Improving risk rating methodology to support and foster MSME lending in Malawi

OTTONE TOWERS

Master of Science graduation thesis

Koen Heikens

Document info

Title	з.	Improving risk rating methodology to support and foster MSME lending in
		Malawi

- **Description** : A study investigating possible performance indicators of potential MSME clients, to be used within a risk rating system of a Malawian bank
- Keywords : risk rating, risk rating systems, credit scoring, firm performance, developing countries, performance indicators, credit facilities, MSME loans
 - **Type :** Master of Science graduation thesis
 - Date : August 14, 2010

Candidate

Name	:	Koen Joris Heikens BSc
Study	:	Master Business Administration
Track	:	Innovation & Entrepreneurship
Student no.	:	s0099686
E-mail	:	k.j.heikens@student.utwente.nl

University

University	:	University of Twente
Department	:	School of Management and Governance –
		Dutch Institute for Knowledge Intensive Entrepreneurship (NIKOS)
Address	:	Post Office Box 217, 7500 AE, Enschede, The Netherlands

Principal

Organization :	First Merchant Bank Ltd.
----------------	--------------------------

- Department : Retail Department
 - Address : Private Bag 122, Blantyre, Malawi

Exam Committee

1 st Supervisor UT:	:	Dr. Ir., Jeroen Kraaijenbrink
2 nd Supervisor UT:	:	Dr. Joris M.J. Heuven
Supervisor FMB:	:	Dr. Henk J.J. van Oosterhout / Agness Jazza MSc

Management Summary

Risk rating is the most important activity for a financial institution before disbursing a loan to a client. Risk rating methods for developed countries are widely spread, but for developing countries like Malawi no sufficient methodology is available. Within this study a search for applicable risk rating methods for Malawi was conducted. Main question of the research was:

Which adjustments need to be made on a typical internal risk rating system in order to rate the risk of default of potential MSME clients in a Malawian context?

An important fundamental idea for the principal, a commercial bank in Malawi, is the profitable basis which is necessary to unroll this lending activity. Commercial lending needs to be distinguished from lending activities at microfinance institutions which do have an established literature base.

Using the three underlying sub questions a brief summary of the current study will be given.

1. What is a typical risk rating system?

A typical risk rating system is an assessment of a firm's credit risk and expected repayment capacity. Typical risk rating systems consist of a client rating which assesses the characteristics of the borrower and a facility rating which assesses the characteristics of the credit facility. In terms of modification, the bank has far more influence on the credit facility than on the client. Consequently, the most important part of a risk rating is the client rating, because this gives an indication whether the potential client will be able to repay its facility or not.

How can client rating within a typical risk rating system be adjusted in order to make it applicable in Malawi from a theoretic perspective?

To apply the steps of the existing RRS in Malawi the procedure needs to be adjusted or better defined. The first problem is that the financial assessment exists of very complicated calculations which are not applicable to assess MSMEs in Malawi. The most important qualifier for risk rating is the quality of the financial information of the applicant. Without proper financials no calculations can be made at all. If the firm has proper financial information, the weekly profit is a useful indicator. The weekly profit can be used to determine the amount of money the firm can repay in that period.

The second adjustment is done with the entrepreneurial capacity, which will be assessed using: personality characteristics, skills and experience and education. The personality

Improving risk rating methodology to support and foster MSME lending in Malawi

characteristics assessment produces a profile of the entrepreneur based on several characteristics which can be compared with the norm profile of a successful entrepreneur. The entrepreneurial skills will show whether the entrepreneur has the necessary skills for running his firm. And the experience of an entrepreneur indicates how experienced he is with activities that need to be done during the growth cycle of a firm and gives an estimate of his quality. Together with the level of education this part of the client rating will show whether the entrepreneur is expected to become successful or not.

The last item is the business' position within the industry, which shows the strength of the competitive position of the firm and whether this industry is one the financial institution favors. Together these 3 items will be the adjusted client rating as depicted in table 1.

Step	Activity	Items	Part
		Quality of financial information	
1	Financial Assessment & Quality Financial Information	Profit margin	_
		Employment growth	
		Personality Characteristics	Client
2	Entrepreneurial Assessment	Skills	Rat
		Experience & Education	Rating
2		Industry Selection	1
3	Position within Industry	Tier Assessment	

Table 1 - Adjusted client risk rating method

3. Is client rating applicable in Malawi and does it differentiate between strong and poor performing businesses?

The results indicate that both financial and entrepreneurial assessment result in difficulties. The financial assessment is often impossible because of lack of proper financial records. If there is information the assessment can be made but the entrepreneurial assessment is only partly applicable. Both the test of personality characteristics and skills within the entrepreneurial assessment gave results which are not valid. The main reason seemed to be the fact that the respondents did not understood the questions because the questionnaires were developed for use in developed countries. Although the first two items did not work, the test of experience gave useful results. Some extra questions which are typically for the Malawian business culture have made this item very useful.

The position within the industry proofed to be a good item which easily showed the strength of the market position of a firm. Altogether, the most critical point within the rating is the problem with the financial assessment, which is not caused by inconsistencies of the client rating, but by the poor financial records of the MSMEs. A reason tends to be the financial illiteracy of the entrepreneurs which is caused by the fact many business are started not because they like to become entrepreneur, but because it is the only way to earn money for living when a paid job cannot be obtained.

Improving risk rating methodology to support and foster MSME lending in Malawi

According the answers on the sub questions the central question can now be answered.

Which adjustments need to be made on a typical internal risk rating system in order to rate the risk of default of potential MSME clients in a Malawian context?

Adjustments need to be made to the entrepreneurial assessment in order to get a clear overview of the capabilities of the loan applicant. Only the experience test gives this insight when the new model is used. The financial assessment and the positioning within the industry work well. But on average the rating of MSMEs is difficult because of their poor financial records which do not give any insight in their potential repayment capacity. Although technical support could solve this the lack of business skills, this support would disqualify this type of lending to be profitable. Possible governmental support could offer MSMEs business training, after which FMB could offer these trained business a credit facility.

Table of Contents

Managemen	i Summaryii
Table of Con	tentsv
Preface	viii
List of Abbre	viationsix
1. Introduc	tion 1
1.1 Re:	search background 1
1.1.1	Credit facilities at FMB 2
1.1.2	The challenge of the proposed scoring tool
1.1.3	Risk rating methodology for developing countries
1.2 Re:	search objective 4
1.2.1	Societal Relevance
1.2.2	Scientific Relevance
1.3 Re:	search Questions
1.4 Rej	port outline6
2. Theoret	ical Framework
2.1 Intr	oduction7
2.2 Cre	dit7
2.2.1	Line of credit7
2.3 Ris	k rating8
2.3.1	Step 1 & 4 - Financial assessment and Quality of financial information 10
2.3.2	Step 2 - Managerial capacity 12
2.3.3	Step 3 - Position within the industry 16
2.3.4	Step 5 - Country risk

Improving risk rating methodology to support and foster MSME lending in Malawi

2.3.5	Step 6 - Third-party support	19
2.3.6	Step 7 & 8 - Factoring the maturity and strength of the transaction	20
2.3.7	Step 9 - Collateral assessment	21
2.4 N	Nodel	22
3. Metho	odology	24
3.1 \$	Study Area	24
3.1.1	FMB's position in Malawi	25
3.2 l	Jnits of analysis	25
3.3 E	Data collection methods	27
3.3.1	Semi structured interviews	27
3.3.2	Entrepreneurial scan	28
3.3.3	Focus group discussions	28
3.3.4	Secondary data collection methods	29
3.4 E	Data collection	29
3.4.1	Step 1 - Financial assessment	30
3.4.2	Step 2 - Entrepreneurial assessment	31
3.4.3	Step 3 - Position within the industry	33
3.5 0	Conclusion	34
4. Resu	Its & Analyses	35
4.1 I	ntroduction	35
4.2 \$	Step 1 - Financial assessment	35
4.3 \$	Step 2 - Entrepreneurial assessment	37
4.3.1	Personality characteristics	37
4.3.2	Skills	
4.3.3	Experience and education	39
4.4 \$	Step 3 - Position within the industry	42
5. Conc	lusion	43
6. Discu	ssion	47
6.1 L	imitations	47
6.2 F	Further research	48
6.3 0	Contribution to academia	

Improving risk rating methodology to support and foster MSME lending in Malawi

6.4	Practical contribution	. 49
Bibliogra	aphy	. 50
Appendi	ces	. 54
Appe	ndix I – Questions Semi structured interview	. 54
Appe	ndix II – Entrepreneurial scan	. 55
Appe	ndix III - Entrepreneurship scan results	. 61
Appe	ndix IV - Focus Group Discussions	. 62
Fo	cus group discussion I held on February 11, 2010	. 62
Fo	cus group discussion II held on February 26, 2010	. 66
Fo	cus Group Participants	. 74

Preface

After reading the book "Banker to the poor" written by Nobel Prize winner Mohammed Yunus, I was attracted by the topic of microfinance. Although microfinance often is described as the solution to alleviate poverty, I still had some questions about the sustainability of microfinance institutions. Nevertheless I started looking for a graduation assignment in this field. In May 2009 I got in touch with Henk van Oosterhout, at that time resident advisor of Rabobank International Advisory Services, working at FMB in Malawi. This commercial bank was about to start offering credit facilities to small businesses with their new retail department, but on a profitable basis. One of the issues they still had was the risk assessment of their potential customers. FMB gave me the opportunity to support the bank with the development of a new risk rating system for their future retail customers. Fifteen months after the first mails this thesis gives insight in risk rating methodology for developing countries.

Without doubts this graduation project was a challenging one. The three months before I left to Malawi I prepared the study based upon the questions as addressed by FMB. Although after several days at FMB things appeared to be *'slightly'* different, and after two months I questioned myself whether FMB was really interested in the findings of this study. It seemed FMB's move into the MSME market was only because it was supported by a big amount of money from the World Bank.

A period of 6 months in a completely different culture is an incredible experience which I will never forget. The situation in Malawi is sorrow and the wish to contribute to the development of this country is highly present. But, as Dambisa Moyo (2009) describes in her book *Dead Aid: "the past 50 years all over the world the developed countries have tried to assist developing countries with all kind of projects and replicated their methods to these countries, the result of this aid is even worse"*, also my contribution probably ends up unused in a drawer because it was just a way to get some money.

Many thanks go to my colleagues at FMB who gave me a pleasant time working at the bank. Special thanks go to Schulbert Koleka, credit officer at FMB, who took me into the townships to familiarize with the local habits and who indefatigable answered all my questions, who translated all questionnaires from English to Chichewa and interpreted many conversations I had with the Malawians. Also many thanks go to my graduation committee, Jeroen Kraaijenbrink en Joris Heuven, their criticism was always constructive which kept me positive and enabled me to finalize this master thesis. Of course also many thanks to my parents, girlfriend and family, who supported me fulfilling my graduation assignment.

Koen Heikens, August 2010

List of Abbreviations

CA	Cronbach's Alpha
CPI	Consumer Price Index
FMB	First Merchant Bank
GDP	Gross Domestic Product
GoM	Government of Malawi
IBAM	Indigenous Businessman Association of Malawi
IFC	International Finance Corporation
MSE	Micro and Small Enterprises
MSME	Micro, Small and Medium Enterprises
MWK	Malawi Kwacha
NSO	National Statistical Office of Malawi
RIAS	Rabobank International Advisory Services
RRS	risk rating system
SAM	Society of Accountants in Malawi

1. Introduction

In this introducing chapter the setup of this exploratory research will be defined. The objective of the current study is to develop a risk rating system for MSMEs in Malawi, which can be used to assess potential MSME clients for banks in Malawi.

1.1 Research background

Micro, small and medium enterprises¹ play an important role in economic development all around the world. They are often key drivers of creating employment, strengthening and expanding the private sector, and increasing the gross domestic product per capita. To encourage and support these businesses, and in order to be able to serve as an engine of growth they should be provided with possibilities to access credit facilities for further development which make them able to sustain their businesses.

Financial institutions in developing countries hamper offering credit facilities to micro, small and medium enterprises (MSMEs) because most of them lack options to secure these with collateral, savings or guarantees and thus are not able to access credit. To solve this major issue in the access of MSMEs to credit, financial institutions in these countries are searching for a better understanding of the unique needs and characteristics of MSME borrowers. This knowledge will enable them to design more appropriate financial solutions, enhance profits, and expand lending to this, for development of the country, critical sector.

All over the world, businesses rely on external funds in their growth cycle at a certain moment. A business has several options such as banks, venture capitalists, angel investors and investment funds depending on the amount of money it needs. None of the mentioned investors will disburse the amount of money without a detailed assessment of their future client or business partner. In

¹ The official definition of micro, small and medium enterprises (MSMEs) is based on employment and annual turnover (GoM, 1999). Micro enterprises have employment of up to 4 persons and turnover of up to 600 euro while small enterprises have employment of between 6 and 20 persons and a turnover of between 600 and 20,000 euro. Medium enterprises have employment of between 21 – 100 employees and a turnover of greater than 20,000 up to 50,000 euro.

banking terms, this assessment is called risk rating². Risk rating is used to assess a business' credit risk or propensity to default (Bielecki & Rutkowski, 2002). The credit or default risk is the possibility that counterparty in a financial contract will not fulfill a contractual commitment. It is obvious that any financial institution attempts to keep default rates as low as possible. What is important for the business which applies for a loan is to convince the financial institution either in having a decent plan or in showing them their current performance and the positive direction of their future performance in relation to their repayment capacity. In that way a financial institution, e.g. a bank, will more likely disburse a loan.

For a bank on the other hand it is important to assess the mentioned credit risk and find out what the expected repayment behavior of a certain firm will be. At first, the firm should earn money to spend on the agreed installments and obvious reasons for default should be excluded. In that case, several types of clients can be distinguished within banking; as mentioned before, this thesis will put emphasis on micro, small and medium enterprises which will be referred to as MSMEs. In order to assess this new group of customers well, financial institutions in developing countries e.g. banks have to adjust their existing risk rating systems according the aforementioned needs and characteristics of MSMEs.

1.1.1 Credit facilities at FMB

FMB, formerly known as First Merchant Bank, in Malawi, Sub-Saharan Africa, is an example of a bank in a developing country which selected this expanding group of MSMEs as an attractive market opportunity. Their field of experience is based on corporate banking and FMB is therefore looking for ways to develop products to offer to these potential MSME customers. The sum of: a different number of credit facilities, different sizes, and a different approach between corporate and retail banking, result in the need for detailed and structured approach of serving a retail market with credit facilities. Credit facilities which are given to corporate clients are often based on trust and knowing the right people, whereas in terms of retail banking it is about large numbers of credit requests involved with credit risk and probability of default which need to be assessed critically.

Last year, FMB received a grant for a two year support program from IFC (International Finance Corporation) which is part of the World Bank. The support consists of consultancy of Rabobank International Advisory Services (RIAS) which will support FMB to establish retail banking. One of the projects within this time frame is to develop a new risk rating methodology suitable to FMB's future MSME market. The purpose of this procedure is to assist the bank in determining the risk of clients by providing a uniform methodology for all branches of the bank (Degens, 2009).

The proposed risk rating methodology RIAS is a scorecard that assigns points to several attributes of a loan applicant, and the sum of the points is the "score". Depending on how the card

² In the literature risk rating and credit rating are used interchangeably for the same construct, in this thesis risk rating will be used.

is developed more points mean more or less risk (Dellien & Schreiner, 2005). The attributes of the proposal basically is based on:

- · the risk inherent of the client
- · the collateral; determining the collateral coverage

The attributes do not only cover the attributes useful for collateral lending, but also those which are of interest to assess a business' cash flow and entrepreneurial capacities. Although the tool is presented to FMB, it is still the design from the drawing board which was made for developing countries in both Africa and Asia.

1.1.2 The challenge of the proposed scoring tool

However, the risk rating methodology which Degens (2009) developed is a general methodology which emphasizes both financial and non financial aspects of the applicant, it is developed for a broad range of developing countries. The tool gives a generic overview of the applicant, but up to this point it was still a draft which is made on the drawing board and it is not tested and implemented in the target area. For the proper implementation of the risk rating methodology, it needs to be tested whether or not it is working and especially if the items used are indicators of future performance of the firm and the expected repayment behavior. Implicitly the better the analysis of the applicant; the better a bank will be able to predict the propensity to default; the better they are able to decide whether or not to lend a sum of money. Default yearly costs a bank a large amount of money, so the better their risk analyses, the better they can predict their costs.

Currently FMB is working on the establishment of their new retail department and is developing a range of products for this market. They are willing to offer small sized loans to individual MSMEs if they are able to do so, based on a profitable business model. This is the essential difference with most of the microfinance institutions offering microloans. These microfinance institutions are highly subsidized and do not need to make profit whereas when a commercial bank want to offer a product it needs to be profitable otherwise the bank will not be sustainable.

In order to enable FMB to start lending money to MSMEs the risk rating methodology developed by Degens (2009) needs to fit the target customers. First responses of FMB credit officers show the attributes related to the risk inherent to the client need more attention. Whether they are right or not is still the question and that is part of the objective of this study; developing a risk rating system which is able to rate MSMEs in Malawi. The answer to the question will provide the possibility to adjust the risk rating methodology at FMB in order to start serving MSME clients with credit facilities.

1.1.3 Risk rating methodology for developing countries

Solid systematically made judgments on potential clients are necessary to unroll MSME lending in developing countries. To develop these judgments on risk rating methodology, it is necessary that potential clients meet the local requirements. In order to develop a method for risk rating the question rises 'what is the difference between risk rating of potential MSME clients in developed countries compared to clients in developing countries?' Although this question seems to be very relevant, another question needs to be answered first: 'what is risk rating?' According Bielecki and Rutkowski (2002) risk rating is an assessment of a firm's credit risk and propensity to default. Several authors (Crouhy, Galai, & Mark, 2001; Featherstone, Roessler, & Barry, 2006) state that risk rating is a calculation of the expected loss for a bank; e.g. if a bank lends a sum of money to a certain client, what is the amount of money he can expect to lose?

Expected loss has three components: the *exposure at default* is the amount of money the client borrowed from the bank; the *risk of default* is an indication of the likelihood and frequency that a loan will enter default status and finally the *loss rate given default* measures the impact on the institution from default. This means a risk rating system needs to calculate the *risk of default* and the *loss rate given default*. According Crouhy, Galai and Mark (2001) the *risk of default* corresponds with a client rating, i.e. including a financial assessment a managerial assessment and the country risk. A *loss rate given default* indicates the facility rating, i.e. the strength and maturity of the transaction and a collateral assessment.

To return to the question 'what is the difference between risk rating of potential MSME clients in developed countries and the same in developing countries', the answer is it that the differences can be found in the characteristics which are reviewed to calculate the risk. I.e. the financial assessment of a potential client in a developing country is often difficult because of a lack of financial records and information about a firm's performance (Schreiner, 2000; Chirwa, 2005; Daniels, 2001; Masukare, Henson, & Cranfield, 2007). Most of the items which differ relate to the client rating, because this client has different characteristics according the culture he lives in. The facility rating has to do with the specific characteristics of that certain loan and how it can be secured. Moreover the facility rating is more influenced by the way the facility is structured, while the client cannot be influenced that easy. So in order to work towards a risk rating system which is applicable in developing countries like Malawi, the risk rating system has to be reviewed and adjusted to fit to local requirements. The object of the current study is therefore to find indicators for the client rating.

1.2 Research objective

Systematic judgments of the characteristics of MSME loan applicant in Malawi will contribute to the strength of the risk rating system and will assist banks in assessing the expected loss of their potential clients. The better the strength of the RRS the safer it is for banks to lend to MSMEs, which will result in more MSME who are able to lend and grow and ultimately in the growth of the GDP of the country.

In the previous sections the background and motive for these needs were given. The indicated need can be translated to the following objective:

Develop a method to calculate the risk of default of potential MSME clients of banks in Malawi by adjusting a typical risk rating system.

An important question is whether this study, has societal and scientific relevance. In the next sections the relevance of the current study will be indicated.

1.2.1 Societal Relevance

Micro, small and medium enterprises are often seen as one of the major contributors to a countries growth. However, at the moment MSMEs contribute for less than 10 percent in Malawi's GDP (USAID, 2008), while this percentage is over 50 percent in developed countries. In order to support MSMEs and facilitate their growth they rely on credit facilities at (a) certain moment(s) during their growth cycle. At the moment the availability of these credit facilities is poor, because financial institutions have difficulties with the risk rating of those clients. Risk rating methodology which fits a country will highly contribute towards the availability of credit facilities for MSMEs in a country which will crank the growth of the sector resulting in growth of the GDP.

Evidence exists of risk rating systems from developed countries which are copied and used in developing countries. The results of this usage are very poor because the risk rating systems are not applicable in developing countries. The credit facilities offered at the moment in developing countries are merely based on collateral based lending; a client needs to give a bank any kind of security that covers the loan. Because many persons lack securities they can offer in order to obtain a credit facility, difficulties arise in establishing proper risk rating systems in developing countries. In order to assist those companies who make a big contribution to a countries growth, a risk rating method should be established which enables financial institutions serve this important group.

1.2.2 Scientific Relevance

Current risk rating methods are developed and commonly implemented at financial institutions in developed countries. These methods are well discussed in academia. However, risk rating methods are rarely used by financial institutions in developing countries and this specific type of risk rating methods is under exposed in academia. The main issue is the applicability when risk rating methods from developed countries are applied without adjustment in developing countries. This study will investigate which items of an existing risk rating method can be applied in Malawi, and which items need to be adjusted. If an item needs to be adjusted the kind of adjustment will be explored. The result of this study will be a set of indicators that can be used to differentiate MSME based on their current performance.

1.3 Research Questions

In order to obtain the research objective stated in the previous paragraph a central question has been formulated and divided in several research questions.

Central question:

Which adjustments need to be made on a typical internal risk rating system in order to rate the risk of default of potential MSME clients in a Malawian context?

In order to answer the central question, three supportive research questions are formulated. The answer to these three questions will lead to an answer to the central question.

Research Questions:

- 1. What is a typical risk rating system?
- 2. How can client rating within a typical risk rating system be adjusted in order to make it applicable in Malawi from a theoretic perspective?
- 3. Is client rating applicable in Malawi and does it differentiates between strong and poor performing businesses?

The answer on question 1 will select a risk rating system which can be adjusted in order to fit to the environment of Malawi. Question 2 will follow the steps of the risk rating system to make adjustments based on evidence which is available on single steps of the risk rating system. The result of question 1 and 2 will be a risk rating system which, according the literature should enable banks to assess the expected loss of a credit facility.

Finally question 3 will test whether this adjusted risk rating system will work to judge MSMEs in Malawi. The answers on these three questions result in an answer on the main research question from both a theoretic as a practical perspective.

1.4 Report outline

In order to answer the aforementioned central question and research questions this thesis continues with a theoretical framework in chapter 2. The chapter will focus on theory about credit, theory about risk rating and theory about assessing firm characteristics. The latter are used to adjust a typical risk rating system, as used in developed countries, to fit into the Malawian context. At the end of the chapter, a theoretic model of a risk rating system which optimistically enables a credit officer to assess the expected loss of a potential credit facility for a client will be formulated.

In chapter 3 the methodology will be presented which will be used to test the risk rating system in the Malawian context. This will shed some light on the study area. In chapter 4 the results of the practical test will be presented and will be analyzed. Both chapters 3 and 4 will follow the structure of the risk rating system as will be presented in paragraph 2.4

Chapter 5 will show the conclusions of this study and show whether the model presented in chapter 2 can be implemented at FMB in Malawi or that it needs some adjustment. At the end some recommendations for the implementation of a risk rating system at FMB will be made and some suggestions for future research will be given.

2. Theoretical Framework

In order to find out which MSME indicators might be useful within a risk rating system in Malawi, a theoretical framework is necessary. This framework can be seen as a lens to find the indicators for risk rating systems in developing countries according to academic literature.

2.1 Introduction

Banks do not borrow money to firms without a proper assessment of this firm, in academic literature this assessment is called risk rating. Although, risk rating is already a common method in developed countries, it is not yet being used in developing countries. The main reason is that risk rating methods do not fit the local requirements of a developing country. In order to work towards a risk rating system which is applicable in a developing country – more exactly Malawi – this chapter will start with insights on credit and will subsequently continue with risk rating methodology. It will be assessed if the risk rating methodology fits the local requirements and if the methodology needs to be adjusted. This chapter will formulate a risk rating system which will fit the local requirements of Malawi from a theoretic perspective.

2.2 Credit

2.2.1 Line of credit

From a financial point of view a credit is a sum of money or something that represents a certain value which is transferred from a lender to a borrower. Large corporations typically obtain credit in the public debt markets, while SMEs usually must depend on financial intermediaries, like commercial banks or even informal money lenders. Bank financing often involves a long-term

Improving risk rating methodology to support and foster MSME lending in Malawi

relationship that may help reduce the asymmetric information problem between lender and borrower (Berger & Udell, 1995). In order to solve these information problems, banks analyze borrower information and set contract terms. Habitually maturity, rate of interest, security and the size are set within such contract terms (Brealey, Myers, & Allen, 2008).

The maturity of a loan varies and can be short or long term and is almost at all times divided in equal installments over this period; however sometimes repayment patterns can be anticipated to the cash flows of the borrower. Along with the credit's maturity, ceteris paribus, the risk borrowers encounter problems will rise. As a result, the shorter loan maturity, the lower risk involved for a bank (Jiménez & Saurina, 2002).

The interest rate is often quoted as discount rate and most short-term bank loans are made at a fixed rate of interest. For longer-term bank loans the interest rate is often linked to the general level of interest rates

The security a bank will demand depends on the firm's credit risk. The most common security for longer-term bank loans is collateral. Collateral usually consists of liquid assets such as receivables, inventories, or securities. If the firm defaults, the investor has the right to seize and liquidate the underlying assets (Brealey, Myers, & Allen, 2008). If banks are protected by a high level of collateral they have less incentive to undertake adequate screening and monitoring of borrowers (Jiménez & Saurina, 2002).

The size of the loan, which in most cases is directly related to the magnitude of the borrower, the age of the company, or the age of the length of the bank-borrower relationship, can also be an indicator of credit risk. Smaller loans tend to be given to small or newly created companies, when the risk is greater and loans will be subject to higher rates of default (Jiménez & Saurina, 2002).

2.3 Risk rating

The main problem faced by banks concerning credit facilities is lack of information on the potential client, or as referred to before the asymmetric information division between the firm and the bank. To tackle this issue banks use risk rating, an assessment of a firm's credit risk and propensity to default (Bielecki & Rutkowski, 2002). The credit or default risk is a possibility that a counterparty in a financial contract will not fulfill a contractual commitment to meet her or his obligations as stated in the contract. Any banking institution attempts to keep default rates as low as possible.

Academic literature often makes a distinction between risk ratings of external risk rating agencies (e.g. Standard & Poor known from AAA ratings of commercial banks) or internal rating systems within a bank (Crouhy, Galai, & Mark, 2001; Bielecki & Rutkowski, 2002). Only the latter, the internal rating system, is of interest for this study, because the firms of interest are not rated by external rating agencies. The credit analysts in a bank must take many attributes into consideration to determine the expected loss: financial as well as managerial and quantitative as well as qualitative (Crouhy, Galai, & Mark, 2001). The financial health of the firm must be certain and it

should be determined if earnings and cash flows are sufficient to cover the debt obligations. The analysts are also likely to analyze the quality of the assets of the firm and the liquidity position of the firm. The underlying assets could possibly be used for collateral. A typical internal risk rating system (RRS) starts with the expected loss formula which is used by several authors (Crouhy, Galai, & Mark, 2001; Featherstone, Roessler, & Barry, 2006). Expected loss rates can be broken down into three elements and analyzed separately for each transaction to gauge that transaction's risk.

$expected \ loss = risk \ of \ default \ \times \ loss \ rate \ given \ default \ \times \ exposure \ at \ default$

The *risk of default* is an indication of the likelihood and the frequency that a loan will enter default status. The *loss given default* measures the impact on the institution from default. *Loss given default* is the net of any recovery the institution has received, either through liquidation of collateral or deficiency judgments rendered from foreclosure or bankruptcy proceedings and may be associated with quality of collateral, seniority of claims, and any guarantees associated with the loan. *Exposure at default* is what the institution has at risk when the loan does enter default status. Exposure at default is usually expressed in dollar terms and is comprised of principal outstanding, unutilized commitment, and any fees or other expenses the institution incurs in collecting the default. Both *risk of default* and *loss given default* are usually expressed in percentage terms. (Featherstone, Roessler, & Barry, 2006)

Several risk rating systems are based upon the *expected loss* formula. However, to use a risk rating system in a developing country several requirements need to be set. However, the objective of a rating tool is the same, but the environment where it is used in is completely different. If the locals do not support the new developed rating method it will not be used (Schreiner, 2000). The applicability of a risk rating system should work for all kind of companies. There are no funds to develop several risk rating systems for different types of industries. It should furthermore not only focus on financial aspects; literature indicates difficulties with assessing the financial situation of a potential client (Chirwa, 2005; Schreiner, 2000). Most RRSs are build in developed countries problems can arise with the applicability of the RRS in a developing country, there should therefore

Step	Activity	Part
1	Financial Assessment	
2	Managerial Capacity	л о
3	Within Industry Rating	Client lating
4	Quality Financial Information	16 16
5	Country Risk	
6	Third Party Support	_
7	Maturity of Transaction	Fac Rat
8	Strength of Transaction	[:] acility Rating
9	Collateral Assessment	

Table 2-1 Risk Rating Model (Crouhy, Galai and Mark, 2001)

be an option to adjust a part of the methodology to fit it to the local habits. Most RRSs have a narrow scope and are only applicable with the use of extensive financial information. A risk rating system which fits the requirements mentioned before is the one of Crouhy, Galai and Mark (2001)

which consists of nine subsequent steps like depicted in table 2-1. The choice for this RRS was made based on the fact the risk rating model proceeded from their comparative analysis of risk rating models (Crouhy, Galai, & Mark, 2000) and is the second most cited risk rating model in the literature. The most cited model of Treacy and Carey (2000) is developed for large US corporations and will not easily be adjusted to fit the MSMEs in Malawi. The model of Crouhy, Galai and Mark (2001) does fit the MSME market.

The first five steps determine the *risk of default* which is called the client rating¹ (CR) and has everything to do with the characteristics of the client. The following four steps determine the *loss rate given default* which is called the facility rating (FR) and applies to the credit facility the client applies for and shows the related characteristics. In short the client rating consists of the following five steps. The (1) financial assessment of the client sets floor on the CR, each of steps 2 to 5 may result in a downgrade of the initial rating attributed at step 1. These steps include analyzing the managerial capability of the borrower (2), examining the borrower's absolute and relative position within the industry (3), reviewing the quality of the financial information (4), and the country risk (5). The process ensures that all credits are objectively rated and a consistent process is used to arrive at accurate ratings. The facility rating (FR) includes examining third-party support (6), factoring in the maturity of the transaction (7), reviewing the strength of the transaction (8), and assessing the amount of collateral (9).

The rating assumes that the performance of a future loan - with a given set of characteristics - will be similar with the performance of past loans which have the same characteristics. Based on the gathered information with the nine steps of the RRS the characteristics of the current appraisal are compared with past appraisals which are gathered within a database. From the past appraisals loan results are known and so the risk of future loans is adjusted on the results of past loans (Crouhy, Galai, & Mark, 2001). In order to develop a strong risk rating system for developing countries an assessment of the nine steps of Crouhy, Galai and Mark (2001) is necessary to test their applicability. In the next sections the steps will be disentangled in order to find out which steps can be applied in a developing country and which ones are less appropriate. In each step the theory of Crouhy, Galai and Mark will be presented, followed by an answer on the question 'what is applicable'. If there is a need for adjustment or additional theory this will be emphasized and at the end it will result in a conclusion.

2.3.1 Step 1 & 4 - Financial assessment and Quality of financial information

The financial assessment is used to check the financial health of an institution, and is a study of the financial reports to determine if the earnings and cash flows are sufficient to cover the debt. This step should reflect the financial position and performance of the company and its ability to withstand possibly unexpected financial setbacks. According the procedure of Crouhy, Galai &

¹ Crouhy, Galai and Mark (2001) call this originally the obligor rating.

Mark (2001) the financial assessments applies on three areas; (1) earnings and cash flow; (2) asset values, liquidity and leverage; and (3) financial size, flexibility and debt capacity. One would calculate a risk rate (RR) for each of the three assessment areas and then arrive at an assessment of the best overall RR. This is the initial CR. (Crouhy, Galai, & Mark, 2001)

The fourth step is related to the first; the quality of financial information emphasizes the bank must always be fully satisfied as to the quality, adequacy and reliability of the financial statement information irrespective of the risk rating. This includes consideration of the size and capabilities of the accounting firm, compared to the size and complexities of the borrower and its financial statements. One may make exceptions for new entities (or certain specialized industries) as well as obligors in countries where accepted practices differ from North American standards. (Crouhy, Galai, & Mark, 2001)

Relevance

With decent business records the first step would not result in many problems, the areas would be assessed, ratios would be calculated and a first opinion about a potential client would be drawn. However, several authors (Schreiner, 2000; Chirwa, 2005; Daniels, 2001; Masukare, Henson, & Cranfield, 2007) emphasize that difficulties already rise when one tries to obtain business records to calculate profit figures in developing countries. Lack of written records and recalling problems, time-consuming questionnaires, and sensitivity about income are just a few problems encountered when trying to measure profits or net worth (Daniels, 2001). The indissolubility with the fourth step becomes at this point clear: without a basic level of financial information (i.e. cost and sales figures) a financial assessment becomes impossible. However the financial assessment as Crouhy, Galai and Mark (2001) propose is relevant in developed countries, in developing countries it leads to difficulties from scratch on. Compared with lenders in developed countries, lenders in developing countries must work with data that is both more costly and less predictive of risk and is it the credit officer who makes a final judgment about the disbursement of a loan, not the RRS (Dellien & Schreiner, 2005).

Adjustment

A study in Malawi Chirwa (2005) used two indicators for firm performance: *profit margin* and *employment growth*. The *profit margin* was calculated with data on expenses and sales with reference to 'last week', the method used to calculate annualized expenses and sales assumed that the ratio of expenses last week to sales last week was constant. For each month, information on high, average and low sales months with corresponding average monthly sales values was obtained to compute annual sales and the constant expenses-sales ratio was used to generate annual expenses (Chirwa, 2005). Although we now know profit margin is an applicable indicator in Malawi, it has an important drawback; it does not tell you anything about the repayment capacity of a potential client. I.e. if you know the profit margin is 12% it is a big difference whether the turnover is 1,000,000 or 100,000,000 Malawi Kwacha. To solve this issue both the profit margin as the profit itself should be taken into account.

Improving risk rating methodology to support and foster MSME lending in Malawi

The other variable, employment growth, is calculated using the McPherson (1996) method in which growth in employment is defined as the ratio of the difference in the logarithms of the current employment and the initial employment to the age of business.

 $growth = \frac{ln(current\ employment) - ln\ (initial\ employment)}{firm\ age}$

Although these calculations are much more limited than the ones Crouhy, Galai and Mark (2001) use, they at least work in the predicted environment if there is some financial information. However this performance indicator fits the Malawian environment, for risk rating purposes it is not very useful information

However the quality of the financial information is one of the steps in the RRS, it is not operationalized in the model. Because the financial information is of major importance a search for a quality assessment was started. This resulted in a simple selection model of the quality of financial information, developed by Degens (2009) for Rabobank International Advisory Services, which is more often used in developing countries.

No	Quality of Financial Information	Points
1	Projection based on current financials in audited financial report	100
2	Feasibility study by a 3rd party with a good reputation	80
3	Reasonable, acceptable numbers (no external party involved)	60
4	Poor numbers/projections	10
5	No numbers/projections provided by the client	0

Table 2-2 – Quality of Financial Information (Degens, 2009)

Table 2-2 shows the options which can be selected. The points assigned to each option can be interpreted as a level of trust which one can have about the financials. The 100 points given to the first option show these figures can be fully trusted the 0 points for the last option show nothing can be said about the financial situation of the client.

Conclusion

The financial assessment is indissolubly linked to the quality of this information; therefore the separate steps, financial assessment and quality of financial information of the original are taken together in one step. Moreover the quality of the financial information will become the first item within this step because the usability of both following step are dependent on the quality of the financial information.

2.3.2 Step 2 - Managerial capacity

According the RRS of Crouhy, Galai and Mark (2001) the second step examines the managerial capacity. Several activities are examined: the day-to-day account of operations, management assessment, an environmental assessment, and the examination of contingent liabilities.

Improving risk rating methodology to support and foster MSME lending in Malawi

Activity	Examples
Account Operations	Reporting activities, Variation on projections
Management Assessment	Skills, Experience
Environmental Assessment	Awareness environmental regulations
Contingent Liabilities	Litigation, Warranty

Table 2-3 - Managerial Capacity

For example the account operations examines whether the financial and security reporting is on a timely basis, is it of good quality? The management assessment examines the management skills in comparison with the scope and size of the business. One should ask from an environmental assessment point of view if management is aware of, monitors and complies with all relevant environmental regulations and practices. (Crouhy, Galai, & Mark, 2001).

Relevance

Crouhy, Galai and Mark (2001) indicate that the assessment of the managerial capacity is an extensive process. Because no evidence can be found that this assessment is applied in risk rating at commercial banks in developing countries, there is a need to strengthen the client rating. The management assessment or in this case the entrepreneurial assessment is the core of the managerial or now entrepreneurial capacity. Chrisman, Bauerschmidt and Hofer (1998, p. 21) emphasize the key position of the entrepreneur within a firm: "venture performance is primarily a function of the critical decisions and behaviors of entrepreneurs". An assessment of an entrepreneur or the management of a firm is often used by venture capitalist as argument in their decision whether to invest or not. MacMillan *et al.* (1985, p. 119) wrote "There is no question that irrespective of the horse [product], horse race [market], or odds [financial criteria], it is the jockey [entrepreneur] who fundamentally determines whether the venture capitalist will place a bet at all". In this study it is not the venture capitalist but the bank that has to place a bet, but the link should obvious. So the entrepreneur is essential within a firm and is responsible for the performance of a firm.

However the *account operations* seems to be useful, the result of the account operations is highly related to the *quality of the financial information* of a business. If the *account operations* are done properly the financials will be of good quality. Therefore this concept will not be further assessed within this step.

According Crouhy, Galai and Mark (2001) the *environmental assessment* checks whether the management is aware of, monitors and complies with all relevant environmental regulations and practices. The relevance of this item within the Malawian culture is marginal for MSMEs because they seldom coop with this kind of regulations. Therefore this concept can be seen as a constant factor within the rating and will not be relevant to remain in the new model.

The contingent liability is a concept which is within the MSME sector in Malawi difficult to assess. Issues in between businesses or between a business and a person are settled without interference of a court. Other liabilities are very difficult to assess because there is no central

registration of credit like the Dutch 'BKR' (Governmental Department for Credit Registration), where one can check the other credit facilities of a potential client. Because of the non transparency of this item and the marginal impact on the rating it will not remain in the risk rating system. So the only remaining item will be the *entrepreneurial assessment,* how that will be applied in the RRS will be explained in the following section.

Adjustment

Similar to the item quality of the financial information, Crouhy, Galai and Mark (2001) mention the step managerial capacity in the RRS without showing the way how to capture the necessary information. As a result, there is a need to search for additional literature which emphasizes on the managerial, or in this case of MSME's entrepreneurial capacity. In table 2-4 different aspects Chrisman, Bauerschmidt and Hofer (1998) mention, are showed. Although there is an extensive

Chrisman, Bauerschmidt and Hofer (1998)
personality characteristics (+)
values and beliefs,
skills (+),
experience and education (+),
behaviors and decisions

Table 2-4 - Determinants of entrepreneurial behavior related to firm performance

literature available on entrepreneurial capacities, most of the authors focus on one or two of these topics. For this study, the broad view is useful and this view is a combination of several well known authors on the single topics gathered in one model. As Chrisman, Bauerschmidt and Hofer (1998, p. 10) state: "the determination of the type of venture that is started, the strategies used to enter the chosen industry and compete within it, the attempt to identify and secure necessary resources, and the development of an organization able to effectively implement the chosen strategy, all emanate from the behaviors and decisions of the entrepreneur(s)". The five items Chrisman, Bauerschmidt and Hofer (1998) selected fit with the *entrepreneurial assessment* Crouhy, Galai and Mark (2001) mention. However, not all of them are easy to assess within a written assessment like it is done within risk rating systems. Especially values and beliefs and behaviors and decisions are characteristics of an entrepreneur which have drawbacks within a written test. Both can be assessed within i.e. an interview but not easily within a written test because the test will limit to capture everything. This limitation results in problems during the comparison of the answers to find entrepreneurial profiles. The three other items: personality characteristics, skills and experience and education, will be further explored in the following sections in order to find ways to test future clients on these items.

Personality Characteristics

Extensive research has been conducted to find characteristics which are unique for entrepreneurs. In the early sixties the first associations between personal characteristics and entrepreneurs were made. McClelland found out that entrepreneurs had a significant higher need for achievement than non-entrepreneurs (Begley & Boyd, 1987). In the seventies Hornaday and Aboud (1971) found that entrepreneurs differentiated from men in general and were expected to have higher levels on achievement, support, independence and leadership. And over time more authors wrote about entrepreneurial characteristics and its relation to the firm. The start-up stage of a business requires management skills like market-awareness, creativity and flexibility, while the growth stage requires skills like leadership, planning, accounting and motivating and stimulating people (Driessen & Zwart, 1999). Although one agreed upon the necessity of entrepreneurial characteristics as requirement for running a firm and there is a huge literature base about this phase, difficulties arise when it comes to a comparison of required and available skills: i.e. a test of entrepreneurial characteristics. As one of a very small minority Driessen (2005) developed an entrepreneurship scan which scored entrepreneurs on nine different characteristics related to

Need for Achievement
Need for Autonomy
Dominance
Social Orientation
Effectiveness
Perseverance
Market orientation
Creativity
Flexibility

Table 2-5 Entrepreneurial Characteristics

entrepreneurship as stated in table 2-5. The result is an entrepreneurial profile which indicates the performance of this person on each characteristic. Driessen (2005) identified several norm profiles for different industries. These norms show minimum performance levels for entrepreneurs on the nine characteristics. Although these norm profiles will be culturally biased and have limited generalizability, new profiles can be developed which fit the Malawian culture. With these entrepreneurial profiles loan applicants can be scored upon their entrepreneurial as part of the risk rating system.

<u>Skills</u>

Although most skills are rather specific for a kind of business, i.e. a tailor needs tailoring skills; some skills are necessary for starting or running a business. For instance things like recognizing market possibilities, cash flow management and business planning are important to consider. The quality the entrepreneurial skills of a potential client can be used to make an estimate about the future performance of this entrepreneur and his firm. Kolvareid and Isaken (2006) associate four different types of entrepreneurial skills² with self-employment intentions: (1) opportunity recognition, (2) investor relationships, (3) risk-taking and (4) economic management. Kolvareid and Isaken (2006) found for each of these different types a couple of indicators, resulting in a test of 18 items

² Instead of skills Kolvareid and Isaken (2006) use self-efficacy in their article

related to entrepreneurial skills. These 18 items can easily become part of a risk rating system. However, identical to the personal characteristics test, this entrepreneurial skills test has never been used in a developing country and therefore it is unknown whether it can be applied or not.

Experience and education

Besides personality characteristics and skills the implications of entrepreneurial experience and education of the persons running the business are also of interest. Although entrepreneurial experience itself is difficult to measure or to score, entrepreneurial experience will result in certain activities which will be done if one is experienced and which will be past over if one is inexperienced. Gartner, Carter and Reynolds (2004) describe twenty-seven start-up activities which can be identified within a firm which are related to the level of experience of an entrepreneur. The activities are related to business knowledge, organization, marketing and business planning and are questioned in a dichotomous test. Again a drawback of this theory is that it has never been used in a developing country and the question whether these activities are also applicable in Malawi is very relevant.

A lack of literature about education history and its implications on businesses in developing countries results in the question how to apply these items in the RRS. Education can be easily assessed if one looks for finished education levels: primary and secondary school, bachelor and master education, vocational training, however the implications of this level of education on firm performance are poor. The Malawian study of Chirwa (2005) finds profitability is statistically significantly higher for entrepreneurs with higher education (7.9 percent above those without education) followed by those that completed junior secondary education (4.1 percent above those with no education). According these results it is useful to assess education within a risk rating system, because there is some evidence a higher level of education leads to better firm performance.

Conclusion

Although this step was not very well elaborated by Crouhy, Galai and Mark (2001) in the new model it is an important aspect. Especially because the first step (financial assessment) gives less information than in the original model. The four concepts within this items; *account operations, management assessment, environmental assessment,* and *contingent liabilities,* are reviewed and only the management assessment or now entrepreneurial assessment will remain in a test of *personality characteristics, skills* and *experience and education* to do the entrepreneurial assessment. The skills will be tested using an 18 items test indicating four different types of entrepreneurial skills. The experience of the entrepreneur will be tested using a test of 27 dichotomous items and the education level will also be checked.

2.3.3 Step 3 - Position within the industry

According to Crouhy, Galai and Mark (2001) there is extensive evidence that poorer-tier performers in weak, vulnerable industries are major contributors to credit losses. For that reason

the third step of their RRS calculates the position of the firm within the industry. This figure is based on two items; the *industry assessment* (IA) and the *tier assessment* (TA) (the assessment of the client). After identifying both the type of industry (IA) and the position of the borrower (TA) within this industry these two items are combined in a mark about the vulnerability of a company.

To calculate the IA the analyst first assigns a score of, 1 (minimal risk) to 5 (very high risk) for each of a set of eight criteria (i.e. competitiveness, trade environment, technological change) established by the bank. The sum of the scores, which will range from 8 (most favorable) to 40 (least favorable), can then be converted to an industry rating.

To calculate the TA one can use the criteria and process used to assess industry risk, to determine a company's relative position in one of relative tiers - say, on a scale of 1-4 within an industry. Tier 1 players are major players with a dominant share of the relevant market. Tier 2 players are important or above-average industry players with a meaningful share of the relevant market. Tier 3 players are average (or modestly below average) industry players, with a moderate share of the relevant market. Tier 4 players are weak industry players and have a declining customer base (Crouhy, Galai, & Mark, 2001). Although the boundaries between these four different types of tiers cannot exactly be drawn, a credit officer should be able to assign a certain firm to one of these tiers. (Crouhy, Galai, & Mark, 2001)

		Industry Assessment				
		1	2	3	4	5
	Tier 1	No offect on Pating				
Tier Assessment within industry	Tier 2		No effect on Rating			
er Asse ithin ir	Tier 3					
Ξ ×	Tier 4					

Table 2-6 - Position within the industry (Crouhy, Galai and Mark, 2001)

After calculating both the IA and TA one can combine the figures in order to tell something about the vulnerability of the company. Crouhy, Galai and Mark (2001) propose to use table 2-6 to judge the allocated firms. As showed in table 2-6 those tier 1 or 2 clients with an industry rating from 1 to 3 should not be effected. Those outside that frame can be treated differently.

Relevance

However a client's position within an industry is a very useful concept for an RRS in Malawi, difficulties arise when identifying the IA. The availability of this statistical data about industries in developed countries is quite common; in developing countries like Malawi this availability is very poor. This results in a need for adjustment of the *industry assessment*.

The *tier assessment* is easy to apply in Malawi and very relevant. Probably many firms will be allocated to tier 3 and 4 because they do not outperform in any aspect, but still this item is useful.

Adjustment

Although there is a lack of statistical information about industry groups, the groups does exist. Several different way of grouping industries are possible, Masukare, Henson and Cranfield (2007) made a selection of industries as depicted in table 2-7. However there is a lack of risk information

1) agriculture, forestry and hunting
2) mining and quarrying
3) manufacturing
4) electricity, water and gas
5) construction
6) retail and wholesale trading
7) transport, storage and communication
8) finance, insurance and real estate
9) community, social and personal services

Table 2-7 - Industry Selections (Masukare, Henson, & Cranfield, 2007)

per group, a bank can still mark certain types of industry they favor and certain types they like to neglect. Instead of the risk score an industry gets according Crouhy, Galai and Mark (2001) it now gets a preference score.

Conclusion

The third step in the RRS of Crouhy, Galai and Mark (2001), the within industry rating of a firm, is a very useful one for the new RRS. In order to make it applicable in Malawi an adjustment of the *industry assessment* is necessary. Instead of using statistical data on industries in this step the bank should decide which industries they favor or not. The decision table as depicted in table 2-6 can be used and the bank should decide which results will be accepted, which are questionable and which are rejected.

2.3.4 Step 5 - Country risk

This fifth step adjusts for the effect of any country risk. Country risk is the risk that a counterparty, or obligor, will not be able to pay its obligations because of cross-border restrictions on the convertibility or availability of a given currency. It is also an assessment of the political and economic risk of a country. The economics department of a bank is typically involved in analyzing the macro and micro economic factors that allow an analyst to calculate a country RR. (Crouhy, Galai, & Mark, 2001)

Relevance

The RRS which is being developed will be used in a single country, Malawi. The relevance of a country risk item is therefore absent, because all potential clients act on the same local market the level of risk is for the same. Although another geographical differentiation could be made based on urban or rural clients, all clients would be urban because in rural places almost no businesses are found.

Adjustment

The rationale behind this step is that borrowers with different geographical locations are because of that location subject to different levels of risk. Taken that rationale in mind one can think about different levels of risk within the country, which could be seen as differences between urban and rural areas.

Although with the arrival of mobile banking rural areas are easier to reach for banks, the activities in these areas remain to be very simple consumer products (USAID, 2008). Beside of that entrepreneurs that try to start or run a business establish their companies on places where customers can easily find them, these places can be found in at least little cities and not in rural areas. Finally the socio-economic situation is all over Malawi the same, so therefore no differences need to be made for geographical areas.

Conclusion

The country risk is not relevant for an RRS which is developed for Malawi because the one country character of this RRS. Adjustment of this step for inside country specification cannot be made. Resultantly this step will not be present in de new RRS.

2.3.5 Step 6 - Third-party support

The sixth step adjusts the facility rating where important third-party support is held. Based on the quality of the third-party support, the risk rating of the firm can be upgraded or downgraded. In all cases, one must be convinced that the third party/owner is committed to ongoing support of the obligor. Crouhy, Galai and Mark (2001) propose table 2-8 to assign guarantors to a certain group

Type of support	
Guarantee	A 100% clean guarantee is held
Completion Guarantee	A 100% clean guarantee is held until completion of the project
Keep well agreement/operating agreement	A strong keep well ³ or operating agreement is held and is considered legally enforceable
Comfort letter of ownership	A comfort letter ⁴ is held or not written assurance is held

Table 2-8 - Third party support	(Crouhy, Galai	, & Mark, 2001)
---------------------------------	----------------	-----------------

which is related to the quality of the guarantee. Personal guarantors and other undertakings from individuals, and guarantees for less than 100% of the indebtedness, do not qualify for consideration in this category. (Crouhy, Galai, & Mark, 2001)

Relevance

The use of guarantees is very common in banking in Malawi (Chirwa, 2003) and therefore this step is highly relevant in a newly developed RRS. Potential clients can as third-parties to guarantee their credit facility and therefore the third-party has to sign legal documents and show their liquidity,

³ A keepwell agreement is an agreement in which one party agrees to maintain a certain status or condition at another company, e.g. a parent company may agree to maintain the net worth of a subsidiary company at a certain level. This is a legally enforceable contract; however only the party to whom the keepwell is in favour of may sue under such a contract.

⁴ A comfort letter is a letter generally requested by securities underwriters to give comfort on the financial information included in a registration statement.

in order to cover the loan. Although the activity within this step is very relevant the method Crouhy, Galai and Mark (2001) use does not fit the field of application.

Adjustment

Degens (2009) developed a scoring method for guarantors for Rabobank International Advisory Services which is applied in several African countries. This way of scoring guarantors has some addition above the method of method Crouhy, Galai and Mark (2001). The amount of money covered by a guarantor is calculated based on three characteristics of the guarantor: the type, the reputation and the solvency. Each of the characteristics has variables like depicted in table 2-9 below and the amount the guarantor is willing to guarantee is multiplied by the percentages of the type, the reputation and the solvency. For example a personal guarantor (20%) with a good reputation (75%) and an excellent solvency (90%) willing to guarantee up to MWK 1,000,000.00

Туре		Reputation		Solvency	
Bank guarantee	80%	Excellent	90%	Excellent	90%
Personal Guarantees	20%	Good	75%	Good	75%
Company Guarantees	20%	Average	50%	Average	50%
		Bad	0%	Bad	0%
		Unknown	10%	Unknown	10%

Table 2-9 - Guarantor credit coverage (Degens, 2009)

can guarantee only 13,5% of that amount. Whether the percentages can be exactly copied to Malawi, or for instance need some adjustment at the types of guarantors, needs some further experience.

Conclusion

However the sixth step of the original RRS will remain in the model, it needs some adjustment in order to make it applicable in Malawi. The original methodology is replaced by a methodology which is used more often in Africa and scores the guarantor on three different characteristics leading to a maximum percentage their guarantee is worth.

2.3.6 Step 7 & 8 - Factoring the maturity and strength of the transaction

The seventh step recognizes the increased risk associated with longer-term facilities and the lower risk of very short-term facilities. A standard approach is to combine the adjusted facility rating (after any third-party support adjustment, in step 6) with the remaining term to maturity in order to determine the adjustment to the facility rating. The maturity of a facility can be classified into three categories: short, medium and long term. One would also need to apply judgment of the primary use of the facility, particularly with respect to financial products. (Crouhy, Galai, & Mark, 2001)

The eighth step considers the effect of how strongly a facility is structured, its legal agreements, conditions, etc. in order to prompt appropriate adjustment(s) to the rating. The lending

purposes and/or structure may influence (positively or negatively) the strength and quality of the credit. These may refer to the status of the borrower, the priority of the security, the covenants (or lack thereof) attached to a facility, etc. (Crouhy, Galai, & Mark, 2001)

Relevance

Both steps are related to the core of the credit facility: the term and the covenants. These steps are also relevant in a developing country. Although it is very relevant, the variation of the covenants, especially of MSME credit facilities, seems to be much smaller in developing countries than in developed countries (Chirwa, 2003). Moreover while the term of a facility is most often influenced by the potential client, the covenants are far more influenced by the bank than by the client.

Adjustment

However, the maturity and strength of the transaction are both relevant in a developing country, only the maturity of a facility is under a client's influence. Therefore the strength of the transaction does not remain in the new model. The maturity of the transaction stays important especially in relation towards the goal of the facility. Crouhy, Galai and Mark (2001) do not explicitly mention how to capture the term. Although you can use the number of months to categorize the term, a single notice of the number of months will be sufficient. The credit officer will compare the number of months with the goal of the facility.

Conclusion

The seventh step which is the maturity of the transaction remains in the model as a single notice of the term in a number of months. The strength of the transaction will be removed from the model because this step is far more influenced by the lender than by the borrower and therefore does not have any additional value in the credit rating.

2.3.7 Step 9 - Collateral assessment

The last and ninth step of Crouhy, Galai and Mark (2001) states that the presence of a security should heavily affect the severity of loss, given default, in any facility. The quality and depth of security varies widely and will determine the extent of the benefit in reducing any loss. Security should be valued as it would be in a liquidation scenario. In other words, if the business fails, what proceeds would be available? If the total security package includes components from various collateral categories, then one should generally use the worst category containing security on which any significant reliance is placed.(Crouhy, Galai, & Mark, 2001).

Relevance

The use of collateral is very relevant in a developing country and widely used. However voices rise to shift from collateral based lending towards more cash flow based lending (Dellien & Schreiner, 2005), in a market for profitable lending collateral will remain as part of a risk rating.

Adjustment

The collateral assessment as suggested by Crouhy, Galai and Mark (2001) does not give any procedure in order to assess the collateral. A need to specify this step shifted the attention again to Degens (2009) who described a methodology to score collateral. As showed in table 2-10 per collateral item, one can select the type, resulting in a recovery rate. In her model a maximum of six

Security	Coverage
Deposits	70%
Shares noted on stock exchange	50%
Inventories and raw materials	50%
Machines / Factory equipment	40%
Receivables	0%
Farming or industrial land in rural areas	50%
Houses in rural areas	50%
Real estate in the city	70%
Moveable household or factory goods	40%
Vehicles	0%

Table 2-10 - Recovery per security (Degens, 2009)

items can be used. For each collateral type it should be indicated whether the value of the collateral was determined by an official appraiser, whether it is appropriately insured. This results

Official appraiser		Covered by insuranc	
Yes	100%	Yes	100%
No	80%	No	80%

Table 2-11 - Collateral correction (Degens, 2009)

in an adjustment of recovery rate according the percentages in table 2-11.

This collateral assessment methodology fits the Malawian culture and is easily applicable in the new RRS.

Conclusion

The ninth step of the original RRS, the use of a collateral assessment, remains in the model because it is highly relevant. However it needs to be more specified in order to apply it in an RRS, therefore this step is adjusted with the collateral assessment methodology of Degens (2009).

2.4 Model

Concluding the analysis of the nine steps in the previous sections the existing model of Crouhy, Galai and Mark (2001) can be transformed in a new model which can be tested in a developing country. According to the conclusions of the separate steps of the original model two times the decision is made to remove the step in the adjusted model; this relates to step 5, country risk and step 8, the strength of the transaction. In case a combination is made of the single steps

from the original model in order to strengthen the model, this relates to step 1, financial assessment, and step 4, the quality of financial information.

Step	Activity	Part
1	Financial Assessment & Quality Financial Information	Clie
2	Entrepreneurial Assessment	Client Rating
3	Position within Industry	
4	Third Party Support	Facili
5	Maturity of Transaction	ty R
6	Collateral Assessment	Facility Rating

In table 2-12 the adjusted version of the RRS is depicted and we can see which items

Table 2-12 - Adjusted RRS

remain in the adjusted version of the model. Both the client rating and the facility rating have three activities which need to be assessed. But as gently touched before, the facility rating can be far more influenced by the bank than the client rating. The characteristics of the client are given as a fact, but the characteristics of the facility can be adjusted by the bank. The level of third party support can be easily adjusted while the entrepreneurial capacity is a given fact which need time to adjust. This time scope of adjustment is for all client rating activities a long term adjustment, while for the facility rating most items can be adjusted within some days.

Continuously the client rating is a reflection of the firm in characteristics where upon the majority of the facility rating can be adjusted. In this situation that means that the client rating is far more important than the facility rating. In this study the applicability of the client rating will be tested in practice. This results in the following model.

Step	Activity	Items	Part	
1	Financial Assessment & Quality Financial Information	Quality of financial information Profit margin		
		Employment growth	Client	
		Personality Characteristics	nt	
2	Entrepreneurial Assessment	Skills	Rating	
		Experience & Education	ing	
3	Position within Industry	Industry Selection		
	Position within maustry	Tier Assessment		

Table 2-13 - Model for client rating

The three steps follow from the model of Crouhy, Galai and Mark (2001) but are adjusted to fit the Malawian environment.

3. Methodology

In order to obtain valid and reliable results, the methodology of the research is an important aspect. The general approach of this research is to investigate the applicability of an adjusted RRS in Malawi. The exploratory approach of this research should result in a RRS which can be implemented at a commercial bank in Malawi. In this chapter the different aspects of this research will be highlighted; the study area, the units of analysis, the data collection methods and the data collection.

MACHINGA Balaka iwonde Machinga ODomasi Zomba NZA. Lirangwe Namadzi . Namh anza Lanzu Chiradzulu CHIRADZULU OPhalombe Blantyre MULANJE Mulanje HYOLO Milang ekerani Bangula Nsanje

3.1 Study Area

Figure 3-1- Southern Malawi poverty line. (CIA, 2009)

which situated between Tanzania. Malawi. is in Mozambique and Zambia, is a landlocked country in Sub-Saharan Africa. It was established in 1891 as the British protectorate of Nyasaland and became the independent nation of Malawi in 1964. After three decades of being one-party ruled by doctor Kamuzu Banda, the country became multiparty democracy in 1994. Nowadays the country is reined by President Bingu wa Mutharika. With over 15 million on 95.000 square kilometers of land it is along world's most densely populated countries, in which 85% of the people living in rural areas and is dependent on agriculture. The countries GDP per capita is with \$ 900 number eleven on the list of world's poorest countries, an over 65% of the Malawians are living below the

The currency used in Malawi is the Malawi Kwacha (MWK) which is subject to heavy inflation over the past decade. The consumer price index (CPI) as determined by the National Economic Council rose from 121 in January 2001 to 300.9 in December 2009, which means prices are more

than doubled in the past decade (Reserve Bank of Malawi, 2010). In the near future even more heavy inflation can be expected; the Malawi Kwacha needs to be devaluated. This is due to the fact that the monitoring authority changed their policy holding a fixed exchange rate to one with a flexible exchange rate in October 2009. In three months time the exchange rate of the Malawi Kwacha against the United States Dollar went up from 140 to 150 kwacha to one dollar (Reserve Bank of Malawi, 2010) and it is expected to rise up to at least 180 kwacha in 2010. This will result in a rise of the CPI again.

Apart from the proceedings of agriculture in rural and urban areas, most of the products in Malawi are imported from South Africa and India. Although there is some export of tobacco, tea and coffee the net result¹ indicates that Malawi is an importing country (National Statistical Office of Malawi, 2008). This has a major influence on division of businesses as part of the GDP: 35.5% is involved in agriculture, 19.9% in industry and 44.6% in services (CIA, 2009). Services contain trade which is the most common industry seen in the streets in towns and villages of Malawi.

3.1.1 FMB's position in Malawi

FMB is situated with 19 branches in Malawi's largest cities and is serving customers countrywide. They are one of the 12 commercial banks which operate in Malawi and are ranked third based on market share. A review of interest rates at the main banks shows an average interest on savings of 4.50% and an average of 19.25% as a base rate on credit, FMB's rates are very close to these average rates. Besides the high rates for loans and the poor rates for savings banking is expensive in Malawi because of transaction costs and fees. Actually the interest rates on savings are that poor, that the interest does not even cover the inflation rate. The only reason to save money in a bank account is the safety the bank guarantees.

While the bank's main focus is already for years on corporate customers they managed to receive a grant to establish retail banking and a loan to support retail companies with credit facilities. Both these facilities were given by the International Finance Corporation (IFC) which is part of the World Bank as part of a program to support the development of MSMEs in Sub-Saharan Africa. This support to FMB can be seen as an example how aid from developed countries is given to organizations in developing countries without a proper assessment. If IFC would have clearly analyzed the banks in Malawi to find out which bank could use support for retail banking, surely they would not have chosen FMB.

3.2 Units of analysis

This study is conducted on behalf of FMB's Retail Department which was started in November 2009 and is yet being established. Therefore the number of existing MSME clients was scarce and most of their products were still being developed. As the bank did not specify their proposed MSME clients as yet, there was need for a definition of their future target customers. Moreover without a

¹ Import \$ 1.6 billion versus an export \$ 945 million (National Statistical Office of Malawi, 2008).

clear definition of their target customers it would be difficult to gain insight in risk rating methods for this group. Two definitions of micro, small and medium enterprises were found in connection with Malawi; one given by IFC and one of the Government of Malawi (GoM).

Enterprise	Micro	Small	Medium
Annual Turnover (IFC)	< MWK ² 1,400,000 (< € 7,000)	MWK 1,400,000 - 14,000,000 (€ 7,000 - € 70,000)	MWK 14,000,000 -140,000,000 (€ 70,000 - € 700,000)
Annual Turnover (GoM)	< MWK 120,000 (< € 600)	MWK 120,000 - 4,000,000 (€ 600 - € 20,000)	MWK 4,000,000 - 10,000,000 (€ 20,000 - € 50,000)
Employees (GoM)	1-4	5-20	21-100

The two definitions differ quite a lot; the enterprises covered up to medium are much bigger within the IFC definition. Although it would make sense to use the country's definition the bank preferred to use the IFC definition. According this definition, the bank is, based on turnover, highly interested in the micro and small enterprises. However, firms with an annual turnover below MWK 100,000 (€ 500) are not of interest. These firms have such insignificant business that they could cease their business at any moment which results in increased risk for the bank. Moreover a possible credit facility for those very small businesses would be that low that the revenue can never cover the costs.

An important remark for the businesses of interest is that they have to be settled. The bank needs the insurance that they are able to track their customers and keep in touch with them. However there are several ways one can settle his business, i.e. a starting carpenter attaches his workbench to a tree somewhere along a road or in a township, any kind of settlement is satisfactory.

The other remark to be made is that the majority of the analyses needs to be done on MSMEs which are not currently are banking at FMB. The bank has just started to serve this group of businesses. Therefore no clients are available for this study. That results in the fact that the practical test of the RRS has been done with MSMEs who did not applied for a credit facility and so are only tested in order to find out how the RRS will work.

Although FMB has 19 branches all over Malawi the just started Retail Department is only located in Blantyre as part of the Head Office and cooperate closely with the Blantyre branch. There this study is done to advance the Retail Department it is done from the Head Office in Blantyre. This results in a selection of units of analysis within, an approximately, 20 km range around Blantyre.

² All amounts are exchanged to Euros with an exchange rate of MWK 200 to 1 Euro. The official exchange rate fluctuated in between MWK 185 and MWK 225 for EUR 1 during the study.
3.3 Data collection methods

In order to satisfy the purpose of this research - developing an applicable client rating as part of a risk rating methodology which fit the Malawian environment - a client rating method was established (see chapter 2) which meets this requirement from a theoretic perspective. The aim is to use a set of observations of MSMEs to test the applicability of a client rating method in order to calculate the risk of default of a potential client. The current paragraph determines for each step and each of its items the data collection method which is going to be used. Afterwards the data collection methods will also be described

Part	Step	Activity	Items	Necessary data and collection method
	1	Financial Assessment & Quality Financial Information	Quality of financial information	entrepreneurial scan
			Profit margin	entrepreneurial scan,
				focus groups
യ			Employment growth	entrepreneurial scan,
Rating				focus groups
tR	2	Entrepreneurial Capacity	Personality	entrepreneurial scan
Client I			Characteristics	
U			Skills	entrepreneurial scan
			Experience &	entrepreneurial scan
			Education	
	3	Desition within Industry	Industry Selection	3
	5	Position within Industry	Tier Assessment	interview

Table 3-2 – Data collection model

The model is presented in table 3-2 with an additional column. This column indicates for each item which data is necessary to measure that item and how the data needs to be collected from the potential client. In the sections 3.4.1 till 3.4.3 the collection methods will be further elaborated. In section 3.5 each of the items within the model will be discussed to identify exactly which data needs to be obtained.

3.3.1 Semi structured interviews

As a Dutch student trying to support a Malawian bank with the development of a risk rating system you quickly tend to be biased with a different cultural scope. To prevent using a typical Dutch, European or Western view on business in Malawi several semi structured interviews were organized with businessmen to gain insight with the local habits and culture. Therefore a selection of current customers of the bank was made based on the size of their credit facilities, together with the knowledge of the account manager. According the IFC definitions from table 3-1 three small, two medium and one large business owner was interviewed. All these entrepreneurs were located in Blantyre or Limbe and were banking with the Blantyre branch.

To be able to compare the answers given by the interviewees a small list of questions (Appendix I) was used to gain some insight about several topics: general information, product,

³ This item is only the selection of the type of industry. The bank has to decide which industries they like to support and which not.

customers, entrepreneur and business. The answers on these series of interviews were used to develop the entrepreneurial scan.

3.3.2 Entrepreneurial scan

In order to gain the necessary information for the client rating of the adjusted risk rating system the entrepreneurial scan was conducted. A six page questionnaire was used which contained four topics: general information, capabilities, experience and entrepreneurial characteristics. Apart from the questionnaire a semi structured interview was used. The scan was available both in English and Chichewa so the respondent could pick the most convenient language. A detailed version of the entrepreneurial scan in English can be found in Appendix II. Each of the single steps within the scan will be discussed in section 3.5.

The entrepreneurial scan was tested in two townships of Blantyre, Zingwangwa and Chilomoni. Zingwangwa has about 15,000 inhabitants and Chilomoni about 38,000 (National Statistical Office of Malawi, 2008). Both places have an active market area. Many market vendors but also many more established businesses are located in the surroundings. During the visits five and six of these established businesses were interviewed and have answered the questionnaire. One average the combination of answering the questionnaire and the interview took an hour and fifteen minutes and the spoken language was a combination of English and Chichewa. During these days a credit officer of FMB acted as an interpreter and guide in order to find suitable participants.

3.3.3 Focus group discussions

Results of the financial and the entrepreneurial assessment were not reliable because the results were not internally consistent. Therefore a search for alternatives was necessary. There both the bank is willing to lend and the MSMEs have the desire to borrow, the idea was born to start focus group discussions in order to discuss the issues of the client rating with potential clients. Focus groups discussions are often used in explorative studies and have the objective to draw upon respondents' attitudes, feelings, beliefs, experiences and reactions in a way in which would not be feasible using other methods, e.g. observation, one-to-one interviews and questionnaires (Gibbs, 1997) Following that statement it could be almost said that if focus groups discussions do not give desirable results no other method will do.

As theory suggests focus groups should contain from 5 up to 12 participants who are carefully selected (Gibbs, 1997; Iowa State University, 2004). The participants should be selected based on certain homogeneity; however heterogeneity brings a greater diversity of responses. For that reason the decision was made to start with traders because those are of most interest for the bank. With this condition support was found from Indigenous Businessman Association of Malawi⁴ (IBAM) who helped to search for two kinds of participants and put them together in two different groups; one group with well performing MSMEs and one group with poor performing.

⁴ Indigenous Businessman Association of Malawi⁴ (IBAM) promotes the participation of indigenous Malawians in the social economic development of Malawi and encourages running their own businesses. It is a network organization which also gives business training to their members.

The selection of participants was not easy because of the high dependence on IBAM. At the end the selection of the groups were not completely according before mentioned ideas but still contained firms with several levels of turnover, but not only traders. A complete overview of the participants can be found in Appendix IV.

During the sessions in the first 10 minutes the topic was introduced and the purpose of the session was explained both in English and Chichewa. After that the session continued in Chichewa, the main language of people in the southern part of Malawi. The sessions were recorded on video to be able to write a transcript in English afterwards, which could be analyzed. The discussion leader was able to create a comfortable atmosphere and let everyone participate in the discussion. Afterwards the discussion leader made an English transcription based on de video recordings, which were used for the analyses. These transcriptions can also be found in Appendix IV.

The main question that should be answered during the sessions is: "how can a bank assess whether a MSE is able to repay a loan or not". But this question is hidden behind introductory, linking and key questions as depicted in table 3-3.



Table 3-3 - Focus group questions

3.3.4 Secondary data collection methods

Besides the primary data collection methods as described in the previous sections, also secondary data collection methods were also used. Internal documents of FMB were used, for instance documents on current lending policies and training documents for credit officers. Digital libraries were consulted for existing rating methodologies.

3.4 Data collection

After a description of the data collection methods in the previous section, this section will analyze which data needs to be collected using these methods. For each step of the proposed risk rating system the necessary information to fulfill that step, will be clearly explained. It will show specifications of the kind of data that will be used, where it can be found, but also definitions of categories and specifications of tests.

3.4.1 Step 1 - Financial assessment

The first step of the RRS consists of the financial assessment of the potential client, in order to make a financial assessment financial information is necessary. That will be the first item because the quality of this information needs to be checked. With the available financial information the profit margin and the growth of employment can be calculated.

3.4.1.1 Quality of financial information

According the theory of Degens (2009) the quality of financial information can be assigned to five categories which can be seen in table 3-3. In order to assign a business' bookkeeping to a category it should be clear in which case financial information belongs to one of the five categories. Degens (2009) did not specify the categories further than it is done in table 3-3. A credit officer of the bank providing the credit facility has to assign the financial information of the potential client to one of the categories. In order to prevent the credit officer has influence on the result, these

No	Quality of Financial Information	Points
1	Projection based on current financials in audited financial report	100
2	Feasibility study by a 3rd party with a good reputation	80
3	Reasonable, acceptable numbers (no external party involved)	60
4	Poor numbers/projections	10
5	No numbers/projections provided by the client	0

Table 3-4 - Quality of Financial Information (Degens, 2009)

categories should be clearly defined. The definitions of the categories will be further defined in this section, starting with those which are easy to distinguish.

'Projection based on current financials in audited financial report' has a clear determination within its description; an audited report is a report which is signed by an official auditor which is most often an accountancy firm. For example in Blantyre big accounting house like KPMG, Delloite, PWC and Ernst & Young have a settlement, but also smaller local accounting houses are available. All of them are organized in the Society of Accountants in Malawi (SAM) which has adopted International Financial Reporting Standards (IFRS) and International Standards on Auditing (ISA) as applicable standards for corporate financial accounting and auditing in the country (Society of Accountants in Malawi, 2007). So if a financial report is signed by an auditor who is registered with the SAM the quality of the financial information will be assigned to the first category; 'Projection based on current financials in audited financial report'. However, commonly firms which who publish audited financial reports are large organizations, not the MSMEs which are the focus of this study.

The second category, 'Feasibility study by a 3rd party with a good reputation', is a classification which has the challenge of the definition of the good reputation. Within the MSME sector in Malawi it is not common businesses have third party support for making financial reports. Therefore it can be said that one can be classified in this category if his financial statements are made by a third party.

Category five, 'No numbers/projections provided by the client', can be easily distinguished from the others. The client will be assigned to this category in two cases; he does not have financial records, or one does not want to reveal the financials to a credit officer. In both cases the credit officer cannot see any financials and further on cannot continue the financial assessment of the firm.

The third 'Reasonable, acceptable numbers (no external party involved)' and the fourth category 'Poor numbers/projections' are the most difficult ones to distinguish between. The extremes of both are not the problem, but those financials which are in the vague are in between reasonable and poor numbers are very much dependent on the judgment of the credit officer. In order to be assigned to the 'Reasonable' category one should be able to give instant access to financial statements and be able to show the results (revenues, expenses, profit) of the last period. Also a clear difference should be there between the business expenses and the household expenses. If one is unable to show these figures, the quality will be assigned to 'Poor numbers/projections'.

3.4.1.2 Profit margin

According to a previous Malawian study of Chirwa (2005) the profit margin was calculated with data on expenses and sales with reference to last week. In order to calculate annualized expenses and sales, it was assumed that the ratio of expenses last week to sales last week was constant. For each month, information on high, average and low sales months with corresponding average monthly sales values was obtained to compute annual sales and the constant expenses-sales ratio was used to generate annual expenses (Chirwa, 2005). This methodology is quite straight forward the only question that is left blank, is the definition of the expenses and sales. To calculate the sales, all sales which are related to the business in a certain week are counted and the total is the sales figure of that week. To calculate the expenses it is important the entrepreneur clearly separated business and personal expenses, all business expenses are counted and the total is the expenses figure. To calculate the profit margin, the expenses will be deducted from the sales, and that figures will be a fraction of the sales as depicted below.

$$profit margin = \frac{sales - expenses}{sales}$$

As discussed in chapter 2 the profit margin itself is for risk rating purposes not sufficient, the profit itself has to be taken into account. In order to tell something about the repayment capacity of a certain customer the profit has to be assessed, which is already done with the profit margin formula.

3.4.2 Step 2 - Entrepreneurial assessment

The second step in the client rating is the assessment of the entrepreneurial capacity. As discussed in chapter 2 this step is divided in three different items: personality characteristics, skills and experience and education. In the next section these three items will be separately elaborated.

3.4.2.1 Personality characteristics

In past decades several tests of entrepreneurial characteristics were made and used in developing countries, but none of them was used in developing countries. The question whether such a test would work in Malawi could not be answered up front this study the choice was made to try a test of entrepreneurial characteristics in Malawi.

A recent test of entrepreneurial characteristics was chosen which is developed by Driessen (2005) who was already mentioned in the theoretical framework. This test was selected because it was available for use and also validated and moreover this test is also used by Rabobank for their SME customers. The necessity to translate the test to both English and Chichewa (the local language in Southern Malawi) was a drawback, but done in two phases. The translation to English was checked by a professional afterwards and the translation from English to Chichewa was checked by a reversed translation from Chichewa to English. In both cases some minor changes were made to increase the quality of the translation.

In order to find out whether it is possible to use a profile of the entrepreneurial characteristics of a potential client and compare this profile with a norm profile, the test making these profiles not only needs to be understood by the potential clients, it needs to be valid. All characteristics should be correctly measured: otherwise the profiles would not make sense. The test itself is a questionnaire which measures ten characteristics as depicted in table 3-4. Each of these characteristics includes four up to ten items to check the presence of that characteristic at the client. The number of items is also mentioned in table 3-4. To find out whether the results are useful the internal consistency is analyzed using Cronbach's Alpha (CA). The CA shows the internal consistency of the items, the value of α gives an indication of the correlation between the items measuring the same characteristic. If α is above 0,70 the items are internally

Characteristic	# Items	CA
Need for Achievement	10	0,70
Need for Autonomy	9	0,74
Dominance	9	0,78
Social Orientation	7	0,80
Effectiveness	9	0,78
Perseverance	8	0,74
Market orientation	9	0,68
Creativity	9	0,76
Flexibility	4	0,77
Social desirability	7	0,66

Table 3-5 - Characteristics for entrepreneurial profiles (Driessen, 2005)

consistent. In table 3-4 the CAs Driessen (2005) found are mentioned in order to compare them with the results of this study later on. All items are presented in a random way. Each item can be answered according a 5-point Likert scale, resulting in 0,1,2,3 or 4 point per question dependent on the answer 'I strongly disagree' to 'I strongly agree' or those in between. If the profiles resulting

Improving risk rating methodology to support and foster MSME lending in Malawi

from the test also give CAs which are in line with these of Driessen the test can be used to start developing entrepreneurial profiles.

3.4.2.2 Skills

As discussed in chapter 2 the skills assessment is done using the test Kolvareid and Isaken (2006) developed using associate four different types of entrepreneurial skills with selfemployment intentions: opportunity recognition, investor relationships, risk-taking and economic management. In table 3-5 for each of the skills the number of questions in the questionnaire is

Entrepreneurial skill	# Items
Opportunity recognition	4
Investor relationships	3
Risk taking	5
Economic management	3

Table 3-6 - Entrepreneurial skills (Kolvareid & Isaken, 2006)

given. From the original model 3 questions where skipped because they are not relevant within Malawi. The removal concerns two questions of *opportunity recognition*⁵ and one of *investor relationships*⁶. The remaining fifteen items were taken together and could be answered according a 5-point Likert scale resulting in 0,1,2,3 or 4 point per question dependent on the answer 'Not confident at all' to 'Very confident' or a rating in between.

3.4.2.3 Experience

Experience is described by Gartner, Carter and Reynolds (2004) as twenty-seven start-up activities which can be identified within a firm. Each of these 27 items can be tested using a dichotomous (yes/no) questionnaire. To test the MSMEs in Malawi on these activities the initial test was copied and applied in the entrepreneurial scan.

3.4.2.4 Education

The level of education is divided in six categories according Chirwa (2005) who also applied these categories in his study in Malawi. The applicant can easily tick a box in accordance with his or her education level. Each of the items indicates a finished education level which will be defined in the question accompanying this item in the questionnaire

Primary school
Sec. school up to Junior Certificate
Sec. school finished MSCE
Technical/vocational training
University Bachelor degree
University Master degree

Table 3-7 - Education types in Malawi

3.4.3 Step 3 - Position within the industry

⁵ 'Design product/services that solve current problems' and 'Bring a product concept to a market in a timely manner'

⁶ 'Develop relationships with key people who are connected to capital sources'

3.4.3.1 Industry selection

The industry selection is item which is easy to do. The list of Masukare, Henson and Cranfield (2007) in table 3-7 gives 9 different industries and the industry which is most related to the business will be picked. The use of this item within the risk rating is up to the bank that has to

1) agriculture, forestry and hunting
2) mining and quarrying
3) manufacturing
4) electricity, water and gas
5) construction
6) retail and wholesale trading
7) transport, storage and communication
8) finance, insurance and real estate
9) community, social and personal services

Table 3-8 - Industry Selections (Masukare, Henson, & Cranfield, 2007)

decide what kind of business they are willing to support and what kind they better leave out of their portfolio.

3.4.3.2 Tier assessment

The tier assessment as defined by Crouhy, Galai and Mark (2001) is depicted in table 3-8. Most of these categories are well defined, but have vague boundaries; businesses with a dominant market share are easy to distinguish from those in a more competitive market but what is the difference between an average and a weak player? Because persons tend to overestimate their

Tier	Description
1	Major players with a dominant share of the relevant market
2	Important or above-average industry players with a meaningful share of the relevant market
3	Average (or modestly below average) industry players, with a moderate share of the relevant market
4	Weak industry players and have a declining customer base

Table 3-9 - Tier assessment (Crouhy, Galai and Mark, 2001)

self potential clients could select a tier which has a larger market share or better position within the market. Therefore this item will be answered by both the entrepreneur himself as the credit officer who is responsible for the rating. In the situation where the potential client and the credit officer have a different tier selection of the potential client the credit officer will reconsider his choice, but his choice is leading.

3.5 Conclusion

In the previous sections the methodology used for this study is widely elaborated. For each of the steps of the client rating it should be clear how it will be collected. The following chapter will show the results.

4. Results & Analyses

The search for a risk rating system which is applicable in Malawi resulted in the development of a theoretic risk rating system which has been tested in Malawi. In this chapter the results of this test will be discussed and analyzed.

4.1 Introduction

To discuss and analyze the results of the test of the RRS, this chapter will be structured according to the theoretic model of the client rating within the RRS. At first the results of the test will be presented and discussed. At the end of each step the information gathered using the focus group discussions and the interviews will be combined to find a satisfying method for that step. The methodology chapter widely elaborated on the way data is captured for each step of the risk rating model, therefore this chapter will not show again information about the methodology.

4.2 Step 1 - Financial assessment

During the test of the entrepreneurial scan the quality of the financial information was tested and categorized for each participant. In table 4-1 these categories can be found which shows the categories with its points and the number of times that item occurred.

Category	Points	#
Audited financial report	100	0
Feasibility study by 3rd party	80	0
Reasonable, acceptable numbers	60	2
Poor numbers	10	7
No numbers	0	2

Table 4-1 - Entrepreneurial scan - Quality of Financials

The results show that out the 11 participants none of them has reports of an (audited) third party, which is not a surprise. In order to zoom in on the division of the firms over the quality categories knowledge about the financial situation is necessary. Table 4-2 shows an overview of the participants with their financial information. Although most of the firms had a record of their sales

Respondent	Quality of financials	Weekly Sales (in MWK)	Expenses (in MWK)	Profit (in MWK)	Profit Margin
Welder	0	-	-	-	-
Grocery	10	100.000	(50.000) ¹	-	-
Butcher	10	18.000	-	-	-
Tailor	10	1.000	-	-	-
Internet & stationery	60	40.000	25.000	15.000	37,5%
Cloths and grocery	10	8.000	-	-	-
Grocery	10	30.000	-	-	-
Curios	10	40.000	-	-	-
Poultry farmer	0	-	-	-	-
Carpenter	10	6.000	-	-	-
Clothing & Furniture	60	500.000	420.000	80.000	16%

only two had also a direct overview of their expenses, one could recover some expenses but directly indicated that it was not a complete figure.

Table 4-2 - Entrepreneurial scan - Profit Margin

The analysis of the figures above is quickly done because there is not much to analyze. For most firms it is very difficult to get an idea about their potential repayment capacity. Without a clear notion of their profit nothing can be said about the amount they could weekly spent on repayment. Based on the financials it would be very difficult to support these clients with any kind of credit facility. The two clients of whom the profit is known are also those with proper reasonable records. This relation is apparent because those firms without the necessary records to calculate the profit - but still some records - were assigned to the 'poor numbers' category. Those clients, of whom the financial assessment is successful, tend to be more likely to receive a loan if their other steps are also satisfying.

Insight to involved parties

The results of the financial assessment showed that most of the firms could not borrow any money because they lack proper financial reports. In order to find out why MSMEs do not have a proper bookkeeping and do not care about the financial health of their business this topic has been discussed during two focus group discussions. Main findings of the discussions show the reasons why people start a (small) business: people are declared redundant, people being unemployed, people do not meet job requirements or people are not satisfied with their current employer. This results in the fact that many businesses started because this is the only way to earn money for a living and not because the person is keen in the field of business.

Answers on the question why businesses fail support this finding because they show people are financial illiterate, are not able to keep on track with their planning or do not look forward at all, have many debtors and just copy business ideas of family and friends to start. In section 4.3.3 the relation between the education level of the business owners and the performance of their firm will be showed which gives additional insight.

¹ This figure was calculated using some receipts the grocery had but the owner indicated some additional expenses that week he could not recover.

Conclusion

The results of the focus group discussions makes clear that MSMEs fail with keeping their business records because they simply do not know how to do this. In order to assess the financial situation of these businesses it is not the methodology which has to be adjusted, but the quality of the borrowers financial information.

4.3 Step 2 - Entrepreneurial assessment

As discussed in chapter 2 it is not only the financial health of a firm which is needed to predict to future performance of a firm, but also the entrepreneurial capacity. In this paragraph, the personality characteristics, the skills, the experience and the level of education will be discussed.

4.3.1 Personality characteristics

The test of entrepreneurial characteristics was conducted at 11 participants who answered 81 questions indicating for each of the 10 characteristics. In order to find out whether the questions of each item more or less give the same indication of the presence or absence of a characteristic, the internal consistency of the test is checked using Cronbach's Alpha (CA). In table 4-9 for each of the items both the CA of the original test of Driessen (2005) and the current study are given.

0,76 0,78	Heikens 0,40 0,79*
0,78	
	0,79*
0 70	
0,78	0,33
0,77	-1,89
0,68	0,80*
0,70	0,61
0,74	0,08
0,74	0,75*
0,80	0,73*
0,66	0,65
	0,68 0,70 0,74 0,74 0,80

* Items are valid, because they are above 0,70

Table 4-3 - Personality Characteristics (n=11)

Results show that only four items (indicated with an asterisk) exceed the minimum level of 0,70 to be valid. However, the initial model accepted the 0,66 of social desirability, the 0,65 of this item in this study is that close that it is also accepted. This means that only half of the items can be measured properly using the entrepreneurial scan. It can be discussed why some CAs are very low and maybe even indicate the opposite, as with flexibility, of the tested characteristic. The number of respondents is, for a strong statistical analysis, quite low, moreover the fact that people in Malawi are not used to this way of answering questions can create shortcomings in the results.

Besides the results on the internal consistency, the participants are scored on the social desirability of their answers, one of the accepted results. This concept is measured using 7 items.

	Score	Min	Max
Welder	3	0	7
Grocery	3	0	7
Butcher	4	0	7
Tailor	4	0	7
Internet & stationery	1	0	7
Cloths and grocery	0	0	7
Grocery	7	0	7
Curyos	5	0	7
Poultry farmer	1	0	7
Carpenter	3	0	7
Clothing & Furniture	0	0	7

Table 4-4 - Scores on social desirability

For each time the participant answered one of the questions with the extreme answer option 'I strongly agree' or 'I strongly disagree' for the reversed items, he or she gained 1 point.

On the concept social desirability results indicate 4 out of the 11 participants have answered the majority of the questions with a social desirable answer, another 3 participants gave also a high number of social desirable answers. There is thus a high chance these participants gave social desirable answers on all the questions in the questionnaire. Even if the internal consistency would be satisfying, the results are biased by the participants, which will make the results of their test worthless. To summarize half of the characteristics cannot be measured using the entrepreneurial scan and a third of the participants gives social desirable answers on the questions. The makes it very difficult to use this test to develop entrepreneurial profiles which can be used for the client rating.

4.3.2 Skills

Within the entrepreneurial scan the skills of the participants were tested using 15 questions related to four different entrepreneurial skills. In table 4-5 below the results are summarized.

Skill	Min	Max	Mean Score	Mean Score	Standard Deviation
Opportunity recognition	0	4	2,95	2,95	1,54
Investor relationships	0	4	1,94	1,94	1,56
Risk taking	0	4	2,65	2,65	1,58
Economic management	0	4	3,03	3,03	1,47

Table 4-5 - Entrepreneurial Skills (n=10)

The results indicate the 11 participants had scores that were above average on three of the four skills, only investor relationships has a score of 1,94 which indicates that on average people score they are in between 'not confident' (1,00) and 'neutral' (2,00). On the other items the scores are all close to 'confident' (3,00).

					Weekly
	Opportunity	Investor	Risk	Economic	Sales
	recognition	relationships	taking	management	(in MWK)
Welder	3,50	2,00	4,00	3,33	-
Grocery	3,00	2,00	2,40	4,00	100.000
Butcher	3,75	0,00	1,00	3,33	18.000
Tailor	-	-	-	-	1.000
Internet & stationery	2,50	2,33	2,40	3,00	40.000
Cloths and grocery	3,75	2,67	4,00	4,00	8.000
Grocery	3,00	2,67	2,40	2,67	30.000
Curios	4,00	2,00	2,80	4,00	40.000
Poultry farmer	3,25	0,00	3,80	3,67	-
Carpenter	3,75	0,00	4,00	2,33	6.000
Clothing & Furniture	2,00	3,00	2,40	3,00	500.000

Table 4-6 - Skills score versus sales level

However, according these score the participants should all have entrepreneurial skills which are quite good, if we compare the scores of the skills with the sales level some irregularities arise. The clothes and grocery store which is a small store with a sales level of 8.000 Malawi Kwacha a week scores four times that he is very confident with the activities related to these skills. According his poor sales level a lower score on the entrepreneurial skills was expected. The same issue is true for the poultry farmer who has, accept investor relations, scores between confident and very confident while its business is performing very poor.

According to these results the entrepreneurial skills do not seem to be applicable in Malawi because there is no relation between the score on the different skills and the sales value.

4.3.3 Experience and education

The third item within the entrepreneurial scan is the experience and education level of the entrepreneur. To measure the experience a test of 28 questions was used for which the entrepreneur indicated whether he or she had experience with that activity within his or her

	# Points (max=28)	Weekly Sales (in MWK)
Welder	20	-
Grocery	10	100.000
Butcher	13	18.000
Tailor	9	1.000
Internet & stationery	14	40.000
Cloths and grocery	12	8.000
Grocery	17	30.000
Curios	17	40.000
Poultry farmer	5	-
Carpenter	13	6.000
Clothing & Furniture	20	500.000
Test mean	13,6	
Test standard deviation	4,7	
Test variance	1,5	

Table 4-7 - Experience	versus sales
------------------------	--------------

business. In table 4-7 the results are showed. For each activity in which the entrepreneur was experienced he or she gained a point. The average score of 13,6 indicates that the average participant has performed not even half of the activities. In table 4-8 an overview of the activities is given combined with the number of participants who performed this activity within their business.

No.	Question	Times Answered
27	Had a website exclusively devoted to a business	0
10	Purchased or leased major items like equipment, facilities or property	2
13	Established credit from a supplier	2
16	Applied for a patent, copyright, or trademark	2
21	Received funds from financial institutions or people	2
22	Hired employees or managers	3
25	Had a separate phone listing for a business	3
9	Organized a start-up team	4
11	Started marketing or promotional activities	4
12	Arranged child care or household help to allow time for business	4
2	Took classes or workshops on starting a business	5
5	Developed a prototype, model or procedures for the product/service	5
19	Received money, income, or fees from sale of products or services	5
20	Asked financial institutions or people for funds	5
26	Had a separate phone line for a business	5
17	Developed projected financial statements	6
23	Paid income taxes for income generated through a business	6
24	Realized monthly revenues that exceeded monthly expenses	6
1	Spent a lot of time thinking about starting a business	7
14	Filed income tax return	7
15	Devoted full time to business	7
3	Saved money to invest in a business	8
7	Purchased raw materials, inventory, or supplies	8
18	Opened a bank account exclusively for a business	8
28	Registered a business officially	8
4	Invested own money in a business	9
6	Defined market opportunities	9
8	Prepared a business plan	10

Table 4-8 - Sporadic present activities

The absence of business websites is not a surprise given the knowledge that only 2 percent of the population has internet (CIA, 2009). A surprising result is that two participants - the welder and the curios store - indicate they have applied for a patent, copyright or trademark, which seems to be incorrect. The issue which is one of the reasons for this study - the lack of access to credit - returns in the number of firms which indicate that only two have received funds from financial institutions or people.

It is not surprising the firms in Malawi have a poor score on experience, most of their businesses perform on a basic level of entrepreneurship, which indicates that not all of these activities are necessary to apply or simply because the people do not have the knowledge to apply them. This way of testing seems to work and except the welder everyone seems to have answered the questions correctly. For validation reasons the test is directly copied from the source, but when it would be adjusted to local standards it will be directly applicable.

This brings us to the last results of the entrepreneurial scan: the education level, which is performed in table 4-9. Most of the entrepreneurs (9) did not continue education after secondary school. Not surprising for a country where people have to pay their education fees themselves after primary school. Remarkable is the fact that the participant with the highest education level is also the one with the highest sales. Based on the data, the conclusion that these two indicators are correlated cannot however be drawn.

	Education Level	Weekly Sales (in MWK)
Welder	Secondary school with MSCE	-
Grocery	Secondary school with MSCE	100.000
Butcher	Vocational Training	18.000
Tailor	Primary School	1.000
Internet & stationery	Secondary school with MSCE	40.000
Cloths and grocery	Secondary school with MSCE	8.000
Grocery	Secondary school up to JCE	30.000
Curios	Secondary school with MSCE	40.000
Poultry farmer	Secondary school with MSCE	-
Carpenter	Primary School	6.000
Clothing & Furniture	Bachelor Degree	500.000

Table 4-9 - Education level versus sales

Insight from involved parties

One of the main topics of the focus group discussions was 'why businesses fail'. The responses given on this question - besides the lack of access to credit - often indicate lack of proper knowledge about running a business disqualifies them in a good development of their business. As the results in table 4-9 indicate most people only finished their secondary school and did not have the chance to continue learning. Both the discussion participants and other interviewees indicate that most people start a business because that is the only way of earning money for living. In order to become successful they have to be autodidact in running a business, because they lack the experience of an educated person. It is therefore not a surprise many people lack of the experience as can be seen in table 4-7 and 4-8.

4.4 Step 3 - Position within the industry

The positioning of the participants of the entrepreneurial scan using the methodology of the RRS was applicable as is depicted in table 4-9 below. With the tier assessment some of the

Potential client	Industry Selection	Tier assessment Potential client	Tier assessment researcher
Welder	construction	Tier 3	Tier 4*
Grocery	retail and wholesale trading	Tier 2	Tier 3*
Butcher	retail and wholesale trading	Tier 3	Tier 3
Tailor	manufacturing	Tier 3	Tier 4*
Internet & stationery	community, social and personal services	Tier 2	Tier 2
Cloths and grocery	retail and wholesale trading	Tier 3	Tier 3
Grocery	retail and wholesale trading	Tier 2	Tier 3*
Curios	manufacturing	Tier 3	Tier 3
Poultry farmer	retail and wholesale trading	Tier 3	Tier 4*
Carpenter	construction	Tier 3	Tier 4
Clothing & Furniture	retail and wholesale trading	Tier 2	Tier 2

Table 4-10 - Client positioning

potential clients indicated their tier value more positive than the researcher did. In these cases the researcher's (or credit officer in the future) opinion is leading. In the column with the researchers assessment those items marked with an asterisk are different from the rating of the client's opinion.

The results show that most of the firms have an average market position (tier 3) and are active in retail or wholesale trading. Those firms with a tier 4 rating seem to correspond with the firms which did not had very high sales figures. The combination of poor sales figures and a weak market position makes the recommendation not to lend money to these customers an obvious one.

5. Conclusion

This chapter will present the conclusions based on the objective as stated in the first chapter. First the sub questions will be answered in order to show the partial results. Afterwards a clear foundation to answer the central question is made and this answer will be given.

In the first chapter of this thesis the objective for this study was formulated based upon the question of FMB to support the development of their risk rating tool. There the client rating came out to be the most important part of risk rating this study focused on that part of the risk rating system. In order to find a solution for FMB the following objective has been formulated:

Develop a method to calculate the risk of default of potential MSME clients of banks in Malawi by adjusting a typical risk rating system.

The objective was difficult to obtain because of the difficulties with selecting the right indicators for the client rating. However, the difficulties are overcome and indicators are found which can be used to rate a client as discussed further in this chapter. By answering step by step the single research questions a framework will be given to answer the central question. With the answer on the central question it will become clear whether the objective is obtained.

1. What is a typical risk rating system?

A typical risk rating system is an assessment which gives insight in a firm's credit risk and expected repayment capacity. Mainly there are two different parts, the client rating which assesses the characteristics of the borrower, i.e. the financial situation and the market position, and a facility rating which assesses the characteristics of the credit facility, i.e. the collateral coverage, guarantors and the facility itself. In table 5-1 the model

Step	Activity	Part
1	Financial Assessment	
2	Managerial Capacity	R 0
3	Within Industry Rating	Client Rating
4	Quality Financial Information	nt
5	Country Risk	
6	Third Party Support	
7	Maturity of Transaction	Fac
8	Strength of Transaction	Facility Rating
9	Collateral Assessment	

Table 5-1 Risk Rating Model (Crouhy, Galai and Mark, 2001)

Improving risk rating methodology to support and foster MSME lending in Malawi

which is used as fundament for this study is depicted. In terms of modification, the bank has far more influence on the credit facility than on the client. Consequently, the knowledge gap is on the client side and therefore the most important part of a risk rating is the client rating. The client rating will give an indication of his financial situation, his entrepreneurial qualities and its competitive position.

2. How can client rating within a typical risk rating system be adjusted in order to make it applicable in Malawi from a theoretic perspective?

In order to make the client rating (as part of a risk rating system) applicable in Malawi, adjustment of both the financial and the entrepreneurial assessment is necessary. The financial assessment as used in developed countries does not make any sense in Malawi. The calculations within the original model are too complicated and not applicable; to assess businesses in Malawi and other developing countries the weekly profit is a useful indicator. Therefore the most important prerequisite is the presence of financial information. Lack of (proper) financial information disqualifies loan applicants at ones.

The managerial capacity will be assessed using three items: *personality characteristics*, *skills* and *experience and education*. The personality characteristics assessment checks whether the entrepreneur has the characteristics which are common for entrepreneurs. The entrepreneurial skills will be scaled using opportunity recognition, investor relationships, risk-taking and economic management. The experience will be assessed using a list of start-up activities.

Resultantly the initial client rating is adjusted and better defined into the client rating as depicted in table 5-2.

Step	Activity	Items	Part
1	Financial Assessment	Quality of financial information Profit margin Employment growth	Client
2	Entrepreneurial Assessment	Personality Characteristics Skills Experience & Education	ent Rating
3	Position within Industry	Industry Selection Tier Assessment	

Table 5-2 -	Adjusted	client risk	rating	system
-------------	----------	-------------	--------	--------

3. Is client rating applicable in Malawi and does it differentiate between strong and poor performing businesses?

The client rating exists of three items which are all tested in Malawi, the main results show that both the assessment of the financials and the entrepreneurial capacity result in major difficulties. The financial assessment is applicable, but becomes difficult because of a lack of financial information. Financial illiteracy is a major issue resulting in entrepreneurs not knowing what is happening within their business. Without an idea of a firms profit for a period, no calculation can be made of the potential repayment capacity for that period, which makes it impossible to disburse a loan. The average education level shows that most of the entrepreneurs did not have any education after secondary school. Which is most likely one of reasons for small business with poor financial records; people simply do not know how to manage their bookkeeping. Basic business training would provide a solution for MSMEs to solve this issue.

The entrepreneurial capacity was tested on 3 topics. Both the personality characteristics and skills test did not work in the Malawian environment. But the test of the experience and education did work. Out of the 28 experience topics the average score was a presence of 14 topics. Although this test was directly copied from a western study, most of the items were relevant for businesses in Malawi. That means this score shows the average respondent was not very experienced in business. Probably some items, typical for the Malawian business culture, can be added to overcome the issues with the personality characteristics and skills test. The bank could set a minimum score and if an entrepreneur fails to get a credit facility the bank can show him what issues within his firm he has to solve.

The position of a firm within the industry is easy to obtain, a site view at the entrepreneurs premises together with some knowledge of the market will be sufficient to make a judgment of the tier selection. This position gives a clear indication of what a financial institution can expect. The worse the situation of the business the less reasonable it is to give that business a credit facility. Together with the industry selection this step gives a useful view on the potential client.

Altogether the three selected steps for the client rating do not succeed in ending up with a clear differentiation between well and poor performing loan applicants. The financial assessment fails because of the lack of information at the client side, the entrepreneurial assessment fails because of the issues with the personality test and the skills test and the only successful item is the position within the industry. All in all the use of this method will give the credit officer a lot of insight and a standard methodology for a client rating, but the method itself does not distinguish poor performing from well performing businesses.

According the answers on the sub questions the main research question can now be answered.

Which adjustments need to be made on a typical internal risk rating system in order to rate the risk of default of potential MSME clients in a Malawian context?

As we saw within the answer on the third sub question the client rating, consisting of three items, partly works. In order to apply this type of rating in Malawi there are two main issues. First, the entrepreneurial assessment has to be redeveloped. The method to characterize the entrepreneur and the skills test do not work. But the experience and education test does work. That item could receive a more central role and could be updated with items which are more applicable for Malawi. The financial assessment works for those clients who have a proper bookkeeping, but is often difficult to obtain because entrepreneurs do not have financial information. Finally the third item, the position within the industry, is an easy item which could be set for each client.

Although the calculation of the risk of default will be difficult, the method gives a systematic procedure to assess the items which are related to the risk of default. So the final judgment

whether the potential client receives a loan or not can be made, therefore the financial assessment is leading. With the current financial information as it is available from MSMEs in Malawi it is often impossible to even calculate the profit for a certain period.

Important for further actions is to know, it is not the assessment method, but the client where an issue needs to be solved. Businesses are mainly started because people cannot find a job and try to support themselves and their family in their means of existence. Not because they like to run their own business and know what they start with. Supporting MSME clients with business training containing bookkeeping skills could contribute to their business skills which could result in a better assessment. Results from microfinance institutions show that firms who receive business training during the period they receive a loan, have better repayment behavior and also increased firm performance (Karlan & Valdivia, 2006). But this support would neglect the fact that this type of credit facilities should be offered on a profitable basis.

To shortly answer the research question it can be stated that adjustment is necessary on the entrepreneurial assessment and minor updates can be done on the financial assessment, to make the client rating applicable. However the presence of an applicable client rating will not overcome the issues financial institutions have with the risk rating of loan applicants. The main issue is the quality of the financial information, and maybe even the quality of the business' management, that prevents the MSMEs to qualify themselves for credit facilities.

6. Discussion

Results are found, conclusions are drawn, but what are are the limitations of this study and has it contributed to theory and practice? This chapter will explore theses topics.

6.1 Limitations

The current study has tried to formulate an answer to the research question: "Which adjustments need to be made on a typical internal risk rating system in order to rate the risk of default of potential MSME clients in a Malawian context?" The answer given in the previous chapter followed from the methods as described in the methodology chapter. An attempt was made to answer this question according the best possible options limitations were however present.

The first limitations have to do with the setup of this study at FMB. The situation of FMB and their retail department as described preceding the arrival in Malawi did not match with the situation as it was found at the bank. The retail department was still being established and the customers they should have were actually large corporate customers. Research based on a comparison between well and poor performing MSMEs was because of that impossible. The research setup had to be adjusted into the current one. Due to this major change of setup less time was available for the data collection. Upfront arrival support was promised to familiarize with the business culture, to translate the rating methodology and collect the data. But less time then promised was available from a native speaker to support these activities. All in all these limitations resulted in a smaller time frame for data collection, which resulted in a smaller number of participants for the test of the client rating than desirable. For the analysis of especially the entrepreneurial assessment a larger number would have been more convenient. Resultantly the generalizability of the results is very small, but there the objective was explorative it gave insight on risk rating in a developing country and showed what kind of issues occur using this type of risk rating. The results of this study can be used to continue with the development of risk rating for firms in Malawi. Whether it can be used in other developing countries cannot be stated, but it is expected to work also in other developing countries.

Another important limitation is the fact the retail department was being established no current loan applicants could be used to test the risk rating system. The choice was made to apply the client rating on existing MSMEs located in two large townships in Blantyre. They did not apply for a credit facility, but were chosen by the researcher. Because the entrepreneurs did not make the choice their selves to fill in the loan application, they could have given other answers then they would have done in case of a real application. Although the participants were kindly requested to answer the questions as honest as possible, the answers which are used for the analysis could have been slightly different in case of real applications.

6.2 Further research

The previous chapter however indicated that the adjusted risk rating system is a useful method to rate loan applicants, still some issues remain to be solved. The entrepreneurial assessment was only partly applicable in Malawi. The experience test gave good result in case of the validity of the answers, but the test should contain more questions which are specific for businesses in Malawi. For these questions one could think of membership of business clubs, the type of business location or the business network they operate in. Over all the assessment of the entrepreneur was difficult because mainly no literature was available

Another area of interest is the reason why most businesses have, only very limited or, no financial records. This study reveals using the interviews and focus group discussions that most persons start a business because they are declared redundant and cannot find any employed job, in order to survive and earn some money for living they start a small business. That reason for starting a business directly disadvantages the business because in most cases they do not know anything about how to run a business. If this reason to start is business is more widely explored and it is verified it is true business have problems with their establishment because of a lack of business skill, it might be that governmental support can be arranged in developing programmes like .

6.3 Contribution to academia

As stated in the first chapter the purpose of this study is to contribute to academia with insight on risk rating methods in developing countries. For this study Malawi was chosen and insight can be given on the applicability of an existing risk rating system in this country. The fact that existing risk rating systems made for developed countries cannot be applied in developing countries is proven in the theoretic framework as well as in the practical test of the adjusted RRS. Existing systems are far too complex for the average MSME in a developing country. This study redeveloped the client rating out of a typical RRS into an applicable model for Malawi and tested it. The test showed that most of the client rating works, but that some parts needs some attention as described in section 6.2.

6.4 Practical contribution

The practical contribution which this study has given to FMB is a standard method to rate their loan applicants, which can be used by all credit officers. This standard methodology ensures a comparable overview of loan applicants which can be adjusted based upon experience later on. The drawback is that this adjusted RRS will not be used in the near future because FMB is not willing to lend money to this group of customers and only conducted this study to favor the World Bank.

Bibliography

American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders* (4th Edition ed.). Washington, DC.

Babbie, E. (2004). The practise of social research. Belmont: Wadsworth Thomson.

Begley, T., & Boyd, D. (1987). Psychological characteristics associated with performence in entrepreneurial firms and smaller businesses. *Journal of Business Venturing*, 79-93.

Berger, A., & Udell, G. (1995). Relationship Lending and Lines of Credit in Small Firm Finance. *The Journal of Business , 68* (3), 351-381.

Bielecki, T., & Rutkowski, M. (2002). *Credit Risk: Modeling, Valuation and Hedging.* Berlin Heidelberg New York: Springer-Verlag.

Brealey, R., Myers, S., & Allen, F. (2008). *Principles of Corporate Finance.* New York: McGraw-Hill.

Brush, C., Manolova, T., & Edelman, L. (2008). Properties of emerging organizations: An empirical test. *Journal of Business Venturing*, 547-566.

Carter, N., Gartner, W., & Reynolds, P. (1996). Exploring start-up event sequences. *Journal of Business Venturing*, 151-166.

Chirwa, E. (2003). Determinants of commercial banks' profitability in Malawi: a cointegration approach. *Applied Financial Economics*, 565–571.

Chirwa, E. (2005). *Gender and Performance of Micro and Small Enterprises in Malawi.* Zomba: University of Malawi - Chancellor College.

Chrisman, J., Bauerschmidt, A., & Hofer, C. (1998). The Determinants of New Venture Performance - An Extended Model. *Entrepreneurship Theory and Practise*, 5-29.

CIA. (2009). *Malawi*. Retrieved November 7, 2009, from CIA - The World Factbook: https://www.cia.gov/library/publications/the-world-factbook/geos/mi.html

Covin, J., & Covin, T. (1990). Competitive Agrisiveness, Environmental Context and Small Firm Performance. *Entrepreneurship Theory and Practise*, 35-50.

Improving risk rating methodology to support and foster MSME lending in Malawi

Crouhy, Galai, & Mark. (2001). Prototy risk rating system. *Journal of Banking & Finance , 25*, 47-95.

Daniels, L. (2001). Testing Alternative Measures of Microenterprise Profits and Net Worth. *Journal of International Development*, 599-614.

Degens, R. (2009). *Credit Rating Tool Manual FMB: Small and Medium Enterprises*. Utrecht: Rabo International Advisory Services.

Dellien, H., & Schreiner, M. (2005). *Credit Scoring, Banks, and Microfinance: Balancing High-Tech with High-Touch.* Saint Louis, M.O., USA: Microfinance Risk Management.

Driessen, M. (2005). *E-Scan Ondernemerstest - Beoordeling en ontwikkeling ondernemerscompetentie.* 's-Graveland: Entrepreneur Consultancy BV.

Driessen, M., & Zwart, P. (1999). The role of the entrepreneur in small business success: The entrepreneurship scan. *ICSB Naples Conference* (pp. 1-15). Naples: ICSB.

Featherstone, A., Roessler, L., & Barry, P. (2006). Determining the Probability of Default and Risk-Rating Class for Loans in the Seventh Farm Credit District Portfolio. *Review of Agricultural Economics*, 4-23.

Frei, P. (2006). Assessment and Valueation of high growth companies. Bern: Haupt.

Gartner, W., Carter, N., & Reynolds, P. (2004). Business Start-up Activities. In W. Gartner, K. Shaver, N. Carter, & P. Reynolds, *Handbook of Entrepreneurial Dynamics* (pp. 285–298). Newbury Park, CA: SAGE Publications Ltd.

Gartner, W., Carter, N., & Reynolds, P. (2004). Business Start-up Activities. In W. Gartner, K. Shaver, N. Carter, & P. Reynolds, *Handbook of Entrepreneurial Dynamics* (pp. 285–299). Newbury Park, CA: SAGE Publications Ltd.

Gibbs, A. (1997, Winter). Focus Groups. Social Research Update .

GoM. (1999). Micro and Small Enterprise Policy Statement. Lilongwe: Government of Malawi.

Herron, L., & Robinson Jr., R. (1993). A structural model of the effects of entrepreneurial characteristics on venture performance. *Journal of Business Venturing*, 281-294.

Hornaday, J., & Aboud, J. (1971). Characteristics of succesful entrepreneurs. *Personnel Psychology*, 24, 141-153.

IBAM. (2008). Indegenous Business Association of Malawi . Blantyre: IBAM.

Iowa State University. (2004). Focus Group Fundamentals. Ames: University Extension.

Jiménez, G., & Saurina, J. (2002). *Loan Characteristics and Credit Risk.* Madrid: Bank of Spain. Directorate-General of Regulation.

Karlan, D., & Valdivia, M. (2006). *Teaching Entrepreneurship: Impact of Business Training on Microfinance Clients and Institutions.* Center for Global Development.

Improving risk rating methodology to support and foster MSME lending in Malawi

Katz, J., & Gartner, W. (1988). Properties of emerging organizations. *Academy of Management Review*, 429–441.

Kolvareid, L., & Isaken, E. (2006). New business start-up and subsequent entry into selfemployment. *Journal of Business Venturing*, 866–885.

Kolvereid, L. (1996). Prediction of self-employment intentions. *Entrepreneurship Theory and Practise*, 47-57.

Lahti, R. (1999). Identifying and Integrating Individual Level and Organizational Level Core Competencies. *Journal of Business and Psychology*, *14* (1), 59-75.

Littunen, H. (2000). Entrepreneurship and the characteristics of the entrepreneurial personality. *International Journal of Entrepreneurial Behaviour & Research , 6* (6), 295-309.

MacMillan, I., Siegel, R., & Subba Narasimha, P. (1985). Criteria used by venture capitalists to evaluate new venture proposals. *Journal of Business Venturing*, 119-128.

Man, T., Lau, T., & Chan, K. (2002). The competitiveness of small and medium enterprises: A conceptualization with focus on entrepreneurial competencies. *Journal of Business Venturing*, *17*, 123–142.

Mancini, A., Yee, M., & Jain, S. (2008). SME Lending in Africa: Challenges, current trends and USAID initiatives. *Banking on the Future: Lending to African Small and Medium Enterprises.* Johannesburg: USAID.

Masukare, O., Henson, S., & Cranfield, J. (2007). Performance of microenterprises in Ghana. *InFERG*, Working Paper No. 1.

Matthews, G., Deary, I., & Whiteman, M. (2003). *Personality Traits* (2nd Edition ed.). Cambridge: Cambridge University Press.

McPherson, M. (1996). Growth of micro and small enterprises in Southern Africa. *Journal of Development Economics*, 253-277.

Mead, D., & Liedholm, C. (1998). The Dynamics of Micro and Small Enterprises in Developing Countries. *World Development*, 26 (1), 61-74.

Moen, & McClure. (1997). Focus group methodology.

Moyo, D. (2009). Dead Aid. London: Allen Lane.

Murphy, G., Trailer, J., & Hill, R. (1996). Measuring performance in entrepreneurship. *Journal* of Business Research , 36 (1), 15-23.

National Statistical Office of Malawi. (2008). 2008 Population and Housing Census Results. Retrieved January 28, 2010, from National Statistical Office of Malawi: http://www.nso.malawi.net/

Pasanen, M. (2003). In Search of Factors Affecting SME Performance. Kuopio: Kuopio University Library.

Rauch, A., & Frese, M. (2000). Psychological approaches to entrepreneurial success: A general model and an overview of findings. In C. Cooper, & I. Robertson, *International Review of Industrial and Organizational Psychology* (pp. 101-142). Chichester: Wiley.

Reserve Bank of Malawi. (2010). *Economic & Financial Statements*. Retrieved March 2, 2010, from Reserve Bank of Malawi: http://www.rbm.mw/data/ecodata/index.asp?content=inflation

Schreiner, M. (2000). Credit Scoring for Microfinance: Can It Work. *Journal of Microfinance , 2* (2), 105-118.

Society of Accountants in Malawi. (2007, June 21). *Report on the Observance of Standards and Codes(ROSC)*. Retrieved June 27, 2010, from Society of Accountants in Malawi: http://www.socam.mw/docs/rosc%20accounting.pdf

USAID. (2008). SME lending in Africa: Challenges, current trends and USAID initiatives. Washington, D.C.: USAID.

Venkatraman, N., & Ramanujam, V. (1986). Measurement of Business Performance in Strategy Research: A Comparison of Approaches. *Academy of Management Review*, *11* (4), 801-814.

VentureLab Twente. (2008). Participant Profile Survey. Enschede: VentureLab Twente.

Appendices

Appendix I – Questions Semi structured interview

Basics:

- Name
- Gender
- Year the business started
- Number of employees
- Weekly/Yearly turnover
- Location
- Trade/Service/Production
- How many people are working within your business
- Is your business registered

Product

- What is the product
- What kind of raw materials are used to produce it
- How does the production process look like?
- What kind of technology is used during the process
- Price calculation

Customers

- Easy to find customers
- Number of (returning) customers
- Stay involved with customer needs
- Unique selling point/why choose customers you

Entrepreneur

- What kind of school/training
- Experience in this kind of business
- Skills you have (to outperform others)
- Characteristics

Business

- Why did you start your business?
- How did you choose the location of your company
- How do you manage your finance
- How do you do your bookkeeping
- What kind of plans do you make for your business
- Biggest issue to prevent your business from growing
- Is your business sometimes hindered by any regulations or so
- Reasons to lack repaying one or more loan installments

Appendix II – Entrepreneurial scan

			prene		hip Scan (-/ -	
Personal information							
1. Age:	2. Gen	der: male	/female		3. Number of D	ependants:	
4. Marital Status:			-				
5. What kind of educa	ation di	id you fin	ished?	0	Primary school		
		. ,		0	· · · ·	ool up to Junior	Certificate
					Secondary scho		
					Technical/voca		
					University Bach		
				0	-	-	
					ase specify:		
Business information							
6. Type of business:		Trade	Specify:				
	-	Service					
	0	Manufac	tering				
7. For how long have	you rui	n this bus	iness ?		Less than 1 yea		
					Between 1 and		
8. Number of owners					Between 3 and	•	
9. Number of employ	ees .			0	More than 5 ye	ars	
10. Company's Legal S	Status		0 Limite	d Com	nany		
					torship		
			0 Partne		ionality in the second s		
			0 Individ				
			-				
11. Average weekly/n	nonthly	//yearly*	turnover :			MKW	
			ppropriate				
Any relevant informa	tion fo	or this ap	plication:				

Entrepreneurship Scan 2/6

To what extent are you confident that you can perform the following tasks successfully?

	Not at all confident					Very confident
1	I see new market opportunities for new products/services	0	0	0	0	0
2	I discover new ways to improve existing products/services	0	0	0	0	0
3	I identify new areas for potential growth	0	0	0	0	0
4	I create product/services that fulfill unmet customer needs	0	0	0	0	0
5	I am able to obtain sufficient funds for future growth	0	0	0	0	0
6	I develop and maintain favorable relationships with potential investors	0	0	0	0	0
7	I identify potential sources of funding for investments	0	0	0	0	0
8	I work productively under continuous stress, pressure and conflict	0	0	0	0	0
9	I tolerate unexpected changes in business conditions	0	0	0	0	0
10	I persist in the face of adversity	0	0	0	0	0
11	I take calculated risks	0	0	0	0	0
12	I make decisions under uncertainty and risk	0	0	0	0	0
13	I manage expenses	0	0	0	0	0
14	I control business costs	0	0	0	0	0
15	I manage cash flows.	0	0	0	0	0

Entrepreneurship Scan 3/6

Please indicate which of the following activities you have done before. Please make a response in each row of the table.

		Yes	No
1	Spent a lot of time thinking about starting a business	0	0
2	Took classes or workshops on starting a business	0	0
3	Saved money to invest in a business	0	0
4	Invested own money in a business	0	0
5	Developed a prototype, model or procedures for the product/service	0	0
6	Defined market opportunities	0	0
7	Purchased raw materials, inventory, or supplies	0	0
8	Prepared a business plan	0	0
9	Organized a start-up team	0	0
10	Purchased or leased major items like equipment, facilities or property	0	0
11	Started marketing or promotional activities	0	0
12	Arranged child care or household help to allow time for business	0	0
13	Established credit from a supplier	0	0
14	Filed income tax return	0	0
15	Devoted full time to business	0	0
16	Applied for a patent, copyright, or trademark	0	0
17	Developed projected financial statements	0	0
18	Opened a bank account exclusively for a business	0	0
19	Received money, income, or fees from sale of products or services	0	0
20	Asked financial institutions or people for funds	0	0
21	Received funds from financial institutions or people	0	0
22	Hired employees or managers	0	0
23	Paid income taxes for income generated through a business	0	0
24	Realized monthly revenues that exceeded monthly expenses	0	0
25	Had a separate phone listing for a business	0	0
26	Had a separate phone line for a business	0	0
27	Had a website exclusively devoted to a business	0	0
28	Registered a business officially	0	0

Entrepreneurship Scan 4/6

Please indicate your own personal feelings about each statement below by checking the box that best describes your attitude or feeling. Please be very truthful and describe yourself as you really are, not as you would like to be.

	I strongly agree						I strongly disagree
				~			uisagree
1	I directly tell people what I think of them.	0	0	0	0	0	
2	I immediately feel comfortable with people I don't know.	0	-	-	-	-	
3	During negotiations I always get what I want.	0	0	0	0	0	
4	I feel comfortable when others decide for me.	0	0	0	-		
5	I always keep a goal in mind, without a goal my achievements are less.	0	0	0	0	0	
6	I often go out to meet other who are could become important for my wo						
7	I make a risk assessment before I will invest any money.	0	0	0	0	0	
8	I know exactly why people come to me to buy.	0	0	0	0	0	
9	I like delegating to others.	0	0	0	0	0	
10	Everything I like to achieve succeeds.	0	0	0	0	0	
11	I am always honest.	0	0	0	0	0	
12	I am very comfortable with day dreaming	0	0	0	0	0	
13	I adapt myself to any situation.	0	0	0	0	0	
14	I feel uncomfortable with changing situations.	0	0	0	0	0	
15	I accept to work according to others ideas	0	0	0	0	0	
16	From the moment I start something new, I know it will succeed.	0	0	0	0	0	
17	I always want to achieve better than others.	0	0	0	0	0	
18	I avoid uncertain situations.	0	0	0	0	0	
19	I feel comfortable following others decisions.	0	0	0	0	0	
20	I always tell the truth.	0	0	0	0	0	
21	I am likely to tell others how to work.	0	0	0	0	0	
22	I continue working when I am tired.	0	0	0	0	0	
23	I am more likely to set feasible goals, than challenging goals	0	0	0	0	0	
24	I like to experiment although there is some risk involved.	0	0	0	0	0	
25	I always want to decide on my own.	0	0	0	0	0	
26	I fancy very often.	0	0	0	0	0	
27	I decide for myself, others do not have to do that for me.	0	0	0	0	0	
28	I keep tight contacts with my potential customers.	0	0	0	0	0	

Entrepreneurship Scan 5/6

							I strongly
	I strongly agree						disagree
29	I don't know much about the needs of my customers.	0	0	0	0	0	
30	I don't like others telling me what to do.	0	0	0	0	0	
31	I always continue until I reach my goal.	0	0	0	0	0	
32	I am likely to get others to do what I am asking them.	0	0	0	0	0	
33		0	0	0	0	0	
	I easily accept that other people are better in my job than I am.	0	0	0		0	
34	I keep going till I have acheived my plans.	0	0	0	0	0	
35	I judge people whether they can become benificial for me.	0	0	0	0	0	
36	I always have something when I start a chat with someone.	0	0	0	0	0	
37	I feel comfortable making my decision together with others	0	0	0	0	0	
38	I have got a thorough plan to get in touch with new customers.	0	0	0	0	0	
39	I can learn everything when I like to.	0	0	0	0	0	
40	My plans are very related to my customers demand.	0	0	0	0	0	
41	I often see things around me I want to change.	0	0	0	0	0	
42	I often resist when things do not go according to my plan.	0	0	0	0	0	
43	There are less people with whom I cannot work with.	0	0	0	0	0	
44	I try to be aware of what my competitors are doing.	0	0	0	0	0	
45	In case of problems with others it is always because of them.	0	0	0	0	0	
46	I want to decide what others will do.	0	0	0	0	0	
47	I want to achieve a lot.	0	0	0	0	0	
48	I tell everyone about my bad characteristics	0	0	0	0	0	
49	It gives me a feel of power when others do what I tell them to do.	0	0	0	0	0	
50	When working, I require myself a lot.	0	0	0	0	0	
51	It is difficult for me to start working.	0	0	0	0	0	
52	It is hard for me to think about new solutions.	0	0	0	0	0	
53	Luck is the most important factor of things I achieved.	0	0	0	0	0	
54	I read every publication about my occupation.	0	0	0	0	0	
55	It is hard for me to find people who want to buy my products.	0	0	0	0	0	
56	Other people know directly how I am.	0	0	0	0	0	
57		0	0	0	0	0	
21	I often win, although I sometimes propose weak arguments.						
58	Whatever I do, I first set myself a goal.	0	0	0	0	0	
59		0	0	0	0	0	
60	In case of difficulties I continue till they are solved.	0	0	0	0	0	

Entrepreneurship Scan 6/6

							I strongly
	I strongly agree						disagree
61	My achievements are better without than with a goal ahead.	0	0	0	0	0	
62	In my company I tell what we are going to do.	0	0	0	0	0	
63	When I do nothing special I often get the best ideas.	0	0	0	0	0	
64	It is hard for me to convince others.	0	0	0	0	0	
65	It is hard for me to start a chat with others.	0	0	0	0	0	
66	I often see opportunities in the market.	0	0	0	0	0	
67	I will always do what I have promised.	0	0	0	0	0	
68	Whatever I do, I'll achieve it on my own.	0	0	0	0	0	
69	I would like to have everyone as a customer.	0	0	0	0	0	
70	I try to solve problems on my own before searching for any help.	0	0	0	0	0	
71	My plans always succeed.	0	0	0	0	0	
72	When I start something, I continue working till it is finished.	0	0	0	0	0	
73	When things go really against me, I am on my best $% \mathcal{T}_{\mathrm{rel}}$ and will get motivate	0	0	0	0	0	
74	If work goes against me for a long time it is difficult to continue.	0	0	0	0	0	
75	I often make a chat with other people.	0	0	0	0	0	
76	It is hard to get in touch with people who are higher in the hierarchy or \boldsymbol{v}	0	0	0	0	0	
77	To achieve something difficult I will work tirelessly.	0	0	0	0	0	
78	I will always try to win.	0	0	0	0	0	
79	You should take business as it is, you cannot influence a lot.	0	0	0	0	0	
80	It is hard for me to convince others what I want to do.	0	0	0	0	0	
81	I prefer listening to other than talking myself.	0	0	0	0	0	

	Entrepreneurship Scan
General questions about	the firm:
	/ why this location / bookkeeping / future planning / issues that prevent growing / d by regulations / reasons to lack loan installments / loans / bank accounts)
Product (specification/	'raw materials used/production process/used technology/price calculation):
Customers (number of	/% returning / easiness to get new / USP}:
	is education or training / experience / skills to run you business / characteristics / success):

				Zingwangwa					Chilomoni			
		Welder		Butcher	Tailor	Internet &	Cloths and	Crorery	307410	Poultry farmer	Carnenter	Clothing &
		veluei	alocely 2	3	4	stationery 5	giucery 6	7	cui yus	6		11
1. Age:		24	24	27	38	27	25	46	57	40	47	22
2. Gender: Ma	Male	1	1	1	1		1			1	1	1
Fei	Female					1		1	1			
3. Marital Status: No	Not Married	1	1	1			1					1
Mã	Married				1	1		1	1	1	1	
Dependa	:5	0	0	5	20	5	3	0	2	9	10	0
5. Education Pri	Primary school				1						1	
	Sec. school up to Junior Certificate	ficate						1				
Sei	Sec. school finished MSCE	1	1			1	1		1	1		
Tei	Technical/vocational training	50		1								
n	University Bachelor degree											-
Nn	University Master degree											
6. Type of business: Tra	Trade		1	1			1	1		1		1
Se	Service					1						
Mã	Manufactering	1			1				1		1	
7. Time in business Let	Less than 1 year						1			1		
Be	Between 1 and 3 years	1		1								
Be	Between 3 and 5 years		1			1						
Mc	More than 5 years				1			1	1		1	1
8. Number of owners:		2	2	1	1	2	3	1	1	1	1	2
9. Number of employees		2	2	2	1	3	1	1	2	1	1	5
10. Company's Legal Limited Company	nited Company											
Status: So	Status: Sole Proprietorship	1	1	1	1			1			1	
Pa	Partnership						1					1
Inc	Individual					1			1	1		
11. Average turnover : weekly*	sekly*		100000	18000	1000	40000	8000					500000
mc	monthly*								160000	30000	25000	
ye	yearly*	50000						30000				
Experience yes	S	20	10	13	6	14	12	17	17	ъ	13	20
ou		8	18	9	14	13	16	11	11	23	15	7
Capabilities score		50	42	30	0	38	55	40	48	43	42	38
Creativity		23	25	12	∞	22	12	24	23	20	25	18
Dominance		26	13	22	0	28	16	16	25	28	27	19
Effectiveness		18	20	18	∞	29	15	24	23	19	19	19
Flexibility		10	6	8	∞	7	8	4	10	8	12	6
Market orientation		24	20	20	20	24	Э	28	32	28	27	28
Need for Achievement		27	29	30	16	22	13	32	37	30	28	27
Need for Autonomy		17	14	14	16	10	6	20	22	22	21	13
Perseverance		23	25	18	12	23	4	32	27	27	20	19
Social Desirability		20	15	19	16	14	4	28	23	18	19	17
Contraction Output		70	17	1,	, ,	,	Ţ	c	7	(

Appendix III - Entrepreneurship scan results

Appendix IV - Focus Group Discussions

Focus group discussion I held on February 11, 2010

INTRODUCTION

Bank Official:

Like I said before, the Bank wants to know and understand the environment of SMEs, how they are run and the problems they face.

Customer (interruption):

What do you mean when you say Small and Medium Enterprises?

Bank Official:

I mean those businesses which are different from the big ones, in a sense of size and other advantages. Those businesses which are able to go to any financial institution to get a credit facility without hassle on issues of security. A small business is one which is a startup or is existing which cannot provide collateral for a credit facility if asked. If it is a big business and it wants a MK5 million from the bank, and if it asked on what business it does, how do you run it, and what collateral will you provide against the credit facility, they cannot have a problem.

The Bank wants to find out if there is a way in which SMEs can be given a loan without collateral, but based on type of business, how it is run, even without collateral the business can repay the facility. That is why we are able to differentiate the small businesses from the small ones.

So I have questions here which you should discuss in order to find these ways.

THE SESSION

QUESTION ONE:

Why do people start a business in Malawi?

Customer 1:

There are not many companies to employ people if matched to the population. Secondly, most people are not educated to meet the needs and requirements of these companies. Thirdly, people see a business as a survival tool kit as they see it as the only way to survive than working for somebody else. Even though, they do those businesses, they do not take them far because they are hand-to-mouth type of businesses. That's what happens, that's how these businesses are started, as there are not many jobs to cater for the economically active.

Customer 2:

Even for those who are working in companies, you do a job for which you are getting MK20,000.00 a month and you stay in Lunzu. Transportation cost to and from work is MK200.00 per day, and if you multiply it by thirty working days you spend MK6,000.00 only on transportation.
Still you will have to pay your rentals and take care of your family and children. The job that you do is too much, and does not match with the salary you are paid. So to make ends meet, you start a business with MK20,000.00 and earn a profit of MK5,000.00. In three months you find yourself increasing profits in your business and you can do something worthwhile. In a company, it would take long for you to get a raise to that magnitude. That is why when you start a business you see yourself making progress. You work to be your own employer and boss. What is common here in Malawi is it is the employees who make these businessmen rich at their own expense as they do not pay us accordingly. People with businesses are the ones who have a lot of money than the employees as they keep the money to themselves.

Bank Official:

Any other views?

Customer 3:

The other reason is population arising from high birth rates, and companies are not enough to employ all eligible people. So the best option is to start a business to survive as there is nothing for the economically active to do.

Customer 2:

Despite population being a contributing factor, companies find themselves in need of employees. Most of them put up conditions which do not favor the candidates. For example, they might indicate they want a Secretary with three years experience, a candidate who has just graduated. Where is the candidate going to get that experience as she has just come out of school?

Customer 4:

To add on the points under discussion, life has undergone through a lot of changes. Everyone wants to have money. As such, we do businesses because it is one of the ways of getting money. So we do the businesses to get not just enough money, but more money as human needs are also a progressive component.

Customer 5:

But you can also do businesses to earn extra income.

QUESTION TWO:

How do you define an entrepreneur?

Customer 6:

People who do business, a good example can those who import supplies from abroad like Dubai and China.

Customer 5:

Sometimes we define an entrepreneur by looking at the involvement of a person in participatory groups of business consultancies and trainings. There, we look at the status and from it we are able to tell that this person runs a business and its going well or it is facing problems.

Customer 6:

A person who has an established place to do a business.

Customer 1:

In addition, an entrepreneur is a person who has an established place to do a business and others carry bags to offices for people to buy and earn the same living as the ones in offices.

Customer 5:

People who go to regular business meetings and trainings on how to run businesses.

Customer 2:

A person who is involved in any business activity and one who has business networks.

QUESTION THREE:

What is Success?

Customer 1:

The success of the business depends on the product the business is selling and the way he advertises it. Some prefer to do business and expect people to find him/her at his premises without him/her exerting any effort. Others prefer to do so through advertising since they have competitors who offer a lower price than them to increase turnover. The problem with black people is we want to make high profits at once. As such, we offer high mark-up prices to make quick profits and this repels people to start buying from your competition. It does not make sense for a person who is selling a homogeneous product to mark a high price for it. It is why I am saying that given enough money we can buy a lot of heterogeneous goods and gives a low mark-up price for them. If we reduce our mark-up prices we can increase turnover and our inventory in the shops. We might sell the products at low prices which will result in making high profits in the long run.

Customer 6:

You have asked how we know a person who is succeeding in his business. We start by reviewing the history of the business. At start-up, you can see that the shop is not filled up to the maximum with goods. Then after three to four months, you can see the shop filled up to the brim with goods. So we say that that man is doing well in his business because we see how the business is run, and from our frequent visits to the shop. Furthermore, we also see how many trips he is making abroad to get supplies, and also how frequently he goes to the bank to make deposits.

Customer 1:

Some even go abroad and get more goods than the money they have to clear them off with the customs. So they can come to us as fellow businessmen for assistance. That is why when we heard that FMB wants to start lending out to SMEs we hurried to this place to participate in this exercise and see how we can be assisted.

Customer 6:

I hurried to this place because I took this as an opportunity for me and my business since I hold that FMB is bigger than OIBM. Since OIBM does not take long to give out credit facilities, I held that maybe FMB will help us.

Customer 5:

The success of the business is a secret which is known to the real owner of the business. I can tell someone that I have started the business with MK500,000.00 and I go I get supplies with it. It will be difficult for others to know that I am succeeding in my business since it is like I am putting all my eggs in one basket. That is why it is very important for banks to assist businesses which are starting up to do well because if they do well others take note of our activities. If our businesses get a boost we would be able to employ others. So when we employ people then the business is doing well.

Customer 6:

If the business is able to employ an adequate number of people in the communities. People who are employed to take care of the goods for the business.

Customer 2:

If a customer is able to get a credit facility from the bank and increase his inventory, people will look at the increase in inventory as a success in the business. If people see a container dispatching supplies at your shop they will define that as success. Even when you lifestyle changes, they define that as success.

Customer 6:

Since most SME owners do not do much travelling to get supplies, they will hold that your business is doing well when they see us travelling abroad to get supplies.

Customer 4:

If a business owner is able to support his family and dependents easily, then his business is successful.

Customer 7:

If the business is able to take into the business some of the owner's dependents as employees or apprentices. We did not go to school but given sufficient capital we can grow our businesses and become successful by employing people who are disadvantaged as we were.

Customer 5:

A person who is able to grow and run a business easily and smoothly even if he is not able to get a credit facility or any help from the bank.

Focus group discussion II held on February 26, 2010

Q1 why do people start a business in Malawi?

Customer 1

Because people do not have jobs.

Customer 2

Because people observe and develop an interest in that kind of business. It is not that you had an interest in mind that you wanted to do that business but that his family started doing that business. Interest then develops with time for you to start doing that business.

Customer 3

We also start businesses for self-development. You can reflect on how to do something for your personal development. That is why some people prefer to do business to working. Others know that they are not much educated to get a better job. So they resort to starting a business.

Customer 1

Good example is when I started to work hand in hand with my Aunt long ago. After learning this line of work I went abroad the same thing I was doing here. Upon seeing the treating I was getting at work and how different it was from my Aunt's during my apprenticeship, I started asking myself questions. Then I realized that I can do it on own.

If you have an interest, and you know how to talk to people, then you have all it takes to start a business so that you can comfortably assist your dependents, and develop yourself. So people start a business because of low salaries they get from their employers; to develop themselves; to avoid unfair treatment from their employers. That is why I ventured into the business that I was already exposed to.

Q2 how do you define an entrepreneur?

Customer 2

An entrepreneur is a person who I can see with my own eyes doing a business to earn a living. A person who goes outside the country to get something to sell here as compared to a person with a suitcase is what I call an entrepreneur.

Customer 1

A person with an established place where he does a business; delivers goods and offers services in good time to meet customer's needs; and builds a relationship with them.

Bank Official

What about those without a permanent place of doing business?

Customer 2

If they demonstrate that they sell and generate income from it, then they are.

Customer 1

Yes, we call him an entrepreneur.

Customer 3

But you are saying he has no office? That he has no established place for a business

Bank Official

Yes those who make a commitment to do business with a customer. A commitment to meet the needs and wants of the customer

Customer 4

Let me ask a question. What about if he stays for like six months without customer orders?

Customer 3

It's a kind of both. He can be called an entrepreneur or not. He is unreliable and as such you can define him as a serious entrepreneur.

Q3 what is success in business?

Customer 2

Profit is the main determinant. Your turnover can be good but if it is not enough to cover your expenses and have something for yourself then you are not being successful.

Customer 5

In short, it depends with the type of business you are doing. Like in my case, I do a stationery business. That means I need to have enough inventory so that when a customer comes and asks for something I should be able to provide it. After some time it should be able to demonstrate that the goods I sell are always there, and that I am able to satisfy a lot of customers without having to worry about stock-outs.

Customer 1

To add on that, my understanding is this: since I run a restaurant business, when my relationship with my customers or suppliers is improving in a way that I am paying them on time, and they are supplying me with foodstuff on time, then my business is doing well. If I get a loan from a bank, and I am able to repay it; I am able to pay my rentals; my financial advisors are getting paid for their services; and are saying that my accounting books are showing satisfactory performance, then my business is doing well.

Customer 4

Like I said before, if you have money to spend outside your business (and people are able to see that) without putting a strain on your business then your business is doing well.

We all start businesses because we have personal needs to meet. If we sell goods or offer services and be able to cover our expenses, and we are able to realize profits from them which in turn we spend to meet all our personal needs like paying for children's school fees; buying food for the household, then that is success.

Q4 What is failure?

Customer 3

- a. Not having enough inventory to meet customer needs
- b. Not being able to recover your start-up capital; and
- c. Your standards of living going down.

Customer 5

Overambitious: People do not match their start-up or working capital with their business aspirations or personal goals. It can also mean that he is not meeting his ambitions.

Customer 2

- a. A business without continuous learning and sharing of ideas
- b. Resistance to change
- c. Inability to adapt to ever changing business environment and changing ways of doing business

Customer 1

a. Inability to be creative. Most of business owners are copycats. They are not creative enough to their business friends on how to improve on their businesses.

Q5 what do you need to become successful?

Customer 1

- a. Business training. Like in other countries, banks play this role by organizing the training in open universities;
- b. Good customer contacts

Q6 why do some businesses have troubles with running it? /what leads to business failure?

Customer 2

Some people refuse to change their old ways of doing businesses. The way their parents used to run the business they want to run it the same way.

Customer 1

The main business problems we have here in Malawi are:

- a. Accountability: people do not know how to keep records for their business. They cannot monitor progress very well because of this.
- b. Poor customer contacts
- c. Banks do not support indigenous businesses through credit facilities or training on how to run business effectively and efficiently if granted a credit facility.
- d. Limited business knowledge because of lack of financial literacy
- e. Poor succession planning. For example, the Yiannakis Family is doing well because of good succession plan.

Customer 4

To say the truth, other reasons are obsolete products; lack of proper intelligence in line with your business; accountability; and lack of research on the business you are doing.

Customer 2

Financial literacy is limited; poor customer relationship management; and lack of discipline in business

Customer 3

Management and lack of proper succession planning

Q7 how can a bank assess whether you are able to repay a loan?

Customer 5

The bank can do the following:

- a. It can look at the experience of the person running the business and his qualifications (level of education);
- b. It can also look critically at the business records and its banking records;
- c. It can visit the customer to have a look at his business;
- d. It can look at his tax returns to see if his business is able to pay taxes;
- e. If I have multiple bankers, the bank has to probe to find out why that is the case.

Customer 1

The bank can do as follows:

- a. Make frequent customer visits;
- b. Talking to the business's auditors and customers

QUESTION FOUR

What is failure in business?

Customer 1:

Like here in Malawi, most Malawians are not able to collect your dues from the debtors as most is done on relationship basis. The debtors are not trustworthy and we end up giving up on them.

Customer 4:

Another problem is that we do assist each other. Like you know the businesses we do and when we fail you know why. We have never gone far with our education. Most businesses in advanced countries are run well because they are exposed to training and education. We know how to run businesses but we do not know how to keep records for the business. In fact, we cannot foresee a business's downfall but we know that you as banks can tell if our businesses are doing well or are destined for a downfall.

We do not even review trends and records to see our progress. This is why businesses fail. If the businesses do not grow or able to counter competition, it is part of failure. Even when a person gets a credit facility from the bank, he cannot monitor his cash flow very well because he doesn't know cash flow management. As such, this is also leads to business downfall. This is part of business failure.

Customer 6:

Lack of getting support from reliable people is also failure in business. This is a result of jealousy from close friends and other people in the communities. They see that you sell a reliable product able to meet their needs but they prefer to buy it from the Asian Traders. With that a business cannot stand for long. In addition, failure to secure start-up and maintenance capital leads to failure in business. In short, we can say failure in getting capital is also failure in business.

Customer 2:

Some businesses do not do well because they fail to get start-up capital. Banks prefer to do business with big businesses like Countrywide Car Hire because of their structure, size, and status in the community. They can be given something like MK20 million whereas myself I cannot get it. Even if I get it how am I going to pay it back because I have struggled to get it? It is because of the problems we face with our dependents we find ourselves using the same part of the loan granted for household use. As such, we are reducing the amount for the purpose required which also makes payment difficult. Banks also expect installment of the loan the same month or week I was granted the loan.

Customer 4:

Banks offer stiff conditions on loan repayment which force customers to bankruptcy. So failure to do repay the loan is also failure in business.

Customer 1:

Lack of a proper consultant to assist in the running of the business. This makes the loan to be misused and thus leading to business failure.

QUESTION FIVE

What do you need to become successful?

Customer 6:

We need adequate foreign exchange which is very useful in our businesses. We can go outside the country to get our supplies if we cannot get enough foreign currency here. Once you have enough funds you have to go and procure your supplies, you do not have to wait.

Customer 1:

We are not able to manufacture enough goods here. Most of the goods are bought from abroad. As such, we all have to go outside the country to buy goods for our shops to sell. In most cases, we rely on banks to assist us in this area whether in form of financial assistance like getting credit facilities or in form of having equal access to getting foreign currency.

The banks have to understand that when we get a loan we cannot pay it back if we do not get the goods, and we end up having nothing to sell. How can you pay back the loan if cannot sell? So when we have an order and we come to the bank for assistance the bank has to consider because from the order we can pay the credit facility.

Customer 7:

Our business premises cannot be compared to that of the Asian traders. Asian traders are wellpositioned where customers can find them easily, where customers would not have reservations when going to buy something. That is also why Asian traders do well than us because of the location of the business premises. If we try to rent these buildings, we are charged exorbitant rentals whereas if fellow Asians go there they are charged fair rentals. It is really unfair.

Bank Official:

How can the problem be addressed?

Customer 1:

To solve it, people doing small businesses can come together and find a place where we can build our own infrastructure from which we can operate our businesses. People can invest in these infrastructures, which can be used by indigenous businesses which can afford to pay the rentals there.

Customer 6:

We can design and build our own buildings fitting indigenous businesses and people can pay affordable sum for the rent.

Customer 4:

Like me and my friend here (referring to customer 6), we can come together and rent a shop to operate our own businesses there. We can get a shop which would have been impossible for me to get. We can share 50/50 towards the rental.

Customer 5:

Even as a group, we can get a very big building and contribute towards the rental.

Customer 6:

Like I said before, we (pointing to customer 4) can get a shop for ourselves and do businesses there. If it costs us MWK 40,000.00 we can contribute 50% each towards it.

Customer 2:

On that note, we can find ourselves competing with the Asians.

Customer 5:

The advantage the Asian traders have on us (indigenous business owners) is that their businesses are family-owned and they have pooling of funds, whereas we operate our businesses as individuals who are poor. That is why in our big communities you find that it is only a few people who are doing well we can only succeed if we can come together as a group, which is as big as this one. In that way, we can operate the businesses the way the Asians do.

Bank official:

Any other need for one to be successful?

Customer 6:

SMEs should have a fair access to credit facilities. FMB should try its best to as its slogan illustrates that "you first." I am saying this because I have never seen an SME given a credit facility of at least MK2 million.

Customer 5:

Not giving someone MK1 million when his business plan indicates that he wants MK5 million. What is he going to with a million kwacha? He ends up spending it unnecessarily and on trivial things. That ends up with a person failing even to service the loan.

Customer 1:

Another thing is the loan should have a holiday (moratorium). You can imagine I go to Dubai. I procure my goods there and load them in a container. For my container to be here, it would take a month. So how can I pay even if my goods have not been cleared and sold? You want even a person to pay a loan the same week it was granted. How can a person afford that? That should also be looked into.

Customer 8:

That is true because you end up getting all your savings to repay the loan which is not even good.

Customer 4:

Banks needs to be our partners, and not to rip us off. I am saying because it appears you want to help us. So help us, do not drag us down.

QUESTION SIX

Why do businesses fail?

Lack of proper training

Malawians do not have proper and adequate financial education and management skills

Banks do not give advice. For instance, they know how your business should operate. They can even tell whether you are making progress or not. Even if they see that they cannot give you proper advice. They ignore you as if they do not have financial interest in you.

Lack of proper infrastructure to operate a business.

QUESTION SEVEN

How can a bank assess whether you are able to repay a loan?

Customer 6:

The bank can do that by first employing enough people who can visit our business premises and see how we run our businesses and be able to assess the size and capability of repaying credit facilities if granted. In fact, I am saying this by assuming that you do not have enough workforces in this area of SME lending.

Customer 1:

The bank should also consider a joint liability lending where if one has a problem, we, as a group, can assist each other in meeting our obligations. If one is playful, the group can caution him. In addition, we can do group meetings to review progress, and discuss problems we are meeting.

Customer 8:

If one is doing a business and is not yielding results, the group can assist him, and if need be, advise him on changing a line of business.

									Session 1	n 1					Session 2		
				Outlet spare	Carappo /	Workshop Foultry Sev	Service &	he althcare Hair & Beauty Saloon	Shoes for shop	səuoyd snau	Accessory Phonerepairing	Restaurant & Lodge	Stationery	ی که می که می مربع می که می ک مربع می که می ک	qo: Repair service & stationery	Drugstore	
		TOTAL	MEAN	7	2	m	4	ß	9			1	ß	æ	4	2	
1. Age :				51	32	46	32	28	36	35	38	36	39	37	30	55	
2. Gender:	Male	6		1	1		1		1	1	1	1	1		1		
	Female	2				H		ч						1		сı	
3. Marital Status:	Not Married	1						7								1	рРС
	Married	7		н	7	-1	-1				1	-1		-1	-1		
4. Number of	4. Number of Dependants:	113	8,69	9	20	10	10	5	6	10	14	15	5	е	2	4	
5. Education	5. Education Primary school	2							1		1						<i>ا</i> حر
	Sec. school up to JC	0															
	Sec. school finished MSCE	з		-	-	1								Ч			
	Technical/vocational training	m				Ч	Ч	ч				1			Ч	Ч	
	University Bachelor degree	0															
	University Master degree	0															
6. Type of business:	Trade	5		-		-	1		-	1			1	1	1		
	Service	æ			1		1				1	1			1	1	
	Manufactering	0															
7. Time in business	Less than 1 year	0															
	Between 1 and 3 years	1					1										
	Between 3 and 5 years	3				Ч		1			1						
	More than 5 years	3		1	1				1			1	1	1	1	1	
8. Number of owners:	f owners :		1,08	1	1	1	1	1	1	1	1	1	1	1	2	1	
9. Number of employees	f employees		8,46	16	20	9	4	8	12	4	9	12	5	4	7	9	
10. Company	10. Company's Legal Status:																
	Limited Company	0															
	Sole Proprietorship	6		1	1		Ч		Ч	1	1	1	Ч	1		1	
	Partnership	0													сı		
	Individual	2				1		1									
11. Average	monthly turnover in MWK :	`"	1,425 ml n	2,5 mln	n 1 mln	1 mln	200 thsnd	l 2,5 mln	2 mln	2 mIn	200 thsnd	250 ths nd	2 mln	200 ths nd	150 thsnd	300 ths nd	
Interested in Ioan									ļ								
amount			6,44 ml n	10 ml	n 10 mln	າ 5 mln	5 mln	7 mIn	5 mln	8 mIn	1,5 mln	3 mln	5 mln	1 mln	0,5 mln	2 mln	

Focus Group Participants