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Microfinance Institutions Performance Measurement: Introducing a New Performance Measurement Framework

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Abstract: Microfinance Institutions (MFIs) face unique challenges since it must achieve a double bottom line—outreach and sustainability. So is microfinance worthwhile or worthless? The proper performance measurement framework here is a better way to judge this than a simple measure of numbers. This paper seeks to present, to MFIs, a new rigorous performance measurement framework that incorporates the best of the frameworks and methodologies. We study a comprehensive literature review of over 150 articles to provide a thorough elucidation in the existing performance measurement framework and the performance criteria used to assess MFIs in achieving their goals. This paper introduce, to MFIs, a new multifaceted and integrated performance measurement framework that addresses the shortcoming of the existing frameworks, while satisfying the core criteria. Moreover, this study presented a new set of key characteristics -as core criteria- of performance measurement system that can help organizations identify an appropriate set of measures to assess their performance.

Key words: Microfinance · Performance measurement framework · MFIs

INTRODUCTION

Microfinance has gained a universal recognition as an important tool for reducing poverty in many developing countries [1-6].

Performance concept relating to MFIs is a vital and crucial issue for many reasons such as: to ensure donors or / investors effective and efficient utilization of billions of dollars injected in MF programs, also help regulators in controlling and monitoring the MFIs. [7] stated that ineffective MFIs represents a main constraint on the development of the microfinance industry. Therefore performance measurement is a tool for managing MFIs and is a requirement for sustainability. Assessing the performance of an MFI is about examining its development towards accomplishing goals. However, the literature did not show that there is a generally accepted instrument or definition relating to the meaning of the performance of the MFIs. MFIs are unique financial institutions of both social and nonprofit nature whose performance has been conventionally assessed by means of financial ratios. The customary quantifiable measures of success (profit figures reported in financial statements) are not helpful in measuring the sustainability an MFI has achieved and the degree of its outreach. However, latterly there is a general consensus that sustainability and impact are central concept and both are core objectives of microfinance as stated by CGAP, SEEP and impact networks. It is being referred to rightfully as double objectives, twin objectives and Yin and Yang.

Most MFIs attempt to meet the correlated financial and social goals, managing a double bottom line where good financial performance enables the achievement of social mission. Social performance is the effective interpretation of an MFI's social mission into practice.

Impact assessment is promoted by both the sponsors and practitioners of programs so that they can understand what is being attained and improve the efficiency and effectiveness of their activities [8]. From other hands, the currently available tools and techniques to assess the traditional banking institution's performance may not be suitable within this new context [9].

MATERIALS AND METHODS

This article studies past literature to provide a thorough elucidation in the existing performance measurement framework and the performance

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measurement used to assess MFIs in achieving their goals. This enables MFIs to identify the set of performance measures that reflects appropriately their performance and objectives.

Toward this goal, we provide a synthesized review of over 150 critically-reviewed articles and books that address at least one relative component of performance measures of microfinance.[1]

In order to present a consequential and succinct review of the broad literature, we divide our review into sections of Performance measurement that, in our judgment, currently define the field. Within each section, we identify key topics, focusing on significant issues.

Accordingly, the remainder of the article proceeds as follows. In Section I define measurement theory, Section II, we address the existing performance measurement frameworks and methodologies, Section III discuss the performance measurement used to assess MFIs in achieving their goals, Section IV Disscusion and Section V concludes.

Section I:

Measurement Theory: When developing a measurement system, two practical questions need to be addressed; what is the measurement? And what is it that requires measurement?. Measurement is the process of assigning numbers to things in such a way that the relationships of the numbers reflect the relationships of the attributes of the things being measured [10]. To be certain of what should be measured first, it requires boundaries be placed around the object to be measured. This essential one and address whether it is necessary to measure the performance of the activity. Second, the necessary aspects of the object to be measured should be selected. All attributes that any legitimate observer or stakeholders believes to constitute the entity to be measured must be included [10]. To measure an organization, the object must be clearly and completely defined along with the context of the measurement and the measurement should be capable to carry compassion.

[11] stated that Measurement took place millennia ago since herders need to count their livestock and its theory exist since Eudoxus of Cnidus all the way until the nineteen century when [12] initiated the modern theory of measurement, then S.S. Steven came with the formalization of measurement theory.

[13-18] stated that hierarchical structure is the primary representative of values and laws, when they showed that numerical representations of values and laws are only numerical codes of algebraic structure representing the real properties of these values and laws.

[10] mentioned that, [15] stated that the main assumptions of measurement theory are as follows:

- Numerical representations of quantities and laws of nature are determined by the set of axioms for corresponding empirical systems-algebraic systems with some sets relations and operations.
- These numerical presentations are unique up to some sets of allowable transformations (such as a change of measurement units).
- All physical attributes may be embedded into the structure of physical quantities.
- Physical laws are simple, because of his procedure of simultaneous calling of all attributes involved in the law (there is no machine earning method to perform such discovering of laws)
- The same axiomatic approach is also applicable not just for physical attributes and laws but for many other attributes from other domains such as psychology), using polynomial and other representations.

Value measurement should be considered when measuring companies' performance,. It assumes hat different people have different views of value since value is dependent on personal values. For example, managers, employee, regulators and analysts will have differing views of what is valuable in an organization, but all views must be considered. Four essential outcomes from the independence of value definition must be considered. [19]

- Precisely define the object to be measured and its context
- The definition should include Stakeholder’s opinion
- Consider all participants to have equal dignity
- Every participant held responsible for his/her position.

According to [10] measurement theory is the relativity theory in this regards which is a branch of applied mathematics. Measurement theory is a representation of the object being measured, so a measurement is not the same as the object being measured.

Measurement normally grounded either on proper measurement system or, more usually, on subjective judgement - indicators. For example when a manager studying to invest on a big project, he is using rigorous measurement system but a quick selection between alternatives of minor products requires far less rigor approach, but the process similar. However, the

significant difference between proper measurement systems and less rigorous one which termed as indicators that a representation- roughly estimated- of an object. The choice, if reliable information is needed to take critical decision, then a proper measurement system is required. A group of indicators is required when information is needed for the monitoring process.

Section Ii:

Performance Measurement Frameworks and Methodologies - Review of Existing Literature: The objective of this section is to review the current available Peroframnce Measurement frameworks and methodologies and identify their important characteristics. Then identify the key characteristics -as core criteria- that can help organizations identify an appropriate set of measures to assess their performance. Finally, determine the most appropriate and suitable framework that can help MFIs to identify the set of performance measures that can appropriately reflect their performance.

According to [19], the weakness and dysfunctional consequences of performance measurement systems have been deliberated in the academic literature since 1956. During the 1980s many group authors criticized measurement systems used by several firms. In 1990s criticism had grown and re-engineering of measurement system is appearing in a number of firms. They also stated that in 2001, 44% of organizations worldwide adopted the balanced scorecards. However, some companies from German-speaking countries decided not to use a performance measurement system (and particularly balanced scorecard) since they could not see no advantages or positive impact from them, especially given the burden of implementation.

Although there is significant interest in Balanced Scorecard, there are, of course, many other measurement frameworks and methodologies each with their specific strategies.

The performance measurement history can be found through the centuries. In the thirteenth century, some of references are found in the writings of Venetian monks, the inventor the double-entry bookkeeping system [19].

Before 1950s financial figures are used for planning rather than for control, managing by the financial- become popular only thereafter. This what [20]argues as management by remote control. In early 1950s, Gerneral electric Company (GE) attempt to create performance metrics that could be applied in decentralized basis by initiating a "measurement project" [21].

Early in the twentieth century, a "Pyramid of financial ratios" is used by DuPont, in which a wide range of financial ratios is linked to return on investment [22]. The pyramid has a hierarchical structure that links measures at different levels. The main strength is that it creates the "levers" that management can pull in order to influence performance. Nevertheless, it has been criticized for over stressing historical financial performance and encouraging short-termism, since it is a purely financial measurement system [23, 24].

Due to criticism of purely financial measures and in order to capture the breach of the organization's objectives, organizations started to search for a better and newly balanced performance measurement system. As a result, a huge number of non-financial performance measures are designed to assist organizations to implement a balanced set of performance measures by supplementing the existing financial measures.

[25] developed the Performance Measurement Matrix (PMM) which categorizes measures as being cost or non-cost and internal or external. PMM gained a reasonable widespread recognition earlier, also its simplicity and flexibility facilitated the incorporating of the more balanced measurement system [26].

The Strategic Measurement And Reporting Technique (SMART) pyramid of [27] adds the notion of cascading measures down the organization, in which measures at the center level (work and department) reflect the organization's vision as well as internal and external business objectives. It supports the notion of internally and externally focused measures of performance.

[28] proposed the Results-Determinants Framework that classifies measures into two basic types: the measures that relate to results (financial performance, competitive) and the measures that focus on the determinant of those results (quality, source utilization, flexibility and innovation). Its main attribute is the concept of causality, that emphasize results obtained today are function of previous business performance in relation to specific determinants. This framework expands the themes of developing a performance measurement system that can identify the drivers of performance.

The input-process-output-outcome framework is developed by [29], its concept link measures through cause and effect relationships. He shows the explicit link between five stages in a business process (input, processing system, outputs, outcomes and goal respectively) and the measures of their performance. This model assumes a linear set of relationships between

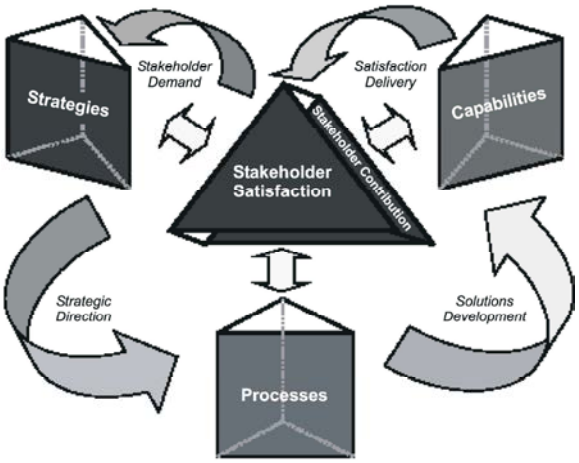
inputs, processes, outputs, outcomes and goals. In which each preceding factor determines the next. The strength of this model is in distinguishing between different categories of measures, particularly between output and outcome measures, while it is an oversimplification of reality.

The Balanced scorecard of [30, 31] is the most popular performance measurement frameworks, in which performance is looked at from four different perspectives and its methodology typically communicates strategy across these perspectives; Financial - What financial returns are required by investors?, Customer- What do our customers want?, Internal Process- What do we need to do to deliver?, Learning and Growth. How do we sustain the business? Many of the attributes of other performance measurement frameworks are reflected in the balanced scorecard, but measurement is linked explicitly to the organization's strategy. And drivers of these perspectives should be given equal weighting. [32, 33]. A number of authors have criticized balanced scorecard, in that its framework omit a number of other framework's features. [26], comment the absence of competitiveness dimension. Others critics [29, 34-36] noted that the balanced scorecard does not consider the perspectives of employee satisfaction, quality of product/service, supplier performance and environmental/ community.

Performance Prism of [37] considers the importance of stakeholder satisfaction and so adopted a stakeholder-centric view of performance measurement. Performance prism considers shareholder to remain the important stakeholders and realize that all stakeholders are not equally important. However, Performance Prism assumes more consideration should be given to other important stakeholder group, such as customers, employee, suppliers, regulators, legislators and pressure groups all of whom are not incorporated into the balanced scorecard. Performance Prism makes an important distinction between stakeholder satisfaction and stakeholder contribution, which is not considered in other performance measurement frameworks (Figure 1). This important since it reveal that there is a mutual exchange relationship between organizations and their stakeholders. [38]

The performance prism framework is based on five distinct but linked perspectives of performance:

- Stakeholder satisfaction – who are our key stakeholders and what do they want and need?



Source: Kennerley and Neely (2000)

Fig. 1: The Performance Prism

- Strategies – what strategies do we have to put in place to satisfy the wants and need of these key stakeholders?
- Processes – what critical process do we nee o operate and enhance this process?
- Capabilities – what capabilities do we need to operate and enhance these processes?
- Stakeholders contribution – what contributions do we require from our stakeholders if we are to maintain and develop these capabilities?

If the organization address these five questions then they can define a set of performance measures.

For an effective design of PMS, [39]identified the following process factors : performance measurement framework and strategy maps, measures and targets, alignment and integration and the information infrastructure

To analyze the consistency of PMS that can be used as a basis for future design, [40], identify five milestones of an ''ideal'' PMS system.That provides guidelines for managing the following aspects: assessment, design of framework/ measures, implementation of framework/ measures, communication/ alignment and review.

Section III:

Performance Criteria Used to Assess Mfis Performance - Review of Existing Literature: In response to calls from practices for new and better ways of measuring organization's performance, the academic and consultancy communities have developed a many number

of performance measurement frameworks and methodologies. The objective of this section to review the criteria and frameworks used to assess MFIs in achieving their goals and identify the key characteristics that they exhibit.

Yaron (1992) *recommended two primary measurement criteria to assess the overall performance of MFIs*. First criterion, *outreach*, which assess the financial services (the output of the intervention) that provided by MFIs to poor customers, given the goal it was founded to attain and for which fund is provided. The second criterion is the *Subsidy Dependent Index* (SDI), that measures the level of MFI subsidy dependency. This framework of outreach-SDI was generally accepted and used by many researchers. Examples include [41-45].

[43] *presented a new quantitative framework that measures how well MFI utilize funds for the welfare of the poor from the perspectives of each stakeholder: society, the poor, poor customers, donors, workers and investors*. Considering that each of stakeholders has his own contradicting aims. This framework mitigated the burden of cost benefit analysis. This study shows the characteristics from the perspectives of the six stakeholders; society, the poor and poor customers apply cost-benefit analysis as a measurement, donors apply market leverage measure, workers applies FSS measure and investors apply profitability measures.

[8] Reviews the methodological options for assessing the impacts of MF programs. He explores methods to enhance impact assessment (IA) practice. Hulme has argued that while all studies must pursue rigor, *the effectiveness of an IA will depend on how it's good in achieving a fit between its objectives and its context*. However, very often, donor desires for objective and outside IAs lead to weakening the impact monitoring capacity of the MFI itself.

[46] constructs a theoretical framework that *defines the social worth of an MFIs in terms of the depth, worth to users, cost to users, breadth, length and the scope of its output*. The majority of the poor households served by the MFIs were near the poverty line. Individual lenders had less depth of outreach than group lenders. The poorest borrowers were more likely to be the rural borrowers, but most of borrowers were more likely to be the urban poor.

[47] stated that there is a mutual agreement that IA is a vital aspect in improving microfinance services and encouraging innovation. *Earlier IA (donor-led*) considered by being of different types, different providers with different objectives and have included, donor-funded IA, initiatives by CGAP and the USAID project for *assessing impact on poverty at the enterprise and the household levels*. The main emphasis of interest has been the impact of credit services of *poverty alleviation and empowerment of women*. On late 1990s the fears about the high cost of the assessment process recognized the need for a re-evaluation of IA. Consequently this led to a new concern on the importance of *practitioner-led assessment*. SEEP manual represents a major deviation from earlier donor-led IA in many of respects: Fist, It stresses the *practitioner's needs for information to improve microfinance programs rather than merely to confirm impact*. Second, the conceptual framework shifted from simple measurement of impact on enterprise income to a further complicated interactions between *impacts at the level of enterprises, households, individuals and communities*. Third, the *learning being focus on rather than policing.* Existing IA From Mayoux point of view, the challenge for IA is to build on existing IA and progress on from simply assessing impact of individual programs on incomes of *development of ongoing and sustainable learning processes within and between programs, between programs and donors as well as between users of microfinance*.

[48] *suggested a three dimension criteria framework* by emphasizing that social benefit is the desired objective of public support to MFIs. They added the criteria of *the welfare impact* to the Yaron 1992 two criteria of *outreach* and *financial sustainability*.

[49] *Based on the performance indicators – portfolio quality, leverage, capital adequacy ratio (CAR), productivity, efficiency, profitability, self-sufficiency and outreach –,* he assesses the influence of informal and formal institution on the sustainability of the institutions and outreach.

[9] *used a data envelopment analysis (DEA) approach to measure the efficiency of MFIs*. MFIs efficiency can be explained by means of *four principal components of efficiency*, each component related to a very different issue: *overall ef?ciency, Non-Governmental Organization (NGO) status, input choice and output choice*. This can explain the reason of why an MFI achieves a level of ef?ciency under a given specification.

A growing acceptance of standards for microfinance has emerged since the early 1990s. In 2002, a *Microfinance Financial Definitions Guideline* has been developed jointly by microfinance institutions, The SEEP Network, rating firms and donor agencies. This Framework builds on consensus and *includes definitions of Selected*

Financial Terms, Ratios and Adjustments for Microfinance. The Framework is intending to *guide* microfinance practitioners with a means to develop financial reporting in accordance with International Financial Reporting Standards (IFRS). The authors argue that this Framework will help MFI managers in monitoring and decision making process. The *Shortcoming* of this framework, is that it *does not* include the standards for measuring *deposit* taking MFIs, nor does it include any set of *social performance indicators* [50].

[51] of CGAP is dedicated toward the twin objectives of increasing financial self sustainability and increasing outreach and impact on the lives of poorer. They developed Microfinance Poverty Assessment Tools, that is used to measure the extent to which MFI program reaches the poor. It is accurate and relatively simple means of assessing the degree to which MFI program reaches the poor. CGAP believes that the future of microfinance lies in pushing beyond the poverty-sustainability polemic moving microfinance forward on both the poverty outreach and sustainability frontiers.

[52] tried to address whether MFIs are financially and operationally efficient using the *key financial and operational performance indicators* as agreed upon by IDB, CGAP, USAID and Micro Rate for transparency in microfinance to measure the risk and performances of MFIs. *Sustainability and Profitability, Asset and Liability Management, Portfolio Quality and Efficiency and Productivity are most widely used* measures to evaluate financial and operational performance that developed by SEEP Network and CGAP.

[42] stated that measuring the welfare impact of microfinance intervention requires cost-benefit analysis: that comparison of the social benefits with the social costs. Assessing social cost includes opportunity cost of forgone alternative investments (e.g. Health, infrastructure and education) [53]. Manos and Yaron suggested that *assessing impact of welfare is a choice between cost-benefi*t analysis (complicated and expensive but desirable) *and cost-effective* analysis (simpler but less demanded). Consequently they recommended that the framework for performance assessment *always should include only two and not three criteria*. Subsidy dependence and outreach are the criteria for cost-effectiveness analysis. Where subsidy dependence and welfare impact are the criteria for cost-benefit analysis.

[54] of CGAP recommended *five critical areas that donors minimally* can use for MFIs performance assessment. These measures consider both the social impact dimension *(breadth and depth outreach indicators*) and the three financial indicators of *Portfolio quality, Financial Sustainability and Efficiency* that have widespread consensus.

[55] State that *policymakers, investors and competitions* among MFIs and between commercial banks *encourage the importance of MFIs financial performance measurement*. He revealed some financial performance measures and referred to recent the involvement of specialized rating agencies in social performance. He also criticized the social performance standards published by Social Performance Task Force, in that their categories are broader and he uncertain about data availability and subjectivity in prioritizing indicators of social performance. Also he reported that average loan size measure is used as their primary indicator for the social performance of MFIs in spite of critics by many authors. Pim Engels (2010) aims to discover empirical evidence of the mission drift phenomenon. The research is *considered important investment decision-making indicators* for foreign institutional investors in microfinance. First, the study *focuses on the role of institutional and country risk indicators in predicting MFIs financial and social performance.* Evidence displays that institution's size, regulation and network membership do not have an influence on the financial performance of MFIs. The years of age of an institution are negatively related to the financial performance. Country risk rating is negatively related to the financial performance of MFIs. On the other hand, size, country risk rating and regulation negatively influence the social performance of MFIs. Network membership has positive effects on the social performance of MFIs. The institution's years of age do not affect the social performance of MFIs.

[56] revealed that a number of performance indicators have been presented and many of them have become standardized. Therefore, in 2003, a consensus group composed of microfinance rating agencies, donors, multilateral banks and other private voluntary organizations agreed to some guidelines on definitions of financial terms, ratios and adjustment for microfinance. Following them, there has been a huge of literature dealing with aspects such as sustainability/profitability, asset/liability management and/or portfolio quality, while there is little literature on the efficiency/productivity of MFIs.

According to [41] *assessing performance of an MFI* can be viewed from *two dimensions*: the level of the *impact of MFI intervention in the poor livelihood* improvement and the *efficient and effective utilization of the resources (financial indicators*). Some previous studies implied that MFI performance was to emphasis on improvement of poor customer's income and livelihood. However, some other studies (Mudenda, 2002; Yaron, 1992) consider indicators such as subsidy dependency as measures relate to efficiency of resource utilization. However Nanayakkara *stated the shortcomings of these two perspectives;* the indicators applied to assess the impact of poverty reduction differ and hard to make a comparison between studies. The drawbacks of SDI, despite it is a commonly used measure to assess and compare dependency on subsidies. Furthermore, Nanayakkara *criticized some of CGAP recommended indicators* that; use of the 'outreach' (the number of customers) by itself might not reveal the real performance of an MFI relating to its customer base. From other hand he accepted some other indicators like depth of outreach. Based on the above analysis *Nanayakkara adopted four dimensions for MFIs performance assessment which are; Sustainability, Increasing the outreach, Depth of outreach and Portfolio at risk.* This study analyzed the criteria used for deterring the performance of MFIs and recommended a new approach to assess the performance of MFIs in an objective manner.

Mustafa and Saat, (2012) based on the theories and past literature proposed a concept for developing a conceptual framework that will implement the thought of: first, *intermediary school that will measure the two primary criteria of MFI performance; outreach and self-sustainability. Second, the intended beneficiary school partially by measuring social impact-outcome (change of income) as a direct microfinance intervention*.

[57] examined the use of performance measures by three Kenyan MFIs, which are classified as formal and client based and likely to use rational and explicit performance measures. The study concludes that *MFIs have relatively well developed performance measures* that support their particular businesses. The use of performance measurement systems by the Kenyan MFIs can be *explained by the balanced scorecard framework* by Kaplan and Norton, (1992, 1996). They found there was a *good balanced between the use of financial and non-financial performance measures*, however, *output measures were more commonly used* than process measures.

DISCUSSION

The objective of this paper *first*, to review the current available Peroframnce Measurement frameworks and methodologies and study their important characteristics. *Second*, is to identify the key characteristics -as core criteria- that can help organizations identify an appropriate set of measures to assess their performance. *Third*, to study the existing performance measurement frameworks and criteria used to assess MFIs in achieving their goals. *Finally*, determine the most appropriate and suitable framework that can help MFIs to identify the set of performance measures that can appropriately reflect their performance towards achieving their double bottom line objectives.

Based on the attributes of the performance measurement frameworks and the literature discussed above, we developed the following key characteristics -as core criteria- that can help organizations identify an appropriate set of measures to assess their performance;

- The set of measures should provide a *balanced picture* of the business and also should reflect financial and non-financial measures, internal and external measures, efficient and effective measures. (Balanced scorecard, Performance Measurement Matrix and Performance Prism)
- Performance measurement framework, should measure results and their drivers, by demonstrating how *results are a function of determinants.* In essence, measures can contribute both to an organization's planning and monitoring processes. (Results-Determinants Framework, the balanced scorecard, performance measurement pyramid, Performance Prism and [58])
- The performance measurement framework should implement a set of performance measures that is *multidimensional* (all frameworks reveals the need to measure all the areas of performance.)
- A *comprehensive* framework should be implemented that can identify any lapse or areas of that need more attention. (Performance measurement matrix and Performance Prism)
- Performance measures should be *integrated* through the organization's hierarchy and across its functions in order to encourage goals congruence. (SMART pyramid and Performance Prism)
- The performance measurement framework should provide a *concise overview* of the organization's performance that is simple and easy to be applied. (Balanced scorecard and Performance Prism)

- The performance measurement framework should consider all important *stakeholder's* point of view. (Performance Prism reflects the growing importance of stakeholder satisfaction)
- The performance measurement framework should *encompass non-core elements* of performance measurement systems (management techniques and improvement initiatives) such as, activity-based costing management, benchmarking, total quality management and business process redesign. (Ballantine and Brignall, 1994 and Performance Prism)
- The performance measurement framework should be a *multifaceted* framework. (Performance Prism, attempts to address the shortcoming of the frameworks that are currently available, while satisfying the key criteria.)
- All of the above 9 characteristics relate performance measurement framework design, other factors related to an effective overall design of a performance measurement system that also should be considered are; *strategy maps*, *alignment and integration*, *measures and targets and the information infrastructure*. [59]
- Consistency analysis of the current performance measurement system (PMS) should be carried out, [60], identify the milestones of an ideal PMS, these milestones provide guidelines for managing the following aspects:

Assessment: PMS should have an assessment stage to evaluate its capability

Framework/measures Implementation: Guidelines for successful implementation should be clearly articulated. Top manager agreement and commitment, effective communication and the three E's: empower, enable and encourage are an effective implementation factors. [39].
Communication/Alignment: PMS should provide a clear communication of firms' performance in order to achieve company alignment

Review: PMS should have a review stage to evaluate its design as a consequence of internal and external changes According to [61] all performance measurement frameworks discussed above are missing integration of all the five milestones.

In our opinion, the performance prism is a multifaceted framework, which attempts to address the shortcoming of the frameworks that are currently available, while satisfying the main criteria identified above. This also confirmed by [10], he stated that

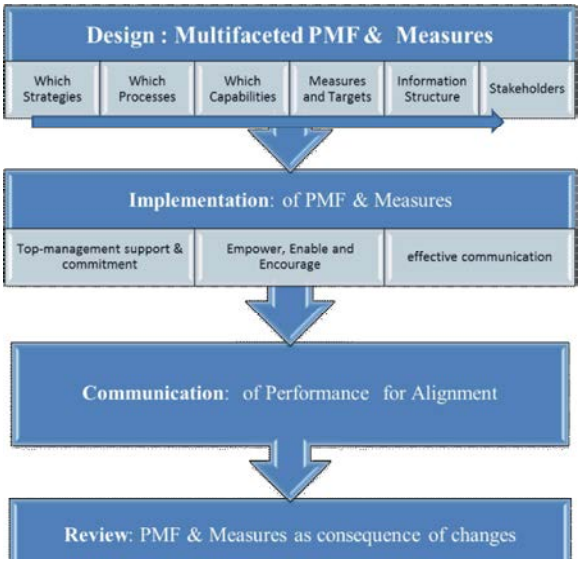


Fig. 2: The proposed multifaceted PMF

answering the questions of Performance Prism, helps managers to clearly show how their organization will *create stakeholder value*. And answering these questions at an organizational level provides a *concise overview of the organization's performance*. Also in performance prism, *results* (i.e. Stakeholder satisfaction) *are a function of determinants* (i.e. the other prism, facets). The Performance Prism framework considers to be *multidimensional*, that reflects all the areas of performance that affect the performance of an organization. This provides a *balanced picture of the business*, highlighting *external* (stakeholder) and *internal* (strategy, process and capability) measures, in addition to enabling *financial and non-financial* measures and of *efficiency and effectiveness* measures throughout the organization. These confirm that the framework is *comprehensive*. Consideration of each of the performance prism's facets ensures that the framework is *integrated* through the organization's hierarchy and across its functions.

However, performance prism falls short to consider other design factors of *the information infrastructure* and *measures and targets, of [39]*

The perspectives of performance prism and the other design factors of [39] together construct an effective overall design of a performance measurement system that represents, however, only the design aspect of an effective PMS. [60] other aspects – assessment, implementation, communication and review- should be considered to construct an ideal PMS which we propose as a new multifaceted PMF (Figure 2).

CONCLUSION

From above discussion, it is obvious that each of the frameworks presented fall short, in a number of areas, to satisfy the stated characteristics of a performance measurement framework. Performance Prism, however, tries to address the shortcoming of the existing frameworks, while satisfying most of the key characteristics stated above.

Based on theories, existing literature and discussion above we propose a new comprehensive-integrated-multifaceted performance measurement framework that help to assess the performance of an organization from the stakeholder perspective that align strategy, process and capability to it, while utilizing the information infrastructure and carry out; an assessment of framework design, enforcing implementation, communicating and aligning firm's performance and review periodically its design as a consequence of environmental changes.

Particularly, we propose this new PMS as an appropriate system to assess the performance of MFI from the perspectives of each stakeholder: investors, donors, society, the poor, poor customers, regulators and workers. After the questions about stakeholder' satisfaction and contribution have been addressed, then strategy perspective address; what strategies should an MFI should take on to warrant that the wants and needs of its stakeholders are fulfilled. In essence, measures are used to address whether strategies are implemented, communicated, encouraged and working as planned. Hence, the next two perspectives an MFI should consider on performance are; the processes prospectives - what processes (product, demand,) do we need to put in place to allow the strategies to be executed? And capabilities perspective - an MFIs' ability (people, practices, technology, infrastructure) to produce value for its stakeholders through a distinct part of its operations. Then an MFIs should use the milestones to analyze the PMS consistency.

The contribution of this study *first*, introduced to the microfinance sector for the first time, a multifaceted and integrated framework. *Second* identified the key characteristics -as core criteria- of an appropriate performance measurement system. *Third*, this paper reviewed a comprehensive literature to provide a thorough elucidation in the existing performance measurement frameworks and also the criteria and frameworks used to assess MFIs in achieving their goals. Finally, The findings of is review support the vision that performance measures are a means for managing MFIs and are a probable necessary for sustainability and may be adopted by other evolving MFIs. In addition this study contributes to the continuous discussion in the academic literature of performance measurement systems and to a better understanding of the genesis of the less popular Performance Prism framework of [37].

REFERENCE

1. Johnson, S. and B. Rogaly, 1997. Microfinance and poverty reduction: Oxfam Pubns.
2. Gibbons, D. and J.W. Meehan, 2002. Financing microfinance for poverty reduction. Draft paper commissioned by the Microcredit Summit Campaign. Malaysia CASHPOR Financial and Technical Services.
3. Armendáriz, B. and J. Morduch, 2005. The economics of microfinance. Cambridge, MA.
4. Bakhtiari, S., 2011. Microfinance And Poverty Reduction. Some International Evidence. International Business and Economics Research Journal (IBER), 5(12).
5. Simanowitz, A. and A. Walter, 2002. Ensuring impact reaching the poorest while building financially self-sufficient institutions and showing improvement in the lives of the poorest women and their families. Unpublished background paper for the Microcredit Summit, 5: 10-13.
6. Fernando, N.A., 2004. Microfinance outreach to the poorest a realistic objective? Finance for the Poor, 5(1): 1-5.
7. Helms, B., 2006. Access for all building inclusive financial systems World Bank Publications.
8. Hulme, D., 2000. Impact assessment methodologies for microfinance. Theory, experience and better practice. World Development, 28(1): 79-98.
9. Nietoa, B.G., C.S. Cincaa and C.M. Molinerob, 2005. Microfinance institutions and efficiency. The International Journal of Management Science, 35: 131-142.
10. Neely, A.D., 2007. Business Performance Measurement. Book 2nd edition
11. !!! INVALID CITATION !!!
12. Helmholtz, H., 1887. Zahlen und Messen erkenntnistheoretisch. In Philosophische Aufsatze, pp: 17-52.
13. Scott, D. and P. Suppes, 1958. Foundation aspects of theories of measurement. Journal of Symbolic Logic, 23: 113-38.
14. Suppes, P. and J. Zines, Basic measurement theory. Handbook of Mathematical Psychology, 1: 1-76.

15. Krantz, D.H., 1971. Foundations of measurement, volume 1 Additive and polynomial representations, New York. Academic Press.
16. Suppes, P., *et al*., 1989. Foundations of Measurement, vol. II. San Diego,
17. Luce, R.D., *et al*., 1990. Foundations of Measurement, vol. III, Academic Press, New York.
18. Narens, L., 1985. Abstract measurement theory.
19. Pike, S. and G. Roos, 2004. Mathematics and modern business measurement. Journal of Intellectual Capital., 5(2): 243-56.
20. Johnson, H.T., 1992. Relevance Regained from top-down control to Bottom-up empowerment. New York Free Press,
21. Meyer, M.W. and V. Gupta, 1992. The performance paradox. In Staw, B. M. and Cummings, L.L. (eds), Research in Organizational Behavior. Greenwich, pp: 306-69.
22. Chandler, A.D., 1997. The Visible Hand Managerial Revolution in American Business. Harvard University Press,
23. Banks, R.L. and S.C. Wheelwright, 1979. Operations versus strategy–trading tomorrow for today. Harvard Business Review, 57(3): 112-20.
24. Bruns, W.J.J., 1998. Profit as a performance measure powerful concept, insufficient measure, in First International Conference on Performance Measurement, Performance measurement - theory and Practice Cambrige.
25. Keegan, D.P., R.G. Eiler and C.R. Jones, 1989. Are your performance measures obsolete? Management Accounting, 70(12): 45-50.
26. Neely, A., M. Gregory and K. Platts, 2005. Performance measurement system design. A literature review and research agenda. International Journal of Operations and Production Management, 25(12): 1228-1263.
27. Lynch, R.I. and F.K. Cross, 1991. measure up. The Essential Guide to Measure Business Performance. London Mandarin,
28. Fitzgerald, L., *et al*., 1991. Performance measurement in Service Business. London: Chartered Institute of Management Accountant.
29. Brown, M.G., 1996. Keeping score. Using the right metrics to drive world-class performance: AMACOM/American Management Association.
30. Kaplan, R.S. and D.P. Norton, 1992. The balanced scorecard–measures that drive performance. Harvard Business Review, 70(1): 71-79.
31. Kaplan, R.S. and D.P. Norton, 1996. Linking the balanced scorecard to strategy. California Management Review, 39(1).
32. Kaplan, R.S. and D.P. Norton, 2004. Strategy maps Converting intangible assets into tangible outcomes Harvard Business Press.
33. Kaplan, R.S. and D.P. Norton, 2006. Alignment. Using the balanced scorecard to create corporate synergies Harvard Business Press.
34. Maisel, L.S., 1992. Performance measurement: the balanced scorecard approach. Journal of Cost Management, 6(2): 47-52.
35. Ewing, P. and L. Lundahl, 1996. The balanced scorecard at ABB Sweden–the EVITA Project, in The International Workshop on Cost Management.
36. Lingle, J.H. and W.A. Schiemann, From balanced scorecard to strategic gauges is measurement worth it? Management Review, 85(3): 56-61.
37. Neely, A.D., C. Adams and M. Kennerley, 2002. The Performance Prism: The scorecard for measuring and managing business success Financial Times Prentice Hall London.
38. Gitomer, J., 1998. Customer Satisfaction Is Worthless, Customer Loyalty Is Priceless. How To Make Them Love You, Keep You Coming Back and T.
39. Franco-Santos, M. and M. Bourne, 2005. An examination of the literature relating to issues affecting how companies manage through measures. Production Planning and Control, 16(2): 114-124.
40. Taticchi, P. and K.R. Balachandran, 2008. Forward performance measurement and management integrated frameworks. International Journal of Accounting and Information Management, 16(2): 140-154.
41. Nanayakkara, G., 2012. Measuring the Performance of Microfinancing Institutions. A New Approach. South Asia Economic Journal, 13(1): 85-104.
42. Manos, R. and J. Yaron, 2009. Key issues in assessing the performance of microfinance institutions. Canadian Journal of Development Studies/Revue canadienne d'études du développement, 29(1-2): 101-122.
43. Schreiner, M.J., 1997. A framework for the analysis of the performance and sustainability of subsidized microfinance organizations with application to Bancosol of Bolivia and Grameen Bank of Bangladesh, Ohio State University.
44. Yaron, J., 1992. Successful rural finance institutions. World Bank-Discussion Papers,

45. Yaron, J., 1994. What makes rural finance institutions successful? The World Bank Research Observer, 9(1): 49-70.
46. Navajas, S., *et al*., 2000. Microcredit and the poorest of the poor: Theory and evidence from Bolivia. World Development, 28(2): 333-346.
47. Mayoux, L ,2001. Impact assessment of microfinance, Towards a sustainable learning process. EDIAIS Application Guidance Note,
48. Zelle, M. and R.L. Meyer, 2002. The triangle of microfinance financial sustainability, outreach and impact. Johns Hopkins University Press,
49. Arsyad, L., 2005. An assessment of performance and sustainability of Microfinance Institutions: A case study of Village credit institutions in Gianyar, Bali, Indonesia, Flinders University, Faculty of Social Sciences.
50. SEEP Network, S., 2005.Measuring performance of microfinance institutions. A framework for reporting, analysis and monitoring. Washington, DC: SEEP Network,
51. Bank, C.G.T.A.T.P.T.W., 2006. Good practice guidelines for funders of microfinance. Cgap microfinance consensus guidelines,
52. Yirsaw, A., 2008. The performance of Micro Finance Institutions in Ethiopia. A case of six microfinance institutions, Addis Ababa University.
53. Zeller, M. and R.L. Meyer, 2002. The triangle of microfinance financial sustainability, outreach and impactJohns Hopkins University Press.
54. Rosenberg, R., 2009. Measuring Results of Microfinance Institutions. Minimum Indicators That Donors and Investors Should Track. CGAP. A Technical Guide,
55. Engels, P., 2010. Mission drift in microfinance The Influence of Institutional and Country Risk Indicators on the Trade-Off between the Financial and Social Performance of Microfinance Institutions. PlaNet Finance Deutschland e.V. ISBN, 978-3-8382-0123-8.
56. Bartual Sanfeliu, C., R. Cervelló Royo and I. Moya Clemente, 2011. Measuring performance of social and non-profit Microfinance institutions (MFIs). An application of multicriteria methodology. Mathematical and Computer Modelling,
57. Waweru, N. and G. Spraakman, 2012. The use of performance measures case studies from the microfinance sector in Kenya. Qualitative Research in Accounting and Management, 9(1): 44-65.
58. Ballantine, J. and S. Brignall, 1994. A taxonomy of performance measurement frameworks. Research, pp: 135.
59. Bourne, M., *et al*., 2000. Designing, implementing and updating performance measurement systems. International Journal of Operations and Production Management, 20(7): 754-771.
60. Balachandran, K.R., S.H. Li and S. Radhakrishnan, 2007. A framework for unused capacity theory and empirical analysis. Journal of Applied Management Accounting Research, 5(1): 21-38.
61. Taticchi, P., K. Balachandran and F. Tonelli, 2012. Performance measurement and management systems state of the art, guidelines for design and challenges. Measuring Business Excellence, 16(2): 41-54.