# ESTIMATED FINANCIAL PERFORMANCE MODEL BASED ON SCALE BUSINESS COOPERATIVE (STUDY IN COOPERATIVES IN WEST JAVA)

Rima Elya Dasuki\*, Eka Setiajatnika\*, Iwan Mulyana\*

\* IKOPIN-Institut Manajemen Koperasi Indonesia

### **Abstract**

Analyzing Financial Performance Estimating Model Based on Scale Cooperative require analysis relating to the survival of the cooperative. This study sampled 79 cooperatives Swamitra micro business BUKOPIN bank unit by observing the data for each variable related to capital structure, credit risk, social performance, financial performance and sustainability of cooperatives, during the period of 72 months in West Java Province. Research studies have shown that the assessment of financial performance and social performance is an approach that assesses the importance of sustainability, financial aspects and social aspects in an organization, it is mainly related to the perception of the capital structure, credit risk, social performance, and economies of scale in delivering small loans will very influential terhdadap sustainability of the organization. Cooperative will attract the attention of business people and financiers because it shows that the long-term sustainability will be very potential to be developed. Scale cooperative effort will greatly affect the financial performance and sustainability of cooperatives.

**Keywords:** Capital Structure, Credit Risk, Social Performance, Financial Performance, Sustainability of Cooperatives, the Scale of Business

### 1. INTRODUCTION

The first issue in this paper is to study the financial performance of cooperatives related to capital structure and credit risk, given the challenges of the cooperative today are more severe in view of the need for preparedness cooperative in the era of the ASEAN Economic Community in 2015 which is the ultimate goal of economic integration as envisioned in the ASEAN Vision 2020, with four main pillars, namely (a) Single Market and Production Base Regional (b) Competitive Region High (c) Areas with Equitable Economic Development, (d) Integration with the World Economy. In order to face the Society ASEAN economic co-operatives should be able to improve the efficiency, effectiveness and quality of production and creating a conducive business climate in order to increase competitiveness, expand the marketing network, improve the mastery of communication information and technology (Suhartati Joesron, 2013).

The expectations of all parties towards the role of Indonesia Cooperative Movement is the success of each organizational unit of cooperatives in improving the economic welfare of its members, so that the macro can act as a pillar of the people's economy. But, in fact, the practice of cooperatives in Indonesia has lost its identity as a means of driving the prosperity of society. The indications there are many cooperatives that develop as a company but

tend not associated with increased economic welfare of its members

Second issues in this study is a review of social performance , it is based on factual conditions of cooperatives in Indonesia , there is a gap between the concept of cooperative and universal practice, as well as the necessary change efforts leading to the reorientation of the practice of cooperatives to be run in accordance with the basic objectives to improve the welfare of memberr and society

The third issue is to conduct studies that relate to the performance of the financial implications for the sustainability of cooperatives. Cooperative as a form of micro-finance institutions are expected to maximize operational efficiency, serving the society are many, and can benefit both financially and non-financially as a development tool that can provide a great social impact for the community (Muhammad Sayeedul Haque and Masahiro Yamao (2009)

Based on the literature on micro-finance and the perspective of the managers of microfinance institutions (Tanya Abramsky, Giulia Ferrari, James Hargreaves, Julia Kim, Linda Morison and Gogfrey Phetla, 2009), the approach of integrated services has the most potential to achieve a balance between improving the ability to obtain performance financial sustainability and to bring about an improvement in the standard of living, so that microfinance institutions can have a positive impact socially and financially. Cooperative as a microfinance institutions has a significant role in the growth of the Indonesian economy.

### 2. DISCUSSION

#### 2.1. Microfinance Institutions Approach

Pim Engels (2010) distinguishes three functions which illustrates the effectiveness of microfinance. First, microfinance is provided for low-income communities in order to improve the ability to cope with life cycle such as education and improved quality of life.

Second, microfinance reduces the risk of individuals by increasing the ability to handle emergencies. Third, microfinance can provide the opportunity to invest in a business, land, or household assets lainnya.Layanan core of microfinance is the provision of microcredit, which is defined as:

"Small loans to very poor people for selfemployment projects that generate income, allowing them to care for Themselves and their families". (Grameen Bank, 2009)

Microcredit can enhance the entrepreneurial skills of low-income communities, and aims to support small businesses or to increase the sources of family income.

Ledgerwood (2006) states that Microfinance is a term that can be divided into two components: Micro and Finance, who first emphasized the financial level involved (mainly composed of small loans), while the second relates to elements associated with financial discipline. Christoper Pollit (2001) defines microfinance as "the provision of financial services to the poor and those earning less than the national average income."

According to Pankaj (2010) microfinance is defined as an effort to improve accessibility with small loans and deposits for poor households that are difficult to access bank. According to Venkata Vijay (2011), micro credit is a credit program for small amounts to the poor to finance the project he's working on his own in order to generate revenue, which allows them to support themselves and their families, "Programmes extend small loans to very poor for self- employment projects that generate income, allowing them to care for Themselves and their family".

Previous studies have shown that the Micro Finance Institutions including cooperative play an important role in reducing poverty, especially by providing access to finance for the poor. To support this position, Michel Tucker (2002) defined as the technique was adopted to combat poverty. In addition to generating productive capital access for the poor, the cooperative also expected to provide the necessary training and education to the needy in order to increase their potential, so it can finally come out of the vicious circle of poverty.

### 2.2. Cooperative Approach

One form of microfinance institutions is a cooperative financial services. Is a cooperative financial services organization based, owned and controlled by their members. Financial cooperatives are mostly non-profit institutions. Non-governmental organizations (NGOs) has been a pioneer of the microfinance industry.

Cooperatives as an alternative financial service providers need to consider the sustainability of its business in order to provide optimum benefits for the poor and micro enterprises in the long term. This goal can only be achieved if financial services cooperatives according to time, place, type of economic activity, and the level of economic development of society. Cooperative internally also must begin to implement corporate governance standards in accordance with the development of its business.

Cooperatives have objectives that include two aspects, social and business aspects. Therefore, the lack of proper regulation and supervision if performed as applied to the bank under the Banking Act that already exists. However, on the one hand, the Cooperative has properties as a financial institution, it should be guaranteed a minimum of risk management within the framework of regulation and supervision.

The Newcastle on Tyne Co-operative (citied by Ann-Marie Wardand Donal McKillop, 2006) defines cooperatives are:

'Any society should be regarded as a cooperative roomates divided profits with labor, or trade, or both. "(Newcastle-on-Tyne Cooperative Congress)

This illustrates the principle of distributive justice gains for the parties involved, including consumers and employees, as well as commercial companies in general

Other definitions expressed by Maldentaz (1933), cited by Ferguson and McKillop (1997) that the cooperative is:

'Associations of persons, small producers or consumers, who have come together voluntarily to Achieve some common purpose by a reciprocal exchange of services through a collective economic enterprise working at their common risk and with resources Contribute to roomates all contribute'

While George Fauquest states "A cooperative Consist of two essential elements, a democratic association of persons separating economic enterprise.In Reviews These for the purposes of analysis, the essential is lost. It is the manner in the which the two are coordinated that forms the basicproblem of coopertives (Vitaliano, 1977, citied by Patrick Mooney, Thomas WGray, 2005) "

This definition is not solely focused on profit, but there is a shift in values towards achieving the broader goals. This illustrates that significantly there is a change to the definition of a cooperative. To determine the continual change of the definition and cooperative principles it is necessary to analyze the factors that contribute to the development of cooperatives.

According Fairbaim (1994) changes in the cooperative development will continue in view of the cooperative is an organization that is constantly changing in accordance with changes in human life. At this time The International Cooperative Alliace defines a cooperative as

"An autonomous association of persons united voluntarily to meet Their common economic, social, and cultural needs and Aspirations through a jointly-owned and democratically-controlled enterprise".

Cooperative principles that are internationally recognized, namely the principles of modern cooperative group that had begun in 1844. The group was established by 28 workers in Rochdale.

This launched seven cooperative principles, better known as the Rochdale Principles,, these principles are:

- a. Voluntary and open membership
- b. Democratic member control
- c. Member economic participation
- d. Autonomy and independence
- e. Provision of education training and information
- f. Cooperation Among Cooperatives; and concern for the community

Purpose cooperatives are not purely financial matters but also facilitate social and cultural aspirations so that the application of cooperative principles are things that need Cooperative relatively unique character compared to other business entities (GF Ortman and BP King, 2007), a cooperative owned and controlled by members and are not controlled by the investor. Members also elect a democratic manner. Decisions are taken on the basis of the principle of one member one vote is not affected by the funds invested in the cooperative. Surplus cooperative distributed back to members in accordance participation of members in trasaksi. Not-for-profit cooperative, but provides services to member satisfaction.

Cooperative society is needed in order to strengthen competitiveness by maintaining access to the face of market competition, trying to be able to fund the possibility formation of new markets, making products and services based on competition, opening up opportunities to increase revenue, efficiency costs and manage risk.

## 2.3. Relationship between the Capital Structure Financial Performance

Performance (performance) of the company is a reflection of the success of the business enterprise performance measurement is an act of measurements made tehadap various activities in the value chain in the company, is used as feedback that will provide information on the achievements of the implementation of a plan and the point where companies require an adjustment to the activity planning and control Anthony, Banker, Kaplan, and Young (1997), Anderson and Clancy (1991). (Sony Yuwono, 2003)

There are several benchmarks for assessing the performance of the business, basically classified into two types: namely obyekif and subjective. Objective measures are usually related to the profitability of the sales of its products, the subjective indicators, the profitability is determined by the perception of managers tehadap profitability of their business activities (Zeller, Stanko and Cleverly, 1997).

Companies are often faced with the decision of the selection of capital sources, whether of himself or of capital sourced from pinjaman. Debt could be justified in so far as is expected to provide additional operating profit (Earning Before Interest and Tax) is greater than the interest paid. The use of debt is expected to increase the profitability of own capital (Return on Equity).

Pandey (1999) says that the company's capital structure refers to the relative level of debt to equity on the balance sheet, capital structure is the way a

fund company assets through some combination of equity, debt or obligation.

### 2.4. The relationship between Credit Risk with Financial Performance

Risk is an integral part of the financial services. When financial institutions experiencing troubled loans, it means a risk of (Ronald Chua, Paul Mosley, 2000). Each institution conducting cash transactions or makes investments at risk for the loss of those funds. Development financial institutions do not have to avoid the risk of or ignore the risk. Like all financial institutions, the risks faced microfinance institutions including cooperatives must be managed efficiently and effectively. If the cooperative does not manage risk properly, it will likely fail to meet the social and financial objectives. When the risk is not managed properly it will result financial losses, thus, investors, lenders, borrowers and savers tend to lose confidence in the organization that will result in financial difficulties. When experiencing financial difficulties, the cooperative was not able to meet the goal sosianya in providing services to the poor and would be difficult to run the business.

Managing risk is a complex task for any financial organization. Business Financial institutions have stressed that risk management as an important element of long-term success. So that the organization should focus on the ability of organizations to identify and manage the risks of the future as the best predictor of long-term success.

Interest rate risk interact with the level of credit risk. Liquidity and interest rate risk occurs simultaneously when due and the inability to pay short-term obligations. Portfolio investment risk refers to the long-term decisions.

### 2.5. The relationship between Social Performance with Financial Performance

The combination of social and financial services is a more complex system than by the cooperative services that rely on a basic credit products.

Integrated service approach is very valuable as a means for profit and to the improvement of people's lives. "These new organizations are combining two previously separate logic: the logic that guided the construction of their mission to help the poor, and the logic of profit banks needed enough to support ongoing operations.

According to Fisher and Sriram (2002),

"The industry has Become dominated by a techno-managerial perspective, with a large number of technical manuals and courses on how to manage micro-financial services and sustainability, and how to Achieve outreach. In the process, the development impetus roomates first Gave rise to micro-finance is Often lost (except in the narrowest sense of outreach to poor people.) It is time to put development back into the provision of microfinancial service, and for this we need to go beyond micro-credit. "

Based on the fact the integration of cooperatives so many benefits that microfinance must seek a balance between financial sustainability and social impact.

### 2.6. The Relationship between Financial Performance with Sustainability

Performance is a specific measure which indicates the successful achievement of a party to the organizational task. The observation shows that the increase in performance will occur when implementing control and efficiency in the implementation of labor. At this time many people who pay attention to microfinance institutions perceived as a potential tool to reduce poverty. Microfinance is expected to reduce poverty, which is regarded as the most important development goal (World Bank, 2000).

Cooperative as a micro-finance institutions can be measured by financial and non-financial approaches. Assessment of financial performance is an approach that assesses the importance of the financial aspects of sustainability in an organization. Research studies have shown that it is mainly related to the risk perception microborrowers and creditworthiness, and diseconomies of scale in making small loans will greatly affect the sustainability terhdadap organization (Pankaj K, 2010). Microfinance attract businessmen and investors because it shows the sustainability and low cost of operations, so for the long term potential to be developed.

### 2.7. The relationship between Social Performance with Sustainability

Micol Pistelli of Microfinancing Information Exchange (MIX-2012) defines social performance as:

Social performance is the "effective translation of a microfinance organization's mission into practice in line with commonly accepted social values," such as creating benefits and serving clients in a sustainable manner, improving the quality of financial services, and the social responsibility of MFIs toward Reviews their clients.

Pistelli (2012) outlines four goals for the cooperative development of the performance, which includes the reduction of poverty, the growth of existing businesses, job creation, and gender equality and women's empowerment. Although cooperatives put various criteria as the mission of the organization, but the fact still difficult to fulfill, based on data from MIX 70% of Microfinance Institutions registered that include poverty reduction as their primary mission, it was only less than 20%, which can meet the objectives according to the criteria set.

Sustainability of microfinance institutions not only depend on welfare of the members, but also the investor and the institution itself. Jody Rasch (Moody's Analytics, 2012) noted that using indicators such as Moody Social Performance Assessment (SPA) not only uphold the investor's commitment to social responsibility, but it increases the financial benefits. Jody stated that no reputational risk involved when describing the welfare of members, which is not found in other financial institutions.

MIX and the Social Performance Task Force (SPTF) has developed 11 indicators used to measure the social performance of microfinance institutions, including cooperatives therein. Specific indicators used to collect data on the social performance of microfinance institutions around the world and provide a platform for benchmarking and main analisis. Tujuan mixs' is to increase transparency in the microfinance industry through data collection and analysis. Therefore, MIX focus on indicators that clearly and directly related to the results, has a quality that can be tested and compared, and can be easily validated by a third party.

## 2.8. The Relationship between Financial Performance and Social Performance to Sustainability Cooperative

Analyzing the microfinance model that integrates not a simple matter, because it will involve many factors, both quantitative and qualitative, and cooperatives often must be hybrid. Hybrid usually means that the organizational form mixing elements of public, private, and community in the provision of services, Hanan (2009) apply the label "hybrid" for integrated because this organization in a way acting as a private financial service providers while also trying to provide services that often provided by NGOs or non-financial public sector institutions.

In the opinion of Eva Orbuch (2011), integrated microfinance (Integrated Micro Finance) is more empowering communities, where additional services will better meet the needs of society and enable them further improve living standards.

Integrating social services culturally relevant in conjunction with the financial services increase the likelihood of achieving development goals, education and training can help people become more knowledgeable and gain skills, health care can make people more healthy and thus people are more productive, and financial services can make people more capable of economically

## 2.9. Estimation Results Financial Performance Model Based on Scale Business Cooperative

On the third regression equation above can be seen total debt to total assets in cooperative small size are negative, which indicates that the increase in total debt to total assets in cooperative small size will decrease the return on assets. In contrast to the micro and medium-size cooperative total debt to total assets is positive which indicates that the increase in total debt to total assets at the micro and medium-sized cooperatives will increase the return on assets.

Then the total debt to equity in the cooperative micro size are negative, which indicates that the increase in total debt to equity in the cooperative micro size will lower the return on assets. In contrast to small and medium sized cooperative total debt to equity is positive which indicates that the increase in total debt to equity in small and medium-sized cooperatives will increase the return on assets.

Table 1. Estimation Results Financial Performance Model Based on Scale Business Cooperative

Cooperative Type	Regression equation
Micro	Y= -0,985 + 0,578 $X_1$ - 0,226 $X_2$ + 0,038 $X_3$ - 10,536 $X_4$ + 6,282 $X_5$ t: -1,235 0,355 - 1,292 1,565 -2,949 2,509 p: 0,226 0,724 0,203 0,124 0,005 0,016 Adj.R² = 0,388; $F_{stat}$ = 5,513 (p=0,000)
Small	Y= 0,036 - 0,004 $X_1$ + 0,0006 $X_2$ + 0,0007 $X_3$ - 0,097 $X_4$ - 0,073 $X_5$ t: 10,721 - 0,845
Medium	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$

Where:

Y = Return on assets  $X_1 = Total debt to total asset$  $X_2 = Total debt to equity$ 

Loan to deposit ratio in the cooperative size of micro, small and medium-sized everything is positive which indicates that the increase in the loan to deposit ratio at the cooperative size of micro, small and medium will increase the return on assets. Likewise, bad debt losses in the cooperative size of micro, small and medium enterprises all are negative, which indicates that the increase in bad debt losses in the cooperative size of micro, small and medium enterprises will lower return on assets.

Lastly average loan size in cooperative micro size is positive which indicates that the increase in average loan size in cooperative micro size will increase the return on assets. In contrast to the cooperatives of small and medium size average loan size is negative which indicates that the increase in average loan size in cooperative small and medium size will decrease the return on assets.

The coefficient of determination (adj.R2) on micro cooperatives of 0.388 indicates that the micro cooperative capital structure, credit risk and social performance simultaneously impact of 38.8% on financial performance. In the small cooperative coefficient of determination (adj.R2) of 0.322 indicates that the small cooperative capital structure, credit risk and social performance simultaneously give 32.2% influence on financial performance. The last in the medium cooperatives coefficient of determination (adj.R2) of 0.380 indicates that the secondary cooperative capital structure, credit risk and social performance simultaneously giving the effect of 38.0% on financial performance.

At simultaneous testing fstat probability value can be seen in all three models less than 0.05 indicates that the cooperative micro, small cooperatives and medium-sized cooperative capital structure, credit risk and social performance simultaneously affect the financial performance.

Then the partial testing, total debt to total assets affect the financial performance in the medium cooperatives, while in cooperative micro and small cooperatives total debt to total assets has no effect on the financial performance. At cooperative micro, small cooperatives and cooperative medium-total debt to equity has no effect on the financial performance. Furthermore,

 $X_3$  = Loan to deposit ratio  $X_4$  = Bad debt losses  $X_5$  = Average loan size

the loan to deposit ratio effect on financial performance in small cooperatives, while in cooperative micro and medium-sized cooperative loan to deposit ratio has no effect on the financial performance. However, bad debt losses affect the financial performance of both the cooperative micro, small cooperatives and cooperative medium.

Average loan size has no effect on the financial performance in the medium cooperatives, while in cooperative micro and small cooperatives average loan size effect on financial performance.

## 2.10. The influence of Social Performance and Financial Performance to Sustainability Based on Scale Business Cooperative

In this section will be tested the influence of Social Performance and Financial Performance against Sustainability is based on the size of the company. Results Chow test shows that the fixed models is the right choice for a model of Cooperative Swamitra Business Unit Micro Bank BUKOPIN small scale, and the Cooperative Swamitra Business Unit Micro Bank BUKOPIN medium-scale enterprises, but at the Cooperative Business Unit Micro Bank BUKOPIN scale micro businesses pooled least square is the right choice. Then the results of Hausman test shows that the fixed effect model is the right choice for Micro Business Unit Swamitra Cooperative Bank BUKOPIN medium-scale enterprises and random effect model is the right choice for Micro Business Unit Swamitra Cooperative Bank BUKOPIN small scale. Furthermore, the classical assumption test results showed that the regression model in third normal size berdistibusi not cooperative and did not happen multikoliniertas among the independent variables. Later on heteroscedasticity test, found no symptoms Swamitra heteroskedastisity Cooperative Micro Business Unit of Bank Bukopin scale micro enterprises, cooperatives Swamitra Micro Business Unit of Bank Bukopin small scale or on a Micro Business Unit Swamitra Cooperative Bank BUKOPIN medium-scale enterprises. Finally test, found the symptoms of autocorrelation autocorrelation in Swamitra Cooperative Micro Business Unit of Bank Bukopin small and mediumscale enterprises, but there were no symptoms of

autocorrelation in Swamitra Cooperative Micro Business Unit of Bank Bukopin scale micro enterprises. After testing the model and classical assumption then performed a regression analysis to examine the effect of Social Performance and Financial Performance against Sustainability.

Based on the results of data processing obtained regression equation for each size of the cooperative as shown in the following table.

Table 2. Estimation Results Sustainability Model Based on Cooperative Type

Cooperative Type	Regression Equation
Micro	Z= $0.623 + 0.136 \text{ Y} - 0.741 \text{ X}_5$ t: $2.472 - 0.178 - 0.711$ p: $0.017 - 0.859 - 0.480$ Adj.R <sup>2</sup> = $0.000$ ; $F_{\text{max}} = 0.067$ (p=0.936)
Small	Z= 0,168 - 0,748 Y - 0,225 X <sub>5</sub> t: 2,121 -1,736 -0,516 p: 0,034 0,083 0,606 Adj.R <sup>2</sup> = 0,0001; F = 1,163 (p=0,313)
Medium	Z= 0,047 + 0,045 Y - 0,045 X <sub>5</sub> t: 5,993

Where:  $Z = Growth \ of \ Asset$ 

Y = Return on assets $X_{\varepsilon} = Average loan size$ 

From all regression equation above it can be seen return on assets in cooperative small size are negative, which indicates that an increase in return on assets in cooperative small size would decrease the asset. In contrast to the micro and medium-size cooperative return on assets is positive which indicates that the increase of return on assets in the micro and medium-sized cooperatives will increase the asset. Average loan size in the size of the cooperative micro, small and medium enterprises all are negative, which indicates that the increase in average loan size on the size of the cooperative micro, small and medium enterprises will decrease the asset.

The coefficient of determination (adi.R2) on the Micro Business Unit Swamitra Cooperative Bank BUKOPIN scale micro enterprises of 0.000 indicates that the Micro Business Unit Swamitra Cooperative Bank BUKOPIN scale micro enterprises Social Performance and Financial Performance no effect on Sustainability. Cooperative Swamitra Micro Business Unit of Bank Bukopin small scale coefficient of determination (adj.R2) of 0.0001 indicates that the Cooperative Bank Swamitra Micro Business Unit BUKOPIN small scale Social Performance and Financial Performance simultaneously only effect of 0.01% on Financial Performance. Lastly Cooperative Bank Swamitra Micro Business Unit BUKOPIN medium-scale enterprises coefficient determination (adj.R<sup>2</sup>) of 0,050 shows that the Cooperative Bank Swamitra Micro Business Unit BUKOPIN medium-scale enterprises Social Financial Performance and Performance simultaneous effect of 5.0% on Performance finance.

At simultaneous testing can be seen the value of probability fstat on Swamitra Cooperative Micro Business Unit of Bank Bukopin small scale and micro cooperatives greater than 0.05 indicates that the Micro Business Unit Swamitra Cooperative Bank BUKOPIN micro-scale enterprises and cooperatives Swamitra Micro Business Unit of Bank Bukopin small scale Social Performance and Financial Performance simultaneously no effect on Sustainability. But at the

Cooperative Bank Swamitra Micro Business Unit BUKOPIN medium-scale enterprises fstat probability value less than 0.05 indicates that the Micro Business Unit Swamitra Cooperative Bank BUKOPIN medium-scale enterprises Social Performance and Financial Performance simultaneously affect the Sustainability.

Then partial examination, the Social Performance Sustainability has no effect on either the Cooperative Bank Swamitra Micro Business Unit BUKOPIN scale micro enterprises, cooperatives Swamitra Micro Business Unit of Bank Bukopin small-scale enterprises and cooperatives Swamitra Micro Business Unit of Bank Bukopin medium-scale enterprises. Further Financial Performance Sustainability influence on the Micro Business Unit Swamitra Cooperative Bank BUKOPIN medium-scale enterprises.

### 3.CONCLUSION

## 3.1. Effect of Capital Structure, Credit Risk and Social Performance to Financial Performance Based on Scale Cooperative

#### a) On a scale of micro enterprises

Coefficient loan to debt ratio and average loan size is positive which indicates that the increase in loan-to-debt ratio and average loan size will increase the return on assets. While the total debt to total assets to equity, and the bad debt ratio shows the opposite. Simultaneously capital structure, credit risk and social performance affects 38.8% of financial performance, but the partial total debt to total assets, total debt to equity, loan to deposit ratio has no effect on the financial performance, while the bad debt ratio and average loan size effect on financial performance.

#### b) On a scale of small businesses

Coefficient of total debt to total assets, total debt to equity and a loan to deposit ratio is positive which indicates that the increase in total debt to total assets of debt to equity and a loan to deposit ratio in cooperative small size will increase the return on assets. While the bad debt ratio and average loan size indicates otherwise. Simultaneously capital structure, credit risk and social performance affects 32.2% of financial performance, but the partial total debt to equity has no effect on the financial performance, while total debt to total assets, loan to deposit ratio, debt ratio and average bad loan size effect on financial performance.

### c) In the medium-scale enterprises

Coefficient of total debt to total assets, total debt to equity and a loan to deposit ratio is positive which indicates that the increase in total debt to total assets, debt to equity, loan to deposit ratio at secondary cooperatives will increase the return on assets. While the bad debt ratio and average loan size indicates otherwise. Simultaneously capital structure, credit risk and social performance affects 38.0% of financial performance, but the partial total debt to equity, loan to deposit ratio and the average loan size has no effect on the financial performance, while total debt to total assets and bad debt ratio effect on financial performance.

## 3.2. Effect of Social Performance and Financial Performance to Sustainability Based on Business Scale Cooperative

### a) In the Micro Scale

Coefficient of return on assets is positive which indicates that the increase of return on assets in cooperative micro-scale enterprises will enhance the growth of assets. Simultaneously, financial performance and social performance effect on sustainability, partial social performance has no effect on sustainability, while the effect on the financial performance of sustainability.

### b) On the Small Scale

Coefficient of average loan size is negative which indicates that the increase in average loan size on a small scale cooperatives will reduce the growth of assets. Simultaneously, financial performance and social performance effect on sustainability, partial social performance has no effect on sustainability, while the effect on the financial performance of sustainability.

### c) In the Medium Business Scale

Coefficient of return on assets is positive, which indicates an increase in return on assets will improve the growth of assets, average loan size is negative which indicates that the increase in average loan size in the cooperative medium-scale enterprises will decrease the growth of assets. Simultaneously and partial financial performance and social performance effect on sustainability.

### **REFERENCES:**

- Aggarwal Vijender, Aggarwal Rachna and Khanna Parul "Micro Finance and Risk Management for Poor in India" Research Journal of Recent Sciences vol.1(2),104-07, Feb. 2012, MBA Department, YMCA University of Science. And Technology, Faridabad-121006, Haryana, INDIA, MBA.
- 2. Adekunie, Bamidele and Spencer J.Henson,The effect of cooperative thrift and credit societies on

- personal agency belief:a study of entrepreneurs in Osun State, Nigeria, African Journal of Agricultural Research Vol 2 (12) p.678-686, December 2007.
- 3. Anand K. Rai Sandhya Rai, Factors Affecting Financial Sustainability of Microfinance, Journal of Economics and Sustainable Development, ISSN 2222-1700, Vol 3, No 6,2012.
- 4. Anand Rai, KanwalAnill, Financial Performance of Microfinance Institution: Bank vs NBFC, International Journal of Management and Strategy, Vol II, Issue II, January-June 2011.
- Ananjadis, Nota and Oustapassidis, Coperative Competitiveness and Structure Capital, Journal of cooperative 2003.
- 6. Ann-Marie Ward and Donal McKillop, The Relationship Between Credit Union Objects and Cooperative Philosophies, School of Management and Economics, Queens University Belfast, Belfast, N. Ireland, 2006.
- 7. Ann-Marie Ward and Donal Mc Killop, Measuaring Micro Finance Performance, Journal of micro finance, 2006.
- 8. Asad Kamran Ghalib, Measuring The Impact of Microfinance Intervention: A Conceptual Framework Of SocialImpact Assessment, Institute for Development Policy and Management (IDPM), University of Manchester, United Kingdom, 2010.
- 9. Asian Development Bank, Developing Financial Cooperatives Project. Project Number 39481, 2006.
- 10. Ben Soltane Bassem, Social and financial performance of microfinance institutions: Is there a trade-off? ,Delhi Business Review X Vol. 11, No. 2 (July December 2010).
- 11. Bhuvanl.B,Performance of Microfinance providers in Karnataka,Department of Agricultural Marketing Co-operations and Agribusiness Management College of Agriculture, Dharwad, University of Agricultural Sciences,Oktober 2007.
- 12. Cécile Lapenu Manfred Zeller, Towards Defining Social Performance of Micro Finance Institutions 2011.
- 13. CIRPEE,The Power of Networks:Integration and Financial Cooperative Performance COADY, International Institute, Reachingathe Hard To educe ArReach:Compaative Study of Member-Owned Financial Institutions in Remote Rural Areas,2008.
- 14. Christ D Gingrich, Community Based Savings and Credit Cooperatives in Nepal, Journal of Micro Finance, Vol. 6 No 1, 2007.
- 15. COADY, International Institute Comparative Study of Member-Owned Financial Institutions in Remote Rural Areas, 2008.
- 16. Cull, Demirque and Murdoch Financial Performance and Outreach : A Global Analysis of Leading Microbanks, Economic Journal, Royal Economic Society, Vol. 117, 2007.
- 17. Cull, Demirque and Murdoch, "Microfinance Meets the Market" Journal of Economic Perpective, vol 23, No 1, 2009.
- 18. Eva Orbuch, Towards an Integrated Approach to Microfinance A Case for the Integration of Financial and Non-Financial Services in Microfinance Institutions, Urban Studies Stanford University, 2011.
- 19. Fabio Chaddad, Both Market and Hiererchy; Understanding the Hybrid nature of Cooperative, International Workshop "Rural Cooperation in the 21st Century: Lessons from the Past, Pathways to the Future', Israel, May 2009.
- 20. Jennifer Kelling Bond,Cooperative Financial Performance and Board of Director

- Characteristics: A Quantitative Investigation, Journal of Cooperatives,vol 22,p.22-44, 2009.
- 21. Manfred Zeller, CecileLapenu, Martin Greeley Measuring social performance of micro-finance institution, Social Performance Indicators Initiative, October 2003.
- 22. Martin Desrochers, Klaus P Fischer, The Power of Networks: Integration and Financial, Cooperative Performance, Centre interuniversitaresur le risqueseconomiques et l'emploi/CIRPEE, May 2005
- 23. Manfred Zeller, Measuring social performance of micro-finance institutions, 2006.
- 24. Martin Desrochers, Klaus P. Fischer, The Power of Networks: Integration and Financial Cooperative Performance, 2005.
- 25. Martin Greeley, Social Performance Indicators Initiative (SPI),Institute of Devel, 2003.
- Moche Kim, Jordi Surroca and Josep A Tribo, The Effect of Social Capital on Financial Capital, Working Paper Business Economic Series Wp 09-2, ISSN 1989-8843.
- 27. Onno-Frank van Bekkum and Svein Ole Borgen,A Dual Signal Approach to Cooperative Performance Measurement, Discusion paper no 2008-2,Netherlands Institute for Cooperative Entrepreneurship,Universitet Nyenrode, 2008.
- 28. Pankaj K. Agarwal,S.K. Sinha,Agicultural and Applied Economics Financial performance of microfinanceinstitutions of india cross-sectional study, Delhi Business Review ,Vol. 11,No 2, July-Desember 2010.
- 29. Paola Bongini, Giovanni Ferri and Tae SooKang, Financial Intermediary Distress in The Republic of Korea: Small is Beautiful, Journal of Cooperatines, 2001.

- 30. Paul Armbruster, The Importance of Networks for the success of financial cooperatives, The World Bank, German Cooperative and Raiffeisen Confederation, Washington DC, April, 2007.
- 31. Pim Engels, Mission Drift In Microfinance, The Influence of Institutional and Ciountry Risk Indicators on the Trade Off between the Financial and Social Performance Institution, ISSN:2190-2291, Stuttgard-Germany. (2010).
- 32. Pollit Christopher, Integrating Financial Management and Performance Management, 2007
- 33. Rai Anand K. Rai,Sandhya, Factors Affecting Financial Sustainability of Microfinance, Journal of Economics and Sustainable Development,ISSN 2222-1700,Vol 3,No 6,2012.
- 34. Tsangyaao Chang,Kuei Chiu Lee,Does Capital Structure Affect Operating Performance Of Credit Cooperatives in Taiwan-Aplication Panel Threshold Method,International Research Journal of Finance and Economics,ISSN 1450-2887 Issue 32 (2009).
- 35. Tuccillo Danilo The Growth of Social Cooperatives: Focus on Financial Resource Management, Second University of Naples.
- 36. Venkata Vijay Kumar P, V K Gupta Analysis of Performance Indicators on Sustenance of Micro Finance Institutes: A Comparative Study of East Asian & Pacific, and South Asian Countries, Research Journal of Finance and Accounting, ISSN 2222-1697, Vol. 2, No 3, 2011.
- 37. Vicki Bogan, Capital Structure and Sustainability: An Empirical Study of Microfinance Institutions, Department of Applied Economics and Management, Cornell University, 2009.