and if the enterprise is successful, the needs grow (Horn and Harvey, 1998).

Rural areas typically share a number of common characteristics that constrain rural entrepreneurial operation, these comprise the following (Heeks, 2009):

- Lack of access to relevant information and knowledge
- Lack of Empowerment
- Lack of Participation and Inclusion
- Poor Communication and Information Flow

Rural Community Media

The authors have specifically scoped the research that informs this paper to focus on Rural Community Media as a specialised sub-segment of entrepreneurs operating in rural areas. The reasons for this decision were in part due to the effect and impact of community media on socio-economic development due to the role they play in enabling access to information and knowledge and giving a voice to poor and isolated communities.

Opubor (2000) states that amongst other things, human communities are built on the exchange of initiatives, information and meaning in the process of defining, creating and maintaining a collective identity in the interests of survival within a

specific geographical and/or cultural space. A community thus creates, and is also created by, a shared communication system, which comprise communication roles, needs and resources available to individuals and subgroups within this shared space (Opubor, 2000). “Community media should be viewed then as an element of a community communication system”...serving as instruments for role performance and resource utilisation in response to the communication needs of individuals and institutions within the community (Opubor, 2000, p3). In this light improving the operational efficiency of rural community media, as an element of the rural community communication system, will serve to also ultimately improve the efficiency of the rural community communication system as a whole.

Banda (2010) states that communication via community media could serve to build a sense of community amongst citizens. Banda (2010) further notes important implications for community media as follows:

- Greater access for citizens
- More use of community voices in news stories
- The possibility of citizen ownership and operation of media platforms
- Greater opportunity to experiment with more participatory approaches to communication

South African rural community media face specific challenges based on the broader South African media context as well as the rural context within which they operate. In assessing domain specific rural community media constraints and challenges, the Print and Digital Media Task Team (PDMTT, 2013) identify major rural community media challenges as being related to the news production value chain, which comprises the following broad steps:

- Create and manage content
- Build awareness
- Distribute
- Monetise

Uncovering means with which to support rural community media in effectively navigating their rural environment as well as accessing domain specific information and knowledge would facilitate improved operational efficiency and sustainability of these rural based SMMEs. Assessment of means to provide support to rural community media via access to relevant information and knowledge accessible through an appropriate technology based platform could aid in the development of a framework that would support rural community media through facilitating access to information and knowledge that could positively impact their operational efficiency.

Knowledge Sharing and Communities of Practice

Communities of practice are identified as a possible means to assist rural community media with accessing relevant information and knowledge. Karvarlics (2012, p2) states that the notion of communities of practice is based on the field of organisational learning and refers to “interest groups that get together at work and in social settings into which newcomers can enter and learn the socio-cultural practices of the community”. Karvalics (2012, p2) defines a community of practice as “a unique combination of three elements: a domain of knowledge, which defines a set of issues; a community of people who care about this domain; and the shared practice that they are developing to be effective in their domain”.

Uriarte (2008) adds that communities of practice have been proven to be excellent means to share knowledge amongst people who share a common interest. However, adequate technology infrastructure is needed for the creation, organisation, sharing and application of knowledge (Uriatre, 2008). Technology and the ability to use it and adapt it has become an important factor in generating and accessing the wealth, power and knowledge necessary for development (Pott, 2003). Based on the above arguments, the policy implications and emphasis clearly relate to two things; that of knowledge transfer and investment in technology (Mansell, 2012).

Mobile Social Networking

Mobile social networking is identified as a possible delivery component for development of a virtual community of practice that could assist rural community media. Social networking is a technology that is currently, pervasive, accessible and easy to use (Deloitte, 2012). Social networking sites are defined as web-based services that allow users to post a profile and connect to other users (Durham, Cragg, and Morrish, 2009). In recent years social media has also developed to allow for networking with professionals or same interest groups and community engagement (Durham *et al*, 2009). Durham *et al* (2009) add that low barriers to entry allow SMMEs to utilise social media in the same ways that large enterprises do without the need for extensive resources. They (Durham *et al*, 2009) further advise it likely that SMMEs could benefit from social media through jointly creating value with other parties.

Social media consists of content, communities and Web 2.0 technologies (Nicholson, 2011). In general social media refers to applications that are either completely based on user generated content or in which user generated content and the actions of users plays a substantial role in increasing the value of the application and/or service (Nicholson, 2011). Although social media was originally a tool for friends to connect, communicate and share online, it has now also been adopted as a business tool (Durham, Cragg & Morrish, 2009). Online business presence via social media is now more a norm than an exception.

Relevant literature reports that the key purpose of social media is to engage people in one of four ways (Nicholson, 2011), namely communication, collaboration, education and entertainment. The main advantages of transactions via mobile technology also apply to social media, as the former appears to be a key enabler of the latter. According to Murthy (2010) these advantages include ubiquity (available everywhere), localisation (location based engagement), personalisation (tailored to the individual) and convenience (anytime, anywhere). Trends in social media indicate increased use by a business. It is observed by Nicholson (2011) that social media has now graduated from being a fashionable trend to a strategic tool. This has resulted in increased attention from researchers and practitioners, with the former developing skills to better utilise the technology and the latter developing models to explore business value and examine aspects of use.

This paper presents outcomes of a study conducted to ascertain whether there is opportunity to utilise mobile social media to assist rural community media SMMEs in the Eastern Cape Province of South Africa, through creation of a virtual community of practice that could facilitate improved operational efficiency.

Research Methodology

This research seeks to answer the following research question:

How can a framework for mobile social networking support/enhance rural SMME's through the creation of virtual communities of practice?

The case study conducted was scoped to focus specifically on rural community media with fieldwork conducted in the Eastern Cape province of South Africa. The Research Methodology applied, is based on the Saunders, Lewis & Thornhill (2015) research onion. The study applied an interpretive research philosophy, qualitative research design and a multiple case study approach. Primary data collected through semi-structured interview supported by a questionnaire, with secondary data collected via literature review, observation and documentation analysis.

Hermeneutics was utilised as the data analysis technique where cross-case data analysis and triangulation were applied. Additional broad factors for inclusion in the study included that selected cases operate an SMME in a rural area in the Eastern Cape. The study was conducted in October 2015 in the Eastern Cape Province of South Africa.

Research Findings

On average the SMMEs surveyed were in operation for 5 years, with an average of 5 employees. All seven cases (n=37 participants) interviewed and surveyed held the view that ICTs can facilitate access to support services, information and knowledge

sharing to the benefit of their businesses. These results are depicted graphically below:

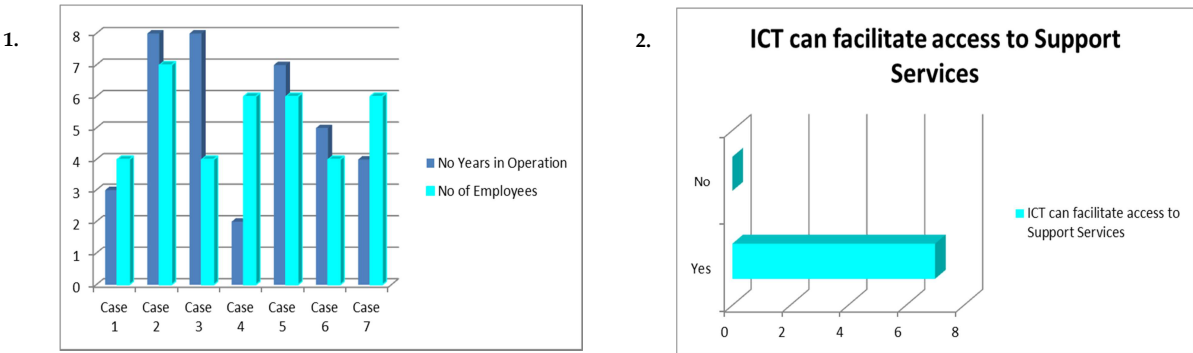


Figure 1: Case Demographics and Figure 2: ICT Use to Access Support Services

86% of the cases surveying indicated a need for business support and advice. Specific support areas are depicted graphically below.

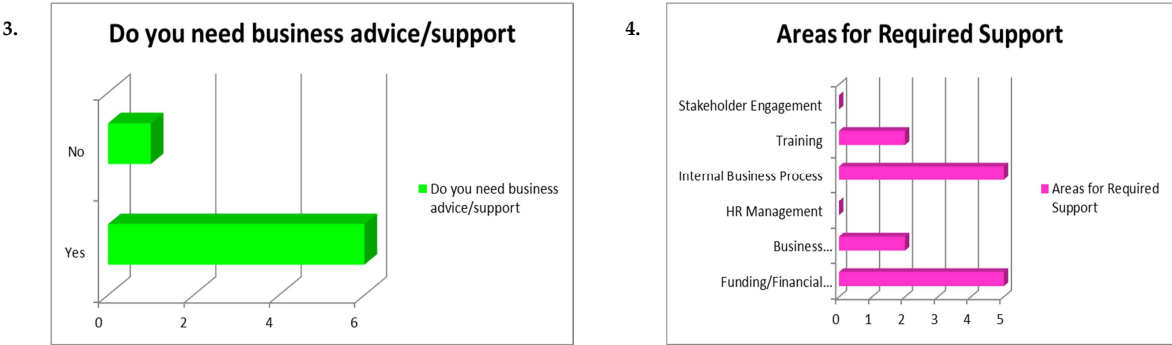


Figure 3: Access to Business Advice and Support/Figure 4: Areas for Required Support

The most challenging business areas were identified as follows; Advertising/marketing (Internal Business Process), Finance (Funding/Financial Management), Production and Distribution (Internal Business Process), Sustainability (Funding), Marketing (Internal Business Process), Administration (Internal Business Process).

100% of cases surveyed confirmed that they engage their peers and other community media stakeholders for advice and support regularly, with 57% indicating the support is not readily accessible. This depicted graphically below:

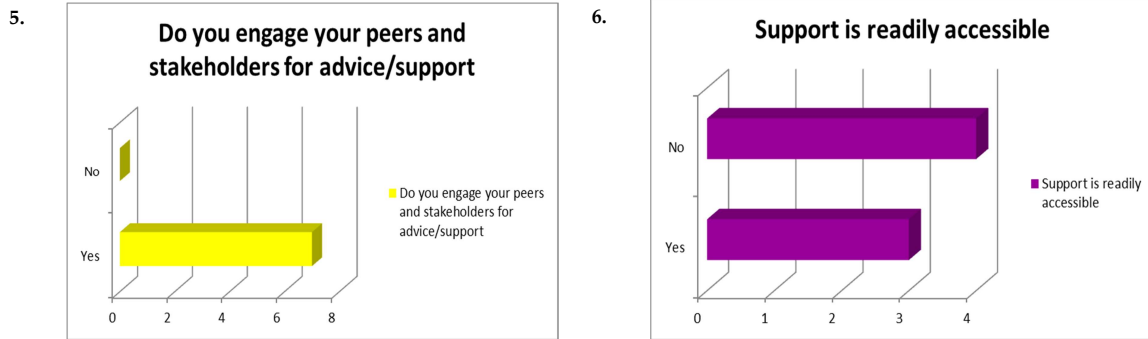


Figure 5: Case Engagement of Peers and Stakeholders /Figure 6: Availability of Support

100% of the cases surveyed indicated that they made use of their cell phones and the internet on a daily basis in order to operate their business. All cases surveyed made use of social media for business purposes. This is depicted graphically below:

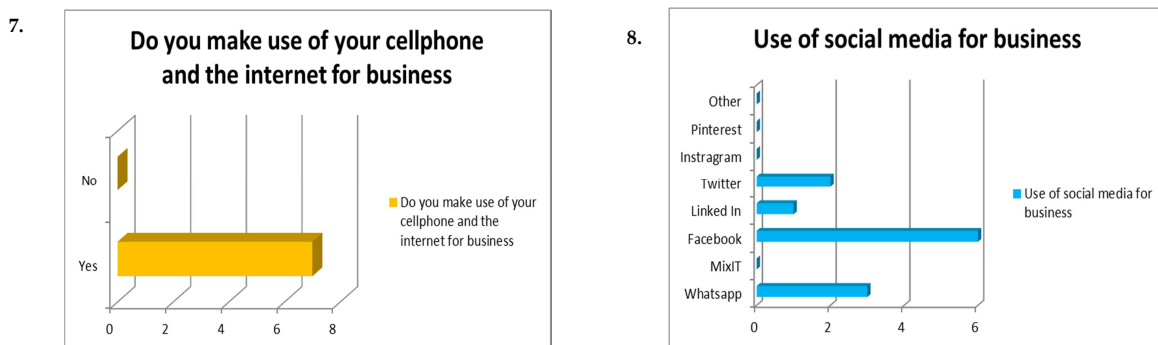


Figure 7: Use of Cell phone and Internet /Figure 8: Use of Social Media

It can also be seen from the above that WhatsApp, Twitter and Facebook were the popular choices of social media amongst the cases surveyed. WhatsApp was mainly used to assist with internal operations and team engagement while Facebook and Twitter were used to engage their consumers and market their product.

It was found that a virtual community of practice is a suitable vehicle for the provision of business support and advice. This is due to the fact that the rural community media surveyed already make use of social networking and social media to enhance their business, they also access the internet regularly and utilise their mobile devices regularly while conducting business. It was also found that there is a need for specific business support services and advice in the rural community media space in order to improve the efficiency and sustainability of these organisations. It was established that the rural entrepreneurs differ from urban ones only due to the context in which they operate. It was concluded that the nature of the rural location

generally impacted rural community media negatively due to the relative isolation and lack of support perceived by businesses operating in the area. This highlighted the need for developing means to address this issue and contribute to facilitating sustainability and growth of these businesses.

This research culminated in the development of the Rural Community Media Mobile Social Networking Framework. High level components of the framework supported by the field work and literature include:

- Rural community media community of practice elements/considerations
- Rural community media business model elements/considerations
- Mobile social networking technology elements/considerations

The Rural Community Media Mobile Social Networking Framework which incorporates all the elements found in the research as necessary for the creation of a virtual community of practice based on a mobile social networking platform, would serve to assist community media and answer the main research question as presented in the Research Methodology component of this article.

Conclusion and Recommendations

The following conclusions can be drawn from the case and expert review findings:

- There is no obvious correlation between number of years in operation and number of employees indicating that there may be a challenge with business growth if an increased number of employees is seen as an indicator
- There is a view that ICT can facilitate access to support services, information and knowledge sharing
- Additional business advice/support is required. Internal business process (sales, marketing, advertising, distribution and production) and funding are raised by the majority of cases surveyed as specific areas where support is required, followed by training and business planning/management
- All cases engage their peers and stakeholders regularly for advice and support
- There are mixed views on how accessible support in the environment is with 57% indicating the view that support is not readily accessible
- All cases make use of cellphones and internet for business purposes, cost of data was raised as an impediment
- All cases make use of social media for business with Facebook leading, followed by WhatsApp, Twitter and LinkedIn. Of note is the use of Facebook and the like for external engagement vs. the use of WhatsApp for internal engagement

Community media seem to already attempt to collaborate and share information, an ICT platform could further enable this practice. It was found that a virtual community of practice is a suitable vehicle for the provision of business support and

advice. This is due to the fact that rural community media surveyed already make use of social networking and social media to enhance their business, they also access the internet regularly and utilise their mobile devices regularly while conducting business. It was also found that there is a need for specific business support services and advice in the rural community media space in order to improve the efficiency and sustainability of these organisations. The development of a framework that could guide creation of a virtual community of practice enabled by a mobile social network would add value to the rural community media space.

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9.5 Annexure F: Proof of Submission African Journal of Information Systems



The African Journal of Information Systems



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Authors: Oliva Muwanga-Zake (*University of Fort Hare*), Marlien Herselman (*University of Fort Hare (East London Campus) & Chief researcher; Meraka Institute, CSIR, Pretoria*)

Status: under review

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AUTHOR(S):

"Oliva Muwanga-Zake" <oliva.zake@gmail.com>

"Marlien Herselman" <mherselman@csir.co.za>

SUBJECT AREA:

9.6 Annexure G: African Journal of Information Systems Article



The African Journal of Information Systems (AJIS) Publications Format Template

Research Paper

A Mobile Social Networking Framework in Aid of Rural Community Media Support and Development

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(December 2015, accepted month year)

ABSTRACT

Rural community media is one of the critical components in the rural community communication process. Especially when small business wants to communicate and access information which can assist them in improving their economic growth. These small medium and macro enterprises known as SMMEs are however struggling to achieve sustainability due to the various challenges and constraints impacting them. This paper presents the findings of an interpretive, qualitative multiple case study conducted on rural community media based in the Eastern Cape Province of South Africa. The case study was conducted via semi-structured interview, supported by observation and documentation analysis on seven randomly selected rural community media SMMEs. Findings resulted in the development of the Rural Community Media Mobile Social Networking Framework, developed for the purposes of creating a virtual community of practice with the aim of improving rural community media operational efficiency through access to relevant information and knowledge.

Keywords

Rural Community Media, Knowledge Ecosystems, Communities of Practice, Mobile Social Networks, ICT

INTRODUCTION

Media and a growing phenomenon of community media in African countries have witnessed a gradual liberation in recent years (Boafo, 2000). Notably though, many of the existing or emerging community media lack the economic, technical and human resources required for sustainability (Boafo, 2000). Boafo (2000) notes that UNESCO in its communication strategy and programme for Africa accords priority to encouraging the creation and support of community media. This is due to the view that community media create opportunities for rural populations to participate in a communication process that allows for the receipt and disclosure of news and information and the articulation of rural needs, views and opinions on issues impacting their lives (Boafo, 2000). Leurdijk, Slot and Nieuwenhuis (2012) support this view, adding that newspapers particularly are singled out as having democratic functions in informing citizens, setting the agenda for social debate and serving as a watchdog for political, economic, and social centres of power. They (Leurdijk et al, 2012) further state that products and services of the media and content industry are not just economic goods, but also have cultural value, and are considered important for democracy.

Approaches to community media development have often not been based on conceptual or practical foundations arising from a community communication system view point (Opubor, 2000). These inadequacies demonstrated the need for interventions based on a community communication strategy that would transform community media into informing, educating and entertaining tools that would empower non-privileged and marginalised people to think and speak for themselves (Opubor, 2000). In order to uncover means to facilitate more effective rural community media operation the authors assessed means with which to assist these organisations in accessing the required support. The aim of this process was to assist in identifying elements that may contribute towards the development of a framework supported by appropriate technology that could enable a supportive business environment for rural community media through the creation of a virtual community of practice.

RESEARCH METHODOLOGY

This case study conducted was scoped to focus specifically on rural community media with fieldwork conducted in the Eastern Cape province of South Africa. In summary the Research

Methodology applied, is based on Saunders, Lewis & Thornhill (2015) research onion, and comprises the following:

- **Research Philosophy:** The interpretive research philosophy was chosen for this study
- **Research Design:** The qualitative design was chosen for this study
- **Research Approach:** The case study approach will be used in the study
- **Data Collection Techniques:** Primary data will be collected through implementation of semi-structured interviews guided by a questionnaire and expert reviews, while the secondary data will be collected through literature review. Hermeneutics will be used as the data collection technique in this study.
- **Data analysis:** Cross-case data analysis and triangulation were applied

The rural community media SMMEs selected for inclusion in this study demonstrated variation related to years of operation, number of employees and location within the Eastern Cape South Africa. Selected cases for the study are depicted in the table below.

Case Name	Location	No. of Years in Operation	No. of Employees
Case 1	East London	3	4
Case 2	Phedi	8	7
Case 3	Mthatha	8	4
Case 4	Port Elizabeth	2	6
Case 5	Alice	7	6
Case 6	Mount Ayliff	5	4
Case 7	Kokstad	4	6

Table: Case Participants

The study resulted in the development of the Rural Community Media Social Networking Framework which is discussed in the section that follows.

THE RURAL COMMUNITY MEDIA MOBILE SOCIAL NETWORKING FRAMEWORK

The Rural Community Media Mobile Social Networking Framework has the following objectives:

- To create a virtual community of practice in order to enable knowledge sharing for improved rural community media operational efficiency
- To enable better communication amongst rural community media and support stakeholders
- To enable improved access to resources that can improve rural community media operational efficiency

The framework comprises a number of elements validated through the literature review, case study analysis and expert review as necessary for the creation of a rural community media social networking framework that can facilitate the creation of a virtual community of practice in aid of improved rural community media operational efficiency. The Rural Community Media Mobile Social Networking Framework is depicted graphically below:

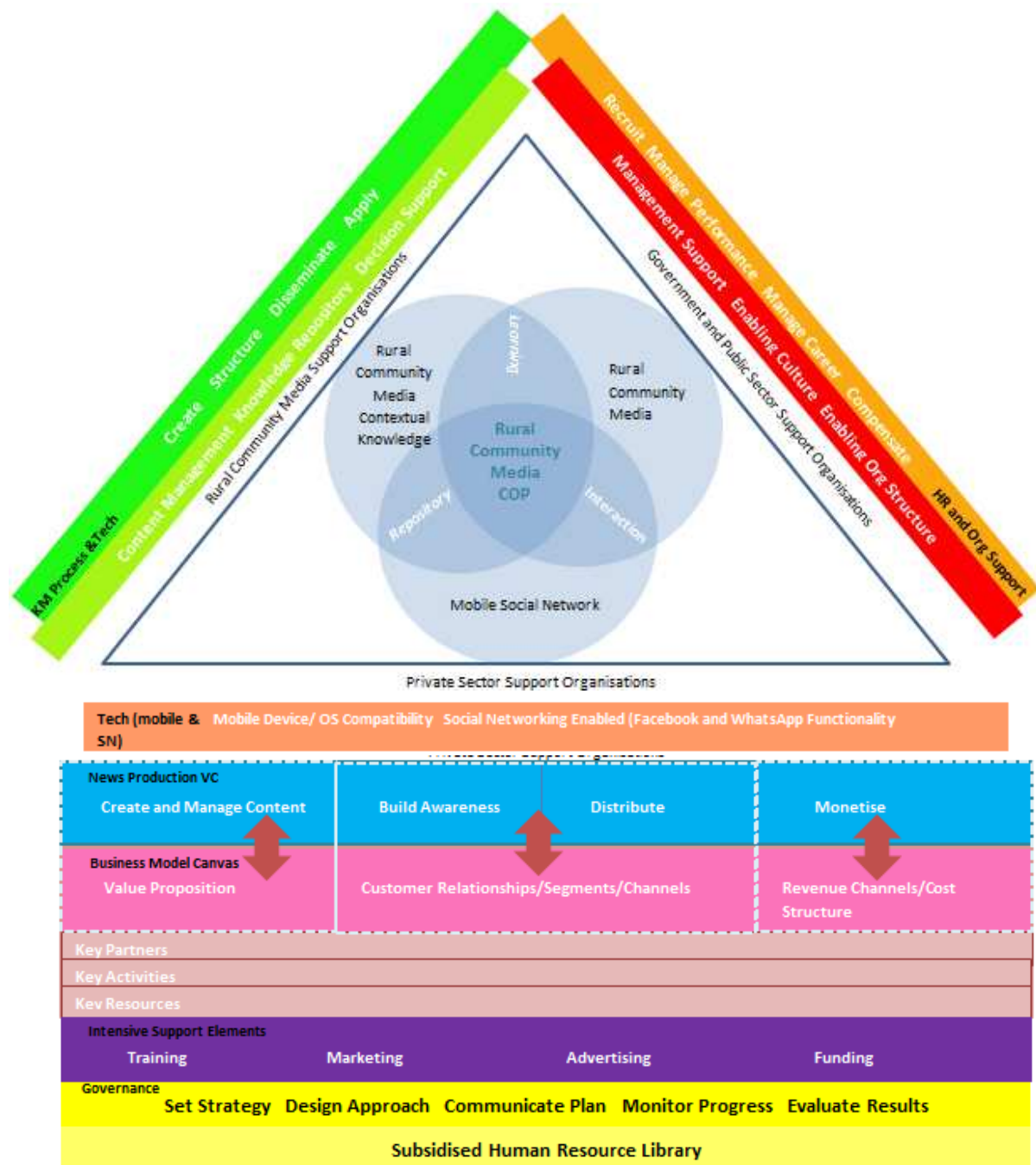


Figure 1: The Rural Community Media Mobile Social Networking Framework

The subsections that follow describe the components of the Rural Community Media Mobile Social Networking Framework.

Rural Community Media Virtual Community of Practice

Karvarlics (2012, p2) states that the notion of communities of practice is based on the field of organisational learning and refers to “interest groups that get together at work and in social settings into which newcomers can enter and learn the socio-cultural practices of the community”. Karvalics (2012, p2) defines a community of practice as “a unique combination of three elements: a domain of knowledge, which defines a set of issues; a community of

people who care about this domain; and the shared practice that they are developing to be effective in their domain”. These elements correlate with the elements of the knowledge ecosystem, which comprise people networks, knowledge networks and technology networks (Por, 2001) and the digital literacy model which comprises the social-cultural, cognitive and technical dimensions (Ng, 2012). The virtual characteristic of the virtual community of practice is contributed by a mobile social network. Lane, Walton-Flynn and Benlamlih (2008) define mobile social networking as a means to transmit information or communicate using a mixture of voice and data devices over networks. Mobile Social Networking refers to all enabling elements necessary for contributing and consuming social media across a mobile network (Lane *et al*, 2008). This component of the framework is created by through the development of a community of practice that organises engagement via a mobile social networking framework.

This component of the framework represents the collaboration and knowledge sharing environment created due to the intersection of the following components depicted graphically below:

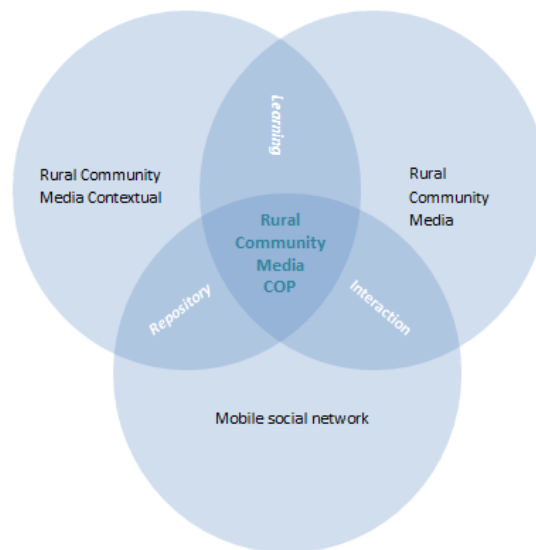


Figure 2: The Rural Community Media Mobile Social Networking Framework Virtual Community of Practice

- **Rural Community Media:** This component represents the people, the actual rural community media entrepreneurs and the people employed within their SMMEs.
- **Mobile Social Network:** This is the technology component of the community of practice, this component is the item that enables the virtual characteristic of the framework allowing rural community media to organise collaboration in virtual space via social networking technology accessible via their mobile devices
- **Rural Community Media Contextual Knowledge:** This component represents the context specific knowledge that the rural community media have, as well as new knowledge and ideas created due to collaboration enabled via the mobile social networking component
- **Learning:** This component is the result of the intersection of the rural community media and the rural community media contextual knowledge, representing an outcome of their collaboration with each other

- **Interaction:** This component is the result of the intersection of rural community media and the mobile social networking component, representing an outcome of collaboration between people and the social networking technology
- **Repository:** This component is the result of the intersection of the mobile social networking technology and the rural community media contextual knowledge, representing an outcome of the interaction of knowledge with technology that has the capability of saving and capturing knowledge and information emerging from social interaction

The above elements comprise a knowledge ecosystem and the results of the intersection of these elements. Shrivastava (2014) adds that knowledge ecosystems, like natural ecosystems, have inputs, throughputs and outputs operating in open exchange relationship with their environments. The concept of knowledge ecosystems comes from the broader knowledge ecology domain which focuses on how information and knowledge can alter/affect social activity through providing the framework, tools, and practices for crafting and sustaining evolving webs of relationships in which we can embed and preserve the knowledge that emerges from social activity (Por, 2001).

Enabling Environment/Community Context

South African rural community media face specific challenges based on the broader South African media context. Rural areas are generally afflicted by the twin economic ills of poverty and unemployment, with human resources typically employed below their productive potential (The Eastern Cape Development Corporation (ECDC), 2015). In addition to the aforementioned points, the very nature of the rural environment itself inhibits the existence and/or cultivation of precursors that could subvert poverty and encourage socio-economic development (Duncombe, 1999). Not surprisingly Chapman and Slaymaker (2002) characterise rural areas as being information poor with rural populations typically portrayed as lacking information vital to their lives and livelihoods. This environment of lack, exclusion and isolation embodies the broader context within which the rural entrepreneur is born. Problems faced by rural entrepreneurs are informed by their rural context, including but not limited to lack of access to credit, inadequate managerial and technical skills, low levels of education, poor access to market information and an inhibitive regulatory environment (IFAD, 2011). The ability of rural entrepreneurs to realise their potential depends largely on the availability and provision of appropriate and cost-effective business development support services (IFAD, 2011). The identification of suitable interventions and support services to facilitate rural entrepreneurship would need to be focused rather than generic, taking into account specific industry nuances and needs.

The Media Development and Diversity Agency (MDDA, 2008) note general poor co-ordination, engagement and support within the rural community media sector. It is suggested that the establishment of a negotiated set of protocols is required to govern the community media space by creating a secure and supported environment within which these SMMEs can function that also protects their independence (MDDA, 2008). The protocols should also establish guidelines for how the media conglomerates should provide support to fledgling community media organisations through providing practical assistance in a process labelled “co-opetition” (MDDA, 2008). This component is represented by the triangle enveloping the knowledge ecosystem that creates the community of practice. Organisations represented in this component of the framework would be able to interact with the rural community media via the mobile social networking framework. It is suggested that specific access/space is created for them within the framework in order to allow for specific engagement. All specific programs developed to support community media would be made accessible via the mobile

social networking platform, including any negotiated platforms/procedures/policies/processes.

This item is created due to the interaction of the following supporting elements that surround the community of practice and is depicted graphically below:

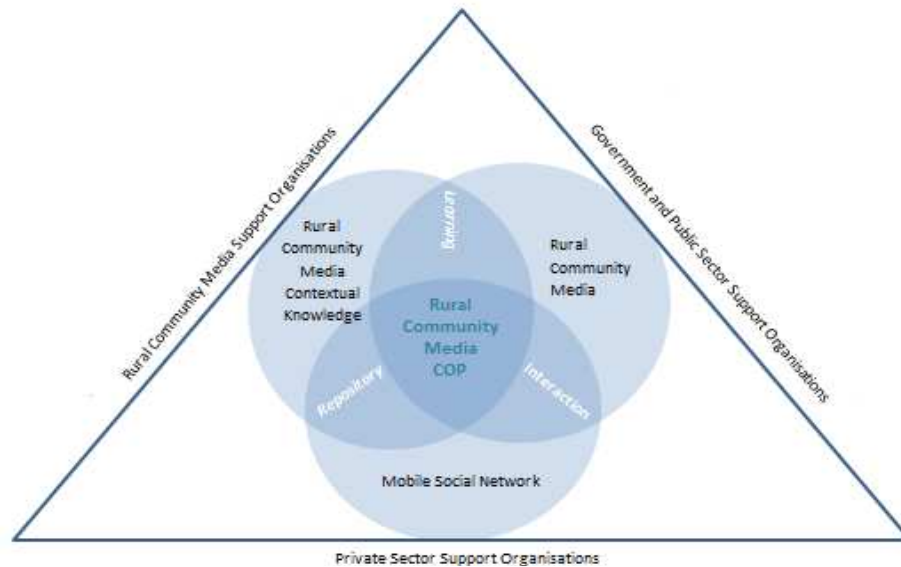


Figure 3: The Rural Community Media Mobile Social Networking Framework Virtual Community of Practice and Enabling Environment/Community Context

- **Rural community media support organisations:** This component specifically represents support organisations within the Eastern Cape Province of South Africa, created by the rural community media in order to provide additional support and structure to the Eastern Cape community media environment
- **Government and public sector support organisations:** This component represents various government and public sector organisations operating within this environment in order to support rural community media
- **Private sector support organisations:** This component represents various private sector organisations operating within this environment in order to support rural community media

Three additional supporting components flank the triangle representing the enabling environment/community context and are depicted graphically below:

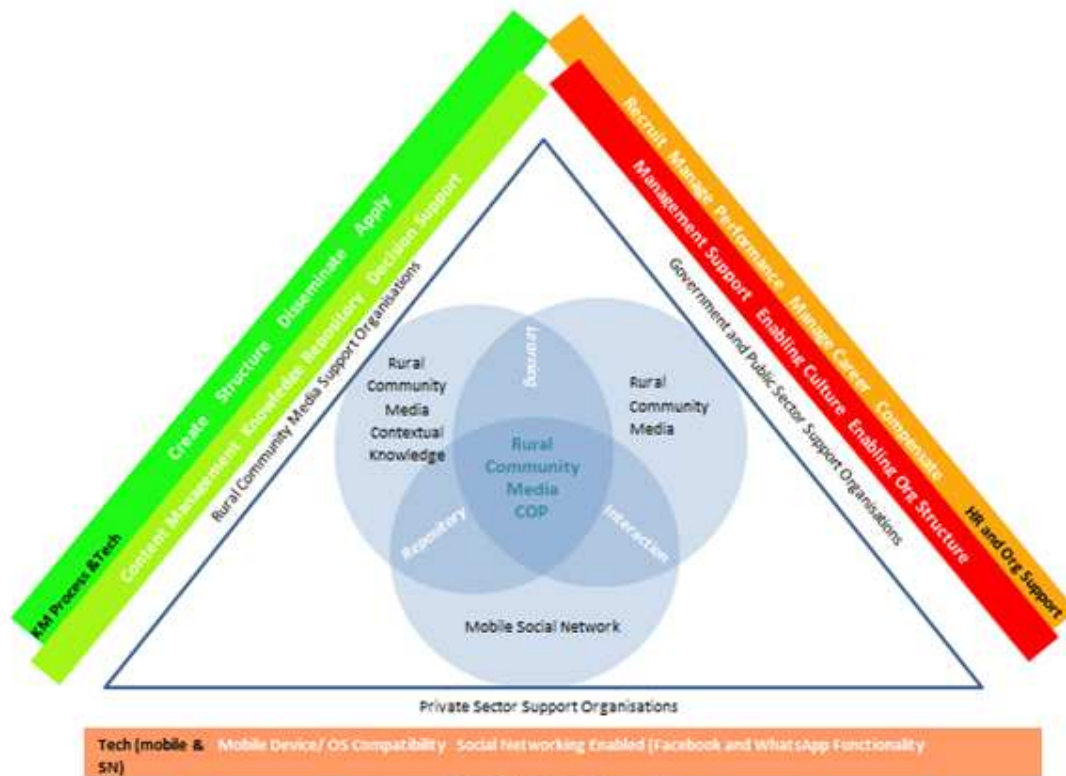


Figure 4: The Rural Community Media Mobile Social Networking Framework Virtual Community of Practice, Enabling Environment/Community Context and Supporting Components

- **Knowledge Management Processes and Technology:** This component flanks the triangle on the side where the knowledge component of the knowledge ecosystem is located. This was done to indicate that this element is also in support of the knowledge component of the knowledge ecosystem. The item comprises the following:
 - o **Knowledge management process:** comprising the process elements of create, structure, disseminate and apply knowledge
 - o **Knowledge management technology:** comprising content management, knowledge repository and decision support
- **Human Resource and Organisational Support:** This component flanks the triangle on the side of the where the people component of the knowledge ecosystem is located. This was done to indicate that this element is also in support of the people component of the knowledge ecosystem. The item comprises the following:
 - o **Human resource process:** comprising the process elements of recruit, manage performance, manage career, compensate
 - o **Organisational support elements:** comprising management support enabling culture, enabling organisational structure
- **Mobile and Social Networking Technology:** This component flanks the triangle on the side where the technology component of the knowledge ecosystem is located. This was done to indicate that this element is also in support of the technology component of the knowledge ecosystem. The item comprises considerations for mobile device and mobile OS functionality as well as social networking functionality, specifically Facebook and WhatsApp functionality.

Foundation Elements of the Framework

Furnes and Ravlo (2014) add that the newspaper industry has several distinctive characteristics; these include strict delivery deadlines, very low or no possibilities for keeping inventory and very short time-frames for production and distribution (Furnes and Ravlo, 2014). In addition to this, news teams also have to balance the pressure from the newsroom to push the start of production as late as possible in order to cater for last minute news against the pressure from distribution to start production as early as possible in order to meet delivery deadlines (Furnes and Ravlo, 2014). One of the defining characteristics of the newspaper industry is that its products change on a daily basis and are virtually worthless by the end of the day (Furnes and Ravlo, 2014). “In addition newspaper products are never identical from day to day...due to the perishable nature of the product, the time from the start of production to the delivery of the finished product to the end-customer is shorter than for most other industries” (Furnes and Ravlo, 2014, p3).

The Print and Digital Media Task Team (PMDTT, 2013) found that most rural community media struggle with major segments of the print media value chain, the ability to effectively navigate the value chain directly contribute to their success or failure. Application of a structured business management and performance model may serve to assist rural community media by enabling them to structure their SMMEs effectively and measure performance against a defined set of criteria. The Business Model Canvas is a visual chart with elements describing an organisations value proposition, infrastructure (comprising key activities, key resources and partner network), customers, and finances, assisting organisations in aligning their activities by illustrating potential trade-offs (Burkett, 2013). It is the authors’ view that the characteristics of ease of use due to its visual nature, concise set of elements that assist in illustrating potential trade-offs, focus on operational and strategic management and foundation on in-depth research based on the input of 470 practitioners, make the BMC a suitable choice and applicable management and performance model for rural community media. Foundation elements support the entire rural community media community of practice and are depicted graphically below:

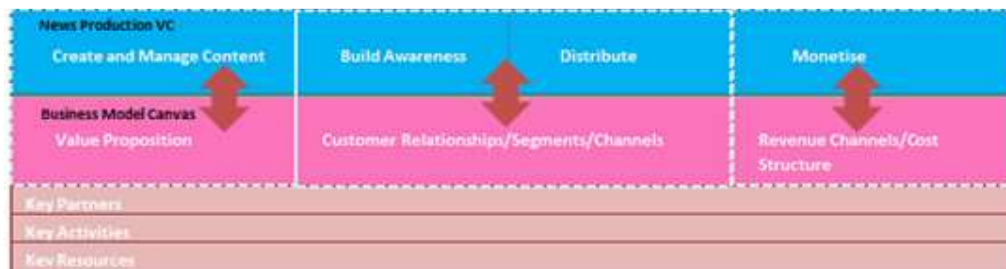


Figure 5: The Rural Community Media Mobile Social Networking Framework Foundation Elements

- **News production value chain:** this element specifically comprises the following process steps; create and manage content, build awareness, distribute, monetise
- **The business model canvas:** Three additional supporting components flank the triangle representing the enabling environment/community context. These are:
 - o Value proposition
 - o Customer relationships, segments and channels
 - o Revenue channels and cost structure
 - o Infrastructure components: Key partners, key activities, key resources

The relationship between the value chain and BMC components is indicated as bi-directional arrows amongst the elements that impact each other. The table below provides a view of the relationships between the VC and BMC elements:

News Production VC Component	BMC Component	Relationship
Create and Manage Content	Value Proposition	The nature and type of content produced by the rural community media SMME is one of the key differentiating elements of their product, representing the value proposition that the SMME provides to their select customer base. Linking the two elements enables the SMME to ensure that it strongly differentiates itself in the market based on the nature of their product/service
Build Awareness/Distribute	Customer Relationship/Segment/Channels	The process elements comprising building awareness and distribution will depend heavily on the rural community media SMMEs customer base as far as customer relationships, customer segment and customer channels are concerned. Identifying customer on the basis guided by the BMC will form a key influence for these two value chain components
Monetise	Revenue Channels/Cost Structure	The ability to generate revenue at the end of the news production value chain links with the identified revenue channels and cost structure of the rural community media SMME products or service. Defining and understanding the revenue channel and cost structure of the specific SMME will enable the ability to effectively carry out the monetise step of the value chain process

Table 2: Relationship between News Production VC and the Business Model Canvas Elements

The PDMTTT (2013) and the MDDA (2008) specify the need for training, funding, advertising and marketing support, as well as access to skilled resources as key requirements in the rural community media space. The case study conducted supported this in addition to requirements for better governance within the SMMEs. The following additional components were added to the foundation components of the framework as an outcome of the literature review, case study and expert review conducted:



Figure 6: The Rural Community Media Mobile Social Networking Framework Additional Components

- **Intensive Support Elements:** This component comprises elements identified as requiring special support as an outcome of the case study. The elements identified for intensive support are as follows:
 - o Training
 - o Marketing
 - o Advertising
 - o Funding

- **Governance:** This component comprises a generic governance process. Process steps include the following:
 - o Set strategy
 - o Design approach
 - o Communicate plan
 - o Monitor progress
 - o Evaluate results
- **Subsidised human resource library:** This component was included as an outcome of the case study findings. The item specifically deals with the availability of skilled resources. The element aims to provide a pool of skilled resources required by the rural community media, subsidised by the supporting organisations that assist in creating an enabling environment, namely: rural community media support organisation in the EC. Government, Public Sector and Private Sector support organisations. The human resource library aims to provide a steady set of skilled resources that is always available to rural community media and shared amongst them. Examples of resources would be Journalists, Editors, and Graphic Designers etc.

Implementation Considerations

Implementation considerations involve two broad steps; 1) Formal establishment of a rural community media community of practice and 2) Development and implementation of a mobile application based on the framework components.

- *Formal establishment of Rural Community Media Community of Practice*

In establishing and formalising the community of practice Keyes (2006) provides the following as guidelines:

- o Determine the community's purpose
- o Clarify roles and responsibilities
- o Identify community members
- o Devise mechanisms for communication and collaboration
- o Organise the initial community workshop
- *Development and Implementation of Mobile Application*

The proposed framework suggests engagement via a mobile social networking platform, which must be facilitated through application of appropriate technology. In this regard the second implementation consideration involves development of an application to support community of practice engagement. The author suggests development based on the Systems Development Lifecycle (SDLC). Rhodes (2012) states that a more flexible and accurate depiction of the SLDC is as an iterative process comprising the following steps:

- o Planning
- o Analysis
- o Design
- o Implementation
- o Maintenance

Following the steps above as indicated by the SDLC will enable design of a robust system that meets the requirements of the proposed framework.

The study conducted expands the domain of theories related to rural SMMEs, specifically rural community media, knowledge sharing and mobile social networking. Within the current literature, there is little attention on mobile social networking frameworks for the support of rural community media in the Eastern Cape. This study has proposed a framework that, if

effectively adopted or implemented, has the potential to assist rural community media overcome some of the perennial challenges that have characterised their operation. These are detailed in the article and comprise business process support, training, access to relevant skills and resources, access to funding, access to enabling information and knowledge and the creation of an enabling and supportive environment. Implementation of the Rural Community Media Mobile Social Networking Framework will assist in facilitating resolution of these challenges. The framework presented can be implemented based on the implementation guideline provided above should the rural community media entrepreneurs and related stakeholders be suitably guided through the process.

CONCLUDING REMARKS

Rural community media face challenges related to their rural context and the nature of the industry in which they operate, which was identified as being oligopolistic in nature. The nature of the industry introduced significant barriers to entry that limited the ability of rural community media to attain sustainability. The Rural Community Media Mobile Social Networking Framework is developed in order to remedy this situation. Literature review, case study analysis and expert review confirm relevance of the framework. It is the authors considered view that implementation of framework will assist in improving the operational efficiency of rural community media.

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9.7 Annexure H: Proof of Submission ICEE/ICIT

3mail - resubmission of ICEE/ICIT-2013 Cape Town paper 113

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resubmission of ICEE/ICIT-2013 Cape Town paper 113

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Fri, Aug 2, 2013 at 10:35 PM

Dear authors,

We acknowledge the receipt of the new version of your paper submitted to ICEE/ICIT-2013 Cape Town.

Number: 113

Authors: Oliva Muwanga-Zake and Marlien Herselman

Title: Social Media for Community Education and Engagement

You can access the new version of your paper if you log in to the ICEE/ICIT-2013 Cape Town submission Web page.

Social Media for Community Education and Engagement

Ms. Oliva Muwanga-Zake¹, Professor Marlien Herselman²

Abstract

Technology has resulted in a significant shift in the way information is accessed and utilised. Social media represents a good example of this, having significantly altered the manner in which we interact and communicate today. Social media has evolved from an infotainment forum to a significant business enabler through to being a critical force in shaping socio-political change. Fundamentally a first world tool, the diffusion of cellular technology has made social media readily accessible to developing populations and created a window of opportunity for application to the developing country context. Vital to the Information and Communication Technology for Development debate is the conversation of how and where to utilise social media to address developing country issues. In order to ensure that we remain at the forefront of growth and development we need to ensure mass access to information. This effectively means a move from the provision of access to static information repositories to access to dynamic information repositories. Social media not only introduces the aspect of dynamism but also empowers users from being simple consumers of content to being content creators and distributors. Social media enables one to tell their own story and provides a platform to share this story with the world in a dynamic and interactive way. This paper seeks to explore the empowerment characteristic of social media, by specifically discussing the ability of social media to promote citizen journalism through facilitating dialogue, transparency and interaction. This paper will comprise a literature review, exploring specifically the use of social media for citizen journalism and/or story telling as a mechanism for transmitting news and information in rural areas. It is concluded that social media represents an unprecedented opportunity to encourage community interaction, education and engagement, facilitated by Information and Communication Technology, on matters relevant to the community, for the advancement of the community as a whole.

Keywords: *Information and Communication Technology for Development, Social Media, Citizen Journalism/Storytelling.*

1. Introduction

The swift expansion and use of information and communication technologies (ICTs) is having a major impact on all aspects of life. ICTs represent an exciting and distinct opportunity, providing possibilities of to reshape and transforming the manner in which people organise their lives, interact and contribute to society (Bridges.org, 2012).

ICTs have resulted in a global society, in which historical barriers imposed due to geographic location and time differences have been eradicated (Young, Ridely and Ridely, 2001). As a consequence, ICTs provide the opportunity of fulfilling many concepts that were previously likely unattainable, representing opportunity for more sustainable for the development (Alexander, 2000). Social media, a phenomenon made possible by ICT, represents a platform that can be utilised in aid of development in rural areas.

There is a necessity to engage and utilise information and knowledge in the quest of economic and social development in less developed countries (Duncombe, Chapman and Slaymaker, 2001). According to Mansell (1999), without successful intervention, people in developing countries lacking access to ICTs will be increasingly disadvantaged or excluded from participating in the global information society. Mansell (1999) argues that although the social and economic potential of these new technologies is enormous, so too are the risks of exclusion. Heeks (2009) concurs, adding that more meaningful application of ICTs to development will require new technologies, new approaches to innovation and implementation, new intellectual perspectives and a new view of the world's poor.

2. Social Media

Pott (2003, p.16) states that “poor countries and poor people differ from rich ones not only because they have less capital but because they have less knowledge.” Sveiby (2001) defines knowledge as the capacity to act. Norris, Mason, Robson, Lefrere and Collier (2003) argue that knowledge is a social construct and that knowledge can only be understood in context. This implies the need for interactivity and communication with others.

The diffusion of ICTs promises to have major consequences by “expanding access to education and training, broadening channels of expression and social networks, as well as revolutionising the nature of work and the economy” (Norris, 2004). Although the primary impact has been in affluent societies, ICTs have also been widely regarded as an important instrument for development in poorer nations around the world (Norris, 2004). Social media platforms represent an opportunity to engage communities on items of significance to them, on their own terms, utilising institutional and new knowledge and information to enhance livelihoods and leverage development efforts. However in order to do this it is important to understand exactly what social media is and then utilise this understanding to review its use within an ICT for development space.

Social media consist of content, communities and Web 2.0 technologies (Nicholson, 2011). In general social media refers to applications that are either completely based on user generated content or in which user generated content and the actions of users plays a substantial role in increasing the value of the application and/or service (Nicholson, 2011). Relevant literature reports that the key purpose of social media is to engage people in one of four ways (Nicholson, 2011):

- Communication
- Collaboration
- Education
- Entertainment

On the other hand, social networking sites are defined as web-based services that allow users to post a profile and connect to other users (Durham, Cragg & Morrish, 2009). In recent years social media has also developed to allow for networking with professionals or same interest groups and community engagement (Derham *et al*, 2009).

Derham *et al*, (2012) state that social media sites began with the launch of SixDegrees.com in 1997, which progressed through to the launch of sites such as Facebook and MySpace in 2003. According to them, (Derham, Cragg and Morrish, 2012), by 2008 social media had become a global phenomenon (Boyd and Ellison, 2008 as cited by Derham *et al*, 2012).

Social media has become part of everyday life for millions of people (The Young Foundation, 2010). Derham *et al*, (2012) go on to say that as there are low barriers to the use of social networking technologies, communities can make use of social media without the need for extensive resources.

In stark contrast to social media, traditional media such as television and radio are unidirectional, following a push model that allows for no real interaction by the target audience (Patel, 2011). In addition, there is evidence that peer-based information delivery can be more effective than institution-based for target user communities (Patel, 2011).

3. Social Media and Mobile Devices

According to Donner and Walton (2011) approximately 4 out of 49 million South Africans are generally counted as internet users. They (Donner and Walton, 2011) add that significant to this figure is that these counts exclude considerable numbers of people who use their mobile handsets to access the internet. Donner and Walton (2011) state that 2010 market estimates indicate 15 out of 38 million cell phone users in South Africa as having WAP capable phones and around 9 to 10 million users frequenting applications such as mobile instant messenger, MixIt

The main advantages of transactions via mobile technology also apply to social media, as the former appears to be a key enabler of the latter. According to Murthy (2010) these advantages include:

- Ubiquity (available everywhere)
- Localisation (location based engagement)
- Personalisation (tailored to the individual)
- Convenience (anytime, anywhere)

The remarkable growth of Social Network Sites/Services (SNS) such as Facebook, MySpace or Twitter and the like indicates that digital technologies are radically changing the communications landscape. Nicholson (2011:1) concurs, adding that mobile technologies present exciting opportunities for access to information and knowledge.

According to Murthy (2010) mobile technology growth in the developing world increased from 53% of total subscriptions at the end of 2005 to 73% at the end of 2010. This growth is made possible largely due to declining technology costs and the sharing of devices among friends and family (Murthy, 2010). Murthy (2010) further adds that unprecedented growth in access to mobile phones has made communication easy and also spurred socio-economic benefits in many countries, leading to the development of mobile applications to meet local needs.

African countries are already starting to benefit from the use of mobile digital devices. Examples cited include non-profit organizations using mobile networks to deliver mobile health services, farming communities using mobiles to share important information on agricultural and related information and tertiary institutions embracing and applying m-learning (mobile learning) (Nicholson, 2011).

The combination of mobile technology and social networking uncovers a broad range of possibilities, specifically when applied to development. The combination of these two phenomena is known as Mobile Social Networking (MSN), which is social networking where individuals with similar interests connect with one another through a mobile device such as a cell phone. “Unprecedented growth in access to mobile phones has not only made communication easy, but also spurred economic and socio-economic benefits in many countries” (Murthy, 2011, 1).

4. Citizen Journalism

One area impacted greatly by the advent of mobile social networking is media and journalism. For many years journalism has been the reserve of a select few, with the training and resources deemed necessary, to break and proliferate compelling news stories. However, “this basic idea, and crucial societal function”, is experiencing a fundamental shift brought about largely by the advent of social media (DeMers, 2013, 1). Social media facilitates citizen journalism and storytelling by breaking down barriers to the journalism space and enabling access to broad population and community subsets.

Donner and Walton (2011) state that peer-to-peer publishing is the essence of social media. DeMers (2013,1) goes on to say that as Internet usage has become increasingly pervasive, more and more people have begun to utilise social media networks like Reddit or Facebook to access news and print media syndications have begun “to die off” as a result. Astoundingly, nearly 60% of people use Facebook as a recurring news source while magazines such as Newsweek struggle to hold on to their market share (DeMers, 2013). The abandonment of print media has been referred to as one of the biggest shifts in journalism, with media outlets forced to adapt to changing trends or face extinction (DeMers, 2013). DeMers (2013, 1) further states that “it seems clear that people are not only changing their mind about where to get their news, but also who they let deliver it to them”.

Social media has swung the proverbial pendulum of power from a handful of media conglomerates and placed it firmly in the hands of the common man. Many users are now expressing a view that traditional outlets are “too slow” or that their reporting has “too much of an agenda” (DeMers, 2013, 1). “While this attitude towards traditional media has been around for a long time, the prevalence of mobile devices that can record pictures, video and have constant internet connections, combined with the growing popularity of social networking sites has actually made it possible for people to produce and share news themselves” (DeMers, 2013, 1).

Literature reports that the fundamental purpose of all forms of social media is to engage people. Social media could enhance participation in economic and political life, and allow self-expression that could promote social change (Tomlin, 2012 as cited by Daher, 2012). Hothi (2012) supports this view adding that social media has the capacity to alter traditional power dynamics.

Patel (2011) states that several frameworks have been developed describing social and psychological motivations that facilitate community engagement, these include reciprocity, prestige, learning, self-efficacy (self-interest motives), moral obligation, and community enhancement (public interest motives). Patel (2011) adds the following as significant for facilitating community engagement; affordability, interactivity, relevant subject matter, collaboration and engaging administrators.

5. Towards a Social Networking Framework in Aid of Rural SMME Support and Development

5.1 Statement of Problem

The authors are currently engaged in PHD research that aims to address how social networking can be applied in a rural business setting in order to address lack of access to information and knowledge by rural entrepreneurs and SMMEs. The research focus will be scoped down further to deal specifically with Community based News and Media SMMEs. The research aims to specifically uncover the experiences of Community based News and Media SMMEs in engaging rural communities utilising social media as a business enabler and a platform for community engagement.

Generally rural based SMMEs experience problems with successfully running their businesses due to their relative isolation from organisations and entities that can provide support and advice, as well as their relative isolation due to the nature of the environment they operate in. Improving the success rates of rural based

SMMEs will enable enhanced socio-economic stimulation and development. Rural based SMMEs are seen as significant vehicles for socio-economic growth (Mule, 2010).

Although the last century has witnessed phenomenal advances in innovation and technology “poverty in all its manifestations remains pervasive and intractable” (Mule, 2010, p.2). Mule (2010) further advises that in spite of major gains in poverty eradication during the same period, currently more than 1.2 billion people in Africa,

Asia and Latin America live on less than \$1 a day, with indications that numbers are increasing. Mule (2010) further adds that this issue is pervasive in Africa, with approximately 300 million people living on less than \$0.65 per day.

The response of the ICT for Development fraternity has been to assess means with which the application of ICT to development issues can contribute to resolving this problem. The development and support of rural entrepreneurship has been identified as key to facilitating socio-economic development and poverty eradication in rural areas (Rural Policy Research Institute, 2012).

Telecentres were identified as a popular method of bringing ICTs to the poor. Due to the growing “digital divide” the study of how telecentres could be made more effective and efficient in delivering information and information services to the poor in order to eradicate poverty, enjoyed priority. But years since the introduction of the telecentre as a viable model for delivering ICTs to the rural poor, the ICT discipline appears to lack tangible indications of their general positive impact. Dragon (2009) states that only one out of every one hundred telecentres is really useful for the local community. It is apparent that one of the challenges faced by those within the ICT industry is not only to define the roles that ICTs can be expected to play and where they can be applied most effectively, but also to clarify and be honest about what they cannot do (O’Farrell, 2000).

Heeks (2009) sums it up quite well advising that the ICT for development fraternity now stand at the proverbial fork in the ICT access road. The question we need to answer is whether we keep pushing the PC-based access route, even though only 0.5% of African villages have attained access in this way or whether we ‘jump ship’ to a technology that has already reached many poor communities (Heeks, 2009). Khalil, Dongier & Qiang (2009) tend to sway towards the latter as a more viable option adding that mobile technology is now pervasive, with mobile phones representing the world’s largest distribution platform. According to Heeks (2009) this form of technology now reaches out to more than two thirds of the African population.

However as innovative and auspicious as technology may be in providing possibilities for development, the fact is that it still remains merely a tool. A tool which if applied correctly to a cause that perhaps also holds similar possibilities for development could assist in improving the lives and livelihoods of poor and needy populations. The challenge lies in coupling ICT with the right opportunity and leveraging both optimally in order to meet these aims. One such opportunity is the application of ICT to the facilitation and support of rural entrepreneurs and SMMEs.

5.2 Research Objectives

On a high level, this research identifies ICT as a tool and Entrepreneurship as a concept which, if leveraged correctly, can facilitate socio-economic growth and development in under developed areas.

More specifically this research aims to develop a mobile social networking framework which can assist SMMEs in the Eastern Cape Province through the use of communities of practice. The research will also specifically review and discuss the use of social media in Community News and Media organisations and the manner in which these organisations may benefit from and/or leverage citizen journalism as a means with which to develop and deliver their product.

The knowledge sharing needs of SMME's will be identified and discussed with a view as to how improved interaction between rural communities, relevant rural constituents, Government and Small Business Support organisations may lead to improved SMME success and impact.

More fundamental research is needed in order to deepen the analysis of factors that affect the success and failure of ICT based development initiatives (Heeks, 1999). This study aims to add to the body of knowledge that currently exists on ICT applications that support knowledge sharing within the rural context, specifically related to SMME growth and development.

5.3 Research Methodology

The research study will make use of interpretive research methodology. Interpretive or hermeneutic philosophies assume that truth is socially constructed. Interpretive research tries to identify, explore and explain how all the factors in a particular social setting are related and interdependent for the purpose of creating a rich understanding of a unique context (Saunders, Lewis & Thornhill (2000). This meets the aims of this study, as this process will assist in understanding the context of rural entrepreneurs and the constraints within which they operate in order to develop a model that can facilitate their effective operation.

The theoretical base for this study is Social Constructivism. Kim (2001) sites Derry (1999) and McMahon (1997) as stating that Social Constructivism emphasises culture and context as significant in understanding how society functions and the manner in which it creates and shares knowledge. Social constructivists believe that reality is constructed through human activity with knowledge being socially and culturally constructed and meaningful learning taking place through engagement in social activity (Kim, 2001).

This research will make use of qualitative research design. Qualitative research is stated as providing a more holistic examination of data, usually based on interviews, observations, or focus groups, focusing primarily on life experiences, social processes, and organizational structures and settings (Strauss & Corbin, 1998). Information is generally collected based upon spoken and written text and is not inhibited or constrained by predetermined standardized categories, as may be the case in quantitative research, thus allowing the

resulting theory to be inductive and “grounded” in the data with human perceptions and understandings recorded to show situations as participants perceive them (Gerhardt, 2004).

The case study method has been selected as the research methodology to be used for this study. The reason for this choice includes the ability to collect evidence across a wide variety of sources ranging from documentation analysis to surveys. Utilisation of the case study method will facilitate description of the real life context in which an intervention occurs, description of the intervention itself and explanation of causal links in respect of the implementation of ICT based development projects (Morse and Richards, 2002). This will be done in order to highlight the effect of context on ICT development initiatives as well as the resultant success or failure of such initiatives in order to design and suggest a more appropriate mode of delivery and implementation.

The multi-perspectival characteristic of the case study method means that the researcher is able to consider not just the voice and perspective of actors, but also of relevant groups of actors and the interactions between them (Morse & Richards, 2002). This will allow the researcher to provide a platform on which issues regarding ICT implementation can be discussed across a broader spectrum, in cases where these considerations may have gone unheard.

This research will make use of comparative case study as a research method. This means that a number of cases are studied and then compared and contrasted with each other. Cross case analysis will be applied. The case studies will take place in the Eastern Cape within rural areas.

Case study questions will be derived from the secondary data analysis indicating requirements for successful SMME operation, the key constraints experienced from operating within rural areas, experiences in use and uptake of technology and the common reasons for the failure of ICT development projects as laid out in the literature review. The case study questions will also be based largely on the theoretical implementation model. The identified problem situation as stated in this proposal will form a framework within which case study questions will be framed. This study will focus mainly on using documentation, interviews and direct observation as primary sources of evidence. Expert reviews will also be utilised as means of validating and supporting findings.

The sampling technique that will be utilised in this research is maximum variation sampling. Maximum variation sampling involves capturing and describing central themes and/or principal outcomes that represent the norm. Palys (2010) states that maximum variation sampling involves searching for cases that cover a spectrum of positions and perspectives in relation to the research study and can include extreme and typical cases as well as any other positions that are identified as significant to the study. Participants for the study will be limited to the Amatole District in the Eastern Cape Province of South Africa. The choice of specific location for case study may be influenced further as research progresses.

Additional broad factors for inclusion in the study include:

- Operate an SMME in a rural area in the Eastern Cape (see table 1)
- Make use of a mobile phone to leverage business, either via phone calls, sms or use of a mobile social network such as MixIt or Facebook

The reason for this choice is in order to establish the common experiences across a specific segment of SMMEs based on a common set of broad characteristics.

This study will focus on utilising cross-case analysis, as different cases will be analysed in order to identify cross-cutting issues that can be addressed by the resultant framework.

The units of analysis for this research have been identified as:

- Rural Entrepreneurs
- Mobile Social Networks
- The Mobile Social Networking interactions/engagements

6. Conclusion

Information is power. Nowhere is the adage truer than in developing countries. For facilitating true community development through online platforms, technology is only a part of the equation (Patel, 2011). While the system can provide functionality to better facilitate contribution from the user community, peer to peer sharing also depends on the type of content being exchanged, and the perception of the system utilised to do this amongst users (Patel, 2011). It is obvious that social media presents an unprecedented opportunity for community engagement via citizen journalism and storytelling. What is also obvious however is that more in depth research is required into the means with which to effectively leverage social media for community engagement, education and development.

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