

FACTORS THAT INFLUENCE THE PRODUCTIVITY OF CREDIT OFFICERS IN MICROFINANCE INSTITUTIONS

by

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To my mother,
truly a woman of
substance

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DECLARATION

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

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This project has been submitted for examination with my approval as the University Supervisor.

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LIST OF ABBREVIATIONS

CO	Credit Officer(s)
DFID	Department for International Development
MFI	Microfinance Institution
K-Rep	Kenya Rural Enterprise Program
KWFT	Kenya Women Finance Trust
NCCK	National Council of Churches in Kenya
MSEs	Micro and Small Enterprises
SMEP	Small and Micro Enterprise Program
WEDCO	Women Economic Development Company

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ABSTRACT

This report presents the findings of a survey on the factors that affect the productivity of credit officers in Microfinance Institutions. The research was conducted in four of the leading MFIs that use the replica of Grameen model for providing credit to micro and small businesses. These model uses solidarity groups to facilitate provision of small loans to clients without collateral.

From best practice credit officers are expected to handle a range of between 300 to 500 active clients. From the findings of this study, most of the credit officers handle less than 300 active clients. This could be explained by the economic situation in the country whereby most credit clients are fearful of taking up loans because their businesses are not doing well. Because of the low client base the researcher used the mean value from the sample which was 230 active clients to differentiate the more from the less productive COs. It was noted that most of the COs had the expected average portfolio per client of Ksh.30,000. This signifies that they are serving the MSEs.

A productivity index for rating each the COs was developed using i) number of active clients; ii) the average number of loans falling into arrears; iii) the average number of defaulters; and iv) number of clients leaving the groups. The measures were given the weights of 0.6, 0.1, 0.2, and 0.1 respectively. The first measure had the highest weight since it is the one that is recommended according to best practise. However, productivity cannot be taken at face value

in a complex economy since there are several unattractive or negative outputs, which counter good output. For this reason, the researcher used the latter three measures to control or gauge the main output measure.

The six independent factors in the study were found to have a 9% effect on the productivity of the COs. The factor found to be most significant was experience. The COs with more experience were found to be more productive - the saying "experience is the best teacher" really applies. Education was not found to have any significant effect on productivity. The COs had either college diploma or university degree and the findings indicated that there was no difference in the productivity of COs regardless of their education level.

It was observed that one organisation was at expansion stage and had many new COs. These COs had very few groups and seemed to be doing promotion and mobilisation. For any organisation in an expansion stage, it is expected that its output or productivity to be low due to the new systems and staff are being employed.

This being an exploratory study there are many issues it has raised that need further research. An issue at hand is the education or qualification requirements of the credit officers. The other issue is the geographical coverage as most COs are concentrated in the same area and competition challenges have made them less productive.

CHAPTER ONE: INTRODUCTION

1.1 BACKGROUND

Microfinance is the provision of financial services to low-income, poor, and very poor self-employed people. The objective of microfinance is to alleviate poverty. Therefore, the clients of microfinance institutions comprise of two major categories: the first is the poor city dwellers mainly housed in slums or squatter settlement and lack education or skills that are essential to enter the mainstream economy. The second is the landless or land poor rural clients. Their land is often unproductive or lies outside irrigated areas. Therefore microfinance addresses one constraint faced by the poor: their shortage of material capital or input necessary to generate income.

Microfinance creates access to *productive capital*, which together with two other forms of capital – *human capital*, addressed through education and vocational training, and *social capital*, built through creating representative, local organisation building, promoting democratic systems, and strengthening human rights – enables people to move out of poverty¹. Microfinance enables poor self-employed people to create productive capital, to protect the capital they have, to deal with risk and to avoid the destruction of capital. It attempts to build assets and create wealth among people who lack them (Otero, 1999).

¹ Vernhagen, K. (1999) in "Toward a Misereor Sector Policy: Financial Systems Development" (Draft) distinguishes these three types of capital and their shortage for the poor. Microfinance directly addresses the shortage of material capital.

Microfinance institutions become part of the infrastructure of the country; that is they are distribution channels for deploying services that respond to the material capital needs of the poor. Governments' encounter daunting challenges in their endeavour to allocate increased resources to address the needs of the poor. They lack effective distribution channels or infrastructure necessary to convert economic growth into improved well being among the poorer sectors. Microfinance institutions incorporate the poorer sectors into the economy. They put capital in the hands of those who otherwise would not have it, and they enable people with few assets to save. Therefore institutional sustainability is crucial to the microfinance institutions. If the microfinance institutions are not financially solid, unable to cover their costs and incapable of delivering financial services over the long term, and become a transitory means of reaching the poor, they lose their punch as a component of a broader development strategy in any setting (Otero, 1999).

The biggest challenge in microfinance remains at the institutional level. Building permanent, sustainable institutions that deploy financial services to the poor and the very poor; and are directly linked to or are part of the country's financial systems remains an enormous task that has not been achieved by many microfinance institutions (Otero, 1999). The focus for the last few years has been on developing the managerial, technical and systems capacity within institutions to move them towards sustainability. The establishment of performance standards and other similar interventions that would enhance the creation of microfinance institutions that

reach the poor sectors of the society and at the same time achieve financial permanence has been the key focus (Haver, *et al* 1999).

In Kenya, failure to significantly increase the number of clients reached by microfinance has been identified as a major problem. An estimate of the potential client base for microfinance institutions ranges from 12 million people (Riria, 1999) down to 1.3 million SMEs' (1999 National Baseline Survey²). A mid-term DFID review report of December 1999, reported that the total number of people accessing microfinance from all microfinance institutions in the formal sector is around 70-80,000. Using the first of these, the 80,000 outreach indicates a market penetration of 0.66% and the second 6% (Havers, 1999).

Havers (1999) states that MFIs' have not reached as many people as they ought to and their costs are too high, negating their objectives of reaching the poor and becoming self-sufficient. It is suggested that the following measures should be taken:

- ◆ The MFIs' need to increase geographic coverage
- ◆ The MFIs' need to reduce their salary expenditure by employing non-graduates

The firms need to analyse carefully such moves since they may have adverse effect on their productivity and consequently, profitability. Productivity is of great importance to the operations managers and plays an important role in enhancing a firm's competitiveness (Aquilano & Chase, 1991).

² National MSE Baseline Survey 1999 (CBS, K-Rep, ICEG)

Productivity is a sensitive measure, which may be used to explain why institutions having the same resources and working in the same environment, achieve varying results. It is a measure of the efficiency and effectiveness with which resources are used to produce the output of goods and services of the quality needed by consumers and society in the long-term. Therefore, a firm that is to succeed is one that takes the question of productivity seriously.

Productivity measurement is one way of attaining a competitive edge. Non-profit organisations depend on budgetary allocations or donations and are to a great extent characterised by inefficiencies leading to high operating costs. Many of these organisations are currently facing challenges due to donor fatigue. There is a general need for these organisations to improve their productivity and efficiency, as the donors want to see the funds having a greater impact on the beneficiaries; and in the microfinance the organisations having a greater outreach and achieving financial viability.

The operations of a microfinance institution, like any other service organisation is dependent on its human resources. Human resources constitute the highest input requirement and therefore the productivity is to a greatest extent determined by their output. In an MFI, it is at the field office where "production" takes place and the productivity of the credit officers who are the key staff in operations is of highest importance. In many organisations operations account for 80% of the employees (Aquilano & Chase, 1991). This is true for the MFIs as well as the field staff,

sometimes referred to as "directly productive staff" usually make up about 80% of the total staff (Gibbon & Meehan, 1999). In Kenya the ratios of field staff to others in two MFIs, KWFT and Faulu are 68% and 50% respectively (Koopman, 2000). Given the field staff disproportionate representation in the overall expense mix, managers must carefully monitor and measure field staff performance and productivity.

The operations staff are key and have a direct impact or effect on productivity and profitability of a firm. The credit officers are involved in mobilising the community and conducting public meetings to promote the product. They facilitate group formation, assess the eligibility of each member and appraise the loan applications in liaison with the other group leaders. Mutua (1994) in a K-Rep's Occasional paper reported that the productivity of K-Rep's credit officers was at 60% since each was handling a client base of 245 borrowers while the target set was at 475 borrowers per credit officer. In general the MFIs' need to focus on their operations and improve efficiency by reducing cost and increasing productivity. This will have a direct impact on their outreaches. They may use market penetration and/or market expansion strategy to reach more clients commonly referred to as wider and/or deeper outreaches respectively. This should lead to operational self-sufficiency and eventually financial viability of the firms.

It is for this reason that the study will focus on productivity with reference to credit officers in MFIs'. It will seek to find the most commonly used productivity measures and to develop an appropriate productivity index. This will then be followed by

analysing factors that influence the productivity of the credit officer. Through the research findings it is expected that the key factors that affect productivity will be identified and parameters for performance indicators improved through best practise approach. The study will therefore assist MFIs' to increase the productivity of their credit officers hence increase the outreaches, efficiency and profitability of the field offices.

1.2 DEFINITION OF TERMS

Microfinance Institutions

Microfinance institutions sometimes referred to as microcredit institutions offer financial services to low-income and very poor self employed people. They offer loans to the poor and sometimes start-up capital to the very poor. Microfinance institutions have different legal framework depending on their inceptions and affiliations. Some are registered as private, or are an arm of a parastatal, government, NGO or a religious organisation. They offer financial services to the MSEs' (MSEs' sector is the one that currently provides for the highest employment and has the highest growth. The recent National MSEs baseline survey indicated that the MSE sector contributed 18.9% of the 1998 GDP as well as 28.8% of the total employment in Kenya). A status report of microfinance institution in Kenya (Aleke, 1999) indicated that seven MFIs have 60% of the clients assisted by the financial services. Each of them has an active clientele of over 2,500. These MFIs

are the major players in this industry and have microfinance as their core business. Only five of the seven MFIs operate in both Nairobi and Mt. Kenya area.

Credit Officers

Credit officers are involved in mobilising communities in groups-formation, appraising the businesses and the loan applicants, disbursing and following on repayment of the loans. They are the key operational staff in MFIs. Other designations for credit officers used by the MFIs include loan officers, development financing officers, microfinance officers, or business development officers.

Area Offices

The basic principle of providing financial services to the economically active but disadvantaged calls-upon the MFIs to be situated close to its clients. Therefore the large MFIs have regional or area offices. These regional/area offices operate through a network of small retail outlets commonly known as *field offices*, which the credit officer mans. The field offices are also referred to as *satellite offices* by some MFIs.

Productivity

Productivity is a ratio between output and input. In the MFI's context the output is the service "credit", which is produced and delivered to the target group. The relevant input is the amount of human labour that is expended in the process of granting, extending, managing and recovering the loans. In a simple economy with

only one type of output and one type of input, productivity is the ratio of output to input. In an economy with a variety of outputs and many different inputs, productivity can be measured in a number of ways. Usually outputs are heterogeneous and to handle this variety of outputs, one needs to construct an index that weights the physical units of outputs. In this regard, several measures are used by the MFIs in assessing their performance or output. One of the productivity measure used specifically for the credit officers is "the number of active clients" that the COs has in a given period. However considering that this output may be affected by other factors such as the default rate and/or arrears, these need to be considered, weighted and used to develop a productivity index.

1.3 PROBLEM STATEMENT

Operations management is the management of the direct resources required to produce goods and services provided by an organisation. Operations management deals with the direct production resources of the firm namely people, plants, parts, processes, planning and control systems. Productivity is a measure of the efficiency and effectiveness with which resources are used to produce the output of goods and services of the quality needed by consumers and society in the long-term. Productivity is therefore of great importance to the operations manager and plays an important role in enhancing a firm's competitiveness (Aquilano & Chase, 1991). Productivity is a very sensitive measure and is affected by many factors. However, it is usually the industrial firms that are keen to measure productivity. The government

and the public sector, which has the highest number of employees and whose productivity would greatly affect the GDP, have not been keen. In developing productivity measures and pursuing this important application to operations managers, it is of importance to identify key issues of areas that directly or indirectly have an effect on productivity.

For the past few years the MFIs have focussed on developing the managerial, technical and systems capacity within the institutions toward sustainability. However, it has been noted that there is need to establish performance standards and other similar interventions that would enhance the creation of microfinance institutions that reach the poor sectors of the society and at the same time achieve financial permanence (Havers, *et al* 1999). Hence this study will seek to find the factors that influence the productivity of credit officers in an MFI.

For productivity to increase, motivation, performance capability and co-ordination all need to be high in the organisation. Well trained and experienced staff increase the performance capability of an organisation which may result in increased productivity. This is why organisations are keen on the skills, education and training of the staff employed. Some organisations use gain-sharing plans such as a bonus formula which, when fully and properly implemented should lead to improved productivity and also employees well being and satisfaction. Gain sharing relates pay to performance, therefore improving motivation (Edward E., *et al* 1989)

For the MFIs to improve in their performance through their key staff, these aspects have to be put into consideration. Hence factors affecting productivity of credit officer that need to be explored include training, experience, geographical coverage, information systems, remuneration and incentives.

The study will seek to find out the extent to which productivity of COs is dependent on these factors. Credit officers have been chosen for the study since they are the key "production centre" of an MFI. The performance measurements or the productivity index will be based on the best practice measures used by MFIs:

- ◆ The clients base per CO and the expected growth rate
- ◆ The quality of the loan portfolio per CO

HYPOTHESES

The hypotheses to be tested are as follows:

H₁ – Productivity of a CO is dependent on the level of Education

H₂ – Productivity of a CO is dependent on the level of job Training

H₃ – Productivity of a CO is dependent on the number of years of Experience

H₄ – Productivity of a CO is dependent on the Geographical coverage

H₅ – Productivity of a CO is dependent on Remuneration

H₆ – Productivity of a CO is dependent on the Incentives

1.4 OBJECTIVES OF THE STUDY

The objectives of the study are as follows:

- ◆ To identify productivity measures used by MFIs
- ◆ To develop a productivity index for the MFIs
- ◆ To determine factors that significantly influence the productivity of COs in MFIs
- ◆ To make recommendations on how to improve the productivity of COs in MFIs

1.5 SIGNIFICANCE OF THE STUDY

This research is important for the following reasons:

- ◆ MFI managers will be able to identify factors that can affect the productivity of their credit officers. The study seeks to explore the effects of factors such as education level, experience, training, geographical coverage, remuneration and incentives on productivity. These factors may have different effects on the productivity. The most significant factor will be identified.
- ◆ The research will enhance the database in Microfinance. Very few researches have been conducted on productivity and the information to be gathered will be exploratory. This will therefore open the doors to further research in this area.
- ◆ Recruitment and placement for the field offices' staff will be done more prudently. Highly qualified staff are easier to train however, they are more expensive to maintain and retain in an organisation. The study will seek to identify whether there is any significant difference in productivity in relation to the different level of

education. The findings will give suggestions on areas that the MFIs can focus on to improve efficiency and cost saving measures.

- ◆ This will provide important information for the new and upcoming MFIs as they recruit and set performance parameters for their credit officers. Since microfinance is a fairly recent development approach, many aspects are at the exploratory stage and therefore new "learnings" should be shared freely. There are many new upcoming microfinance organisations that will benefit from this research.
- ◆ It will provide information to researchers who wish to carry out further studies on productivity in MFIs or other service organisations. The information will be used in other researches as a source of secondary data.
- ◆ The donor agencies will benefit from the findings. The issue of productivity is key to donor agencies.

1.6 SCOPE OF THE STUDY

Although there are credit officers in other parts of the country only Nairobi and Mt. Kenya credit officers were considered for the study. However, these two regions have approximately 60% of the credit officers, therefore the findings can be generalised to the other areas since they indicate that there is no significant differences in the productivity of the COs from the different regions.

There are two other MFIs that have over 2,500 clients namely WEDCO and BIMAS. However, they could not be considered for the study since their operating base is outside Nairobi, namely Western and Mt. Kenya area respectively. They do not have clients in both regions considered for the study. These MFIs may be considered for a similar research.

1.7 LIMITATION OF THE STUDY

The main limitation of this study was lack of participation by one of the selected MFIs. This limited the study to only four of the five leading MFIs. Time and budget constraints also limited this study to only two of the regions that the MFIs are currently operating in and secondly it did not include other microfinance institutions, for instance the commercial banks.

CHAPTER TWO: LITERATURE REVIEW

2.1 BRIEF HISTORY OF MICROFINANCE

Millions of poor households in developing countries want financial services. They need these services for the same reasons as everyone else—to save small amounts in a secure manner, to invest in their business or home, to cover large expenditures, and to insure against risk. Poor households around the world have demonstrated their ability to use and pay for financial services through longstanding informal arrangements such as savings clubs, rotating savings and credit associations, and mutual insurance societies. Yet formal financial intermediaries such as commercial banks, however, typically do not serve poor households. The reasons include the high cost of small transactions, the lack of traditional collateral, geographic isolation, or simple social prejudice. Even those institutions that provide financial services to the poor are limited in scale. With over 500 million people needing access to financial services, demand far outstrips supply (website - www.cgap.org).

The emergence of microfinance early efforts to provide financial services to the poor tied those services to specific economic activity. For example, between the 1950s and 1970s, governments and donors focused on providing subsidised agricultural credit to small and marginal farmers, in hopes of raising productivity and incomes. During the 1980s microenterprise credit concentrated on providing loans to poor women to invest in tiny businesses, enabling them to generate and accumulate

assets and raise household income and welfare. The success of some microenterprise credit programs led to bold experiments with product design, delivery methods, and institutional structures, performed mainly by practitioners in developing countries. These experiments resulted in the emergence of microfinance institutions, specialised financial institutions that serve the poor. MFIs are called "micro" because of the small size of their transactions (with loans as small as US\$50 and savings deposits as small as US\$5), and "finance" because they provide safe and reliable financial services to the poor.

MFIs exist in various legal forms, including non-governmental organisations (NGOs), credit unions, non-bank financial intermediaries, and commercial banks. Their success has shown that poor people are ready and valuable clients of specially designed financial services—and that serving this niche can be financially viable. MFIs bring valuable services to vulnerable people, enabling them to create, own, and accumulate wealth and assets. Perhaps more importantly, microfinance enables the poor to manage the uncertainties underpinning their economic (and social) vulnerability—such as unemployment, natural disasters, and seasonal fluctuations in income. At the macro level, by providing services to the poor, microfinance practitioners expand the frontier of a country's financial sector, drawing in previously excluded groups (often a vast portion of the population), increasing the economy's financial depth, and generating more broad-based economic growth.

According to World Bank there are some 900 microcredit institutions in 101 countries that offer loans to the world's poor and these are some of the oldest, largest and most stable of such organisations. In a sample consisting of 206 of these microcredit organisations, it was reported that they had issues 14 million loans with a collective loan portfolio of over US\$7 billion. Microfinance is one of the most recent and innovative strategy of addressing the problems of global poverty. Microenterprise creation and development and microfinance are not the classical "hand-out" mentality that has dominated most development approached in the past (Woolworth & Woller, 1999).

Microfinance has in the recent past gained attention from various stakeholders as a mean of bringing about sustainable development. Most development agencies have developed among their deliveries the microfinance unit. From its inception in the 1970s, microfinance has evolved incorporating into its practice social and economic development concepts, as well as principles that underlie financial and commercial markets. This has led to the creation of a growing number of sustainable microfinance institutions around the developing world. Microfinance therefore, is a strategy with two frameworks – development and finance (Otero, 1999).

Microfinance institutions in Kenya

In Aleke's report "The status of microfinance institutions in Kenya" he categorises Kenya's financial system into three "sub-systems" namely:

- ◆ The *informal system* which is not regulated and not subsidised. Comprise mainly of the economically poor who rely on a variety of traditional and informal financial systems.
- ◆ The *formal subsidised system*, which receives financial support from foreign aid agencies. The microfinance operations that they operate are mostly not regulated and are heavily subsidised.
- ◆ The *formal non-subsidised system* regulated and normally covering its costs but missing the micro level client. Institutions in this category are financially self-sustaining and have operated over a long period of time.

The *formal subsidised system* comprises of organisations or institutions, which provide financial services and receive subsidies in different forms. The main institutional actors are the microfinance NGOs' with credit programs for MSEs who benefit from foreign aid agencies. They receive grants from donors to meet operational costs. As institutions they are formal. Their financial operations are not however regulated despite being formal institutions. They normally target their services at people with low or very low incomes.

The evolution of formal subsidised microfinance in Kenya can be traced to mid 1950s' with the establishment of a credit facility for small businesses, the joint Loan Board Scheme, by the colonial government. Since then the government established many targeted and subsidised rural credit programs. In mid 1970s the neo-classical economists identified these programs as a failure. They pointed out that subsidised

interest rates led to excess demand for credit followed by rationing of credit, thus causing distortion in the market.

In the 1980s a number of NGOs introduced alternative credit delivery mechanisms for the poor that consisted of small amounts of loans without requirement of tangible collateral. The organisations range from small charitable units operating in limited geographical area to large institutions covering vast parts of the country carrying out variety of development and welfare activities. Increasingly, organisations have emerged whose sole objective is providing financial services to micro and small enterprises.

Worldwide experience showing that well designed microfinance programs can make significant improvement to the poor, makes it clear that the development of microfinance services sector is, perhaps, one of Kenya's critical ingredients in its rural development agenda (Aleke 1999).

2.2 CONCEPT OF PRODUCTIVITY

Productivity is a measure of the efficiency and effectiveness with which resources are used to produce the output of goods and services of the quality needed by consumers and society in the long-term (Aquilano & Chase, 1991). Productivity can also be viewed as a relationship between results and the time taken to accomplish them, the less time taken to achieve the desired results, the more productive the

system. Improving productivity means compressing more output into a unit of time. It may also be viewed as a measure of value-added or as an attitude of mind and the will to improve the present situation no matter how good it may be (Naylor, 1996).

Measures such as return on investment (ROI), market share, earning ratios and other measures of increases to shareholders wealth are commonly used to measure the firm's competitiveness however, productivity measure is not commonly or routinely used. Productivity measure is important since it is a measure that is within managerial control and is not greatly affected by external factors. Unlike profitability, productivity is under management control hence is the key concept to evaluating performance of a firm and operations function within it (Aquilano & Chase 1991).

Often increase in productivity has been found to occur as a by-product of efforts to reduce the costs of quality. For instance, Japanese in their efforts to improve quality as a competitive advantage have been able to drastically reduce wastage hence increasing productivity. Improvement techniques such as *Just-in-time* or *Total Quality Management* have indeed had an impact in the productivity of the firms and consequently the nation. Excessive specialisation and specialised work rules have also a great impact in productivity. Evidence has shown that all work rules and job restrictions are the primary cause of the productivity gap (Naylor, 1996).

Productivity measures are useful in several aspects:

- ◆ To set other objectives of business including sales and profitability

- ◆ To identify positive or negative factors of productivity
- ◆ Increase managerial accountability
- ◆ Promote a climate of productivity consciousness
- ◆ Reveal financial implication of alternative business strategies
- ◆ Used in formulating wage policies, improving motivation and industrial relations
- ◆ They are excellent training tools as they reveal deficiencies thus identifying training needs

2.3 PRODUCTIVITY MEASURES

Productivity is the measure of units produced compared with units used in their supply

$$\text{Productivity} = \frac{\text{Units Produced}}{\text{Units of input used}}$$

Productivity measures are not confined to assessment of labour efficiency. We have productivity of capital and other resources, although terms such as efficiency and yield are used. We have measures such as tonnes per man-shift in coal mining, vehicle per man-shift, for labour measures; for capital related measures we have output per machine hour, hotel room occupancy and other. These are some of the single factor productivity measures used in some industries. They have their disadvantages and advantages - on one hand single measures of the use of key

resources are valuable as rules of thumb for operations managers however they tend to encourage "measurementship". In this case the manager tends to focus on one factor or few factors at the expense of others hence lose sight of the overall reason for being in the business (Naylor, 1996).

To overcome the problem brought about by the single measure, multiple factor productivity measures are employed. In this case more output and inputs are incorporated in the productivity equation.

$$\text{Total productivity} = \frac{\text{Output}}{\text{Cost of capital, labour, raw material \& supplies}}$$

This is a more rational basis for analysing the change however it has disadvantages in that it has a wide breadth of coverage and hence unsuitable for use as a regular guide in tactical decisions (Naylor, 1996).

Many factors determine long-term corporate success, but productivity performance is perhaps the most significant one. Improvements in productivity lead to reduced costs and increased efficiency, which in turn enhance companies' strength, viability and profitability. To profit from productivity improvement, management needs measurement procedures for monitoring productivity performance and identifying improvement opportunities. These procedures must yield useful, accurate results (Miller, 1984). Miller also suggests that the company's overall productivity

performance to changes in its profits or profitability so that productivity improvement opportunities can be ranked according to their bottom-line impact.

Many methods for measuring productivity exist. They vary from simple partial productivity ratios to comprehensive multifactor models, which combine the output values of various sources into single, composite output indicators. By weighing together the resources consumed to get this output, multifactor models also develop composite input indicators. Schemes for manipulating and analysing outputs and inputs also vary. Some approaches focus on developing indices that compare the ratio of composite outputs to composite inputs in given periods. These indices represent the degree to which productivity has changed since the base period.

Other approaches carry productivity performance assessment one step further – to profit level. In profit-oriented approaches, such as the “net income and productivity analysis”, the principal statistic is not a ratio or an index but rather the dollar (or shilling) impact per productivity performance on profit growth or shortfall. Properly implemented, profit linked productivity measurement approaches are powerful tools for analysing the performance of profit centre of all sizes (Miller, 1984).

2.4 PRODUCTIVITY MEASURES IN MFIs

Productivity is a ratio between output and input. In the MFI's context the output is the service “credit”, which is produced and delivered to the target group. The

relevant input is the amount of human labour that is expended in the process of granting, extending, managing and recovering the loans.

In most MFIs salary or salary-related expenses represent the significant bulk, often between 50% to 70% of total administrative costs. Field staff, sometimes referred to as “directly productive staff” usually make up about 80% of an MFI’s total staff³. Given the field staff disproportionate representation in the overall expense mix, managers must carefully monitor and measure field staff performance and productivity. Two basic measures are consistently employed to monitor MFI field staff efficiency:

- 1) average number of active loan client per field staff, and
- 2) average loan portfolio per field staff. These two measures work closely together to determine how much revenue individual field staff generate in relation to their costs.

With respect to the first measure, average number of loan clients per field staff, best practice ranges for MFIs worldwide ranges between 300 and 500 clients, regardless of the lending methodology employed (e.g. individual, solidarity group, village banking). Developing a best practice range for average loan portfolio per field staff, however, is more difficult because it relies more heavily on the lending methodology used, the level of poverty of participating borrowers, and the local operating

³ This refers to world-class best practice standards, MFIs in the study have not attained this ratio.

environment. In the Grameen Bank methodology, best practice yields a loan portfolio per field staff of more than US\$25,000 (Gibbon & Meehan, 1999).

In their study on "The efficiency of Credit-Granting NGOs in Latin America", Schmidt and Zeiteger (October, 1994) used various productivity measures to analyse the performance of the eight NGOs in the study. They suggested that the output quantity or productivity can be measured in two dimensions. One results from the comparison of stocks and flows, and the other is defined by the yardsticks "number of loans" and volume of loans". Stocks are the average stocks of out-standing loans over a given period⁴, and the flows are loans granted over the same period. Stocks as well as flows can be measured either in terms of the number of loan outstanding or in terms of the volume (or amount) of loans outstanding and granted respectively. Thus, for each NGO there were four measures of the productivity i) the number of loans outstanding; ii) the volume of loans outstanding; iii) the number of loans granted; and iv) the volume of lending during the period under considerations

2.5 FACTORS THAT INFLUENCE PRODUCTIVITY

Skinner (1986) suggests that production experience regularly observes a "40 40 20" rule whereby 40% of any manufacturing-based competitive advantage derives from long term changes in manufacturing structures (e.g. number, size, location and capacity of facilities) and basic approaches in materials and work force. Another

⁴ A stock variable in the sense of the average stock over a given period was defined and measured in that study as the mean of the respective stock at the beginning of the period and the stock at the end of the period.

40% comes from major changes in equipment and process technology. The final 20% rests on the conventional approaches to productivity improvement. This implies that the most powerful are the changes in the manufacturing structure and technology. Productivity, in the conventional way, focussed on cost-cutting measures (maximising output from the least possible input). However, for competitive advantage issues of quality, reliable delivery, short lead time, customer service, flexible capacity, and efficient deployment of – these do not reduce cost, are the primary operational sources of advantage in today's competitive strategies. Drawing a parallel to the MFIs one may consider issues of area, number of COs and their capacity as the most critical in enhancing productivity and ensuring the firm has competitive advantage.

Production managers need put into consideration at all factors that affect productivity. In the conventional sense production managers (mainly in manufacturing firms) would focus on labour productivity – output over a given time. Their job was to control and coordinate all factors of production so as to minimise costs and maximise output, in this case labour (Skinner, 1986). The MFI operations managers have to go beyond this. They have to look at factors that affect the productivity of the credit officers in their service delivery. Some aspects that will be found essential may lead to increased costs – in the short term. However, operations managers need to be strategic and to look at the future – the long term. Factors that have been suggested to affect productivity of COs are as follows:

Geographical coverage

Many MFIs' have operations limited in certain geographical areas in order to enhance efficiency. They may employ market penetration or expansion strategy but there is always a boundary for the credit officers. Through this study the extent to which geographic coverage in terms distance, type of clientele and mode of transport used by the COs will be analysed against their output. For instance WEDCO's cost cutting measures led them to sell the loan officers' motorcycles. This change prompted WEDCO to drop 141 of its clients because they lived in "isolated" rural areas which loan officers could no longer easily reach using public transport⁵. Selling the motorcycles significantly reduced costs but it also reduced client number by over 25%. To what extent has these affected the productivity of WEDCO's field officers?

Education, training and experience

Robert Stevenson once noted that "everyone lives by selling something." Salesforces are found in non-profit as well as profit organisations. For instance, churches use membership committees to attract new members (Kortler & Armstrong, 1994). MFIs' use COs' to increase their client base (or to sell their product). In the past many companies used to send their new salespeople into the field almost immediately after hiring. Training program was considered a luxury. To many companies, a

⁵ KWFT and Faulu are currently attempting to serve more rural clients by establishing "satellite" systems in which loan officers, who are supervised from a branch or a hub, establish small offices in rural areas.

training program translated into much expense for instructors, materials, salary for a person who was not selling, plus lost sales opportunities because the person was not in the field. Today, new sales people however, may spend a few weeks to months in training (Kortler & Armstrong, 1994). The research will find out if this is also true for the MFIs and what impact it may have on the productivity of COs'.

It is expected that a more experienced credit officer know better how to handle various kinds of clients and assess/appraise businesses and the loan applicants. This is what is commonly referred to as learning curve phenomena. However, it is unclear whether this continues to have an effect after some time. Staff doing the same job over a long period of time may reduce in productivity due to lack of motivation. The study will seek to find if these three aspects have a significant effect on the productivity of COs.

Information technology

The key to the profitable provision of financial service is information and communication technology. Use of information technology increases the speed, accuracy of the transactions. The use of appropriate tools should enhance productivity. According to the DFID report 1999, the MFIs' have not been able to develop a proper loan tracking system, management information systems remain cumbersome and inadequate. The scope of this research will not focus on details of

MIS systems in place, but will seek to find how adequately the credit officers are facilitated with MIS to enhance their output.

Remuneration and incentives

To join an organisation and stay, staff need salary and non salary benefits that compete with all the alternative job opportunities. This is particularly important for those with unusual skills (World Development report, 1983-1985 pp.110-112). While greater reward do not automatically produce better performance, it is important to establish some link between the two. Many firms have devised appraisal systems that link promotion and pay increases to individual performance.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 RESEARCH DESIGN

A survey design was used to allow a wider coverage of credit officers in five leading MFIs'. A status report on microfinance institution in Kenya (Aleke, 1999) indicated that seven MFIs have 60% of all the clients assisted by the financial services. Each of them has an active clientele of over 3000. These MFIs are the major players in the industry and have microfinance as their core business. The MFIs have credit officers working in various regions and two regions, Nairobi and Mt. Kenya, were selected for the study. These were the first areas that the MFIs started their operations due to the high numbers of MSEs and most lessons have been learnt through the operations in these two regions. Secondly, these would enhance comparison on the productivity issues in regard to the area of operation. Of the seven only five of the MFIs have their operations in the two regions and therefore the survey was done in only five of the MFIs. Being an exploratory study, survey method was useful in identifying various issues concerning the productivity of Credit officers.

3.2 POPULATION OF THE STUDY

The study focused on all the credit officers in five microfinance institutions that are based in Nairobi and Mt. Kenya area. There are 148 credit officers in these two

regions as indicated on table 3.3.1. The credit officers in these two regions constitute a majority (60%) since these organisations have their main operations in the two regions. Table 3.3.1 has a summary of the population of the COs and the percentage sampled for the study per organisation

3.3 THE SAMPLE

A random selection of credit officers working in the Nairobi and Mt. Kenya area from the four MFIs were sampled for the study. The sample comprised of 55% of the COs in these areas.

Table 3.3.1

ORGANISATION	NO. OF COs IN NAIROBI		NO. OF COs IN MT. KENYA		% OF COs SAMPLED IN EACH MFI
	Population	Sample	Population	Sample	
KWFT	17	9	20	10	51%
FAULU	35	16	10	9	55%
SMEP	8	7	9	7	82%
K-REP (BANK)	22	6	17	10	41%
K-ECLOF	4	3	6	5	80%
TOTAL	86	41	62	41	55%

3.4 DATA COLLECTION

Primary data for this study was collected using self-administered questionnaires. The questionnaire had open-ended questions and some structured responses. Pre-testing of the questionnaire was done in order to determine its appropriateness before it was given to the entire population. The questionnaires were dropped at the MFIs' head offices from where they were distributed to the regional/area offices using the MFIs' regular communication channels. The responses were then picked from the head offices by the researcher.

The type of respondent and the area coverage in this study made the use of a questionnaire very ideal as opposed to other methods of primary data collection. Whereas personal interview is the best method of data collection because the interviewer is able to collect both verbal and non-verbal information, and is able to clarify responses, it was not feasible for this study. Several discussions were held with the operations managers. This was helpful in clarifying the operations of regional and area offices. Observation method was also used for triangulation purposes.

3.5 DATA ANALYSIS

The data collected was analysed using descriptive statistics such as frequencies, percentages, and means. Cross-tabulation was also used to compare relationships

between various factors. To develop the productivity index, four of the critical productivity measures which included i) the number of active clients, ii) the average number of loans falling into arrears iii) the average number of loans falling into default and iv) average number of clients leaving groups were used. The mean points for these measures were established and an index developed using the weights that were considered appropriate for each of the measure.

Correlation method was used to verify the relationships between productivity and the six independent factors. Regression analysis was then employed to establish the quantitative associations between the variables. The dependent variable in the study was productivity index Y , and the independent variables were Education (X_1), Training (X_2) and Experience (X_3), Geographical coverage (X_4), Remuneration (X_5) and incentives (X_6). The regression analysis was used to uncover an association between productivity and the predictor variables. The relationships between productivity and these factors were investigated individually and in combinations using stepwise regression to unveil the underlying patterns. Using stepwise multiple regression the researcher introduced, simultaneously, the effect of two or more independent variables and calculated the net impact on the dependant variable - productivity. Using statistical tests, the combination that indicated the strongest association was derived and a multiple regression model of the form:

$$Y = \alpha_0 + \alpha_1 X_1 + \alpha_2 X_2 + \alpha_3 X_3 + \alpha_4 X_4 + \alpha_5 X_5 + \alpha_6 X_6$$

was developed.

CHAPTER FOUR DATA ANALYSIS AND FINDINGS

4.1 RESPONSE RATE

Four of the five MFIs selected for the research participated in the research. These were Kenya Rural Enterprise Development (K-rep), Kenya Women Finance Trust (KWFT), Faulu Kenya and Small and Micro Enterprise Program (SMEP) with each having a client base of over 8,000⁶. These organisations are amongst the largest and the well-established MFIs. A total of 56 questionnaires were received out of the 74 distributed. This constitutes a 76% response rate. This high response rate was possible due to the fact that the management in the MFIs were supportive of this research and were involved in facilitating the distribution of the questionnaires and follow-up of the respondents. The respondents filled the questionnaires and sent them in the sealed envelopes provided by the researcher.

4.2 PRODUCTIVITY INDEX

Productivity is determined by the efficiency with which resources are combined to produce a given output; it is usually measured by calculating the ratio of a weighted index of outputs to a weighted index of inputs. In a simple economy with only one type of output and one type of input, productivity is the ratio of output to input. In an economy with a variety of outputs and many different inputs, productivity can be measured in a number of ways. Usually outputs are heterogeneous and the way to

handle this variety of outputs one needs to construct an index that weights the physical units of outputs.

In this study there were several output measures from the credit officers that were used to develop a productivity index. One measure used by the MFIs worldwide is number of active clients per credit officer. The best practice measure is in the range of 300 to 500 active clients. In the study it was found that all the 56 COs in the four organisations fell below the lower limit 300. Because of the low client base the researcher used the mean value from the sample which was 230 active clients to differentiate the more from the less productive COs. The other measures used included the average number of loans falling into arrears monthly; the average number of loans being defaulted monthly; and the average number of clients leaving groups on a monthly basis. They were weighted differently with "number of active clients" measure having the highest weight of 0.6. The other three measures acted as control factors and therefore had lower weights of 0.1, 0.2, and 0.1 respectively⁷.

TABLE 4.2.1: PRODUCTIVITY WITHIN THE ORGANISATIONS

		COMPANY NAME				Total
		KWFT	FAULU	SMEP	K-Rep	
Less productive	Count	9	10	3	8	30
	Percentage	52.9%	66.7%	37.5%	57.1%	55.6%
More productive	Count	8	5	5	6	24
	Percentage	47.1%	33.3%	62.5%	42.9%	44.4%
Total	Count	17	15	8	14	54
	Percentage	100.0%	100.0%	100.0%	100.0%	100.0%

Source: Primary Data

⁶ See Appendix I for the current client base in the MFIs
⁷ See Appendix II for the frequency tables of the four measures

The above table 4.2.1 indicates the productivity of credit officers using the derived index. It indicates that only 44.4% met and exceeded the criteria and thus referred to as more productive. Three of the MFIs have the highly productive COs falling under 50% with an exception of SMEP. SMEP has 62.5% of the COs as highly productive. This could be attributed to the fact that the default rate reported was very low. There could be two possible explanations, that of lack of data and/or the fact that the loans are issued to the groups and not to the individual. The latter is a unique aspect noted in the disbursement mode of the SMEP loans. This would therefore mean that the groups, and not the MFI, maintain the defaulters records.

It was also noted that one organisation had many new staff who had very few groups assigned to them. The COs were in the process of recruiting new groups. These promotional activity may lead to low productivity in the short - term.

4.3 RELATIONSHIP OF VARIOUS FACTORS AND PRODUCTIVITY

TABLE 4.3.1: EDUCATION LEVEL AND PRODUCTIVITY

		Less Productive	More productive	Total
College diploma	Count	15	12	- 27
	Percentage	55.6%	44.4%	100.0%
University degree	Count	15	12	27
	Percentage	55.6%	44.4%	100.0%
Total	Count	30	24	54

Source: Primary Data

From the above table 4.3.1, 50% of the respondent had college diplomas while the other 50% were university graduates. However, the four organisations showed different policies in staffing as far as COs were concerned. For instance one organisation only employs university graduates for the COs post, while one prefers college diploma qualifications; two of the MFIs are indifferent. The findings indicated that there was no significant difference in their productivity. The table indicates that the number of the more productive and those that are less productive is exactly the same regardless of the level of education attained.

TABLE 4.3.2: PRODUCTIVITY AND TRAINING

		Training							Total
		.00	1.00	2.00	3.00	4.00	5.00	6.00	
Less productive	Count		1	3	3	3	12	8	30
	Percentage		1.9%	5.6%	5.6%	5.6%	22.2%	14.8%	55.6%
More productive	Count	1		1	1	5	12	4	24
	Percentage	1.9%		1.9%	1.9%	9.3%	22.2%	7.4%	44.4%
Total	Count	1	1	4	4	8	24	12	54
	Percentage	1.9%	1.9%	7.4%	7.4%	14.8%	44.4%	22.2%	100.0%

Source: Primary Data

The above table 4.3.2, indicates that 66.6% of the CO have undergone at least five of the critical training which included group formation, conflict resolution, default management, Training of Trainers, customer service among others. There is no significant difference in the productivity of those considered more productive in the training undergone. This is further indicated by the weak correlation coefficients on table 4.4.1.

TABLE 4.3.3: PRODUCTIVITY AND EXPERIENCE

		Experience		Total
		Less experience	More experience	
Less productive	Count	16	14	30
	Percentage	53.3%	46.7%	100.0%
More productive	Count	7	17	24
	Percentage	29.2%	70.8%	100.0%
Total	Count	23	31	54
	Percentage	55.6%	44.4%	100.0%

Source: Primary Data

Experience has a significant effect on productivity. The above table 4.3.3 indicates that 70.8% of the more experienced were more productive against 29.2%. Similarly of the less productive staff 53.3% had less experience as compared to 46.7%. This is further confirmed by the correlation coefficient 0.234 on table 4.4.1 which is the highest compared to all the other factors. This study has confirmed the views that the more experienced COs are better because they have a higher productivity which can be explained by the fact that they are conversant with the Grameen model and are able to mobilise more clients and maintain them.

TABLE 4.3.4a: PRODUCTIVITY AND AREAS OF OPERATION

		AREA OF OPERATION				Total
		Nairobi East	Nairobi West	Nyeri-Kirinyaga-Nanyuki	Embu Meru	
Less productivity	Count	10	7	10	3	30
	Percentage	62.5%	53.8%	66.7%	37.5%	57.7%
More Productivity	Count	6	6	5	5	22
	Percentage	37.5%	46.2%	33.3%	62.5%	42.3%
Total	Count	16	13	15	8	52
	% of Total	100.0%	100.0%	100.0%	100.0%	100.0%

Source: Primary Data

Table 4.3.4a above, depicts the productivity of the COs in relation to their area of operation. The findings indicate that the Nairobi West COs are more productive as shown by the 46.2% Nairobi West COs against 37.5% of the COs based in Nairobi East. For those in the Mt. Kenya area, the Embu – Meru COs are more productive as indicated by 62.5% against 33.3% of those in Nyeri – Kirinyaga – Nanyuki. Further analysis to show whether these COs were affected by the distances covered in kilometres was done as indicated in the following table 4.3.4b.

TABLE 4.3.4b: DISTANCE TRAVELLED AND AREAS COVERED

DISTANCE IN RADIUS Kms		AREAS COVERED				Total
		Nairobi East	Nairobi West	Nyeri- Kirinyaga- Nanyuki	Embu Meru	
51 & above Kms	Count	4	6	8	6	24
	Percentage	23.5%	54.5%	53.3%	75.0%	47.1%
1 – 50Kms	Count	13	5	7	2	27
	Percentage	76.5%	45.5%	46.7%	25.0%	52.9%
Total	Count	17	11	15	8	51
	Percentage	100.0%	100.0%	100.0%	100.0%	100.0%

Source: Primary Data

Table 4.3.4b above indicates that a higher percentage of the Nairobi West COs who were more productive as indicated in table 4.3.4a travel longer distances as opposed to those of Nairobi East. This is indicated by the fact that 54.5% of the COs in Nairobi west travel over 51kms radius against 45.5% who travel less than 51kms radius. This is similar in the Mt. Kenya area as we see that for COs in the Embu – Meru, 75% of the COs travel over 51kms radius. These COs had also been considered as the more productive of the COs in Mt. Kenya area. This implies that

the longer the distance covered the higher the chance of increasing the client base and hence productivity.

The findings on the tables 4.3.4a and 4.3.4b agrees with the recommendations given in the DFID review report by Havers (1999) which suggested that for an increase in outreach, the MFIs need to increase their geographical coverage.

TABLE 4.3.5: PRODUCTIVITY AND REMUNERATION

		Remuneration		Total
		Poor remuneration	Well remunerated	
Less productive	Count	14	16	30
	Percentage	46.7%	53.3%	100.0%
More productive	Count	7	16	23
	Percentage	30.4%	69.6%	100.0%
Total	Count	21	32	53
	Percentage	39.6%	60.4%	100.0%

Source: Primary Data

Remuneration has an effect on the productivity of the COs as indicated in the above table whereby 69.6% of the well remunerated are more productive as compared to 30.4% who are less remunerated. However, the percentage of the well remunerated and yet less productive is 53.3% and is above that of the less remunerated which is 46.7%. This can be explained by the fact that remuneration is not always the motivation towards higher productivity and has confirmed the previous views and studies.

TABLE 4.3.6: PRODUCTIVITY AND INCENTIVES

		Incentives		Total
		Less incentives	More incentives	
Less productive	Count	8	19	27
	Percentage	29.5%	70.4%	54.0%
More productive	Count	5	18	23
	Percentage	21.7%	78.3%	46.0%
Total	Count	13	37	50
	Percentage	26.0%	74.0%	100.0%

Source: Primary Data

All MFIs used incentives, which ranged from annual increments, bonuses, commissions and certificates. Table 4.3.6 indicates that although incentives were given to most of the COs, the percentage of those who were more productive and had higher incentives was 78.3% and was higher than that of the less productive.

4.4 STATISTICAL ANALYSIS

Correlation was used to verify the relationships between the productivity and the six factors. Regression analysis was then employed to establish the quantitative associations between the variables and these are shown on table 4.4.1 and 4.4.2 below.

TABLE 4.4.1: INTERCORRELATIONS OF VARIABLES

VARIABLES	Producti vity	Educatio n level	Experie nce	Traini ng	Distance travelled	Remune ration	Incentive s
Productivity	1.000	.000	.243	.003	-.093	.164	.090
Education level	.000	1.000	-.289(*)	-.026	.052	.173	-.011
Experience	.243	-.289(*)	1.000	-.061	.198	.139	.012
Training	.003	-.026	-.061	1.000	-.071	-.059	-.076
Distance travelled	-.093	.052	.198	-.071	1.000	.048	-.241
Remuneration	.164	.173	.139	-.059	.048	1.000	-.031
Incentives	.090	-.011	.012	-.076	-.241	-.031	1.000

* Correlation is significant at the 0.05 level (2-tailed).

Source: Primary Data

Productivity and Education

The association between productivity and education was so little that in the table it is indicated as 0. This could be explained by the fact that all the credit officers were either diploma colleges or university graduates. This did not seem to have any significant difference in the output of the COs. In fact as indicated by table 4.3.1, the number of the more productive and that of the less productive were exactly the same regardless of the level of education attained. The MFIs vary in their policy on the level of education. One considers college diploma as the required qualification while one considers university graduates, two are indifferent. However, the study findings is that there is no significant difference in the output of both the category. If the cost of having university graduates is higher than that of college diploma graduates, then the MFIs may need to reduce the education requirement of COs. This finding supports the recommendation by Havers (1999) in the DFID mid-term review report.

Productivity and experience

Experience has the strongest correlation with productivity. From the findings it has the correlation of 0.243 which is the strongest of productivity with any other factor. This implies that the MFIs should enhance retention of their staff. Considering the approach used by the MFIs, the time and cost of training new COs to reach the expected output is high.

Productivity and distance covered

This had a negative correlation since it was expected that the shorter the distance covered, the higher the productivity of the COs. This turned out to be the opposite since those who were going more than 51Kms radius were found to be more productive as shown on table 4.3.4b. This means that larger operating area provides a greater opportunity for the CO to get more clients.

Productivity and training

In this study, training has a weak, indeed a negative correlation with productivity. From the table 4.3.2 it was clear that most COs have undergone training in the critical areas. The application of these training is what is then identified through their output. It is often difficult to ensure that the returns of training investment are

achieved and hence the variation from individual to individual. Most of the COs indicated that they attended training at least once in a year. It would be important for the MFIs to adhere to this since training has been proved to have positive effect. A recent finding by the consultative group – CGAP indicated that most MFIs lacked training in financial management. The COs indicated that most of their training was on group dynamics and customer care. Probably they need to be trained on financial issues to make them better managers of their own portfolios.

In the issue of orientation, the MFIs did not seem to have a set orientation program as eluded by the diverse responses on how long the COs underwent orientation. Their responses seemed to be as diverse as the number of COs. Relating this with the period the COs joined did not help the situation either. Orientation is a critical part of training done to usher in new staff. It signifies to the new staff the expectation of the organisation and helps the new staff to get the vision and direction of the organisation. Their eventual output is greatly affected by this. This is an area the MFIs need to look into. In the Grameen banks example, the COs are given a six months to one-year orientation program. The Kenyan MFIs are still young, and are working towards financial viability and sustainability, this elaborate orientation may not be within their capacity. However, they need to consider how to improve their orientation programs.

Productivity and remuneration

For the MFIs, the salary ranges for the COs is almost the same hence the findings indicated that 60.4% were well remunerated. Some of the MFIs give higher salaries and annual increments while others give bonuses, commissions and certification for the best performing regional or area office. One of the other observations that could be related to this finding was that the remuneration was similar whether one is a university graduate or diploma college graduate. This may be a possible explanation as to why the outputs are similar.

Productivity and incentives

Most of the MFIs gave incentives that ranged from annual salary increments, bonuses, and certification for the best performing staff or area office. There was a general observation that those who gave higher salaries did not have bonus as part of the incentives. Those who received bonus were on the lower salary limit. Tying output to monetary gain is an essential approach. Since the COs are the "sales-force" of the MFIs, this may be a good policy that would enhance productivity amongst the COs.

TABLE 4.4.2: COEFFICIENTS OF THE REGRESSION MODEL

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B		Collinearity Statistics	
	B	Std. Error	Beta					Lower Bound	Upper Bound
(Constant)	.312	.363		.861	.395	-.422	1.046		
Education level	-1.982E-02	.162	-.020	-.122	.903	-.348	.308	.892	1.121
Experience	.277	.173	.276	1.602	.117	-.073	.626	.788	1.269
Training	-1.077E-02	.056	-.030	-.194	.847	-.123	.102	.967	1.034
Distance travelled	-4.390E-02	.172	-.044	-.256	.800	-.391	.303	.795	1.257
Remuneration	-5.984E-03	.172	-.006	-.035	.972	-.354	.342	.866	1.155
Incentives	.135	.189	.115	.712	.481	-.248	.518	.891	1.122

A Dependent Variable: Productivity

Source: Primary Data

From the above coefficients the model derived is as follows:

$$P_i = 0.312 - 0.01982X_1 + 0.277X_2 - 0.01077X_3 - 0.0439X_4 - 0.005984X_5 + 0.135X_6$$

4.4.3: MODEL SUMMARY

R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				Durbin-Watson
							R Square Change	
.300(a)	.090	-.050	.5175	.090	.645	6	.39	.694
a Predictors: (Constant), incentives, experience, training, education level, remuneration, distance travelled								
b Dependent Variable: Productivity								

Source: Primary Data

The above model indicates that only 9% of the COs output is influenced by these six factors namely education, experience, training, distance travelled, remuneration and incentives. This implies there are other key factors that influences the productivity of COs and are discussed in the next section.

4.5 DISCUSSIONS OF THE FINDINGS

The above model indicates that these factors can have only an influence of 30% on productivity of the COs. Several factors that are also key have been considered to have a great effect on the productivity of COs. Some of these factors include:

- economic situation of the country: this has a major effect as has been indicated by most of the COs. Many had up to a client base of 450 and this is considered an optimal number to be managed by the CO. However most of these clients have not taken up loans making the number of active clients per COs to drop to a mean of 230 which is below the optimal range of 300 – 500 active clients;
- there seems to be an over penetration in certain markets and that is why the COs who seem to have longer distances to cover were more productive. Most COs sited competition as their major constraint in achieving the required target of client. Most of the MFIs seem to operate in the same areas and they need to now have a market development approach rather than a market penetration approach;
- one of the MFIs seem to be at the expansion stage and had recruited new COs who had very few groups and clients. This would explain their low rate in productivity. They seem to be using these new staff for promotion and market expansion. The performance of any organisation will be low at this point;

- the type of clientele is also critical to the output realised by the COs. The types of business employed by the clientele of these COs affect what amounts of loans they take, how fast they repay and take others. There seemed to be no major difference in the productivity of the COs of Nairobi and those of Mt. Kenya area. This may be because the MFIs approach people of similar business. This can explain why there is an outcry for an increase in the products offered by MFIs both by the clients and the donors. Most MFIs have been conservative and have been involved in lending services. Many are beginning to rethink their strategies and have developed new products such as health insurance, housing/mortgage and savings financial services to the poor among others. This diversification strategy may increase their client base and ensure their financial sustainability;

- the information system in a firm significantly affects the performance of a firm. The systems capability in providing accurately and timely the required information is essential for management decision making. For the COs the frequency of how often they receive the status report of their portfolio ranged from weekly to bimonthly. It was also observed that some of the MFIs had a centralised and some a decentralised information systems. Improvement in technology has always had a positive effect on productivity. Skinner (1986) suggests that production experience regularly observes a rule whereby 40% of any competitive advantage is derives from long term changes of major changes in equipment and process technology and only 20% rests on the conventional

approaches to productivity improvement. This implies that the MFIs have to give special attention to their information technology. For instance the COs spend a high percentage of the time in manual data entry. This could be enhanced by use of palmtops – a technology that has not reached the Kenyan market. This would give them more time for mobilisation and recruit of new clients;

- management of an organisation also affects the output of the staff. The systems put in place and the direction the leaders take the organisation determine the output of the staff. In the case of COs the Operations managers are critical in putting systems of operation, setting performance targets, facilitating and motivating the staff to give their optimal performance.

CHAPTER FIVE: SUMMARY AND CONCLUSIONS

5.1 SUMMARY OF THE RESEARCH FINDINGS

From the research findings experience was found to be the most critical factor to productivity of the COs. This implies that the MFIs must ensure that retention rate of staff is high. This may be due to the fact that the Grameen model used by the MFIs is new to Kenyans and hence need the staff to be quite conversant with it before they can also recruit and train the clientele. Training did not come out as a strong factor in the research and this is mainly due to the fact that most of the COs in the MFIs have undergone similar training and are trained regularly. Geographical coverage in distances covered indicated that the MFIs need to use market expansion and development strategy rather than penetration. Many of them are concentrated in the same areas and therefore those who travelled longer distances had higher productivity.

Education had no significant effect on productivity of the COs essentially due to the fact that we have only two levels of education among the COs and secondly this may be because of the nature of work, which requires more of relationship building rather than technical capabilities.

5.2 CONCLUSIONS

Given the fact that the MFIs in the research use a similar model namely the Grameen model in the same environment, it is expected that the productivity of the COs would be almost homogeneous. Where it proves different, it would be due to the difference in the productivity of individuals. The other differences would be explained by the differences in the management capacities of the organisations and secondly the Information systems in the organisations. Their capacities, capabilities and systems of operations are what would bring about the difference in the output in the long run.

Outreach can be expanded if the capacity of MFIs is increased, particularly the human capacity. The findings indicate that this is so. The COs need to be facilitated to do promotional outreach. The MFIs can also increase their capacity by increasing the staff involved in the actual promotion and training on the product so that there is increased creation of awareness. Aggressive marketing and selling of the product would increase the number of clients recruited by the COs.

Many organisations and corporations put in place a research and development department which in the short term may seem as a loss making unit. This investment however, can bring about a breakthrough that otherwise would have been impossible (without the dedication, commitment, and forgone profits). There is a general observation that MFIs in Kenya have failed to develop various products

and have focussed mainly in credit services. Investment in different products may bring about the expected expansion and outreach which currently is very low.

Well trained and experienced staff increase the performance capability of an organisation. It is possible to reach a maximum or optimum level with the staff. Organisations are keen on the skills, education and training of the staff employed as has been shown by the MFIs in the research. However, for productivity to increase, motivation, performance capability and coordination all need to be high in the organisation. The COs do not work in isolation and therefore the right environment and facilitation would increase their productivity.

Gain-sharing plans, which may include developing a bonus formula, when fully and properly implemented, should lead to improved productivity and also employees well being and satisfaction. Gain sharing relates pay to performance, therefore improving motivation; they include a training component that improves the performance capability.

5.3 RECOMMENDATIONS FOR FURTHER RESEARCH

- The study covered only two regions in Kenya. Further research on the productivity of the COs could be done covering more regions and more MFIs. This study can also be done regionally (East African countries) so that lessons can be shared from the best practices identified.

- The findings from this research showed that the six independent factors had only a 9% influence on productivity. More factors need to be researched on to give further insight in this area and assist MFIs management in their decision making process.
- It is important to do a research on factors that affect the performance of the MFIs in Kenya. The question of effectiveness of these MFIs been addressed. Indeed the MFIs are meeting a need in the market. However, there is a great need of focussing more studies on the MFIs operations. The findings from these researches help improve their efficiency. For instance the study by Schmidt on the efficiency of MFIs in Latin America could be replicated in Kenya. Critical issue is that very high operating costs have led to higher charges and interest rates and this has affected the outreach.
- Research on the IT systems used in the MFIs and their effectiveness would facilitate benchmarking and learning from best practices.

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APPENDIX I

ROSE WANJIRU

WORLD VISION KENYA
P O BOX 50816, NAIROBI
E-mail: rose_wanjiru@wvi.org

August 10, 2000

Managing Director
P O Box
NAIROBI

Dear Sir/Madam,

RE: RESEARCH ON PRODUCTIVITY OF CREDIT OFFICERS

I am a student at the University of Nairobi doing a Masters Degree in Business Administration. I have been majoring in operations and I work in an organisation that is currently at the launching stage of microfinance unit. It is for this reason that I chose to research on the topic "factors influencing productivity of credit officers in a microfinance institution".

I would like to kindly request for your organisation to facilitate me with any relevant information from your office on your operations. Secondly I would like to request for permission to conduct this research among your credit officers in Nairobi and Mt. Kenya areas.

I believe this research shall be of great importance to your organisation, as it will compare productivity of COs' from various (leading) MFIs. This may help you set new target for the COs', identify gaps in performance measures, and/or increase productivity among the credit officers.

Any assistance given will be highly appreciated and thank you for your cooperation.

Yours sincerely

ROSE WANJIRU

ROSE WANJIRU

WORLD VISION KENYA
P O BOX 50816, NAIROBI
E-mail: rose_wanjiru@wvi.org

August 10, 2000

Dear respondent,

My name is Rose Wanjiru, a postgraduate student at the University of Nairobi. I am undertaking a research project as part of the academic program. The focus of my research is to determine in general the productivity of credit officers in microfinance institutions.

I highly appreciate your experience and input into the productivity of your organisation and the fact that you input has a great influence on the bottom line. I therefore kindly request you to share with me your work through this questionnaire.

The result of this research will be for academic purpose only. However, the findings of this research can be availed to you upon request. The information provided shall be treated with utmost confidentiality.

WHEN YOU HAVE COMPLETED THE QUESTIONNAIRE PLEASE ENCLOSE IT IN THE ENVELOPE PROVIDED SOMEBODY WILL COME TO PICK IT FROM YOUR OFFICE.

If you have any queries or you would like further information about this project please call me on 02-560404 or e-mail me at rose_wanjiru@wvi.org

Thank you in advance for filling this questionnaire.

Yours sincerely,

Rose Wanjiru

Management of group dynamics []

Team building []

Information Technology []

Others (specify) _____

10. On average how often do you go for training annually? Tick where appropriate:

Once a year [] Twice a year [] Thrice a year []

More than three times a year [] Not applicable []

11. Do you have a documented guideline on the work process (an operations manual)?

Yes [] No []

12. How often do you use it? Tick where appropriate: Very often []

often [] Not often []

13. How many lending groups (solidarity group/women groups/self-help groups/KIWAs/Shirikas') do you have? _____

14. How many clients do you have in total? _____

15. How many of your clients are active (currently have loans)? _____

16. What is your targeted/required number of clients? _____

17. What is the waiting or preparation period before the first loan disbursement? Tick where appropriate

4 weeks []

8 weeks []

16 weeks []

Over 16 weeks []

18. Do all clients in a new group receive loans at the same time?

Yes [] No []

19. If 'No' what is the difference in weeks between the 'first lot' loanees and the 'second lot' loanees? Tick where appropriate

2 weeks []

4 weeks []

8 weeks []

Over 8 weeks []

20. How many members does each group have?

Minimum number _____

Maximum number _____

21. How often do you meet with your clients? Once a week [] twice
times a week [] fortnightly [] Other _____

22. How many of your groups do you meet in a week? _____

23. How often are your clients trained? Tick where appropriate: Monthly [] Quarterly
[] Half yearly [] Annually []

24. What is your current number of loans outstanding? _____

25. What is the value of your current loan portfolio? Ksh. _____

26. What is the average number of loans falling into arrears per month? _____

27. What is the value of payments in arrears? Ksh. _____

28. What is the average number of loans falling into default per month? _____

29. What is the average value of loans written off in a month? Ksh. _____

30. What is the average number of clients leaving your groups? Monthly _____
Annually _____

31. Do you use computers Yes [] No []

32. If 'Yes', how often do you use computers? Once a week [] several
times a week [] fortnightly [] Other (specify) _____

33. What functions of your work involve use of computers?

Data entry []

Data Analysis []

Loan tracking []

Report writing []

Others (specify) _____, _____, _____,
_____, _____, _____

34. If your answer to question 31 is 'No,' what work do you do manually that could be
enhanced by use of computers? _____, _____,

35. Where is the data entry activity done? Head office [] Area/ Branch
/Regional office [] Field/satellite office []

36. How often do you get updated status reports (financial statements) from the accounts office? Once a week [] Several times a week []
Fortnightly [] Others (specify) _____
37. What is your geographical coverage (in radius kilometers) _____
38. Give the names of the areas that you cover: _____,
_____, _____
39. What mode of transport do you use to visit your clients? Tick where appropriate
- Walk []
Bicycle []
Motorcycle []
Public means []
Others (specify) _____
40. Do you think you have captured all the potential customers in this area?
Yes [] No []
41. If no what are the constraints? Tick where appropriate:
- Competition []
Lack of time []
Lack of resources []
Others (specify) _____
42. What causes the factor identified in question 41 above? _____

43. Please indicate the percentage of time taken on each of the following activities:
- | | |
|---|--------------------|
| Outreach and promotion | _____ |
| Identification and screening of clients | _____ |
| Formation and training of groups | _____ |
| Assessment of loan applications | _____ |
| Disbursement and recovery of loans | _____ |
| Monitoring and follow-up | _____ |
| TOTALS | <u>100%</u> |

44. What is basic salary range? Tick where appropriate

0 – 10,000 []

10,000 – 20,000 []

20,000 – 30,000 []

Over 30,000 []

45. Are there any incentives given to credit officer if they exceed the expected output in a given period? Tick where appropriate

Bonuses []

Salary increment []

Commission []

Certification []

Others (Specify) _____

46. If yes how often? Biannually [] Annual [] Every two years []

47. What is the percentage of your remuneration is provided through the incentives in question 45? _____% N/A _____

48. What productivity measure is used to assess your performance? Tick where appropriate

Number of clients []

Number of active clients []

Outstanding loan portfolio []

Disbursement (amounts) []

Others (Specify) _____

Make any other comments on productivity of credit officers in the space below: _____

Thank you.

LIST OF MFI NGOs (1999 status)

MFI NGO	No. of Active clients
K-Rep Holdings Ltd.	15,357
KWFT	13,242
Faulu Kenya	10,212
Care-WEDCO	8,478
NCCK-SMEP	6,737
BIMAs	2,650
Kenya-Eclof	3,500
<i>TOTAL</i>	<i>60,176</i>
Others	19,824
<i>GRAND TOTAL</i>	<i>80,000</i>

- K-Rep Holdings Ltd. includes the K-rep bank with 13,613 active clients and K-Rep NGO with 1,744 active clients.
- Care-WEDCO and BIMAs of Plan Kenya have their operations in Western and Eastern Provinces respectively and were therefore not selected for the study.
- Others constitute of some NGOs', Church and Parachurch organisations (41 in number) that are venturing in financing activities to SMEs or farmers but whose core business is not microfinance. These institutions have not been registered as such.

LIST OF THE SELECTED MICROFINANCE INSTITUTIONS

K-Rep Bank Ltd
P O Box 39312
Tel 562878, 573141/48/74
Naivasha Rd., Riruta

Kenya Women Finance Trust
P O Box 55919
Tel 712903
Muchai Rd.

Faulu Kenya
P O Box 60240
Tel 577290
Off Muthangari Rd.

K-Eclof
P O Box 34889
Tel 719113/719779
Ufungamano Hse.

NCCK-SMEP
P O Box 64063
Tel 560961/561929
Kirichwa Rd.

APPENDIX II

FREQUENCIES AND STATISTICS TABLES FOR VARIOUS QUESTIONS

Q.15: HOW MANY OF YOUR ACTIVE CLIENTS DO YOU HAVE?

Number	Valid	51
	Missing	5
Mean		235.4118
Median		245.0000
Mode		250.00
Std. Deviation		93.1286
Variance		8672.9271

Q. 24: WHAT IS YOUR CURRENT NUMBER OF LOANS OUTSTANDING?

Number	Valid	49
	Missing	7
Mean		216.2041
Median		220.0000
Mode		40.00(a)
Std. Deviation		92.2469
Variance		8509.4991
a Multiple modes exist. The smallest value is shown		

Q. 26: WHAT IS THE AVERAGE NUMBER OF LOANS FALLING INTO DEFAULT? (MONTHLY)

Number	Valid	46
	Missing	10
Mean		9.1304
Median		5.0000
Mode		.00(a)
Std. Deviation		9.5023
Variance		90.2937
a Multiple modes exist. The smallest value is shown		

Q. 27: WHAT IS THE VALUE OF PAYMENTS IN ARREARS, IN KSH?

Number	Valid	39
	Missing	17
Mean		101668.3590
Median		47000.0000
Mode		.00(a)
Std. Deviation		125444.9013
Variance		15736423260.8677
a Multiple modes exist. The smallest value is shown		

Q. 30: WHAT IS THE AVERAGE NUMBER OF CLIENTS LEAVING YOUR GROUPS? (MONTHLY)

Number	Valid	43
	Missing	13
Mean		4.0930
Median		3.0000
Mode		2.00
Std. Deviation		3.3153
Variance		10.9911

Q. 28: WHAT IS THE AVERAGE NUMBER OF LOANS FALLING INTO ARREARS? (MONTHLY)

Number	Valid	36
	Missing	20
Mean		3.2222
Median		1.5000
Mode		.00
Std. Deviation		4.6298
Variance		21.4349

SUMMARY OF THE ABOVE STATISTICS

	What is the average number of loans falling into arrears?	How many of current your clients are current active?	What is your current number of loans outstanding?	What is the average number of loans falling into default?	What is the average number of clients leaving your groups?
Valid	36	51	49	46	43
Missing	20	5	7	10	13
Mean	3.2222	235.4118	216.2041	9.1304	4.0930
Median	1.5000	245.0000	220.0000	5.0000	3.0000
Mode	.00	250.00	40.00	.00	2.00
Std. Deviation	4.6298	93.1286	92.2469	9.5023	3.3153
Variance	21.4349	8672.9271	8509.4991	90.2937	10.9911
A Multiple modes exist. The smallest value is shown					

HOW MANY OF YOUR ACTIVE CLIENTS DO YOU HAVE?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00	1	1.8	2.0	2.0
	50.00	1	1.8	2.0	3.9
	70.00	1	1.8	2.0	5.9
	105.00	1	1.8	2.0	7.8
	119.00	2	3.6	3.9	11.8
	121.00	1	1.8	2.0	13.7
	130.00	1	1.8	2.0	15.7
	137.00	1	1.8	2.0	17.6
	160.00	1	1.8	2.0	19.6
	172.00	1	1.8	2.0	21.6
	187.00	1	1.8	2.0	23.5
	190.00	1	1.8	2.0	25.5
	194.00	1	1.8	2.0	27.5
	199.00	1	1.8	2.0	29.4
	200.00	2	3.6	3.9	33.3
	201.00	1	1.8	2.0	35.3
	210.00	1	1.8	2.0	37.3
	221.00	2	3.6	3.9	41.2
	226.00	1	1.8	2.0	43.1
	227.00	1	1.8	2.0	45.1
	230.00	2	3.6	3.9	49.0
	245.00	1	1.8	2.0	51.0
	246.00	1	1.8	2.0	52.9
	250.00	3	5.4	5.9	58.8
	255.00	1	1.8	2.0	60.8
	258.00	1	1.8	2.0	62.7
	260.00	2	3.6	3.9	66.7
	264.00	1	1.8	2.0	68.6
	266.00	1	1.8	2.0	70.6
	274.00	1	1.8	2.0	72.5
	280.00	2	3.6	3.9	76.5
	290.00	1	1.8	2.0	78.4
	293.00	1	1.8	2.0	80.4
	300.00	1	1.8	2.0	82.4
	304.00	1	1.8	2.0	84.3
	310.00	1	1.8	2.0	86.3
	340.00	1	1.8	2.0	88.2
	351.00	1	1.8	2.0	90.2
	380.00	1	1.8	2.0	92.2
	385.00	1	1.8	2.0	94.1
	396.00	1	1.8	2.0	96.1
	450.00	2	3.6	3.9	100.0
	Total	51	91.1	100.0	
Missing	System	5	8.9		
Total		56	100.0		

WHAT IS THE AVERAGE NUMBER OF LOANS FALLING INTO ARREARS?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00	6	10.7	13.0	13.0
	2.00	5	8.9	10.9	23.9
	3.00	6	10.7	13.0	37.0
	4.00	5	8.9	10.9	47.8
	5.00	3	5.4	6.5	54.3
	7.00	1	1.8	2.2	56.5
	8.00	1	1.8	2.2	58.7
	10.00	6	10.7	13.0	71.7
	11.00	1	1.8	2.2	73.9
	14.00	1	1.8	2.2	76.1
	15.00	1	1.8	2.2	78.3
	16.00	1	1.8	2.2	80.4
	20.00	3	5.4	6.5	87.0
	22.00	2	3.6	4.3	91.3
	23.00	1	1.8	2.2	93.5
	25.00	1	1.8	2.2	95.7
	30.00	1	1.8	2.2	97.8
	44.00	1	1.8	2.2	100.0
	Total	46	82.1	100.0	
Missing	System	10	17.9		
Total		56	100.0		

WHAT IS THE AVERAGE NUMBER OF LOANS FALLING INTO DEFAULT? (MONTHLY)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00	11	19.6	30.6	30.6
	1.00	7	12.5	19.4	50.0
	2.00	4	7.1	11.1	61.1
	3.00	1	1.8	2.8	63.9
	4.00	1	1.8	2.8	66.7
	5.00	7	12.5	19.4	86.1
	7.00	3	5.4	8.3	94.4
	15.00	1	1.8	2.8	97.2
	23.00	1	1.8	2.8	100.0
	Total	36	64.3	100.0	
Missing	System	20	35.7		
Total		56	100.0		

**WHAT IS THE AVERAGE NUMBER OF CLIENTS LEAVING YOUR GROUPS?
(MONTHLY)**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00	2	3.6	4.7	4.7
	1.00	4	7.1	9.3	14.0
	2.00	11	19.6	25.6	39.5
	3.00	8	14.3	18.6	58.1
	4.00	3	5.4	7.0	65.1
	5.00	7	12.5	16.3	81.4
	6.00	2	3.6	4.7	86.0
	10.00	3	5.4	7.0	93.0
	11.00	2	3.6	4.7	97.7
	15.00	1	1.8	2.3	100.0
	Total	43	76.8	100.0	
Missing	System	13	23.2		
Total		56	100.0		