BUSINESS CONTINUITY PLANNING AS A STRATEGY FOR BUILDING RESILIENCE AMONGST DEPOSIT TAKING MICROFINANCE INSTITUTIONS IN KENYA

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DECLARATION

This research project is my original work and has not been presented for a degree in any other university.

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DEDICATION

I dedicate this project to my beloved wife Jane Wambui and son Wesley Maina for the invaluable support, encouragement and love.

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ABSTRACT

Disruptive events can cause extensive handicaps and serious threats to the ability of a business to continue operating effectively. Whereas managers can do little to influence the occurrence or lack thereof of "acts of God", error or even sabotage, they should make discrete business continuity plans to assure stakeholders of spontaneous resumption of services and business processes if disruptive events occur. The ability and capacity of an enterprise to withstand these disruptions and adapt to its own risk environment is called enterprise resilience. A Business Continuity Plan (BCP) on the other hand is a roadmap to the achievement of the desired level of enterprise resilience. It is management's plan for ensuring that the business organisation continues to operate in the face of established adverse scenarios.

This study was undertaken to determine the extent of adoption of formal business continuity planning practices amongst Kenya's Licensed Deposit Taking Microfinance Institutions (DTMs). The study also sought to establish the various methods adopted by the DTMs to assure themselves of continuity of ICT systems, people, facilities and finances. The study was conducted on all the six DTMs licensed by the Central Bank of Kenya as at August 2012. Data was collected using questionnaires and analysed. The questionnaires were specifically addressed to the head of risk department for each of the DTMs.

The findings from this study indicate that the licensed deposit taking microfinance institutions in Kenya have adopted formal business continuity planning. Further, the study found that adoption of business continuity planning is positively correlated to the priority given, management attitude, existence of technical capacity, knowledge of the need for business continuity planning as well as the regulatory environment. These findings are important because they give the regulator a view of the level of resilience built into the DTMs which are currently holding very significant financial portfolios in the economy. Further, the findings give the Kenyan citizens a view of the long term security of their funds based on the proactive management of business continuity risks amongst the DTMs.

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CHAPTER ONE

INTRODUCTION

1.1. Background to the study

The risk posed by the possibility of "significant disruptive events" presents one of the greatest challenges in strategic management today- that of ensuring that business organisations built painstakingly are not decimated by the stroke of such incidences. Disruptive events take the broad forms of "acts of human" or "acts of God". Such events are as old as humanity across the world. The incidence of their occurrence, however, has tended to rise with the passage of time. As a result, organisations are faced with the strategic imperative of defining and instituting strategies for dealing with such events if and when they occur. According to Sadgrove (2009), risk is a future event that results from actions taken now.

The universe of threats to the long run survival of business organisations is vast. The scale of the threats range from, assumedly, smaller issues such as illness of a key member of staff or intermittent power disruptions to major issues like withdrawal of a strategic business partner such as a financier, supplier or major customer, departure of a key member of staff, breakdown of key machinery, extended power loss affecting a critical business facility, unavailability of critical business system, accidents, collapse of a key source of raw materials, terrorism, deaths, fires and natural calamities such as floods and earthquakes. Whereas it is difficult to exhaustively explain the reasons for the escalation of the incidence of disruptions over the past couple of years, a high number of the occurrences could possibly be traced to pure accidents, human error, malice, technological challenges, carelessness and acts of competitors including sabotage.

Notwithstanding their nature and assumed criticality, disruptive events can cause extensive handicaps and serious threats to the ability of a business to continue operating. Business managers can do little to influence the occurrence or lack thereof of "acts of God". However, they should make some general disaster plans to prepare them for serious consequences if they occur. Events that are more predictable or for

which management can give informed probabilities render themselves to more detailed proactive planning (Waters, 2006). Such is the case with a wide range of the "acts of man".

1.1.1. Business Resilience

The ability and capacity of an enterprise to withstand systemic discontinuities and adapt to its own risk environment is called enterprise resilience. These discontinuities are occasioned by disruptive events and can, in serious situations, result in total collapse of a company. Enterprise resilience marries, risk assessment, reporting and governance processes with strategic and business planning capability (Booz Allen Hamilton Inc, 2004).

In defining the business case for enterprise resilience in 2003, the International Centre for Enterprise Preparedness (INTERCEP) at the New York University observed that there are clear financial and strategic rewards for enterprises that develop resilience programs to bounce back from adversity and adopt to and prosper in a quickly changing market place. INTERCEP gives a four point business case for building enterprise resilience into the strategic planning process.

First, there is a high probability that any one of a number of crises will impact a corporation at any given time. The diversity of factors causing the increased risk include globalization strategies, reliance on technology, increasingly impactful natural calamities, heightened national and international political tensions, cyber threats, power supply and interruptions and voracious appetite of 24/7 media. Second, is the high impact of the crisis on the institution. This may include lost sales, lost customers, increased expenses, reputational loss, loss of production capacity or loss of employees. Third is the fact that there are clear opportunities to prepare. INTERCEP observes that there are generally available strategies and tools to establish corporate resiliency. Last is the fact that corporations and their management teams are increasingly being held accountable to their shareholders, employees, regulators and the general public for their management of risk and crisis.

Enterprise resilience enhances a company's speed and flexibility by crafting an integrated first line of defence and offensive strategy to guard the entire enterprise against avoidable and unavoidable risks (Starr, Newfrock & Delury, 2005). The scale and impact of a disruptive event is a function of the relative importance of the dislocated entity or process and its degree of integration into the enterprise's value chain. The capacity to withstand such disruptions is a function of the firm's systemic resilience- its ability to understand its interdependencies and foresee and plan around discontinuities that can occur within them. Waters, 2007 observes that building enterprise resilience requires control that is more proactive than reactive

Therefore, to compete in a complex market place, companies need the capacity to identify, prioritise and address mission critical risks continuously. This requires isolating the processes that are mission critical for the enterprise, determining how they could be interrupted and drawing up strategies to minimise their probability of occurrence or their impact when they occur (Sadgrove, 2009).

1.1.2. Strategy

"Strategy" is a plan of action designed to achieve a vision. It consists of the moves and approaches devised by management to produce positive organisation performance. Without strategy, there is no established course to follow, no road map to manage by, no cohesive action plan to produce the intended results (Thomson & Strickland, 1992). A strategic response is, therefore, management's reaction to an inherent strategic challenge through the formulation of effective strategic moves to be activated and approaches to be adopted to mitigate against the negative impacts of the said strategic challenge.

Quite often, there is a divergence between professed strategy and the strategic action actually taken. Burgelman, Christensen & Wheelright (2009), however, reckon that in the absence of a formal plan, a company can only survive whereas those that have formal plans thrive. They also observed that strategy reflects top managements beliefs about the basis of the firm's past and present success. They conclude that strategy takes advantage of organisation learning which enables management to discern the reasons for past and present successes and secure them for future success. This

knowledge forms a fundamental basis for continuity management- that of knowing the organisations critical functions and securing them for the future.

For a long time in Kenya, the thought of the possibility of disasters has been remote. However, the increasing incidences of manmade as well as natural disasters have put business continuity and contingency planning on the strategic agenda. It is reasonable to expect that top management teams in business organisations operating in Kenya increasingly recognise the threats to continuity and update their business strategies to include a well thought out continuity plan.

1.1.3. Business Continuity planning

A business continuity plan is a management tool for securing continuity of operations under adverse environmental conditions. It is a roadmap towards enterprise resilience. Burgelman, Christensen & Wheelright (2009) define business continuity planning as management's plan for ensuring that a business organisation continues to operate in the face of an established adversity. Business continuity management practices are dedicated to helping organizations safeguard and optimize the long-term value of the business. According to a thought leadership published by PricewaterhouseCoopers in 2011, Business Continuity Planning is an anticipation of a problem solving scenario and developing a standby response to spontaneously employ if or when the anticipated problem occurs.

The plan or continuity strategy selected depends on the Recovery Time Objectives (RTO) or the Maximum Tolerable Period of Disruption (MTPD) for the business (CISA Review Manual, 2012). MTPD/RTO refers to the maximum length of downtime that is acceptable for a business. Beyond this period, the life of the business is at risk either because of the difficulty it would experience in recovering the losses incurred or in some cases legal reasons such as customer claims, execution of warranties and service level agreements. Commercial banks, for instance, have no discretion to close business on any working day. Whereas they can petition the Central Bank to allow them to close for a justifiable reason such as a system change, they cannot do so for longer than one day because of the disruptions in the financial markets. Hence the recovery time objectives for financial entities especially bank's

should ideally be very short.

Other technology based business organisations such as the mobile network operators also have short recovery time objectives. However, less sensitive sectors of business such as general trade organisations could survive longer downtimes. However, they too would find it difficult to continue operating beyond a certain period of downtime when their customers will already have sought alternative providers or shifted loyalties.

1.1.4. Deposit taking microfinance institutions in Kenya

The Central Bank has broadly categorised microfinance institutions into two. The first category, the non-deposit taking MFIs, offer credit services only. They can lend their own funds or borrowed funds but are not allowed to mobilize public funds. The second, the deposit-taking microfinance institutions are permitted to mobilize and intermediate or lend deposits from the general public. Microfinance institutions are governed by the provisions of the Microfinance Act 2006 which places all deposit taking Microfinance Institutions under the strict control of the Central Bank of Kenya since they offer services that are comparable to those offered by the commercial banks (Central Bank of Kenya, 2011). Non deposit taking MFIs are licensed and regulated by the Ministry of finance.

According to a study by Rono (2011), the first deposit taking microfinance institution to be licensed in Kenya was Faulu Kenya in 2009. The number has grown steadily over the past three years consistent with a strategy by the Government of Kenya to enhance access to and penetration of financial services amongst Kenya's low income groups. As of June 2012, the Central Bank of Kenya had licensed six deposit taking MFIs in Kenya. These are Faulu Kenya, Kenya Women Finance Trust (KWFT), Rafiki DTM which is a wholly owned subsidiary of chase bank, Small and Micro-Enterprise Programme (SMEP) DTM, Remu DTM and Uwezo DTM. Rafiki is the most recent of the six, having been granted its license in June 2011. Of the six, Uwezo DTM is the only community based deposit taking microfinance institution.

1.2. Research Problem

The occurrence of "acts of God", human error or acts of sabotage is impossible to control or influence. Notwithstanding, these occurrences are disruptive with the significance of the disruption varying with their nature and magnitude. Some disruptions are minor and most organisations can recover quickly without serious impact to business. Others are enormous and can lead to collapse of the business or cause extended inability to serve customers or produce goods. Business continuity management is concerned with proactively establishing the nature, probability of occurrence and impact of significant disruptive events and planning for spontaneous resumption of business activities following such an occurrence.

The cost of ensuring spontaneous recovery when incidences occur can be very significant and would also vary from sector to sector. The financial services sector bears one of the largest impacts because of the sensitivity and scale of the business they do and its linkage to the stability of the economy. As at June 2011, Deposit taking Microfinance Institutions had mobilised deposits of over Kshs. 9 billion and advanced loans of over Kshs. 15 billion (CBK, June 2011). Notwithstanding this enormous contribution, their respective management organs, faced by the pressure to keep operating costs low, may consciously overlook critical aspects of business continuity planning because of the costs involved. Such oversight would be risky and could result in devastating impact to the institutions. The customers could lose hard earned savings while the national economy would inevitably be destabilised.

Some studies have been undertaken in the areas of business resilience and business continuity. Robson (1997) found that total risk avoidance is impractical or impossible. He also observed that whereas risk management seeks prevention as much as practicable, the old adage of "hope for the best but prepare for the worst" still stands. However, Robson does not explore the various threats to business continuity that businesses face and how they plan to handle them if they occur.

Management Science Associates (2010) in a study conducted in the United Kingdom found out that most small and medium enterprises did not have sufficient business continuity plans in place. Lock, Bennet & Vile (2011) found that although few small

and medium businesses had formal disaster recovery plans, they still manage risk proactively but using a limited selection of available strategies. However, the results of these studies cannot be extrapolated to the Kenyan context because of the differences in the operating environment as well as the relative sizes of the enterprises. In addition, these studies were restricted to disaster recovery in the event of failure of ICT systems. It did not explore the areas of people, facilities, resources and business processes.

Several studies have also been done in Kenya. For instance Gathuku (2010) studied the response of microfinance institutions to the regulatory environment. Besides the fact that the study focussed on a different problem, the context was generalised for all MFIs and not the deposit taking ones. Macharia (2011) studied the overall sustainability of microfinance institutions in Kenya. Her study was, however, focussed on the presence or lack thereof of sufficient business opportunities for the MFIs to survive. Kitetei (2011) studied the effect of corporate governance practices on the financial performance of deposit taking microfinance institutions.

The researcher has not found any published research on business resilience strategies and business continuity planning practices for the local microfinance institutions. Large financial institutions, having recognised business continuity as an emerging area of risk and hence of critical focus, have been engaging professional consulting firms to assess their business continuity risks and help them develop balanced and workable business continuity plans. However, such assessments do not show the broad state of affairs within the industry context. In addition, the findings are hardly published.

This study seeks to establish the extent of adoption of formal business continuity planning as a strategic tool for building resilience amongst deposit taking microfinance institutions in Kenya. The study was guided by the following research question: Can Kenya's deposit taking MFIs spontaneously recover and continue to operate at an optimised level should significant disruptive events occur which affect critical facilities, ICT systems, business processes, resources or people?

1.3. Research objectives

The objectives of the study were:

i) To determine the extent to which deposit taking microfinance institutions in Kenya have adopted formal business continuity planning as a strategy for building resilience within the institutions.

ii) To establish the strategies adopted by the deposit taking MFIs to ensure continuity of operations from the perspective of ICT systems, human resources, finance, infrastructure and business processes.

1.4. Value of study

This study sensitises the microfinance institutions in Kenya to exercise cautious optimism at all times and institute strategies to cater for any major negative eventualities or threats to the long term sustenance of their businesses.

To the Central Bank of Kenya, the study is beneficial in understanding the security of customer deposits and other finances held in these institutions. This is part of the mandate of the Central Bank as a regulator of the financial services sector in Kenya. The general public on the other hand benefits from gaining awareness of the security of their deposits and savings through knowledge of the overall disaster preparedness and business continuity standing of the deposit taking MFIs. Therefore, the study will help the general public to make informed decisions on whether to use commercial banks or the MFIs for their banking needs.

Long term continuity of enterprises is the guarantee required for a stable economy. Thus the greatest value of the study is its contribution to the practice of management in the contemporary business environment and in the MFI context which in turn contributes to the growth of the economy. In fact, the study did not establish the existence of a theory in business continuity management. Hence it is a block in building a theory on enterprise resilience.

CHAPTER TWO

LITERATURE REVIEW

2.1. Introduction

This chapter presents a review of the related literature on the subject under study presented by various researchers, scholars and authors. First is the discussion of the concepts of strategy, enterprise resilience and business continuity management. This is followed by a review of the business continuity planning process before closing with the challenges experienced when designing enterprise resilience and business continuity strategies. The materials are drawn from several sources which are related to the study objectives.

2.2. Enterprise resilience

The concept of Enterprise resilience is built around the threat of occurrence of significant disruptive events, manmade or natural which can affect the existence of a business organisation in the immediate, short, medium or long-run. The impact of such incidences depends on the functions affected. Stair & Reynolds (2008) theorise that incidences affecting cash flows or affecting the processes that result in cash flows for a particular business are typically classified as critical. This is because a lengthy disruption of cash flows can potentially collapse a business. Ensuring long term continuity of a business organisation is one of the major strategic challenges facing management in the contemporary business environment.

Organisations are increasingly dependent on computer resources for their operations. The loss of these computing resources, even for a short time, can result in adverse effects such as damage to credibility, loss of critical controls, inability to carry on operations, financial losses or breach of regulatory compliance (Snedaker, 2008). The business becomes totally incapacitated by the collapse or otherwise unavailability of the resources. This is true especially for some of the more sensitive companies in the service industry such as banks and mobile network operators. To ensure adequate

business resilience, it is important that such organisations have a robust plan to ensure continuity of operations in the event of any such disruptions.

2.3. Strategy and its relationship to enterprise resilience

The strategic management process is geared towards gaining competitive advantage for a business operating within an environment that has many competing interests and threats. A firm's external environment consists of all the conditions and forces that affect its strategic options and define its competitive situation (Pearce & Robinson, 1997). According to Pierce & Robinson, the strategic management model shows external environment as three interactive segments: the operating, the industry and the remote environments.

All these environmental factors have a direct impact on the continuity of an enterprise. Continuity is, in turn, the measure of enterprise resilience. Disasters scenarios that affect continuity, for instance, may be a result of natural factors which are in the remote environment or an act of sabotage from competitors in the industry environment or perhaps a supply chain failure within the operating environment. Essentially, all threats to the continuity of businesses are resident in the environment.

Enterprise resilience is a key ingredient to an organisation's competitive advantage. Indeed, the continuity of a business is an implied assumption in the strategy making process. According to Pierce & Robinson (1997), there are three economic goals that guide the strategic direction of any business organisation, whether or not they are explicitly stated. These goals are survival, growth and profitability. The concept of enterprise resilience is concerned with the first goal- ensuring that the life of the business is reasonably guaranteed. In the absence of this guarantee, strategic planning would be incomplete. Enterprise resilience requires decisions and strategies to help an organisation recover from real disruptions. Thus, building enterprise resilience is a key outcome of the strategy process as it seeks to secure the long term sustenance of a business. Sustainable competitive advantage requires such differentiating features as higher quality, added performance, technological superiority and value for money to customers. (Thomson, Strickland & Gamble, 2008).

The strategic decisions that a company makes are seldom easy decisions and some of them may turn out to be wrong. However, that is not an excuse for not deciding on a concrete course of action (Thomson, Strickland & Gamble, 2008). These decisions may determine if a company survives in the long run or not. In the event of an industry-wide disruption, for instance, the business organisations that have sound continuity plans thrive and can turn the fortunes on themselves and in effect drive competitors out of business. In the event of a disruptive event affecting one enterprise, its competitive advantage is greatly diminished due to the disruption of capacity. However, if adequate resilience is built in, there would be little time for competitors to take advantage of the situation.

2.4. Business Continuity Planning

By the time a corporate crisis occurs, it is usually too late to address the problem through improved corporate governance and often too late to save the business without significant changes (Booz, Alen & Hamilton, 2004). Business Continuity management is a holistic management process that identifies potential impacts that threaten an organization and provides a framework for building resilience with the capability for an effective response that safeguards the interests of its key stakeholders, reputation, brand and value creating activities. It extends to the management of recovery or continuity in the event of a disaster as well as the management of the overall program through training, rehearsals, and reviews, to ensure the plan stays current and up to date (Business Continuity Institute, 2011)

According to the Disaster Recover Journal (www.drj.com) of the Business Continuity Institute (BCI), business continuity covers three main areas- crisis management, Business resumption planning and Disaster Recovery. Crisis management is the overall co-ordination of an organisation's response to a crisis in an effective, timely manner with the goal of avoiding or minimising damage to the organisation's profitability, reputation or ability to operate. Business resumption planning is the operation's piece of business continuity planning. Disaster recovery is the technological aspect of business continuity planning. BCI also defines a disaster recovery Plan as the management approved document that defines the resources, actions, tasks and data required to manage the technology recovery effort. Stair &

Reynolds (2008) define a disaster recovery plan as a firm's plan to recover data, technology and tools that support critical information systems and necessary information systems such as the network, databases, hardware, software and operating systems.

Technology driven businesses ordinarily require reasonable redundant technical capacity which can support the organisation as incidents affecting the primary support systems are investigated and resolved. This is achieved in the form of a disaster recovery plan. Stair and Reynolds contend that companies vary widely in their thoroughness and effectiveness in disaster recovery planning. This makes the difference between those that survive and those that collapse. According to AT&T's fifth annual business continuity survey of US companies, 30% of the firms studied suffered one disaster or another. However, 28% of these admitted that they did not have adequate plans in place to cope with the disasters.

The business continuity process must embrace risk, emergency and recovery planning to manage a crisis or disaster event and create hope for survival. Undertaking any of the business continuity activities should form part of a wider planning structure and process and is not an end in itself, but rather a means to an end (Doughty, 2001). Doughty asserts that there are two areas of business continuity planning that are often overlooked- minimising the risks to the organisation's infrastructure and securing the organisation's supply chain (Doughty, 2001). Noe, Hollenbeck, Gerhart & Wright, however a add a third one to this list-human resource continuity.

Human resource continuity is a major concern for virtually all enterprises, whatever the size. Employee turnover can be caused by job dissatisfaction which in turn emanates from the working conditions, personal dispositions, nature of tasks and roles, pay and benefits and the people one works with- supervisors and co-workers. (Noe, Hollenbeck, Gerhart & Wright, 2008). This can cause serious disruptions or incapacitation to a company especially when the resources with whom the company has separated were pivotal in the business.

2.5. The Business continuity planning process

The objective Business Continuity Planning is to develop and document the recovery processes that will ensure business continuity in the event of a disaster in a form that is appropriate for execution under emergency conditions. PricewaterhouseCoopers (2011) in a guide on business continuity management recommends five stages for creating plans for the continuity of critical business units and the initial testing of the plans.

The first stage is the risk assessment stage that seeks to identify the relevant threats to the survival of a business. This results in creation of an inventory of continuity threats. In addition, the stage also entails reviewing the current resilience level of the business with respect to each of the said risks to assess the extent to which the organisation is prepared to face the identified crisis scenarios.

The second stage is a business impact analysis. In this stage, the impact and probability of occurrence is analysed and documented for each threat. The aim is to narrow down to the organisation's critical processes , identify the resource requirements for each critical process, estimate the financial and operational impacts of disruption of those processes and determine the optimal recovery time objective. The results of the business impact analysis provide the foundation upon which the organisation's business continuity plans and program are created.

The third stage explores a variety of strategy alternatives for the recovery of the critical business functions and processes. The manual and interim workarounds required to deal with the loss of systems, facilities, infrastructure, people and critical third parties are explored. For each recovery alternative, a business must examine its fitness for purpose in the specific area of cover, strengths and weaknesses and its cost. This stage helps an organisation's management to make informed, effective decisions regarding resource allocations for the business continuity program.

The fourth stage utilises the information from the previous stages to document a comprehensive business continuity plan. The documented plan becomes the organisation's reference for assessing disruptive events, determining the appropriate response(s), and initiating the necessary procedures to activate required contingency

plans. Documenting of the plan also requires that specific teams and resources are also identified and set aside to support recover of critical business functions, provide logistical, technological and infrastructure support and manage the recovery and restoration process. Robson (1997), identifies three forms of recovery facilities and resources depending on the complexity of the continuity program in place- the use of hot site facilities where everything to enable smooth and instantaneous operations is installed and data back-ups are available i.e. ready standby capacity, the use of cold site facilities where standby equipment is in place but business-appropriate features and systems are not readily installed i.e. semi-ready standby capacity or use of portable facilities whether in portable vehicles or portable prefabricated offices

The fifth stage, according to PwC, is on testing the chosen disaster recovery and continuity plans to ensure that they can actually work when the need arises. This is especially true for technical continuity solutions such as redundant systems and infrastructure. Testing the continuity of people or human resources would involve assessing their effectiveness in the roles allocated in the recovery scenario and assessing their effectiveness in those roles.

2.6. Challenges in building enterprise resilience

Investments in Business Continuity and Disaster Recovery Planning are often seen by management as costly and useless (Snedaker, 2008). Continuity planning in micro and small enterprises across all industry sectors is largely viewed as adding unnecessary costs because it necessitates building of redundancy and standby capacity which is often a costly investment for a problem whose probability of occurrence may not be reasonably predicted. The issue of cost management is also a point of contradiction in stakeholder/management interests. Whereas on one hand they want systems to be in place for flagging relevant and material risks, they also tend to be wary about investments whose returns are based on chance (Booz, Allen & Hamilton, 2004).

From a technology disaster recovery perspective, there is a challenge in the growing data volumes which themselves would require significant time to restore. In dealing with large amounts of data, it is critically important to do such things as creating data

hierarchies to ensure that the data necessary to get businesses back up quickly can be identified and queued up before archival data, which can be recovered comfortably over a longer period of time (Weinschenk, 2011).

Some enterprises do not have a clear understanding of the critical areas of business that need to be secured because of their impact on continuity. Weinschenk (2011) asserts that the reason for this gap is the failure by management to involve the business departments and have them identify the critical functions and processes without thinking about IT or software. Another key challenge is placing excess focus on ICT recovery while forgetting other important business continuity areas such as supplies, facilities and human resources.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1. Introduction

This chapter presents the nature of the research activity that was undertaken. It systematically solves the research problem by logically adopting various steps. It begins by explaining the research design that was selected. It then specifies the population that was studied before exploring the data collection methods and techniques that were employed. Finally the chapter describes how the data was analysed and the tools used.

3.2. Research Design

The study adopted a descriptive, cross sectional and co-relational design. It sought to determine the formality of business continuity planning as a way of building enterprise resilience amongst the deposit taking microfinance institutions. It began by gathering descriptive information on each of the deposit taking microfinance institutions –specifically on size and scope of operations and current performance.

It was a cross-sectional study because it involved a study of the research population at a specific point in time. The study was designed to elicit the prevalent level of disaster preparedness and across the sub-sector. It was also a co-relational research because it sought to explain the relationship between the past occurrences (or lack thereof) of disasters in the institutions under study and the existence of proper business continuity plans. The study also explored how the various challenges cited by the respondents interacted with each other.

3.3. Population of the Study

The study targeted the deposit taking microfinance institutions that are licensed by the Central Bank of Kenya. At the time of the study, there were six licensed deposit taking microfinance institutions in Kenya. These are Faulu Kenya DTM, Kenya Women Finance Trust (KWFT) DTM, Rafiki DTM - a wholly owned subsidiary of

chase bank, Small and Micro-Enterprise Programme (SMEP) DTM, Remu DTM and Uwezo DTM. This study covered all DTMs in the population, hence it was a census.

3.4. Data Collection

Data for the study was both primary and secondary. Primary data was collected using a questionnaire. The respondent in each of the licensed DTMs was the heads of the risk department.

The questionnaire had two main parts. The first part was used to gather general business information for each respondent. The second part was focussed on determining the extent of adoption of business continuity planning as a strategy to building enterprise resilience. It began by establishing the formality of the business continuity management process within the respondent organisations. It then sought to gather data on the importance attached to business continuity planning amongst the senior management of the deposit taking MFIs. As part of this data, it sought information on whether any disasters had been experienced by each of the responding DTM in the near past. In order to justify the need for Business Continuity Planning, the questionnaire also sought to collect data on the areas that the businesses considered to be mission critical and the expected recovery time or the maximum tolerable periods of disruption on operations. It ended with a guided assessment of the current level of resilience for the responding organisation, a review of the strategies applied to secure resilience of various operational elements and the key influencers of business continuity planning.

Secondary data, specifically, on corporate governance practices and opportunities for MFI development was obtained from the previous studies done on deposit taking microfinance institutions. The researcher also made reference to published supervision reports on MFIs from the Central Bank of Kenya.

3.5. Data Analysis

The filled questionnaires were checked for completeness and then coded and the data analyzed. Considering the quantitative nature of the data collected through

questionnaires, descriptive statistics which describe the main features of the data collected were used. Tables were used to summarize responses for further analysis and to facilitate comparison. This offered a systematic and qualitative description of the objective of the study.

The mean and the standard deviation of the factors affecting adoption of business continuity management and the respondent's assessment of their resilience levels were determined. Bar graphs and pie charts were used to present comparisons of the maximum tolerable periods of disruption and the level of adoption of each of the business continuity strategies in the areas of ICT systems, human resources, finance, facilities and strategic business partners. Finally, correlation analysis was done to show relationships between the various variables and the state of adoption of proper business continuity plans.

CHAPTER FOUR

DATA ANALYSIS AND INTERPRETATION

4.1 Introduction

This chapter presents the analysis and interpretations of the data collected on business continuity planning as a strategy for building resilience amongst deposit taking microfinance institutions in Kenya. The results are presented and interpreted in graphical and tabular formats.

The study targeted all the six licensed deposit taking microfinance institutions. However, out of the six targeted, responses were duly received from five of them translating to a response rate of 83.3%. Despite persistent follow-up, there was no positive response from one of the targeted respondents. However, the response rate achieved is above the 70% threshold. The section begins by presenting the demographic information of the companies studied before presenting the detailed results and analysis of the responses that are specific to adoption of business continuity planning.

4.2 Demographic Information

The respondents were asked to indicate the name of the deposit taking MFI that they represented. The deposit taking MFIs that participated in the study were Faulu Kenya, REMU DTM limited, Rafiki DTM Limited, Uwezo DTM Limited and SMEP DTM limited. The respondents were also asked to answer a string of questions specific to the companies responding. The responses are presented in table 4.1.

Table 4.1: Demographic Characteristics

	Frequency	Percentage
Duration while operating as a licensed deposit taking MFIs		
Less than 3 Years	5	100
Company's current scope of business operations		
National	4	80
Regional	1	20
Current size of branch network		
Less than 3 branches	3	60
6-10 Branches	1	20
Over 10 Branches	1	20
Types of financial services offered by the institution		
Deposit Accounts	5	100
Business & Personal Loans	5	100
Money Transfer	1	20

Volumes on product portfolios as at the year end						
	Less than 1,000		1,000-5,000		5,000-10,000	
Deposit Accounts	3	60	1	20	1	20
Business/Personal Loans	2	40	2	40	1	20

Monetary values of product portfolios as at year end						
	Less than 100m		100m-500m		Over Kshs 1b	
Deposit Accounts	2	40	2	40	1	20
Business/Personal Loans	3	60	1	20	1	20

Profits as at the company's year end		
Less than 0 (Loss)	3	60
Kshs 2. 0 – 50 Million	1	20
Over Kshs 100 Million	1	20
Business channels the MFIs are currently using		
Physical Branches	5	100
Mobile	3	60

From the results in table 4.1, all the MFIs had been operating as licensed deposit taking micro-finance institution for less than 3 years. This depicts that majority of the MFIs had been operating as licensed deposit taking MFIs for a very short period-hence the need for Business Continuity planning. On the scope of business operations the majority of the licensed MFIs (80%) are currently operating across the country while 20% are serving an isolated region in the country. The relative scale of operations based on the branch network is presented in table 4.2.

Table 4.2: Current size of branch network

Range of Branches	**Frequency**	**Percentage**
Less than 3 branches	3	60
6-10 branches	1	20
Over 10 branches	1	20

The data showed that 60% of the MFIs had less than 3 branches, 20% had between 6 and10 branches while another 20% operate more than 10 branches. These results show that that majority of the MFIs served a small market segment owing to their limited branch network.

With respect to the types of financial services offered by the organizations, all the MFIs offered deposit accounts and business/personal loans to their clients. However, only 20% offer money transfer services. None of the respondents offer current accounts, Trade finance or Forex services.

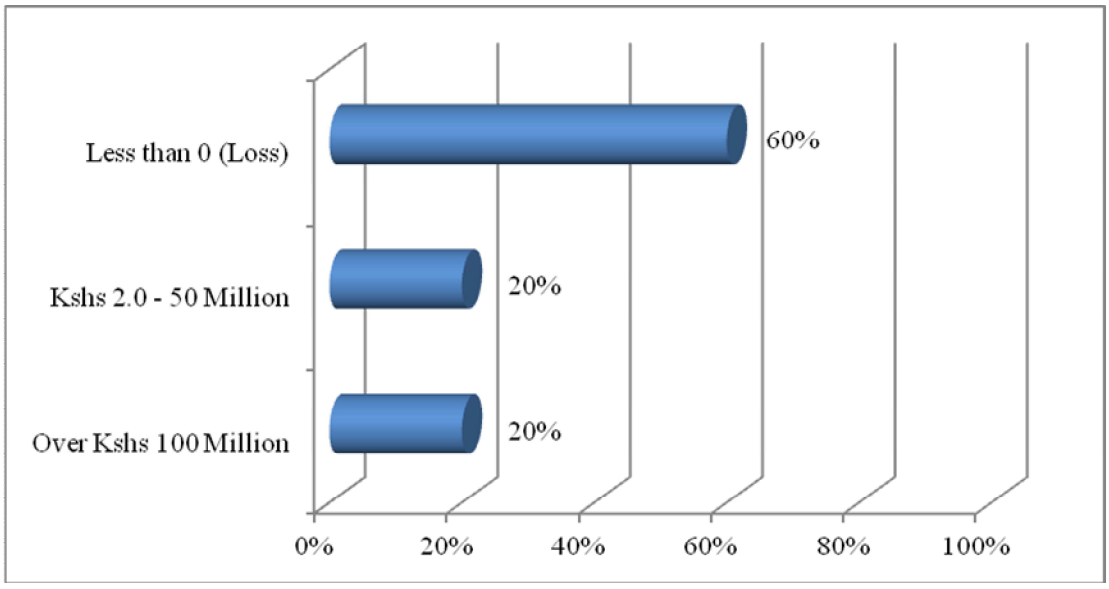
The study also sought to establish the current volumes of business and product portfolios conducted by the MFIs in Kenya. Based on the results of the analysis, majority of the MFIs (60%) had less than 1,000 deposit accounts, 20% had between 1,000 and 5,000 deposit accounts while the remaining 20% had between 5,000 and 10,000 deposit accounts. Further, the results indicate that 40% of the MFIs had sold business/personal loans to less than 1000 customers, another 40% to between 1,000

and 5,000 customers while the remaining 20% had sold business/personal loans to between 5,000 and 10,000 customers.

With respect to the monetary values of their respective product portfolios 40% of the MFIs had less than Kshs. 100 million in deposit accounts, another 40% had between Kshs. 100million and Kshs. 500 million in deposit accounts while the remaining 20% had over Kshs 1 Billion in deposit accounts. Further, the results show that, 20% of the MFIs had advanced in excess of Kshs 1 Billion in business and personal loans to customers, another 20% had between Kshs. 100million and Kshs. 500 million worth of loans while 60% had less than 100 million worth in loans advanced to customers.

The study had also sought to establish the profitability levels amongst the respondent institutions. The results are shown in figure 4.1.

Figure 4.1: Profitability of respondents in previous financial period



Based on the results of the analysis, a majority of the MFIs (60%) made losses in the preceding financial year, 20% of the MFIs made profits of between 2 Million and 50 Million while the remaining 20% had made profits in excess of Kshs 100 million

Finally, the study established that all the MFIs were using physical branches while 60% of the MFIs were also using mobile phone services to reach to their clients.

4.3 Extent of adoption of business continuity planning

This section explores the extent of adoption of business continuity planning amongst the licensed deposit taking microfinance institutions. The study sought to establish the formality of planning, management ratings of the need for business continuity planning, tolerable periods of disruptions amongst the various respondents, their current assessment of the resilience or business continuity standing of their respective institutions and the specific business continuity plans put in place to mitigate against the risks of significant disruptive events. The researcher asked questions to probe each of the areas making reference to the reviewed literature.

4.3.1 The formality of planning and management focus

The respondents were requested to respond to a set of statements whose aim was to establish the formality of business continuity planning within the institutions. The analysis of the responses to these statements is depicted in table 4.3.

Table 4.3: Formality of planning and management focus

	Frequency	**Percentage**
There is a specific department responsible for ensuring Business Resilience through BCP in the institution	5	100
There is a formal Business Continuity Plan reflecting identified Mission Critical activities and risks for all departments	5	100
The Business Continuity plan above reflects the impact that a major operational disruption would have on the business	5	100
The Business Continuity Plan is subjected to regular testing, review and also is regularly updated	5	100
Business Continuity Planning appears on the Board Agenda at least once a year	3	60

The results in table 4.2 indicate that a majority of the MFIs had a formal business continuity planning process. This is as represented by the overwhelming reporting by all the respondents that there is a specific department responsible for ensuring business resilience through BCP in the institution; there is a formal business continuity plan reflecting identified Mission Critical activities and risks for all departments; the business continuity plan above reflects the impact that a major operational disruption would have on the business; and the plan is subjected to periodical testing, reviews and updates. However, only in 60% of the MFIs was business continuity planning included as an agenda in annual board meetings**.**

4.3.2 Importance of business continuity planning and management

To establish the level of importance attached by the various institutions on business continuity planning, the respondents were requested to indicate their personal view of the importance of Business Continuity Planning. Notwithstanding that none of the MFIs had had an incidence that would have been a major threat to business continuity in the last 3 years, all the respondents were unanimous that business continuity planning is important for ensuring enterprise resilience within their institutions and that a formalised strategy on business resilience and continuity should be made compulsory for deposit taking MFIs.

4.3.3 Mission Critical activities/processes

To establish the critical processes that need to be assured through a robust business continuity plan, the respondents were asked an open ended question on what they considered to be the mission critical activities/processes in their institution. A majority of the respondents 60% considered customer service to be mission critical for them.

4.3.4 Maximum Tolerable Period of Disruption for Mission Critical activities

The study asked the respondents to indicate maximum tolerable period of disruption (MTPD) which is also referred to as the Recovery Time Objectives (RTO) for the activities they consider to be mission critical. The analysis of the responses is depicted in table 4.4.

Table 4.4: Maximum Tolerable Period of Disruption (MTPD)

Maximum Tolerable Period of Disruption (MTPD)	Frequency	Percentage
10-30 Minutes	4	80
6hrs- 1 day	1	20

From the findings, 80% of the MFIs could only tolerate disruptions on mission critical activities for 10-30 minutes while 20% of the MFIs could tolerate up to a maximum of one day.

4.3.5 Respondents' assessments of continuity resilience of the respective MFIs

In this section, the researcher had asked the respondents to state whether they believed that the MFIs they were working for had robust business continuity plans to guarantee resilience of the business when faced by the specified risks. The responses were rated on a five point Likert scale and coded as follows: 1-Strongly disagree, 2-Disagree, 3-Neutral, 4-Agree and 5-Strongly Agree.

Table 4.5: Respondents' assessment of resilience of the institutions

	Mean	Std. Deviation
Total loss or destruction of the critical ICT systems and/or data	4.654	.7812
Prolonged unavailability of a critical ICT system	4.6013	.54772
Loss, sickness or otherwise departure of critical, human resources	4.2023	.44721
Withdrawal or unexpected failure by any critical suppliers	4.589	.5324

Withdrawal or unexpected failure by a strategic financier	4.453	.54772
Prolonged loss of Power Supply affecting systems and hence service delivery	4.215	.4578
Loss of facilities due to natural disasters such as fires, earthquakes, floods	4.2001	.3721
Loss due to crime: Burglary, terrorism, Fraud	4.1044	.5342

From the results presented in table 4.5, the majority of the respondents assessed the MFIs that they worked for as having adopted robust business continuity plans to guard against the specified risks. The highest resilience levels assessed were against the risk of total loss or destruction of the critical ICT systems (Mean=4.654, SD=0.781) and prolonged unavailability of critical ICT systems (Mean=4.601, SD=0.548). The least resilience levels assessed were against the risk of loss of facilities due to natural disasters such as fires, earthquakes, floods (Mean=4.2001, SD=0.372) and the risk of loss due to crime e.g. burglary, terrorism, fraud (Mean=4.1044, SD=0.534).

4.4 Methods adopted to ensure Business Continuity

The study sought to determine the methods adopted by the licensed DTMs to ensure business continuity. It explored the continuity measures employed in the areas of ICT systems, human resources, financial resources, power/energy and critical business partners such as suppliers.

In the area of Continuity of ICT systems, the researcher had sought to establish the methods adopted to ensure availability of automated data processing capacity. The results are analysed in table 4.6.

Table 4.6: Methods of ensuring continuity of ICT systems

	Frequency	Percentage
Alternate Processing Site (Disaster Recovery site)	5	100
Network Redundancy/ Back-up links	5	100
Data Back-ups	5	100
Escrow arrangement	0	0
Robust Service Level agreements	5	100
Agreements with competitors on use of ICT infrastructure in case of breakdown	4	80

From the analysis in table 4.6, the most prominent methods of ensuring ICT continuity is the use of alternate processing / Disaster Recovery sites, the use of network redundancy/ back-up links, taking data back-ups and the use of robust service level agreements, all of which were indicated by all the respondents. Further, 80% of the MFIS also adopted agreements with competitors on use of ICT infrastructure in case of breakdown to cope with ICT systems disruption. However, none of the MFIs employed the use of escrow arrangements to recover crashed systems.

In the area of continuity of human resources, the researcher had sought to establish the methods and techniques adopted to guarantee the continuity of required skills to guarantee uninterrupted service delivery within the deposit taking MFIs. The results are summarised in table 4.7.

Table 4.7: Methods of ensuring continuity of Human resources

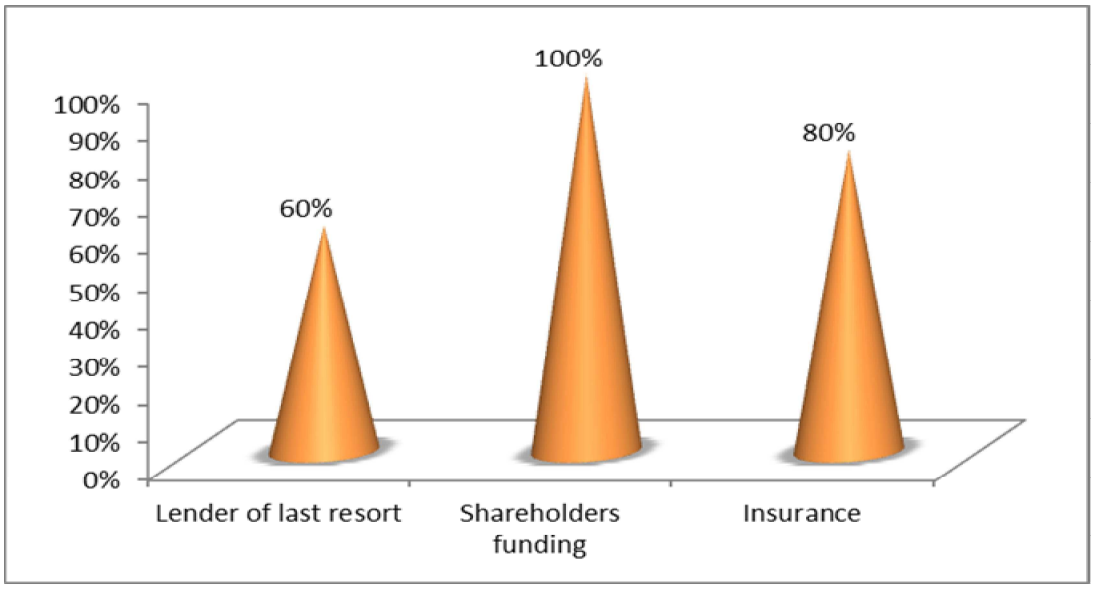
	Frequency	Percentage
Staff Rotation	5	100
Knowledge Database for Reference	4	80
CV database for emergency recruitment	5	100
Comprehensive training to staff	0	0

We always have redundant staff capacity	3	60
Head hunters' services are in place	0	0

Based on the analysis in table 4.7, all the MFIs applied staff rotation and also maintain database of curriculum vitas of possible recruitment targets in the event they need to undertake emergency recruitments. In addition, 80% of the MFIs maintained knowledge database for reference by any interested member of staff while 60% had redundant staff capacity.

With respect to the risk posed by inadequate finances to support the business, the researcher had sought to establish the methods adopted by the MFIs to gain access to quick funds to sustain their businesses in the events of emergency funding requirements. The results are shown in figure 4.2.

Figure 4.2: Methods of ensuring continuity of business financing



Based on the analysis, all respondents indicated that they relied on contribution or funding from shareholders to deal with the risk of financial instability. Further, a majority of the institutions relied on insurance for losses or financial underperformance (80%) and lender of last resort – the Central Bank of Kenya (60%) for quick funds.

With respect to continuity of electrical power to run the business systems, the study had sought to establish the methods adopted to ensure availability of power to support the running of the various systems and the mechanisms in place to ensure rapid recovery from power disruptions. All the respondents indicated that their institutions had automatic power generator and un-interruptible power supply systems to deal with disruptions in the company's power supply.

Finally, the researcher had sought to establish the methods adopted to ensure there were suitable alternatives in the event of withdrawal of a critical partner on which the MFI depended. Based on analysis of the responses given, all the respondents have contracts with multiple suppliers and multiple financiers to deal with challenges with critical business partners.

4.5 Factors affecting Business continuity planning

This section presents the respondents view of the key factors affecting the adoption of business continuity practices amongst the deposit taking MFIs. The responses were rated on a five point Likert scale where: 1-Very weak, 2-Weak, 3-Neutral, 4-Strong and 5-Very Strong. The results are presented in table 4.8.

Table 4.8: Factors affecting adoption of business continuity planning

	Mean	Std. Deviation
Regulatory environment	3.6000	0.54772
Financial Capability	3.0000	1.22474
Prioritization	4.0000	1.00000
Management attitude and Focus	3.8214	0.56117
Knowledge of need for BCP	3.8001	1.52117
Technical Capacity	3.8512	0.64317

From the finding, the most significant factors affecting the level of resilience and continuity is its priority within the institutions (Mean=4.000), the availability of technical Capacity to implement the continuity plans (M=3.8512) and management attitude and Focus (M=3.8214). Financial capability is the least significant factor affecting business continuity planning (M=3.000).

4.6 Correlation Analysis

Pearson's product moment correlation analysis was used to assess the relationship between the variables. Correlation analysis helped to determine the strength of the association between the dependent variable (adoption of business continuity planning and the independent variables (regulatory environment, financial capability, prioritisation, management attitude and focus, knowledge of need for BCP and technical capacity) The results of the correlation analysis are presented in the matrix in table 4.9.

Table 4.9: Correlation Matrix

	Adoption of BC Planning	Appropriate prioritisation	Management attitude and focus	Technical capacity	Knowledge of need for BCP	Regulatory environment	Financial capability
Adoption of BC planning	1.000						
Appropriateness of prioritisation	0.894 0.018	1.000					
Management attitude and focus	0.493 0.031	0.316 0.047	1.000				
Technical capacity	0.661 0.024	0.163 0.019	0.216 0.047	1.000			
Knowledge of need for BCP	0.402 0.046	0.161 0.029	0.233 0.0464	0.462 0.014	1.000		
Regulatory environment	0.308 0.048	0.159 0.035	0.243 0.442	0.454 0.011	0.543 0.341	1.000	
Financial capability	0.243 0.051	0.159 0.043	0.456 0.467	0.245 0.017	0.567 0.143	0.452 0.011	1.000

As shown in table 4.9, the factor that had the strongest correlation to business continuity planning is the appropriateness of prioritisation of business continuity

planning. However, there is a positive and significant relationship between business continuity planning and management attitude and focus and Technical capacity of magnitude 0.493 and 0.661 respectively. Financial capability has the lowest correlation value. Further, all the factors had a significant p-value ($P<0.05$) at 95% confidence level. The P values for relationship between business continuity planning and appropriateness of prioritisation ($P=0.018$), management attitude and focus ($P=0.031$), technical capacity ($P=0.024$) are consistent with the correlation co-efficient values. They also imply that prioritisation was the most significant factor, followed by technical capacity and management attitude and focus. The P values also show that financial capability is the least significant factor ($P=0.051$)

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the summary of the study, conclusion drawn from the findings highlighted and recommendation made there-to. The conclusions and recommendations drawn were focused on addressing the purpose of this study which was to determine the extent to which deposit taking microfinance institutions in Kenya have adopted formal business continuity planning as a strategy for building resilience within the institutions and to establish the strategies adopted by the deposit taking MFIs to ensure continuity of operations from the perspective of ICT systems, human resources, finance, infrastructure and business processes.

5.2 Summary of findings

The study found out that most of the licensed deposits taking MFIs have a national outlook and all are currently focussed on advancing personal and business loans as well as maintaining deposits for customers. Money transfer services, according to this study, are not well developed within the deposit taking microfinance sub-sector. These observations are consistent with the regulators guidelines which prohibits DTMs from offering certain financial services such as Forex, Treasury and trade finance. Notwithstanding, the DTMs are holding significant financial services portfolios in the economy with both deposits held and loans advanced running into billions of shillings on each account. In spite of these vast portfolios, most of the DTMs are currently loss making therefore highlighting the need for proactive continuity management in the area of operational financing. With respect to distribution channels, the study also established that modern electronic service channels are not well developed amongst the DTMs. Indeed the most prominent distribution channels, based on the study, are the physical branches.

The study revealed that most of the deposits taking institutions have a formal business continuity management process. This indicates that the DTMs employ a proactive approach to managing the threats to long term continuity. Indeed, all respondents reported having a formalised business continuity plan whose execution is the

responsibility of a specified department. Further, the respondents were unanimous that business continuity planning is vital despite having not experienced incidences that would have posed significant threats to their continuity.

The study also revealed that most of the DTMs have very short recovery time objectives or tolerable period of disruptions. Most can only tolerate disruptions on mission critical activities for a maximum of 10-30 minutes. This is especially relevant in showing the need for proactive continuity plans on ICT systems, facilities, power, Human resources and critical business partners. However, majority of the respondents assessed the MFIs for whom they worked as having already adopted robust business continuity plans to proactively guard against the risks to ICT systems, facilities, power, people/human resources and critical business partners.

In planning for continuity of ICT systems, the DTMs employ the use of disaster recovery sites, network redundancy, data back-ups and the enforcement of strict service level agreements with system vendors. To assure themselves of continuity of human resources, the DTMs largely employ the use of staff rotation, CV databases, maintenance of knowledge databases and maintaining some level of staff redundancy. To safeguard against the risk of financial collapse, the DTMs rely on shareholder funding, insurances for losses incurred or for financial underperformance and through the lender of last resort- the CBK. All the companies employ the use of standby generators and uninterrupted power supply to ensure continuity of electrical power which in turn directly affects ICT systems. They also sign contracts with multiple suppliers to guard against withdrawal of supplies or sabotage from one.

Finally, the study found that the priority given to business continuity planning by management is the most significant factor explaining the current level of its adoption. It also had the highest correlation with business continuity planning. The existent of technical capacity, management's focus and knowledge of the importance of BCP are also very significant. However, financial capability is of the least concern.

5.3 Conclusions

The study concludes that the licensed deposit taking microfinance institutions in Kenya have adopted a formal business continuity planning process as a strategy of

strengthening their long term resilience. Further, it concludes that the strategies adopted for ensuring continuity of ICT systems include use of disaster recovery sites, network redundancy, data back-ups and the enforcement of strict service level agreements with system vendors. The strategies adopted to ensure continuity of human resources, include staff rotation, use of CV databases, use of knowledge databases and maintaining some level of staff redundancy. The financial fallback strategies include shareholder funding, insurances against losses or through borrowing from the Central Bank of Kenya as the lender of last resort. The study further concludes that all DTMs have standby generators and uninterrupted power supply systems to ensure continuity of electrical power to support ICT systems and also have contracts with multiple suppliers to guard against the risk of failure or sabotage.

The study further concludes that correct prioritisation of business continuity management within the institutions is the most significant factor that determines the current level of adoption. Further, management attitude towards proactive management of business continuity risks and existence of the required technical skills and capacity are key influencers for adoption of business continuity planning. However, the financial capability of the DTMs is the least relevant factor determining adoption or lack there-of.

Based on the maximum tolerable periods of disruption reported amongst the DTMs, this study concludes that the DTMs have a very short recovery benchmark - a confirmation of the criticality of business continuity planning. Finally the study concludes that the Central Bank has been effective in enforcing proactive business continuity planning amongst the DTMs as part of their role in protecting customer funds.

5.4 Recommendations

The study found that although most of the licensed DTMs have a formal business continuity planning process there are still some unexploited means of ensuring better business resilience. To further strengthen the proactive management of business continuity risks the researcher recommends that the DTMs adopt the methods that are currently not being used. Specifically, the DTMs should adopt the use of escrow arrangements in securing business programs source code. In addition, the DTMs

should adopt comprehensive staff training in all areas of business as well as the use of head hunter's services to ensure better continuity of human resources and quick turnaround in the event of staff departures.

Based on the results of the study, the DTMS have a limited set of business channels with most of them largely using physical branches as the primary business channel. The prudential regulations to which they are subject do not bar them from enhancing their service delivery by employing modern electronic channels. In deed some of the DTMs reported using mobile money transfer as one of their channels. Because of the value expected to be gained from the use of diverse modern channels, the researcher would recommend the adoption of electronic channels, specifically, mobile and internet service channels.

Lastly the study found that currently, the DTMs are only offering a very limited set of financial services – mostly deposit accounts and business/personal loans and a meagre 20% offering money transfer services. The researcher recommends that the Central Bank of Kenya, grants enhanced licenses to allow the DTMs to expand their products to more common ones offered by normal commercial banks, specifically, trade finance, Treasury and Forex services. This would provide more growth opportunities for the DTMs and would also serve to bring further competition in the financial services sector which is beneficial to the general citizenry.

5.5 Suggestions for further research

The study found out that most of the licensed deposit taking microfinance institutions are loss making. This raises questions on how the businesses are able to consistently manage their operational cash flow requirements. The researcher recommends a more detailed research on the specific strategies being used by the DTMs to manage the risk to operations due to possible financial difficulties. Finally, the researcher also recommends further research on the activation of the business continuity planning methods in the event of occurrence of a real disruptive event.

REFERENCES

Burgelman, R. A., Christensen, C. M., Steven, C., & Wheelright, S. C. (2009). *Strategic management of technology innovations* (5 ed.). Singapore: MCGrawhill

Cannon, D. L., Bergmann, T. S., & Pamplin, B. (2012). *Certified Information Systems Auditors: CISA review manual 2012*. Illinois: ISACA

Central Bank of Kenya (2010) *Microfinance institutions*. Retrieved 21 July, 2012, from www.centralbank.go.ke/financialsystem/microfinance/introduction.aspx

Doughty, K. (2001). *Business Continuity: A Business Survival Strategy*. Retrieved 28 June, 2012, from http://www.isaca. org/Journal/Past-Issues/2002/Volume-1/Pages/Business-Continuity-A-Business-Survival-Strategy.aspx.

Financial services Authority, FSA (November 2006). *Business Continuity Management Practice Guide*. Retrieved 1 July, 2012, from www.google. co.ke/ bcm_guide.pdf

International centre for Enterprise Preparedness, INTERCEP (August 2007). *The Business Case for enterprise resilience* : Retrieved 21 June, 2012, from www.nyu.edu/ intercep /research/pubs/Business Enterprise Resilience.pdf. New York University.

Kaye, D., & Graham, J. (2006). *A Risk Management Approach to Business Continuity: Aligning Business Continuity with Corporate Governance*. Brookfield: Rothstein Associates Inc.

Kitetei, E. M. (2011): *The effect of corporate governance practices on the financial performance of deposit taking microfinance institutions in Kenya.* Unpublished Study, University of Nairobi.

Macharia, C. M. (2011): *Overall sustainability of Microfinance Institutions in Kenya: A survey of critical success factors.* Unpublished Study, University of Nairobi.

Pearce, J. A., & Robinson, R. B. (1997): *Strategic Management: Formulation, implementation and control* (6 ed.). NewYork: Mc GrawHill

PricewaterhouseCoopers, PwC (May 2011), *BCP Methodology*. Retrieved 27 June, 2012, from https://knowledgecurve.pwcinternal.com/OpenDocument.

Raymond, A. N., Hollenbeck, J. R., Gerhart, B., & Wright, P .M. (2008). *Human Resource Management: Gaining a competitive advantage* (6th ed). NewYork: McGrawHill.

Robson, W. (1997). Responsible IS management: Contingency planning and disaster recovery. In *Strategic management and information systems* (2nd ed. Pp 517-520). Edinburgh-England: Prentice Hall.

Rono, J. C. (2011). *Knowledge management practices by commercial banks in Kenya*. University of Nairobi: Unpublished Study.

Sadgrove, K. (2009). *The complete guide to business risk management* (2nd ed.). Farnham-England: Ashgate Publishing.

Snedaker, S. (2008). *Business Continuity for IT professionals.* Information Systems Audit Control Association, ISACA. Retrieved 1 July, 2012, from http://www. isaca.org/Business-Continuity-and-Disaster-Recovery-for-IT-rofessionals1.aspx.

Stair, R., & Reynolds, G. (2008). *Principles of information systems: A managerial approach* (Ed. 8). Canada: Thomson Course Technology.

Thomson, A. A., & Strickland, A. J. (1992). *Strategic management : concepts and cases.* US: Mc GrawHill

Thomson, A. A., Strickland, A. J., & Gamble, J. E. (2008). *Crafting and executing strategy: the quest for competitive advantage. Concepts and cases (16 ed.).* US. Mc GrawHill

Waters, D. (2006). *Operations strategy*. London. Thomson Learning.

Weinschenk, C. (2011). *Changes and challenges to business continuity/Disaster Recovery*. Downloaded 31 July from www.itbusinessedge.com/cm/community /features/articles/blog/changes-and-challenges-to-business-continuity/disaster-recovery

APPENDIX 1: RESEARCH QUESTIONNAIRE

Part A: General Information (Answer/Tick (√) the appropriate answer)

1. Name of Deposit Taking MFI (Optional)

   _____

2. Designation of the respondent (Optional)

   _____

3. Number of years the company has been operating as a licensed deposit taking Micro-finance Institution

	Age	**Tick (√) applicable option**
i.	Less than 3 Years	☐
ii.	3-5 Years	☐
iii.	5-10 Years	☐
iv.	Over 10Years	☐

4. What is your current scope of business operations

	Geographical scope	**Tick (√) applicable option**	
i.	National	☐	
ii.	Regional	☐	(Specify region(s))
		.....	
		.....	

5. What is the current size of your branch Network

	Network Size	Tick (√) applicable option
i.	Less than 3 branches	☐
ii.	3-5 Branches	☐
iii.	6-10 Branches	☐
iv.	Over 10 Branches	☐

6. What are the types of financial services offered by the institution

	Services offered	Tick (√) **ALL** applicable options
i.	Current Accounts	☐
ii.	Deposit Accounts	☐
iii.	Business & Personal Loans	☐
iv.	International Trade Finance	☐
v.	Treasury & Forex	☐
vi.	Money Transfer	☐

Any other financial services in your service portfolio

.....

.....

.....

7. What were the volumes on your product portfolios as at the year ended 31 Dec 2011, 31 Mar 2012 or 30 Jun 2012, whichever is the company's year end?

	Number of Accounts/deals	Less than 1,000	1,000-5,000	5,000-10,000	Over 10,000
i.	Current Accounts	☐	☐	☐	☐
ii.	Deposit Accounts	☐	☐	☐	☐
iii.	Business/Personal Loans	☐	☐	☐	☐
iv.	International Trade finance deals	☐	☐	☐	☐

Others.....

.....

8. What were monetary values of your product portfolios as at the year ended 31 Dec 2011, 31 Mar 2012 or 30 Jun 2012, whichever is the company's year end?

	Value of Business Conducted / Balances held	Less than Kshs 100M	Kshs 100M-500M	Kshs 500M-1B	Over Kshs 1B
i.	Current Accounts	☐	☐	☐	☐
ii.	Deposit Accounts	☐	☐	☐	☐
iii.	Business/Personal Loans	☐	☐	☐	☐
iv.	International Trade finance deals	☐	☐	☐	☐

Others.....

.....

9. Profits for the year ended 31 Dec 2011, 31 Mar 2012 or 30 Jun 2012, whichever is the company's year end?

	Profitability	**Tick (√) applicable option**
i.	Less than 0 (Loss)	☐
ii.	Kshs 2. 0 – 50 Million	☐
iii.	Kshs 50-100 Million	☐
iv.	Over Kshs 100 Million	☐

10. Which of the following business Channels are you currently using?

	Channel	**Tick <u>ALL</u> (√) applicable option**
i.	Physical Branches	☐
ii.	Agencies	☐
iii.	Mobile	☐
iv.	Internet	☐

PART B: EXTENT OF ADOPTION OF BUSINESS CONTINUITY PLANNING AS A STRATEGY TO BUILDING ENTERPRISE RESILIENCE

1) Formality of Planning and Management Focus

		Tick (√) option	
i.	There is a specific department responsible for ensuring Business Resilience through BCP in the institution	Yes	No
ii.	There is a formal Business Continuity Plan reflecting identified Mission Critical activities and risks for all departments	Yes	No
iii.	The Business Continuity plan above reflects the impact that a major operational disruption would have on the business	Yes	No
iv.	The plan is subjected to testing and review on a regular basis and the Business Continuity Plan is regularly updated	Yes	No
	Business Continuity Planning appears on the Board Agenda at least once a year	Yes	No

2) Importance of Business Continuity Planning & Management

		Tick (√) option	
i.	In the last 3 years, we have had an incidence that would have been a major threat to our Business Continuity	Yes	No
ii.	In my view a Business Continuity Plan is important for ensuring enterprise resilience within this institution	Yes	No
iii.	Formalised strategy on business resilience and continuity should be made compulsory for deposit taking MFIs	Yes	No

3) Required resilience level and assessment of current level of resilience

a) What do you consider to be mission Critical activities/processes in your institution?

.....

.....

.....

.....

.....

.....

.....

b) Maximum Tolerable Period of Disruption (MTPD)/Recovery Time Objectives (RTO) for our Mission Critical activities.

	Tick (√) option
Less than 10 minutes	☐
10-30 Minutes	☐
30 Mins- 1 hr	☐
1 hr- 6 hrs	☐
6hrs-1 day	☐
Greater than 1 day	☐

c) In my view, the institution's has a robust Business Continuity Plan to guarantee resilience of the business under the following circumstances

		Strongly Agree	**Agree**	**Neutral**	**Disagree**	**Strongly disagree**
i.	Total loss or destruction of the critical ICT systems and/or data	☐	☐	☐	☐	☐
ii.	Prolonged unavailability of a critical ICT system	☐	☐	☐	☐	☐
iii.	Loss, sickness or otherwise departure of critical, human resources	☐	☐	☐	☐	☐
iv.	Withdrawal or unexpected failure by any critical suppliers	☐	☐	☐	☐	☐
v.	Withdrawal or unexpected failure by a strategic financier	☐	☐	☐	☐	☐
vi.	Prolonged loss of Power Supply affecting systems and hence service delivery	☐	☐	☐	☐	☐
vii.	Loss of facilities due to natural disasters such as fires, earthquakes, floods	☐	☐	☐	☐	☐
viii.	Loss due to crime: Burglary, terrorism, Fraud	☐	☐	☐	☐	☐

4) Methods adopted to ensure Business Continuity

For each option, tick the options that are currently in place for ensuring business resilience with respect to the specific parameter

No.	**Business Continuity Area**		**Tick <u>ALL</u> applicable option or N/A**
i.	ICT systems	Alternate Processing Site (Disaster Recovery site)	
		Network Redundancy/ Back-up links	
		Data Back-ups	
		Escrow arrangement	
		Robust Service Level agreements	
		Agreements with competitors on use of ICT infrastructure in case of breakdown	
		Others Specify….	
ii.	Human Resources	Staff Rotation	
		Knowledge Database for Reference	
		CV database for emergency recruitment	

No.	Business Continuity Area		Tick **ALL** applicable option or N/A
		Comprehensive training to staff	
		We always have redundant staff capacity	
		Head hunters' services are in place	
		Others Specify…….	
iii.	Financial	Lender of last resort	
		Shareholders funding	
		Insurance	
		Others Specify...	
iv.	Power	Automatic power generator in place	
		Un-interruptible Power Supply Systems	
		Others specify….	
v.	Critical	Multiple suppliers	

No.	Business Continuity Area		Tick **ALL** applicable option or N/A
	Business Partners	Multiple financiers	
		Others Specify…	

5) Factors affecting Business Continuity Planning

i) In my view, the following factors impact the level of resilience and continuity readiness in this institution

Factor	Very Strong	Strong	Neutral	Weak	Very weak
Regulatory environment					
Financial Capability					
(In)appropriate prioritisation					
Management attitude & Focus					
Knowledge of need for BCP					
Technical Capacity					

ii) Based on my assessment of this institution, I would rank the above factors as follows in order of their weight in causing the prevailing BCP situation

Factor	**Rank**
Regulatory environment	
Financial Capability	
(In)appropriate prioritisation	
Management attitude & Focus	
Knowledge of need for BCP	
Technical Capacity	

13. Any other comment on Enterprise resilience in your institution;

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APPENDIX 2: LIST OF LICENSED DTMS IN KENYA

1. Faulu Kenya Limited
2. SMEP DTM Limited
3. Uwezo DTM Limited
4. Kenya Women Finance Trust (KWFT) DTM Limited
5. Rafiki DTM Limited
6. REMU DTM Limited