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The Effect of Liquidity, Cooperative Size, And Profitability on The Capital Structure Among Koperasi Wanita In Malang, East Java

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Abstract : *This study aims to test the direct and indirect effect of liquidity, the cooperative size and profitability on capital structure. The sample in this study is sixteen "Koperasi Wanita" with purposive sampling technique. Then, the analysis of data was done by using path analysis. The results showed that liquidity has no a significant effect on profitability but has a significant negative effect on the capital structure. The cooperative size has a significant positive effect on profitability but has no a significant effect on the capital structure. Meanwhile the profitability has a significant negative effect on the capital structure.*
Keywords: *Liquidity, Cooperative Size, Profitability, Capital Structure, Koperasi Wanita*

I. Introduction

Koperasi Wanita (Kopwan) is one of cooperatives in Indonesia. People call it *Kopwan* for most of its members are women. *Kopwan* has lately been on major project in East Java these years for some reasons, one of which is that government want to provide a space for women in economic sector to ensure the family's basic endurance.

In 2011 and 2012, after the establishment of 3.750 *Kopwan* in 2009 and 4.250 in 2010, Department of Cooperative and UMKM (Micro and Medium Business) East Java Province in cooperation with state universities in East Java conducted evaluation on *Kopwan.* It resulted on the identification of some problems or weakness of *Kopwan* in East Java. One of the problems, which can also be called weakness, is the productivity including the problem of profitability, liquidity, and solvability of cooperative [27].

The capital structure and capability of making profit is the most important part in business. The capital source used by a company can be traced from the policy of its capital structure. Capital structure is the balance or comparison of foreign capital (long period of time) and equity [23]. Generally, the capital source of a company can be classified into internal and external source. Seen from the aspect of capital structure, the capital of cooperative also consists of self (internal) and loan (external) capital. The difference is that a cooperative has a principle of Member Based Oriented Activity, so that the formation of equity (internal capital) is dependent on the number of the members and the amount of their savings.

The difference also occurs in the development of cooperative capital which remains slow because its structure is not constructed from foreign or non-member's capital. If somebody wants to propose a credit funding from a bank, a cooperative is not seen bankable for loan. Besides, another principle of a cooperative is that members are free to sign in and out, and the resign of a member decreases the capital, which affects into the instability of equity.

There are some developing theories of capital structure nowadays, one of which is Pecking Order Theory. According to Myers, Pecking Order Theory explains that prefer using internal funding to the external one when a company needs funding for investment [15].

Finance managers need to consider the following important factors when deciding a policy of capital structure. They are the rate of sale, asset structure, the level of the company development, profitability, the variable of profit and the protection of tax, the company scale, the internal condition the company, and macro economy [26]. However, in this research, the factors that influence the capital structure are limited to the liquidity, size, and profitability.

The main size of liquidity is current ratio and quick ratio, yet this research only employs current ratio. A company with high liquidity has big internal funding, a current asset which is sufficient to defray the operational expense of the company or pay for the short-term loan. The higher the liquidity is, a company is supposed to decrease the risk for the use of loan (external funding). Thus the debt portion will decrease in the capital structure of company. This is in accordance with the research of Kajananthan & Achchuthan which states that the capital structure decision in Sri Lanka Telecom Plc. is greatly influenced by liquidity management [12].

Pecking Order theory states that a company prefers internal funding to the external one. Whenever external funding is needed, it might be done through issuing the safest securities. The larger the size of the company viewed from the total assets is, the larger external funding a company tend to use. This is because the need of funding also increases along with the growth of the company. According to a research conducted by Kurshev & Strebulaev to company in the United States, it is found that a company size is positively related to leverage [13]. It is also in line with a research conducted by Antoniou, et al. which shows that the leverage ratio is positively influenced by firm size in companies in Europe [3].

The high level of profitability enables the company to make most of its funding through internally generated funds [5]. A research conducted by Murhadi proved that profitability has significant negative effect on DER [14]. This finding supports the theory of pecking order where high profit enables a company to have retained earnings in large quantities. The retained earnings are the main reserve to be used when the company will make an investment for business development. Research Rajan and Zingales also showed that the profitability negatively affect the company's leverage at all samples except Germany [21].

Liquidity variable and the company size can also affect the company's profitability. Research by Eljelly indicates that there is a significant negative influence between liquidity as measured by current ratio and cash gap to profitability [8]. The study found that the current ratio is an important indicator of liquidity that can affect profitability. Podilchuk also examined the effect of liquidity classified into static liquidity (current ratio and quick ratio) and dynamic liquidity (cash conversion cycle, accounts payable, accounts receivable and inventory turnover) to profitability [18]. The results showed that the static liquidity has significant effect that can reduce profitability.

Business people, investors, and managers believe that the bigger the company is, the more profitable it is [11]. A research by Dogan found a positive relation between the indicator of company size (total assets) and profitability (ROA) in 200 active companies in Istanbul Stock Exchange (ISE) during 2008-2011 [6]. Babalola also conducted a research on the effect of company size indicated by total assets and total sales upon the profitability measured by ROA [4]. The result showed that both total assets and total sales have positive effect on the profitability of Manufacture Company in Nigeria during 2000-2009.

The current research hypotheses, based on the explanation above, are:

H_1: Liquidity has negative effect on profitability
H_2: The size of cooperative has positive effect on profitability
H_3: Liquidity has negative effect on the capital structure
H_4: The size of cooperative has positive effect on the capital structure
H_5: Profitability has negative effect on the capital structure

II. Research Methodology

This research employs quantitative methodology, which attemps to examine the direct and indirect effect of liquidity and the size of cooperative on the capital structure with profitability as mediated variables (interverning). The research design is as follows.

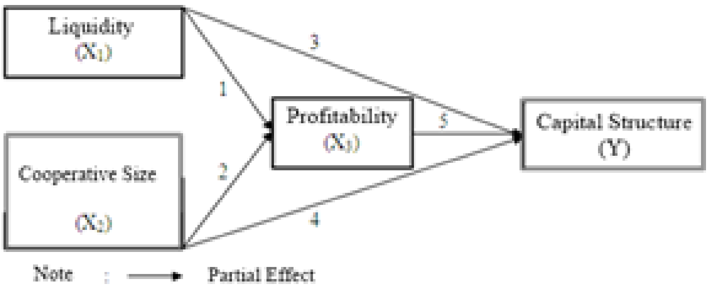

Fig. 1 The model of research design

The populations of this research are 64 *Koperasi Wanita* registered in the Department of Cooperative and UMKM (Micro and Medium Business) Malang**,** and 18 of them are taken using purposive sampling technique. The method of measuring the variables can be seen as follow

Table 1: Variable Measurement Research

No.	Variabel Penelitian	Indikator
1	Liquidity (X_1)	CR = $\left(\frac{Current\ Assets}{Current\ Liabilities}\right)$ x 100%
2	Cooperative Size (X_2)	$Ln\ (Total\ Assets)$
3	Profitability (X_3)	ROA = $\left(\frac{Surplus}{Asset}\right)$ x 100%
4	Capital structure (Y)	EDR = $\left(\frac{Liabilities}{Equity}\right)$ x 100%

Data analysis is conducted through path analysis with decomposition model to know the direct and indirect effect of independent variables on the dependent ones. In sum, the formulated regression agreements are:

The agreement of sub-structure 1

$X_3 = \rho_{x3x1} X_1 + \rho_{x3x2} X_2 + \rho_{x3} \varepsilon_1$

The agreement of sub-structure 2

$Y = \rho_{yx1} X_1 + \rho_{yx2} X_2 + \rho_{yx3} X_3 + \rho_y \varepsilon_2$

Note: X_1 = Liquidity (CR)

X_2 = Cooperative Size (LnTA)

X_3 = Profitability (ROA)

Y = Capital Structure (DER)

III. Finding

Before analyzing the data using path analysis, classic assumption test, which include normality, multicoloniarity, heteroscedasticity, and autocorrelation, is conducted. Based on the four kinds of the test, problem is not found so that regression model can be used. The following is the result of data analysis:

Table 2: The Summary of Hypothesis Test

Effect of Variable	Effect		Sig.
	Direct	Indirect (with X_3)	
$X_1 \rightarrow X_3$	-0,058	-	0,739
$X_2 \rightarrow X_3$	0,403	-	0,027
$X_1 \rightarrow Y$	-0,585	-	0,000
$X_2 \rightarrow Y$	-	0,403 x -0,369	0,112
$X_3 \rightarrow Y$	-0,369	-	0,022

Based on the above table, it can be concluded that variable X_3 functions as mediator in the form of effect from X_2 to Y. While the variable X_3 does not function as mediator in the form of effect from X_1 to Y.

The result of data analysis can be translated into regression agreement model as follow:

$X3 = -37{,}169 - 0{,}058\ X1 + 0{,}403\ X2 + 0{,}908\ \mathcal{E}1$;

$Y = -241{,}129 - 0{,}585\ X1 + 0{,}253\ X2 - 0{,}369\ X3 + 0{,}731\ \mathcal{E}1$

1. The Effect of Liquidity on the Profitability

The relation between liquidity and profitability has been discussed in great quantities in former research. Home & Machowicz stated that profitability is inversely related to liquidity [10]. However, this research has different result. The result of statistic test shows that liquidity (CR) has no significant effect on the profitability (ROA) of Koperasi Wanita in Malang.

It happens because most of *Koperasi Wanita* in this research samples undergo over liquid in its current assets. In 2012-2013, as much as six *Koperasi Wanita* have over 300% liquidity, where the number is far from the required score which must be fulfilled by cooperative to keep the level of liquidity, 200% [9].

Despite the fact that the high level of liquidity is due to the major difference between current assets and its current debt, if it is explored deeper, the high current assets of *Koperasi Wanita* in Malang is actually a lot supplied from the magnitude of accounts receivable. This may occur because most of the studied *Koperasi Wanita* run in savings and loan. Nonetheless, the high liquidity (in terms of accounts receivable) does not affect the profitability which might be caused by improper placement of funds in the current assets.

According to Hendar, high current ratio does not guarantee that the property has been well used. The high amount of debt does not guarantee high profits [9]. One of problems often encountered by *Koperasi Wanita* up to this time is the existence of unsmooth or jammed installment. This might happen because the tendency of members to borrow money from the cooperative is for consumption purposes. The finding of the current research is in line with a research conducted by Priharyanto [20] and Ambarwati [2].

2. The Effect of Cooperative Size on Profitability

The result of statistical tests conducted showed that the size of the cooperative (LnTA) has significant positive effect on the profitability (ROA) of Koperasi Wanita in Malang. It happens because of the high amount of total assets shows the amount of assets (funds) used for the operational activities of the cooperative. Moreover, total assets of the sampled Koperasi Wanita mostly supplied by the magnitude of current assets in the form of assets receivables compared to the fixed asset which is smaller in number (9: 1).

The size of companies does not guaranty the ability of a company to control and make profit [24]. Similarly stated by Jonsson that business people, investors and managers believe that the bigger the company is, the more profitable it is [11]. It can also occur in the cooperative as long as the total amounts of assets that are supplied by loan are properly managed. The size of the cooperatives that can affect the size of profitability is very important for Koperasi Wanita which is projected to develop.

Moreover, the sampled Koperasi Wanita is still relatively new so that they need recognition and branding improvement among people (potential members or interested outsiders). The result of this research is in line with that of Ambarwati [2], Nugraha [16], Sartika [25], Babalola [4].

3. The Effect of Liquidity on the Modal Structure

Because of the high level of liquidity in Koperasi Wanita in Malang. The high liquidity indicates that the large amount of internal fund (current assets) is sufficient to fund the operations of the cooperative and to pay the debt or short-term liabilities. Moreover, the high amount of current assets is caused by the high amount of receivables, which is distributed to members in the form of loans or credit, in the sampled Koperasi Wanita.

Thus, the high amount of liquidity affects on the decline of the debt portion or liabilities that are used by cooperatives in accordance with the funding needed to run their business activities. The results are in line with the Pecking Order Theory proposed by Myers, that companies tend to prefer internal financing rather than the external one because of the small risks [15]. In addition, the results of this study are also supported by research conducted by Kajananthan & Achchuthan [12], Riasita [22], and Nugrahani [17].

4. The Effect of Cooperative Size on Modal Structure

Pecking Order Theory menyatakan bahwa perusahaan lebih menyukai pendanaan internal daripada eksternal Pecking Order Theory states that companies prefer internal rather than external funding. However, if external funding is required, it might be done with the safest choice of funding sources. The larger the size of the company is, viewed from the total assets, the larger external funding the companies tend to use. This is also due to the larger amount of the required funding along with the growth of the company.

The results of statistical tests conducted shows that the size of the cooperative (LnTA) has no effect on the capital structure (DER) of *Koperasi Wanita* in Malang. The finding of this study is different from the theory because the sample used in this study is a cooperative, while the assumption that the bigger the company the greater the debt was relevant to the company in general. This is because the condition of total assets of the company also generally consists of fixed assets that can be used as warranty (collateral) for a business credit application to the bank. In addition, the fact that the increasing size of the company also increases the debt will become motivation for the companies to optimize making maximum profit from the capital.

It is indeed different from the cooperative, since the total assets at *Koperasi Wanita* in Malang are dominated by current assets which are in the form of receivables. The nature of the accounts receivable is still unstable because of the possibility of uncollectible receivables as a consequence of the credit given to members. Moreover, the fact that the capital structure of *Koperasi Wanita* is mainly supplied by equity causes the zero effect of the total assets on the usage preferences of debt or liabilities in the proportion of the capital structure. The result is in line with the research conducted by Dimitri & Sumani [7].

5. The Effect of Profitability on the Capital Structure

Profitability (ROA) has significant negative effect on the capital structure (DER) of Koperasi Wanita in Malang. This happens because the main source of capital in the cooperative is self-funded, one of which comes from the allowance of net income (SHU) in the form of reserve fund. Reserve funds are usually set as a percentage of the profits obtained. Generally, the amount of the reserve fund of Koperasi Wanita in Malang ranges from 30% - 40% in accordance with the statutes of each cooperative. So, it is possible that the higher of net income (profit) generated, the higher the reserves of these cooperatives which are used to both cultivate their own capital and cover losses of the cooperative when needed.

There are also several cooperatives whose net income for their members is not fully shared and considered as own capital of Koperasi Wanita. Thus, the use of debt as additional external capital declines in the capital structure of the cooperative if the cooperative's profitability increased. The results are in accordance with the theory presented by Brigham and Houston [6] and the Pecking Order Theory [15] in which the high level of profitability allows companies to use most of its funding through internally generated funds. The research result is also in line with research conducted by Rajan and Zingales [21], Priambodo, et al. [19], and Admaja [1].

IV. Conclusion and Suggestion

1. Conclusion

Based on the analysis, it can be concluded that: liquidity conditions are not good and the average of liquidity has increased; the average size of the cooperatives remained constant; the condition of profitability is very good although the average of the profitability is decreasing; the condition of capital structure is highly optimal even though the average of capital structure has increased. Liquidity has no significant effect on the profitability but it has significant negative effect on the capital structure. The size of cooperative has significant positive effect on profitability, but the size of the cooperative has no significant effect on the capital structure, while profitability has significant negative effect on the capital structure.

2. Suggestion

Based on these findings, it is advisable for Koperasi Wanita to effectively collect voluntary savings and other types of savings from members to strengthen cooperative capital (equity). One of the ways is by providing intensive interest/remuneration which can attract the members to deposit. It is also expected to consider the condition of liquidity and effective management of current assets to improve SHU. It is hoped that Ministry of Cooperatives and UMKM remained consistent in providing training such as the way to prepare the good and trur financial statements or other types of training in terms of effective and efficient financial management in order to improve the financial performance and the profitability of Koperasi Wanita in Malang. For further research, it is suggested to develop other variables that can affect the capital structure, for instance the structure of assets or its growth.

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