

**The Appropriateness of Performance Measurement Systems in the Services Sector: Case Studies from the Micro Finance Sector in Kenya.**

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## **Abstract**

The intent of micro finance in developing countries has been to provide loans to very poor people and to help them transform their lives. This study examined micro finance institutes (MFIs) in Kenya. Of the various MFIs in Kenya, it examined three characterized as formal and client based and likely to use rational and explicit performance measures. Clients in these MFIs have been placed into self-help groups with two responsibilities: (1) provide mutual support and advice to the borrowing client, and (2) provide the MFI with a guarantee that loans of group members will be repaid.

Based on a review of the performance measurement systems (PMS) literature, research questions were developed along with an interview guide. Case studies were used to administer an interview guide which was distributed prior to the face-to-face interviews.

The study concludes that MFIs have relatively well developed PMS that support their particular businesses. The nature of the MFIs suggest the importance of performance measurement. The managers of the MFIs are concerned with performance measurement as expected with a bureaucracy. This is the top down demand for performance measurement. In addition, group members or clients are interested in performance measurement as each guarantees the loans of all group members who have loans with the MFI. Thus, the clients exert a bottom up demand for performance measurement.

*Key words: Performance Measurement; Non financial measures; Services Sector; Micro finance institutions; Kenya*

# **The Appropriateness of Performance Measurement Systems in the Services Sector: Case Studies from the Micro Finance Sector in Kenya**

## **1. Introduction and Motivation**

Micro finance has become popular, especially after Dr. Muhammad Yunus and the Grameen Bank won the 2006 Nobel Prize for Peace. For Yunus, it started in 1976 with the lending of tiny sums to very poor people in Bangladesh to help them to transform their lives. His first loan of \$27 to 42 village women came out of his own pocket. Each made a profit of about 2 cents on the loan, enough to start a new industry.

With the dual goals of lending to those who cannot access formal credit from commercial banks and mobilizing savings, micro finance is not restricted to Bangladesh. It exists in many developing countries around the world, including Kenya, where one of the authors can communicate in the local Swahili language. Kenyan micro finance is generally categorized along two lines (Hospes, Musinga and Ong'ayo, 2002, pp.23-25). First and most common is the formal versus informal. Formal providers are registered and regulated as to laws and transactions under various statutes of contract law. Informal providers are subject to self-regulation or group based rules. Second, micro finance in Kenya can be client-based or member-based. With member-based, resources are mobilized from members and members constitute the main target group for service provision. These are cooperatives. In client-based organizations the customers are not owners. Customers are not involved with the management of the organization.

Our interest is with the formal-client-based quadrant of this two by two matrix. That quadrant contains most Kenyan micro finance institutions (MFIs). The attributes of

formal and client-based suggests to us that those MFIs select rational and explicit performance measures.

It must be remembered that micro finance is a social business rather than market-based hierarchical business. However, it is a late 20<sup>th</sup> century and early 21<sup>st</sup> century social business, where MFI clients and employees would be relatively well informed because of readily available information. Thus, we would expect carefully considered performance measures with these client-based formal organizations

The potential of using institutional credit and other financial services for poverty alleviation in Kenya is quite significant. About 18 million people or 60% of the population are poor and mostly out of the scope of the formal banking sector (Omino, 2005). According to the poverty reduction paper of 1999, most Kenyans derive their livelihood from the micro and small scale enterprises which employ over 20% of the population and contribute over 18% of the GDP (Omino, 2005).

What would we expect with performance measures? A reasonable expectation would be performance measures based on textbooks for academic or professional instruction. For example, Anthony and Govindarajan (2007) say performance measures play an important role in translating the organization's strategy into desired behaviors and results. Performance measures communicate the firm's objectives and goals to the employees, monitor their progress and provide feedback on their efforts to senior management. Johnson and Kaplan (1987) argue that the traditional performance measurement systems

(PMS) largely evolved within the large industrial firms of the 1920s focusing on the achievement of a limited number of key financial measures. However with the recent changes in the operating environment, both academicians and practitioners have argued that financial measures are no longer adequate (Said et al., 2003; Ittner and Larcker, 1998; Kaplan and Norton, 1996).

Much of the criticism of the traditional financial PMSs deals with their failure to measure and monitor multiple dimensions of performance (Brignall and Ballantine, 1995; Kaplan and Norton, 1992). Traditional PMSs emphasize the needs of the shareholders, but pay little attention to the requirements of other stakeholders such as customers and employees (Sartorius et al., 2006; Brignall and Ballantine, 1995). A wide variety of new measures have been proposed ranging from improved accounting based measures such as economic value added to integrated measures such as the balanced scorecard (Ittner and Larcker, 1998:2001; Kaplan and Norton, 1996)

The development of performance measures in service companies has not kept abreast with their manufacturing counterparts despite the unprecedented growth in the recent decades (Sartorius et al., 2006; Kaplan and Atkinson, 1998). For example Holm-Olsen (2003) concluded that the services sector accounts for over 65% of the GDP in South Africa. Several factors may have contributed to the problems of developing controls in the services sector. They included the difficulty of measuring performance outputs (Waweru and Porporato, 2008), the fact that the service industry has been less exposed to competition (Kaplan and Atkinson, 1998; Brignall and Ballantine, 1995), certain macro

economic factors (Sartorius et al., 2006) and the revolutionary effect of information technology (Sartorius et al., 2006; Kaplan and Norton, 1996; Kaplan and Atkinson, 1998). The main objective of this paper is to contribute to a better understanding of the design and use of performance measurement systems in the micro finance sector of Kenya.

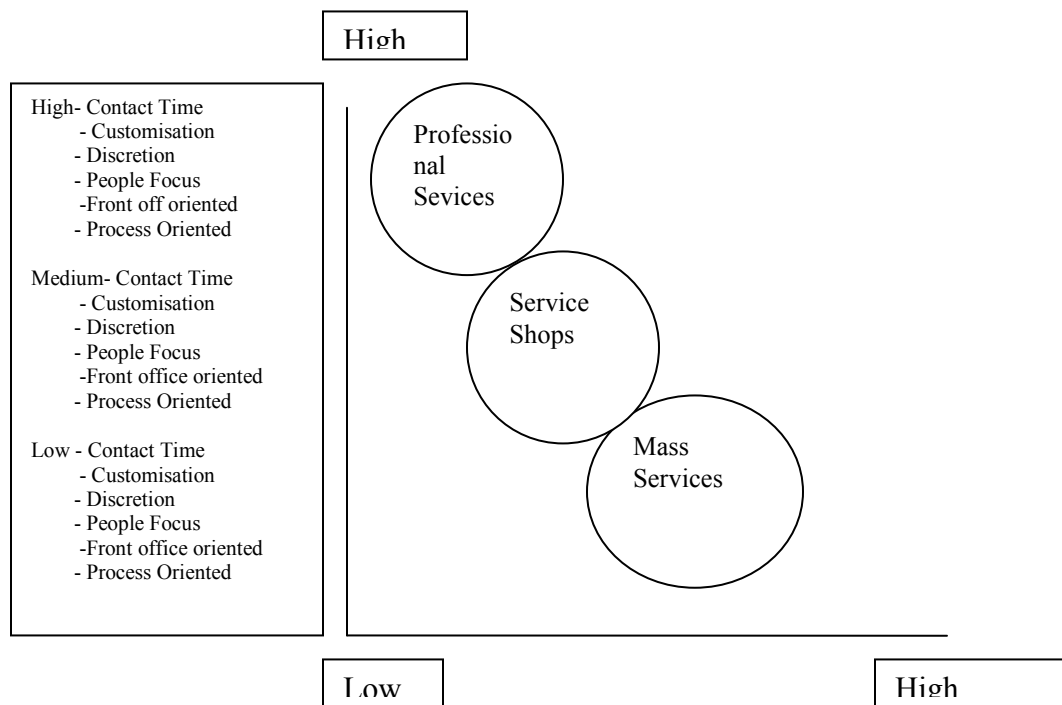
## **2. Theory and Literature Review**

According to Anthony and Govindarajan (2007) a well designed performance measurement system ensures that the key success factors of strategy form the basis of the organizational measurement and reward systems. Therefore, the main objective of performance measurement is to construct a set of measures, which if achieved, will result in the organization achieving its desired objective (Otley, 1991, Merchant 1987). Performance measurement systems focus attention and communicate the ambitions and strategic priorities of the organization to the managers and staff of the organizations (Anthony and Govindarajan, 2007; Neely and Adams, 2001; Sartorius et al., 2006). More importantly, performance measures promote goal congruence within the organization, motivate employees, and provide direction and information for decision making and control purposes (Sartorius et al., 2006; Moon and Fitzgerald, 1996).

Emmanuel and Otley (1985) argue that organizational success depends not only on the achievement of financial measures but also on how well the organization adapts to the environment within which it exists. They argue that success is a multi-dimensional, and its features both change over time and vary between one individual or group in the

organization and another. Consequently performance measures may be appropriate for one type of service business but not another. Fitzgerald et al., (1991) identified three services archetypes namely, professional services, service shops and mass shops using the number of customers processed each day as the main classificatory mechanism (*see figure 1*). Professional services are those that have a relatively low number of customers but a high level of contact time, people focused and process oriented, while mass shops have high volume of customers but low level of contact time, people focused and process oriented. Service shops are the intermediate category processing some hundreds of customers per day and may possess some of the features of the other two categories.

**Figure 1: Service Classification**



(Source Fitzgerald et al., 1991)

Fitzgerald et al., (1991) recognized that organizations compete on many levels other than cost and price. They suggested a holistic continuum of six dimensions of performance (*see figure 2*), split into two categories; one that measures results of the company's

strategy (financial performance and competitiveness) and another that measures the determinants of the strategy's success (quality, flexibility, resource utilization, and innovation). They argue that in order to develop a balanced set of measures across all six dimensions, three important factors must be taken into account. These include the type of competitive environment in which the company operates (so as to determine the level of need for interactive information communicating strategic threats and uncertainties), the strategic intention of the company (which determines the relative importance of certain performance measures), and the service sector in which the company operates (Brignall and Ballantine, 1995; Fitzgerald et al., 1991; Sartorius et al., 2006).

Brignall and Ballantine (1995) argue that the design of a performance measurement system should depend on three interacting contingent variables, which together determine the why, the what, and the how of performance measurement. These include the organization's external environment (which explains the why of performance measurements), its chosen mission and strategy (which explains the what of performance measurement) and its internal capabilities (which explains the how of performance measurement).

**Figure 2: The performance Dimension**

<b>Performance Dimension</b>	<b>Type of Measure</b>
<i>Results</i>	
Financial Performance	Profitability, Liquidity, Capital Structure, Market Ratios
Competitiveness	Relative market share and position, Sales growth and Measures of customer base
<i>Determinants</i>	
Resource utilization	Productivity and efficiency

Quality of service	Reliability, responsiveness, Aesthetics/appearance, cleanliness/tidiness, comfort, friendliness, communication, courtesy competence, access, availability and security.
Innovation	Performance of innovation process, performance of individual innovations
Flexibility	Specification flexibility, volume flexibility, delivery speed flexibility

*Source: Adapted from Fitzgerald et al., (1991)*

The external environment includes variables such as the state of the macro economy, the degree of government regulation and the competitive forces facing the company (Waweru et al., 2004; Porter, 1980). A highly complex and uncertain external environment may lead to the need for elaborate administrative and co-ordination systems (Brignall and Ballantine, 1995). The type of strategy chosen primarily determines what must be measured (Brignall, 1993). For example Brignall and Ballantine argue that service companies following the cost leadership strategy should focus on financial results and measures of resource utilization. The internal environment includes factors such as the size and structure of the organization, the culture and history and the organization's process type (*see figure 1*). While what is measured may be common between service types with the same mission and generic strategy, how it is measured may need to vary systematically (Brignall and Ballantine, 1995). For example, although retaining existing customers is equally important to professional services as it is to a mass service, professional services firms may measure the quality during each stage of the service process, while mass services tend to rely heavily on the measurement of service outputs (e.g. through the use of customer surveys).

### **3. Conceptual Framework**

According to Sureshchandar and Leisten, (2005), the appropriateness of a performance measurement framework should be assessed with a list of critical success factors. These include top management support (Anthony and Govindarajan, 2007), whether there is ownership in the setting of measures (Otley, 1991) and the perceived achievability of the targets (Sartorius et al., 2006; Baron and Greenberg, 2000). There is also a need to ensure that the measures are clear, unambiguous and that they are communicated to the subjects being measured. Furthermore Anthony and Govindarajan (2007) argue that the measures should not be excessive, should be based on controllable factors and should be linked to compensation and rewards (Baron and Greenberg, 2000).

Since the early 1990s a number of performance measurement frameworks have been developed, the most widely cited being the balanced scorecard (Kaplan and Norton, 1992) and the six-dimensional model of Fitzgerald et al. (1991). Neely et al. (2005) argue that the most referenced framework in the literature since 1992 has been the balanced scorecard. These references are mainly critiques of the shortfalls of the balanced scorecard which include the lack of a dimension to measure competitiveness (Anderson and McAdam, 2004) and the inability to ensure that the performance measurement systems evolve over time with changes in the operating environment (Kennerley et al., 2003). It has also been argued that the balanced scorecard ignores other stakeholders such as employees and society (Anderson and McAdam, 2004).

Sartorius et al. (2006) constructed a conceptual model (*see figure 3*) around the six performance dimensions proposed by Fitzgerald et al., (1991) and the balanced scorecard suggested by Kaplan and Norton, (1992; 1996). They expanded the two models to include a dimension on competitiveness and employee motivations (Anderson and McAdam, 2004) and a checklist of the critical success factors to ensure that the barriers to change are addressed in the design and implementation process (Kennerley et al., 2003).

**Figure 3: Framework to assess the PMS Appropriateness**

Checklist	Appropriateness
1. Service type sector: professional firm, service shop, mass shop	
2. Environment and competitive position: uncertainty, competition, market share, changes in regulation, technology, ownership	
3. Generic strategy Cost leadership, differentiation, focus	
4. Organization size, Structure, MCS size (number of employees), type of MCS, IT support, database type, structure (degree of decentralization )	
5. Appropriate Across the six performance dimension: competitiveness, financial, quality, flexibility, recourse utilization, innovation	
6. Critical success factors Number of measures, equity, clarity, ownership, achievability, controllability, timely feedback, compensation linked	
7. Are Appropriate objectives Achieved Motivation, direction, fuel learning, aid decision making, communication	

*Source: Adapted from Sartorius et al., (2006)*

The first step involves the checking of the appropriateness of the PMS with respect to the service sector of the company (*see figure 1*). For example the PMS in the service shops sector (micro finance institution in our case) is expected to focus more on the efficiency (relationship between inputs and outputs) function since the technology is more standardized and limited discretion is applicable.

The second step would ensure that the PMS monitors the environment and competitive position of the firm. In a developing country, where the environment is significantly uncertain and where the levels of competition high due to globalization and liberalization (Waweru and Uliana, 2005), the PMS would reflect more external data and benchmarking (Waweru et al., 2004; Anderson and McAdam, 2004).

The third step involves ensuring that the PMS are appropriate to the strategy of the organization. For example in the micro finance sector where innovation and quality are important elements of strategy the PMS would focus on new products introduction and measures of quality such as customer satisfaction.

The fourth step would involve ensuring that PMS are appropriate with respect to the organization size, structure and the management control systems. In this regard, the PMS should comply with the firm's responsibility reporting, the number of employees in such centers, and the management information systems in use.

The fifth step involves tests of the PMS's appropriateness across the six performance dimensions (*see figure 2*). We therefore attempt to establish whether measures have been developed across the dimensions, whether there is a cause and effect relationship between the determinants (quality, resource utilization, flexibility and innovations) and the results (competitive position and financial performance).

The sixth step looks for the presence or absence of the critical factors of success, which are important to ensure the appropriate implementation of the PMS. These include limiting the number of performance measures, ensuring that the measures are clear and equitable across responsibility centers, the subjects being measured are involved in their design and that the measures are linked to compensation and rewards.

Finally, the seventh step is a post audit of actual performance to test the appropriateness of a PMS. This involves testing whether the objectives and strategies of the organization have been successfully implemented and whether they have induced expected behavior. Has the PMS provided direction, facilitated decision making and communication in the organization? Has the PMS facilitated the administrative process with regard to compensation, other reward systems, career development and training in the organization?

#### **4. Micro Finance Institutions in Kenya**

MFI in Kenya is a relatively new phenomenon with a few agencies starting in the last 20 years. In this study we as noted looked at client-based MFIs. As at end of 2007, there

were a total of 14 client-based MFIs in Kenya. Most of them are registered as non governmental organizations while others are registered as non banking financial institutions.

In Kenya, low-income entrepreneurs need investment money. Commercial banks do not serve this section because of the small amounts requested and fact that these entrepreneurs do not have bank accounts. MFIs target this market. These registered and regulated agencies display a willingness to offer non-conventional services, often replicating the positive attributes of informal financial service (Gudz, 1999, p. 13).

Clients or customers are generally members of financial self-help groups, which vary in size from five to 50 members. These groups are registered with the Kenyan Ministry of Social Services, and the group members would be trained by the MFI personnel before applying for the initial loan.

The group has two responsibilities in respect to the MFI: (1) it provides mutual support and advice to the borrower (i.e., client), and (2) it provides the lender (MFI) a guarantee. Sometimes the borrower provides other collateral. Each member of the group guarantees the loans of other members. Group members often deposit savings with the lender as additional security. If a member defaults on a loan without sufficient collateral, the MFI will take the outstanding balances paid by group members including from their deposited funds. The fear of losing deposits to cover a group member's loan creates cautious

behaviour among the members of a group in approving loans and in monitoring the businesses of one another.

Groups are generally formed as part of community information sessions sponsored by the MFI. Prospective clients, particularly entrepreneurs showing interest, are invited to a series of follow up meetings, and later invited by the MFI to become a member in a self-organized group. Membership is heterogeneous regarding gender, affluence, and ethnicity.

Members understand each other's businesses, and they become close friends. Group meetings tend to be weekly. The duration of these meetings varies. New groups tend to take longer to conduct their transactions, whereas established and cohesive groups may take as little as 20 minutes. Payments from group members to the MFI are aggregated prior to the weekly group meeting. The group mechanism reduces transactions costs for the MFI and its clients.

Each MFI aggregates the loans into portfolios for management purposes. Each portfolio is the responsibility of a credit manager, who monitors the loans. Credit managers provide training as deemed necessary and hold bi-weekly meeting with groups in his or her portfolio.

Little empirical evidence exists on how MFIs in Kenya measure their performance and/or whether MFIs assess the performance of the projects that they finance. There is no

documented evidence to show whether MFIs are meeting their primary goal of poverty eradication despite the emphasis placed on this objective by both donors and government. This study seeks to determine how and why MFIs in Kenya measure their performance and that of the projects they finance.

This study investigated the extent to which MFIs in Kenya have contributed towards the alleviation of poverty in Kenya. We looked at this from the perspective of how or why MFIs assess their performance and that of the projects that they finance. We set the following research questions:

1. What performance measures are being used by MFIs in Kenya?
2. What performance measures are being used by MFIs in Kenya to measure the success or failure of projects of their customers?
3. How and why do MFIs in Kenya measure their performance?
4. How effective (appropriate) are the performance measures that are currently in use?

## **5. Research Method**

A case study is an empirical enquiry that investigates a contemporary phenomenon within its real life context, especially when the boundaries between the phenomena and context are not clearly evident (Yin, 2003). Case studies were important in this research so that we could gain an in-depth understanding of how and why performance measurement systems were used in the subject organizations.

A total of five MFIs were selected for this study. All MFIs were well established with branches in both urban and rural Kenya. Data were collected between June 2007 and August 2008. Letters requesting the CEOs to participate in face to face interviews were sent to the five MFIs in April of 2007. Two MFIs refused to participate in the study citing confidentiality of the information sought and lack of time. Three MFIs agreed to participate and a copy of the interview guide was sent to the respective CEO one month before the date of the interview. This allowed them time to prepare.

A good case study should use as many sources of evidence as possible. In this research three sources of evidence suggested by Yin (2003) were used. These were: (1) documentation, (2) interview, and (3) archival records. During the first stage of data collection, the researchers reviewed publicly available information relating to the MFIs under study and the MFIs in general from public and private records in Kenya.

The second stage involved visiting the selected institutions and having a detailed discussion with the CFO and the CEO at the MFI's head office. The interviews took between two and three hours. With the permission of those in charge, the researcher reviewed the main reports prepared by the credit/finance departments. Arrangements were then made to visit the MFI's branches and customers so that the researcher could investigate how the MFI measured the performance of the projects financed and therefore assess how the MFI was contributing to the alleviation of poverty in Kenya. As suggested by Lillis (1999), an interview guide was used during the interview to minimize interviewer bias. All participating MFIs requested completed confidentiality of the

information given. In view of this, the actual names of the MFIs were not used in this paper and will henceforth be referred to as ABC, DEF and GHI

Yin (2003) suggests four tests to establish the quality of a field study: (1) construct validity, (2) internal validity, (3) external validity, and (4) reliability. In this study construct validity was addressed through multiple sources of evidence that included face-to-face interviews, archival sources, MFI websites, financial statements and structured questionnaires. Internal validity was addressed through pattern matching, which concentrated on how and why the pattern of observation about each case was consistent or inconsistent with the theoretical prediction. External validity was addressed through replications logic. This analysis focused on cross case analysis and comparison of the results. Results from each case were considered to be findings that were subject to replications by other individual cases. If the findings obtained in subsequent cases were also consistent with the theory, we concluded that the validity of the theory had been strengthened. If the pattern obtained in the second case was similar to the pattern in the first case, we interpreted this as a replication. We also tried to understand and explain any deviations of the patterns from the theory. Finally, reliability was addressed through the use of face-to-face interviews and the use of a structured questionnaire.

A qualitative analytical procedure was used to analyze and interpret the data. According to Lillis (1999) the analysis of any qualitative data involves the process of reduction, classification and interpretation. Data collected were coded/matched and linked to the themes that were being investigated. Coding enhanced completeness of the data at the

same time leaving out what may have been repeated or deemed unrelated to the matters being investigated. This method minimized potential bias and provided an audit trail thus enabling the reader to track back to the source of the conclusions drawn.

After the data were classified and summarized, sections of the transcript were selected so as to identify patterns among the constructs. Information was then derived so that conclusions could be drawn on how and why MFIs in Kenya measured their performance and whether they measured the performance of their customer's projects.

## **6. Case Studies**

### **ABC**

Registered as a limited company, ABC was founded over ten years ago. It operated as a non bank financial institution. At the time of this study it operated over 20 branches throughout Kenya, employed over 300 people, and had more than 50,000 active borrowers. This MFI was a deposit taking organization with over 20,000 savers. The MFI served both rural and urban areas with over 70% of the clients being urban based.

#### *Performance measurement systems*

The most important performance evaluation systems in the organization were individual based measures. This was inconsistent to the findings of Waweru et al. (2004), who reported that team based performance measures were the most widely used in developing countries. However the MFI used both financial as well as non financial measures to evaluate the performance of its managers and branches (divisions). Some of the notable

individual measures included number of clients per officer, number of new clients per month, total loans disbursed per month, number of client meetings attended per month and the ratio of portfolio at risk to total loans in the portfolio. Divisional performance measures included quality of the portfolio, number of new clients, capacity (i.e. percentage of clients with loan facilities), total loans disbursed, profit margin, total interest revenue and percentage of operating expenses to total loans.

Organizational performance measures were mainly financial and were classified into three groups; (1) quality measures, (2) efficiency and productivity measures and (3) financial measures.

Quality measures included:

- Portfolio at risk/gross loan portfolio
- Loan loss provision expense/average gross loan portfolio
- Loan loss reserves/profitability at risk
- Write off/average gross portfolio.

Efficiency and productivity measures included:

- Operating expenses/average gross loan portfolio
- Cost per borrower
- Average outstanding loan size
- Number of borrowers per credit officer
- Number of borrowers per staff.

Financial measures included:

- Cash flow
- Revenue growth
- Profit margin
- Return on assets
- Return on equity

Three years earlier the MFI introduced a balanced scorecard. The aim was to communicate the MFI's strategy to all employees and to link the performance measures to the strategy. The staff bonus system for example was based on the balanced scorecard. The MFI had an information system that was used to monitor loan repayments. However the system only produced weekly reports.

The researcher asked the respondents to advise the purpose of their performance measurement system. Achievement of the MFI's mission was cited as the most important factor followed by communication of the MFI's goals to the employees. The respondents also advised that competition in the sector has intensified during the last five years mainly from commercial banks that have started lending personal unsecured loans. Therefore, there was a need to remain competitive by comparing the MFI results with others in the micro finance sector. Other factors mentioned included, motivating staff, training staff and provide information for control.

In regard to performance measurements of their financed projects, the respondents advised that their credit officers held bi-weekly meetings with the group borrowers under their portfolio. After such meetings, the credit offices were required to complete credit reports. The researcher viewed several such reports. The reports contained information such as number of customers in the group, total amount of the loans, amount repaid, portfolio at risk and portfolio at risk greater than 30 days. Bank officers also paid monthly visits to clients whose loans exceeded Ksh 100,000. Such clients were also required to submit quarterly cash flow statements to the MFI. Some other notable performance measures included the loan repayments, deposits per month and requests for more funds (usually after the repayment of the existing facilities).

The respondents advised that although divisional and organizational performance was a continuous process, individual performance was carried out at the end of the financial year. Table 1 shows a summary of the MFI's performance measures, re-arranged in the six dimensions suggested by Fitzgerald et al. (1991).

**Table 1: PMS in ABC**

	<b>Competitive position</b>	<b>Financial Performance</b>	<b>Service Quality</b>	<b>Resource Flexibility</b>	<b>Resource Utilization</b>	<b>Innovation</b>
<b>Strategy</b>	To increase the loan and deposit portfolio so as to increase the market share	To maximize profits, increase return on assets and reduce operating expenses	Improve quality along the value chain i.e. donors, internal processes and customers	Maximize talent and flexibility of staff to ensure good customer service	To maximize the use of available funds and capacity	To develop competitive products and services

<b>Performance Measures</b>	Benchmarking - Total loans disbursed - Number of borrowers - Number of savers	- Operating expenses- average gross loan portfolio - Cost per borrower - Average outstanding loan size - Number of borrowers per credit officer - Number of borrowers per staff	- Customer complaints - Repeat borrowers - Customer satisfaction rating -Portfolio at risk/gross loan portfolio -Loan loss provision expense/average gross loan portfolio -Loan loss reserves/ profitability at risk	-Operating expenses- average gross loan portfolio -Cost per borrower -Average - outstanding loan size -Number of borrowers per credit officer -Number of borrowers per staff	- Capacity ratio - Yield on portfolio -Repayment rate	- Number of new products developed - Number of new services developed - Number of staff trained - Number of new processes
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## DEF

DEF was founded over ten years earlier. It was registered as a non governmental organization. At the time of this study it operated over 15 branches in eastern and central Kenya, directly employing over 100 people and had over 10,000 active borrowers. This MFI took deposits, and served both rural and urban areas; more than 60% of the clients were rural. The MFI normally extended credit facilities to members of registered (organized) groups.

### *Performance Measurement Systems*

The MFI used both individual as well as team based performance measures. The CEO indicated that team based measures were considered more important than individual

measures. Some of the notable measures included number of new clients, number of loans approved, the amount of new the loans granted and the quality of the loan portfolio. The most common measures of divisional performance included profits, revenue growth, quality of customer service, quality of portfolio and ratio of operating expenses to revenue.

Organisational performance measures were classified as financial, efficiency and productivity, as well as risk measures. Financial measures included:

- Return on assets
- Return on equity
- Profit margin
- Operating expenses ratio.

Efficiency and productivity measures included:

- Operating expense/loan portfolio (%)
- Cost per borrower
- Borrowers per staff member.

Risk Measures included:

- Portfolio at risk greater than 30 days
- Loans loss reserve ratio
- Loans write off ratio.

This MFI did not have a balanced scorecard. However the respondents advised that the quality of customer service was measured annually with a client survey. The MFI had a staff incentive scheme that was based on the achievement of certain specified targets (both financial as well as non financial). The main competitors were the commercial banks and the local cooperative societies. The respondents advised that competition had increased in recent past and was changing quickly, hence the need to improve their quality of customer service. To this end, the CEO had introduced boxes both at head office and at the branches where customers placed their complaint letters. These were collected and sent to head office every two weeks.

The researcher asked the respondents the purpose of their performance measurement system. The main factor mentioned was to align the goals of their employees with those of the organization. For example the CEO commented “*what gets measured gets done.*” The finance officer further advised that the performance measure was expected to motivate and train employees. The MFI had an information processing system that helped in the monitoring of loans. However, loan reports were only being produced once a month.

To monitor the performance of the projects financed, the MFI officers visited client businesses and at times required them to furnish business records such as stock cards and profits reports (only for borrowings in excess of Ksh. 50,000). Loans were also released to clients in stages after business inspections were done and the reports filed with the MFI. Group members were also encouraged to provide the MFI with information

regarding their fellow members' businesses. The respondents advised that this was possible since individual loans were usually guaranteed by the group members. The MFI also kept a record of the percentage of its clients whose income was below the poverty line (households earning less than US \$ 1 per day). The MFI, therefore, was able to monitor the impact of financing on poverty alleviation.

Organizational and divisional performance measurement was done throughout the year (as and when reports became available). However individual performance evaluation was carried out at the end of the financial period. A summary of the measures used, re-arranged in the six dimensions suggested by Fitzgerald (1991) is shown in Table 2.

**Table 2: PMS in DEF**

	<b>Competitive Position</b>	<b>Financial Performance</b>	<b>Service Quality</b>	<b>Resources Flexibility</b>	<b>Resource Utilization</b>	<b>Innovation</b>
<b>Strategy</b>	To increase the loan and deposit portfolio to increase market share	To maximize profits, shareholders value and reduce operating expenses	To provide high quality products and services at low cost	To provide a wide range of micro finance products and services	To maximize the use of available funds to increase the portfolio yield	To develop customized products and services
<b>Performance Measures</b>	<ul style="list-style-type: none"> <li>- Total loans disbursed</li> <li>- Number of borrowers</li> <li>- Number of savers</li> </ul>	<ul style="list-style-type: none"> <li>- Return on assets</li> <li>- Return on equity</li> <li>- Profit margin/ operating expenses ratio</li> </ul>	<ul style="list-style-type: none"> <li>- Portfolio at risk greater than 30 days</li> <li>- Loans loss reserve ratio</li> <li>- Loans write off ratio</li> </ul>	<ul style="list-style-type: none"> <li>- Operating expense/loan portfolio (%)</li> <li>- Cost per borrower</li> <li>- Borrowers per staff member</li> </ul>	<ul style="list-style-type: none"> <li>- Yield on portfolio</li> <li>- Repayment rate</li> <li>- Recoveries on non performing debts</li> </ul>	<ul style="list-style-type: none"> <li>- New products</li> <li>- New services</li> <li>- Staff trained</li> <li>- Customers trained</li> </ul>

## **GHI**

At the time of this study GHI operated over 20 branches in Kenya. It employed about 100 people, serviced more than 5,000 active borrowers, and took deposits from more than 10,000 savers. GHI was founded over ten years earlier as a registered non government institution. The MFI served both rural (70%) and urban (30%) areas.

### ***Performance Measurement Systems***

This MFI placed high emphasis on team based performance measures. This was consistent to the findings of Waweru et al. (2004) and Anderson and Lanen (1999) who reported that team based performance measures are expected in developing countries since the cultures tend to be collective and risk avoiding. Some of its most notable team/individual measures of performance included lead time (time taken to process a loan with a head office benchmark of four days), new clients per month, amount of loans disbursed per month, and number of group meetings held during the month. Branches were evaluated mainly on the basis of profit margin, number of new clients, revenue growth, proportion of loans at risk, quality of customer service and operation self sufficiency.

Organizational performance measures included financial, efficiency and productivity, risk and customer measures. Financial measures included:

- Return on assets
- Return on equity
- Profit margin

- Operating expenses ratio
- Gross loan portfolio to total assets.

Efficiency and productivity measures included:

- Operating expenses /loan portfolio
- Cost per borrower
- Borrowers per staff member
- Staff productivity
- Loan officer productivity.

Risk measures included:

- Portfolio at risk greater than 30 days ratio
- Loan loss reserve ratio
- Repayment rate (a benchmark of 95% had been set).

Customer measures included:

- Customer satisfaction
- Customer complaints
- Cost of customer to access products
- Lead time (time taken to process loan; a four days benchmark).

The above measures were arranged in form of a balanced scorecard and linked to the MFI's strategy. What was more interesting was that the MFI had identified several

initiatives that linked the measures used to its mission. With the help of a consultant the MFI introduced an information processing system that was used to monitor the loan repayment. However these are stand alone units in branches and the data were sent to head office weekly for consolidation.

The researcher asked the respondents the purpose of their performance measurement system. The achievement of the MFI's mission was said to be the most important factor. Other factors included communicating the organizational goals to the employees, managing the competition, motivating employees, decision making information, and the control of the MFIs costs

To evaluate the performance of the customer projects, the MFI's credit offices held bi-weekly meetings with the borrowing groups and also made visits to the customers projects particularly where the amounts advanced were greater than Ksh. 50,000. Customers of large projects were also required to submit quarterly cash flow statements (both actual and projected). The MFI then used variances to assess whether the project was proceeding as agreed. Groups were also encouraged to monitor the projects of their fellow group members and report deviations to the MFI's credit officers.

The respondents advised that divisional performance was monitored on a continuous basis due to the changing nature of the operating environment. However individual performance evaluation was monitored at the end of the financial year. This coincided

with the reward/compensation review period. See Table 3 for a summary of the performance measures.

**Table 3: PMS in GHI**

	Competitive Position	Financial Performance	Service Quality	Resource Flexibility	Resource Utilization	Innovations
Strategy	To increase the number of active borrowers and revenue to improve the relative market shares	To maximize shareholders value by increasing profits and reducing operating expenses	To provide high quality products and services at low cost	Maximize talent and flexibility of staff to ensure a good customer service	To maximize the use of available funds to increase the portfolio yield	To develop new products and services and to create a friendly environment for our clients
Performance Measures	<ul style="list-style-type: none"> <li>- Market share</li> <li>- Number of borrows</li> <li>- no. of savers</li> </ul>	<ul style="list-style-type: none"> <li>- Return on assets</li> <li>- Return on equity</li> <li>- Profit margin</li> <li>- Operating expenses ratio</li> <li>-Gross loan portfolio to total assets</li> </ul>	<ul style="list-style-type: none"> <li>- Customer satisfaction</li> <li>- Customer complaints</li> <li>- Cost of customer to access products</li> <li>- Lead time (time to process loans)</li> </ul>	<ul style="list-style-type: none"> <li>- Operating expenses /loan portfolio</li> <li>- Cost per borrower</li> <li>- Borrowers per staff member</li> <li>- Staff productivity</li> <li>- Loan officer productivity</li> </ul>	<ul style="list-style-type: none"> <li>- Yield on portfolio</li> <li>- Repayment rate</li> <li>- Number of group meetings held</li> <li>-Compliance with internal audit reports</li> </ul>	<ul style="list-style-type: none"> <li>-Number of new products developed</li> <li>- Number of new services developed</li> <li>- Number of staff trained</li> <li>- Number of new processes</li> </ul>

## 7. Comparative analysis

Using the theoretical framework developed in section 3 of this paper, we now conduct a cross case analysis. This is to present how well the case evidence matches the pattern suggested by the theoretical framework and the extent to which the findings are replicated over the cases. The discussion is structured along the four research questions identified in section 4.

*What performance measures are being used by MFI in Kenya?*

All three MFIs operated a formal performance measurement system. Performance was evaluated at individual, division or branch and organizational levels. Consistent with theory (Brignall and Ballantine, 1995; Said et al., 2003; Ittner and Larcker, 1998) all three MFIs introduced both financial as well as non financial measures of performance. DEF and GHI team performance measures were considered to be superior to individual performance measures. Waweru et al. (2004), Anderson and Lanen (1999), and Chow et al. (1999) argue that team based measures would be expected in developing countries where cultures are said to be more collective with high levels of risk avoidance

In all three MFIs, the number of new customers recruited, total number of loans disbursed, and the quality of loans in the portfolio were considered the most important measures of individual performance. This may be interpreted to mean that whereas the MFIs recognized the need to increase their competitive position by increasing their relative market share (Sartorius et al., 2006), the need to mitigate credit risk could not be underestimated (Waweru et al. *forthcoming*). In GHI the number of days taken to approve a loan was considered an important factor in the evaluation of the individual

performance, while in ABC the number of group meetings was considered an important factor. The need to improve customer service to retain existing customers and attract new ones had therefore been recognized. This had been prompted by the increase in competition faced by the MFIs particularly with the entry of the local banks into the micro finance market.

All three MFIs indicated that divisional performance was monitored on a continuous basis. Both financial as well as non financial measures were used to evaluate performance at the branch level. Profit margin was considered the most important measure of divisional performance followed by quality of the loan portfolio. However in DEF profits were arrived at after the allocation of all head office costs, which is inconsistent with theory (Anthony and Govindarajan (2007); Drury 2000). ABC and GHI introduced a balanced scorecard that linked the performance measures to the MFIs' mission and strategy. Furthermore GHI had developed a balanced scorecard strategy map (Kaplan, 2002) clearly identifying the strategic initiatives and the measures being used. However the balanced scorecard was only used at corporate level and had not cascaded down to the branches. It was therefore unlikely that the MFI was enjoying the full benefits of the balanced scorecard (Waweru and Porporato, 2008)

*What performance measures are being used by MFIs in Kenya to measure the success or failure of projects of their customers?*

The findings indicated that the participating organizations measured the success of their customer's projects. This was consistent with the micro finance mission of improving the

welfare of their clients. Monthly visits to the customers businesses were the most commonly used method. This was mainly used where the customers borrowings were considered large (above Khs. 50,000). ABC and GHI required large customers to submit quarterly cash flow statements to the MFI. When such statements were received actual cash flows were compared with projections and significant variances queried. In ABC and GHI the credit officers held weekly meetings with the customer groups where the progress of each financed project was discussed. The officers later filed their reports with the MFI.

DEF and GHI encouraged group members to report on their fellow members particularly when it was felt that the member projects had not progressed as expected. MFI staff would then follow up with the customer to authenticate the information and offer advice on remedial action. It was noted during the interviews that most of the customers were members of registered groups and that group members were required to guarantee borrowings of their members. It was therefore possible for the members to report on their peers. Other notable measures included loan repayments deposits made during the month and returning customers.

#### *How and why do MFIs in Kenya measure their performance*

All participating MFIs advised that performance was evaluated at individual, divisional and organizational levels, which was consistent with the findings of Neely et al. (2005). Whereas individual performance evaluation was mainly done at the end of the financial year, mainly for the review of their compensation, both divisional and organizational

performance was carried out continuously throughout the year. For example in all three MFIs the management information systems enabled management to monitor the quality of the portfolio on a weekly basis. ABC and GHI advised that the constantly changing business environment required punctual reporting systems, which were to be implemented.

Moreover all participating MFIs reported that the main aim of their performance measurement system was to assist with mission achievement. For example GHI had (with the help of a consultant) introduced the balanced scorecard philosophy and a strategic map that linked the measures to the mission. ABC and GHI used their performance measurement system to manage competition. In so doing, measures such as market share and competitors cost analysis had been introduced. ABC and DEF used their performance measures to motivate, train staff and to communicate goals to employees. DEF and GHI reported that performance measures were also used to control costs. For example a ratio of operating expenses to total loans had been introduced. Cost control is an important part of the management control system particularly when MFIs are faced with high levels of competition (Waweru et al., 2004).

*How effective (appropriate) are the performance measures that are currently in use?*

The appropriateness of the performance measures used is based on the framework developed in section 3. This is illustrated in Table 4 below

**Table 4: The Appropriateness of PMSs**

Checklist	ABC	DEF	GHI
1. Service type sector Professional firm, service shop, mass shop	Yes. Services standardized, less discretion, people focus, contact time limited	Yes. Services standardized, less discretion, people focus, contact time limited	Yes. Services standardized, less discretion, people focus, contact time limited
2. Environment and competitive position Uncertainty, competition, market share, changes in regulation, technology, ownership	Yes. Measures are both internal and external	No. Measures are mainly internal	Yes. Measures are both internal and external
3. Generic strategy Cost leadership, differentiation, focus	Yes. Measures are directly linked to the strategy	No. But both financial and non financial measures are used	Yes. A balanced scorecard, strategic map is in place
4. Organization size, structure, MCS Size (number of employees), type of MCS, IT support, database type, structure ( degree of decentralization )	Yes	Yes	Yes
5. Appropriate across the six performance dimension Competitiveness, financial, quality, flexibility, recourse utilization, innovation	Yes, Measures across all the six dimensions	Yes, Measures across all the six dimensions but limited measure of competitiveness	Yes. Measures across all the six dimensions
6. Critical success factors Number of measures, equity, clarity, ownership, achievability, controllability, timely feedback, compensation linked	Yes	Yes	Yes
7. Are appropriate objectives achieved? Motivation, direction, fuel learning, aid decision making, communication	Yes, very clear measures and targets used	Yes. Very clear measures and targets used	Yes. Very clear measures and targets used

In step 1, we evaluated whether the MFI used appropriate measures. In micro finance, most products and services were standardized while the time spent with each client was limited. Consequently, measures tended to reflect those of service shops, i.e., output measures tend to measure results rather than processes. However, the subject MFIs were faced with intensive competition mainly from the commercial banks hence the need to

become more client focused. The measures reflected the low level of contact time, lower levels of discretion and standardized products (mainly short-term loans) and services (training and business advice).

The second step tested the appropriateness of the PMS with respect to the environment and the competitive position of the subject MFIs. The environment of ABC and GHI was well reflected in the use of both internal and external measures. For example by comparing the performance of the MFI with that of competitors (benchmarking) and the use of the relative market share metrics, ABC and GHI were able to understand both the external environment and their competitors. This was not said of DEF which relied solely on internal measures. However, DEF also measured client satisfaction, which reflected the competitive nature of the industry.

The third step measured the appropriateness of the PMS with respect to the strategy of the MFIs. ABC and GHI developed measures that were directly linked to their strategies. For example, in ABC and GHI measures were developed to gauge employee contributions to maximizing profits by controlling operating expenses and risk. PMSs were developed to cover all other areas of strategy in ABC and GHI. However, in DEF, the PMS was not linked to the strategy although both financial as well as non financial measures were developed.

The fourth step tested the appropriateness of the PMSs with respect to the size and management control systems at the MFIs. All the three MFIs were small and operated in

an industry that did not require advanced information technology. They had in place management information systems that enabled them to monitor their loan portfolios and deposits on a weekly basis. Although this was considered adequate, the fast changing environment may have required more timely information and therefore a need to introduce more advanced systems.

The fifth step tested the appropriateness of the PMS across all the six dimensions suggested by Fitzgerald et al. (1991). Our findings indicated that measures had been developed across the six dimensions in all the three MFIs visited. There was also a clear cause and effect relationship between the inputs and the outputs. We also observed a balance between the financial and the non financial measures of performance across the MFIs studied.

For these MFIs, the subjects of measurement had some say with respect to the setting of performance measurement targets. For example, divisional manager's performance was evaluated on the basis of new business, profits and control of expenses. We however noted that in DEF divisional profits were computed after the allocation of head office costs, but divisional managers had little control over such costs. The policy at the three MFIs was to set targets that were not too high. We considered this a good for motivation. In all the three cases PMSs were well communicated to the employees and feedback was considered good and timely.

In addition, for all the three MFIs we observed that most of the objectives of the performance measures had been achieved. All strategies appeared to have been implemented successfully. Branch managers and employees appeared knowledgeable and content with the PMS, which was an indication of successful training and motivation. We however suggested the implementation of the balanced scorecard and a strategy map for DEF.

## **Conclusions**

This study is about the performance measurement systems in three selected MFIs in Kenya. It adopted a multiple case study approach based on a detailed open ended questionnaire. The study revealed a number of interesting issues.

First, the findings support the view that PMSs should be linked to the MFI's mission and strategy to improve efficiency (Anthony and Govindarajan, 2007; Kaplan and Norton, 1996; Kaplan, 2002). The importance of this link has been researched extensively in the manufacturing sector (Johnson and Kaplan, 1987; Anderson and McAdam, 2004) but very little research has been completed in the services sector (Sartorius et al., 2006).

Secondly, the findings have identified PMSs that are appropriate for the three MFIs in Kenya. Since this is a relatively new sector, the findings are important since the identified PMS may be adopted by other evolving MFIs. Indeed the study reinforces the idea that the balanced scorecard can be applied to both the manufacturing sector as well as in the services sector (Kaplan, 2002)

For the donors and government, the study reveals that the sector's mission of empowering the poor is being pursued. Poverty alleviating funds may therefore continue to be channeled through the micro finance sector.

The nature of the MFIs suggests the importance of performance measurement. The management of the MFI is concerned with performance measurement as expected with a bureaucracy, i.e., a top down demand for performance measurement. In addition, group members or customers are interested in performance measurement as each has guaranteed the loans of all group members who have loans with the MFI. The customers exert a bottom up demand for performance measurement.

The study is constrained to Kenya and to the services shop sector of the service industry. Services in other developing countries may differ from their Kenyan counterparts. This may be due to the legal and regulatory constraints and economic policies or structures that differ among countries. Future research may be designed to compare the findings in this study with findings that relate to industries in other developing countries.

## References

- Anderson, K and McAdam, R. (2004). A critique of benchmarking and performance measurement: lead and lag, *Benchmarking: An International Journal*, Vol. 11 (6) 465-483).
- Anderson, W.S. and Lanen, N.W. (1999). Economic transition, strategy and the evaluation of management accounting practices: the case of India, *Accounting, Organizations and Society*, Vol. 24 (5/6), 379-412.
- Anthony, R.J and Govindarajan, V. (2007) *Management Control Systems*, New York, McGraw-Hill.
- Baron, R.A and Greenberg, J.C. (2000). *Behaviour in Organizations*, New Jersey, Prentice Hall.
- Brignall, S and Ballantine, J. (1995). Performance measurement systems in service business revisited, *International Journal of Service Industry Management*, Vol. 7 (1), 6-31.
- Brignall, S. (1993). Performance management and change in local government, *Public Money and Management*, October-December, 23-30.
- Chow, C.W., Shield, M.D and Wu, A. (1999). The importance of national culture in the design of and preference for management control for multinational operations, *Accounting, Organizations and Society*, Vol. 24 (5/6), 441-461.
- Drury C. (2000). *Management and Cost Accounting*, London, Thomson Learning.
- Emmanuel, C., Otley, D and Merchant, K. (1985). *Accounting for management control*, International Thomson Business Press, NY.
- Fitzgerald L., Johnston R., Brignall, T.J., Silvestro R. and Voss, C. (1991). *Performance measurement in service business*, 2<sup>nd</sup> ed, The Chartered Institute of Management Accountants, London.
- Gudz, S.F. (1999). *The potential role of micro finance institutions in mobilizing savings. Lessons from Kenya and Uganda*, Working Paper, Cornell University, Ithaca, N.Y.
- Holm-Olsen, F. (2003). Sub-Saharan Africa's Engine of Growth. Export America 2003: Online available. [www.expotmichigan.com/s\\_africa.html](http://www.expotmichigan.com/s_africa.html) (accessed on 24th April 2008).
- Hospes, O., Musinga, M and Ongayo, M. (2002). *An evaluation of micro finance programs in Kenya as supported through Dutch Co-financing Program*, Kenya Women Finance Trust, Nairobi.

Ittner, C.D and Larcker, D.F. (1998). Innovations in performance measurements: trends and research implications, *Journal of Management Accounting Research* 10, 205-238.

Ittner, C.D and Larker, D.F. (2001). Assessing empirical research in managerial accounting: A value-based management perspective, *Journal of Accounting and Economics*, Vol. 32, 349-410.

Johnson, H.T and Kaplan, R.S. (1987). *Relevance Lost: The Rise and Fall of Management Accounting*, Harvard Business School Press, Boston.

Kaplan R and Atkinson A. (1998). *Advanced Management Accounting*, 3<sup>rd</sup> (ed.), Prentice-Hall, Englewood Cliffs, NJ.

Kaplan, R. S. (2002). *The Balanced Scorecard and Non profit Organizations*, Harvard Business School Press, Boston.

Kaplan, R.S and Norton, D.P. (1992). The balanced Scorecard: measures that drive performance, *Harvard Business Review* Vol. 70, (1) 71-79.

Kaplan, R.S and Norton, D.P. (1996). The Balanced Scorecard: Translating Strategy into Action, *Harvard Business School Press*, Boston, MA.

Kennerley, M., Neely, A., and Adams, Chris (2003). Survival for the fittest: measuring performance in a changing business environment, *Measuring Business Excellence*, Vol. 7 (4), 37-43.

Lillis, M.A., (1999). A framework for the analysis of interview data from multiple field research sites, *Accounting and Finance Journal*, 39:79-105.

Merchant, K.A. (1987). *How and Why Firms Disregard the Controllability Principle; Accounting and Management Field Study Perspectives*, Harvard Business School Press, Boston.

Moon, P and Fitzgerald, L. (1996). Delivering the goods of TNT: The role of the performance measurement system, *Management Accounting Research*, Vol. 7 (4), 431-457.

Neely, A and Adams, C. (2001). The performance prism in practice, *Measuring Business Excellence*, Vol. 5 (2), 6-12.

Neely, A., Gregory, M and Platts, K. (2005). The evolution of performance based research in the last decade and a research agenda for the next, *International Journal of Operations and Production Management*, Vol. 20, (12), 1264-1277.

Omino, G. (2005). *Regulation and Supervision of Micro Finance Institutions in Kenya*, IRIS Center, University of Maryland.

Otley, D. (1991). *Management Control, Organizational Design and Accounting Information Systems, Issues in Management Accounting*, Prentice Hall, London.

Porter, M.E. (1980), *Competitive Strategy*, Free Press, New York.

Said, A.A., HassabElnaby, H.R and Wier, B. (2003). An Empirical Investigation of Performance Consequences of Non financial Measures, *Journal of Management Accounting Research*, Vol. 15, 193-223.

Sartorius, K., Eitzen, C and Nicholson, C. (2006). The appropriateness of performance measurement in the services sector: a case study, *South African Journal of Accounting Research*, Vol. 20 (1), 27-50.

Sureshchandar, G.S and Leinsten, R. (2005). Insights from research: holistic scorecard: strategic performance and management in the software industry, *Managing Business Excellence*, Vol. 9, (2), 12-29.

Waweru N. M., Gelinas, P and Uliana , E (*in press*). Executive compensation schemes in the banking industry: a comparative study between a developed country and an emerging economy, *Academy of Accounting, and Finance Studies Journal*.

Waweru N.M, and Porporato. M (2008). Performance measurement practices in Canadian Government departments. a survey, *International Journal of Accounting, Auditing and Performance Evaluation Vol. 5(2, 183-202)*.

Waweru N.M., Hoque, Z and Uliana, E. (2005). Management accounting practices in South Africa, *International Journal of Accounting, Auditing and Performance Evaluation*, vol. 2(3 ):226-262.

Waweru, N.M., Hoque, Z and Uliana, E. (2004). Management accounting change in South African: case studies from retail services. *Accounting, Auditing and Accountability Journal Vol.17 No 5, 675-705*.

Yin, R. (2003). *Case Study Research: Design and Methods*. 3<sup>rd</sup> (ed.), Sage, Thousand Oakes.