Role of Access to Finance in Mediating Effects Financial Literacy and Investment Experience on Investment Decisions in Small Enterprises in Southeast Sulawesi

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Abstract—This research aims to determine role of Access to Finance in mediating effects of Financial Literacy and Investment Experience on Investment Decision In Small Enterprises in Southeast Sulawesi. These research populations are all small enterprises in Southeast Sulawesi. It uses survey method approach on 395 respondents that are distributing in 12 regencies or cities that are determined by proportional random sampling. The analysis tool is Sobel Test. Results of the research indicate that Access to Finance serves a role as mediation of the effects of Financial Literacy on Investment Decision but, Access to finance has no insignificant effects in mediating investment experience on Investment decisions.

Index Terms— Access to Finance, Financial Literacy, Investment Experience, Investment Decision of Small Enterprises

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1 Introduction

Investment decision making process is a critical process depending on various factors that can be different among individuals. Meanwhile, in making all types of decision, a person will use different approach. Some decide based on consideration, others consider many factors directing them to act based on appropriate decisions.

Investors in general make investment analysis by using fundamental analysis, technical analysis and assessment. Investment Decision is often supported by decision tools. This is assumed that information structure and market systematical factors are affected by individual investment decision and market results. These factors will focus on how investors translate and act on the information to make Investment Decision.

According to Baker and Nofsinger, (2010) the most complex response in current response creating intervention in Financial Literacy is a clear and general response on increased financial world complexity. There are many social policy domains used to improve social problems (Monticone, 2010). Financial Literacy is mostly seen as a special science related to how a person manages his or her financial matters. According to Nye et al (2013) "Financial Literacy is a level in which a person understands main concept of financial and has self confidence to manage personal financial through appropriate and soundly long term decision making. Long term financial planning is conducted while considering on any life events and economic condition changes."

Company profitability and sustainability will be achieved but it is necessary for Financial Literacy. Financial Literacy is an inseparable issue in one life since it is a useful means to make investment decisions. Knowledge and experience has close relation. Most financial mistakes conducted by an individual are by low level of financial literacy. So that it can lead to bad financial decision, this can be the reason for failure. Education can solve the problems by giving knowledge and financial decision in doing any skills. Fewer experiences lead to less innovation in decision making as results of a research by Lusardi and Mitchell, (2007). It not enough to only save for pension and in fact, it can create many debts, and it can be seen as financial breakthrough. People with low level of financial literacy depend on their family and friends as main source of their financial counseling. This current financial condition shows high level of debts. This can lead to worse effects namely gathering more liabilities and this can be seen as a bankruptcy. The mistakes are caused by miss-match between what individual knows and how concise their financial literacy (Agnew and Szykman, 2005).

Success past investment experience affects on more knowledge creating high level of return. So, past investment behavior positively relates to investment decision. Investment experience proves as the best tool to improve investor confidence level. Experienced investors have portfolio of bad and good experiences. A wise investor learn from past experiences to solve any risky situation and get through the situations, when he learns many things, then he can take risky investment to obtain high profits by efficient management.

Majority of small enterprises in their first establishment stage depend on their own source of financing, namely equity; meanwhile, in the following life cycle stage, there are more needs of equity than owner intern equity. So, in preparing investment funds and business development, it is necessary for small enterprises to consider extern source of financing.

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For new company and one entering new entity, financing from extern sources can be very problematic. Although founders of new entity may have ability to finance their initial activity, it will be more difficult for them to finance capital projects. Thus, it can be seen as a consideration that SME is more risky than large companies.

Investment decisions are examined to determine funds and return in each option. Investment decision making is an important part from strategic decision making in each company since new investment projects basically affect on future economic results and company prosperity. Based on described phenomena, the most common reason for this is lack of skills by managers because of lack of certain ability of knowledge (illiteracy) on experiences for investment decision having direct correlation with the managers.

Past experiences indicate inability to start investment by lack of knowledge in which to start; also in financial access. Such characteristics cause a situation in which owner managers lead to wrong financial decision so that it can create failure for small and medium enterprises. Related to this matter, it is necessary to conduct a research entitled: “Role of Access to Finance in mediating effects of Financial Literacy and Investment Experience on Investment Decision In Small Enterprises in Southeast Sulawesi”.

This research aims to: (1). Analyze role of Access to finance in mediating Financial Literacy and Investment decisions in Small Enterprises in Southeast Sulawesi, (2). Analyze role of Access to finance in Mediating Investment experience and Investment decisions In Small Enterprises in Southeast Sulawesi.

2 Literature Review

2.1 Financial Literacy

Financial literacy firstly expressed by the Jump$tart Coalition in 1997 as “an ability to use knowledge and skills to manage personal financial resources effectively for financial security for a life time”. However, financial literacy has some definitions. The President’s Advisory Council on Financial Literacy defined financial literacy as “an ability to use knowledge and skills to manage financial resources effectively to obtain a lifetime prosperity” (The President’s Advisory Council on Financial Literacy, 2008).

Remund (2010) defined financial literacy as “a measurement in which a person understands keys of financial concepts and has ability and self confidence to manage personal finance appropriately, short term decision making, long term financial planning, consider any life events and economic condition changes. Lusardi and Mitchell (2014) defined Financial Literacy as “one ability to process economic information and create decision on financial planning, accumulation of wealth, debts and pension.”

2.2 Investment Experience

Investment experience is affected by past Investment experience and prediction of profit opportunities in the future. Entrepreneurs are willing to invest also in the form of stock, in which their decisions depend on their past experiences and expected level of sales. "In making plans, entrepreneurs take account in one side and expected level of profits and risks of various potential investment chances. In another side, cost of expected profit level exceeds financial cost by necessary margin to cover risk element, entrepreneur will have willingness to conduct the projects." (Harcourt et al., 1967, p. 151)

2.3 Access to Finance

For Small and Medium Enterprises (SME), there are two types of extern financing which most are important for business financing. The first is equity financing given in the forms of ventura capital and available for new small enterprises (Deakins, 2008). However, because of lack of equity financing, small enterprises look for debt financing which most are provided by bank and non banking institution. Indeed, there are very limited debt financing accesses mainly for SME because of requirements of debt provisions (Deakins, 2008)

2.4 Firm Invesment Theories

Mendes et al (2014) expressed firm investment theories can be divided into two main groups, first, theories considering that investment depends more on extern conditions in which the company operates and theories considering that investment depends more on intern conditions in which the company operates. The second is theories describing that most of company investment focus on company intern condition such as intern financial, liquidity, cash flow, and leverage. Positive investment is affected by intern and extern financial (Keynes, 1936;).

Managers tend to use intern funds to finance investment, since managing this type of finance is more flexible than extern financial (Baumol, 1967). Besides, company owners or managers usually are better informed than creditors about their company specific characteristics. This is very important since it can cause limitation of loan provisions, and as a results, the company decreases its investment. This conflict rather conflicts to perfect market conditions, namely market without any asymmetric information or financial obstacles in which capital investment may not be affected by company cash flow but it must be determined fully by company investment opportunity (Wei & Zhang, 2008).

Investor decision for investment is subjective. The decision depends on expected costs, knowledge on improvement technique and risk perception, which are fully subjective factors. Employers want to know the pay-off period of an investment project to decide whether they will actually make the investment expenditure or not. (Harcourt et al., 1967) For a good investment decision, it is necessary for investors to understand fully and correctly the probability and this decision should not be done in a hurry. Incorrect investment decisions can lead to corporate bankruptcy. It is necessary to understand basic ideas of Investment decision to get maximum value from appraisal process. In evaluating an investment, indicators about project specific characteristics and accurate information should be well known to decision makers. (Avram et al., 2009).

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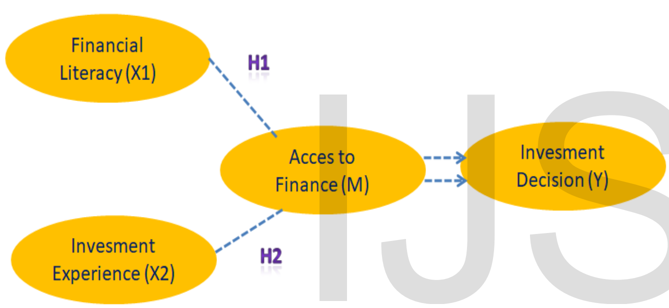
3 Thingking Framework

Small business financing is one of the main factors of growth and development. Establishment of small businesses, expansion of business activities, development of new products and investment of machinery, equipment and human resources, are conditions of company's opportunity to meet capital requirements. Use of various sources should ensure adequate capital volumes and their corresponding security dynamics in accordance with the projected value of investment accounting and dynamics of the investment activities.

Company's decision uses debts in large amount and ignores any risks of bankruptcy; or decision to use all internal funds in financing and ignore liquidity. There is no any empirical study that examines the relationship between Financial Literacy and Investment Experience on Access to Finance and Investment Decision In Small Enterprises in Southeast Sulawesi. Most of the Investment Decision researches on SMEs develop in European countries, Australia, India, China, and Korea. These countries lay their economic strength on SMEs.

Figure 3.1 Conceptual Framework



This research is explanatory research, namely a research done with intention to give explanation (explanatory or confirmatory), giving causal explanation or relation between variables through hypothesis testing.

4 Methode

Location and Time

The research location is in Southeast Sulawesi Province. Duration of data collection was 1-2 months with details of time: in the first month, the researcher contacted the agency / BUMN which provided assistance to the SME and collected information about SME then contacted the owners / managers of business to request approval to do research on the company, then the researcher distributed the questionnaire. Then, the researchers collected questionnaires that have been filled by respondents.

Population and Samples

The population of this research is all small enterprises in Southeast Sulawesi Province. The underlying consideration of the study is the small enterprises as the main driver of the economy in Southeast Sulawesi (Bank Indonesia, 2014).

Sampling technique used is Systematic Sampling. Systematic samples are samples obtained from a list of all units in the population according to a predetermined systematic collection pattern. Besides, the researcher also used non probability sampling, namely sampling technique which does not give equal opportunity for every element or member of population to be chosen as the samples. The reason researcher's to use non-probability sampling is to limit small enterprises only to those who are the targeted of financial institution / state-owned institutions to receive the assistances in the forms of grants as well as revolving funds, so not all small businesses in the region have the same opportunity. Non probability sampling used by the writer is quota sampling and purposive sampling. Quota sampling is a technique for determining samples from populations using certain characteristics to the desired quota amount. Purposive sampling is determination technique of samples with certain considerations. The reason for the researchers using purposive sampling is that not all number of small enterprises population have access to finance so that the author limits only to SMEs who have access to finance course as the research samples.

Types and Sources of Data

Types of these research data are quantitative data and qualitative data. Quantitative data in this study are in the form of number of assets and asset additions, amount of working capital and addition of working capital as well as others. Qualitative data is data that can cover almost all non-numeric data. These data can use words to describe facts and observed phenomena. Examples of qualitative data in this study are literacy from small enterprises owners, such as Compounding interest, knowledge of inflation, knowledge of time value of money.

Sources of data in this study include: primary data and secondary data. Primary data is data obtained by researchers directly from respondents (small enterprises), such as questionnaires and data of interviews conducted by the researchers and interviewees. While secondary data is data obtained by researchers from existing sources (for example BUMN documentation on beneficiary company data, number of assistance, address of small enterprises of beneficiary and others.

Research Variables

This research is explanatory, namely a research that aims to test a theory or hypothesis in order to strengthen or even reject the theory or hypothesis of pre-existing research results. Exploratory research is fundamental and aims to obtain notes, information, data about any issues that have not been known. So, there will be a development of research instruments in the form of questionnaires in which contains indicators (items of questions). Indicators in the context of factor analysis are referred to as manifest / observable variable. While the observed variables are latent variables / unobservable variables. The variables in this study are:

1. Exogenous variables in this research are: Financial Literacy (X1) and investment experience (X2).
2. Moderate variable is: Access to Finance (M)
3. Endogenous variable is: Investment Decisions (Y).

Use of objective approach and subjective approach simultaneously in this study is because this research is a research combining two theoretical concepts of social psychology theo-

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ry (intelligence and experience) with financial theory. Typically, in financial research, variable indicators use financial measures, and in social psychology research, variable indicators use size of perceptional.

5 Data Analysis Tehnique

It is necessary for data analysis in order to achieve the research objectives as well as test the proposed hypothesis. The technique used is statistical analysis technique.

Mediation Effect Testing (Indirect Effects)

Testing of mediation effects aims to detect position of the intervening variable in the model. Mediation testing is conducted to determine the nature of relationship between the variables either as a complete mediation variable, partial mediation and not mediation variable. There are many ways that can be used to test for indirect effects. One of which is Sobel Test. Results of the path coefficient were compared significantly ($p < 0.05$). The path analysis results will use standardized regression weight for interpretation, since these statistic values can be compared against each other. However, to test the hypothesis, it must use regression weight, because the statistics have error standard.A. Indirect Effects Based on Coefficient Test Results of Path (www stcmalang.wordpress.com/2016).

How to calculate with Sobel test (stcmalang wordpress.com/2016); the following will explain the calculation of test sobel of X1 effects on Y2 through Y1. The statistic used in Sobel test is all calculation results in regression weight. If coefficient a is the coefficient of X1 to Y1, then regression weight (a) and standard error (SEa) of X1 to Y1. If the coefficient b is the coefficient of Y1 to Y2, then regression weight (b) and standard error (SEb) of Y1 to Y2. Then the indirect effect to be tested is a * b. Standard error a * b or SEab is to test indirect effect.

PLS approach of testing the mediation variable in this study can be done through the use of z-statistic developed by Sobel (2002). Calculation of mediation effect on the research uses online Sobel test.

6 Results

6.1 Description of Respondents Characteristics

Description of the respondents' characteristics aims to describe the character of business owner / manager. Personal characteristics affect on any decisions and actions taken by a person and affects on company's strategy options (Berman and Evans, 2007 quoted by Rohman, 2009). Respondents' characteristic can be seen in the following table:

Table of Respondents' Characteristics

Characteristics		Frequency	Percentage (%)
Sex	Males	170	43,54
	Females	225	56,46
	Total	395	100
Age	≤ 15 years old	35	8,86
	15 – 64 years old	243	61,52
	≥ 64 years old	117	29,62
	Total	395	100
Education	Elementary school	17	4,30
	Junior high school	35	8,86
	Senior high school	306	77,46
	S1 (Bachelor)	37	9,38
	S2 (Master)	0	0
	S3 (Doctor)	0	0
	Total	395	100
Period of running the business	≤ 3 years	157	39,74
	> 3 years	238	60,25
	Total	395	100
Religions	Islam	298	75,44
	Christian	90	22,78
	Others	7	1,78
	Total	395	100

Source: processed primary data, 2017

Testing of Path Coefficient

Testing of Indirect Effects Path Coefficient (Mediation Effects)

Effects of mediation test aims to detect the position of the intervening variable in the model. Mediation testing is conducted to determine the nature of the relationship between the variables either as a complete mediation variable, partial mediation and not mediation variables. The PLS approach of testing the mediation variables in this study can be done through the use of z-statistic developed by Sobel (2002). Calculation of mediation effect on the research uses online Sobel test.

H1. Access to finance plays a role in mediating Financial Literacy and Investment decisions.

Testing of Financial Literacy variable effects on Investment Decisions is by involving the Access to finance mediation variables based on Sobel's online approach. Result of mediation variable processing is by inputting the value of a = as the coefficient of path a by 0.360, the value of b = the coefficient value of path b by 0.409, then the value of Sa = standard error of path a = 0.129 and Sb = standard error b = 0.101. The results of calculation of online test sobel can be seen in the following table:

Table Results of online Sobel test of 1st Hypothesis

Input:			Test statistic:	Std. Error:	p-value:
a	0.360	Sobel test:	2.29788535	0.0640763	0.02156832
b	0.409	Aroian test:	2.2518059	0.06538752	0.02433454
s_a	0.129	Goodman test:	2.34691455	0.06273769	0.0189296
s_b	0.101	Reset all	Calculate		

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The calculation result shows that z-statistic = 2,297> 1,96 and p-value (0,021) <alfa 0,05. This means that Access to finance plays a role in mediating Financial Literacy and Investment Decisions. Hence, the first hypothesis (H1) which states

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that Access to finance plays a role in mediating Financial Literacy and Investment Decisions is acceptable.

H2. Access to finance plays a role in mediating investment experience and Investment decisions.

Testing the effects of investment experience on investment decisions variable is by involving Access to finance mediation variables also based on Sobel's online approach. The result of mediation variable processing is by inputting the value of a = as the coefficient of path a by 0.378, the value of b = coefficient value of path b by 0.274, then the value of Sa = standard line error a = 0.118 and Sb = standard error b = 0.123. The results of online test sobel test are as follows:

Table Results of online Sobel Test of 2nd Hypothesis

Input:			Test statistic:	Std. Error:	*p*-value:
a	0.378	Sobel test:	1.82889798	0.05663082	0.06741489
b	0.274	Aroian test:	1.77163799	0.05846115	0.07645467
s_a	0.118	Goodman test:	1.89209483	0.05473933	0.05847835
s_b	0.123	Reset all	Calculate		

The calculation result shows that z-statistic = 1,828 > 1,96 and p-value (0,067) <alfa 0,05. This means that Access to finance plays an insignificant role in mediating investment experience and Investment Decisions. Hence, the second hypothesis (H2) which states that Access to finance plays a role in mediating investment experience and Investment Decisions is rejected.

7 Discussion of Results

7.1 Testing of Indirect Effect Path Coefficient (Mediation Effect)

Detecting the position of intervening variable in the model is the objective of the mediation.

1 Access to finance plays a role in mediating Financial Literacy and Investment decisions.

Testing the effects of Financial Literacy variable on Investment decisions. is by involving Access to finance mediation variable. Access to finance plays a role in mediating Financial Literacy and Investment decisions; this hypothesis is acceptable. This finding supports a research conducted by Hezron Mogaka Osano and Hilario Languitone (2016) that also used the same indicators in the Access to finance variable namely Equity financing and debt financing. Conclusions of the research by Hezron Mogaka Osano and Hilario Languitone (2016) among others are: there are relations between awareness of financing and access to finance by SMEs; there are relations between collateral and access to finance by SMEs. According to Deakins, 2008 i Heznron Mogaka Osano and Hilario Languitone (2016) for SMEs, there are two important types of extern financing for business. The first is equity financing given in the forms of ventura capital for new small enterprises. But, by lack of equity financing, small enterprises look for debt financing which most of which are provided by bank and non banking institutions. Indeed, access to debt financing is very limited mainly for SMEs because of requirements of debt provision.

Testing finding of Financial Literacy variable effects on Investment decisions by involving Access to finance mediation variable supports a research by Makarov, D., Schornick, A.V. (2010) stating that literacy can also be improved by any people with adequate resources and utilizing the resources to obtain financial information so that it can lead to better results of investment decision. Rich household can spend more money to obtain access to financial information. By using this information, ones who usually obtain less definite information on risky assets will understand on all information on financial market. If there is increased investor wealth, then there will be also improvement on absolute risk tolerance since it can have each type of information by using money, but in another side, less rich individual definitely does not have each type of the information since they cannot buy more information (Makarov, D., Schornick, A.V., 2010) .

2 Access to finance has no role in mediating investment experience and Investment decisions.

Testing of investment experience variable on investment decisions. is by involving the Access to finance mediation variable. In Hezron Mogaka Osano and Hilario Languitone (2016) research, there was only 5% of SMEs that were financed through banking institutions which means they use other financing channels for investment and working capital (MIC, 2007). So, there are many SMEs financing their projects through their own funds, family funds, and funds of their friends due to difficulties in obtain access to bank financing (MIC 2007). Non-banking institutions, non-government development banks, also finance SMEs. Non-banking institutions include PODE (Development of Enterprises' Projects) that provides long-term financing within 2.5 to 7 years (MIC, 2007). In addition, several other non-banking institutions focus on funding small farms and some other sectors.

The agencies include GAPI (Society for Management in Financing and Promoting SMEs), FFPI (Small Enterprises Funding Program) that provides funding for small enterprises, and FARE (Fund for Assistance and Economic Rehabilitation) (MPD, 2007). There are a number of challenges facing by SMEs that prevent them from running their business effectively and efficiently. There is a high level of financial product costs in this country (25-30%). Even, if the financial markets are stable, banks still face problems related to high overhead costs and this affects on price of financial products (MIE, 2010). Financial institutions have highlighted some of the constraints faced by SMEs that limit the supply of financial products to SMEs. The constraints faced by SMEs are related to the lack of clear financial plans, lack of investment experiences, accounting documentation, higher interest rates, and lack of collateral requirements (MIC, 2007). There are still important country policy challenges on the loan side.

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7.2 Research Limitations

This research has been done maximally, but given the wide coverage of the discussion, this study has the following limitations:

1. Respondents of this study are limited to small enterprises in Southeast Sulawesi Province. It thus limits the generalizability of the findings of Gveroski and Risteska Jankuloska (2017) research covering SMEs.
2. Analysis of this research data is based on limited survey data to the presentation of analysis of relationships in a single point of time (cross sectional), because the dynamics of access to finance is constantly changing, then to identify the changes, it is necessary for further research studies and re-test whether there are any changes on relationship between variables analyzed in this study or not.
3. This research does not analyze in details about the demographic factor indicators of small enterprises actors (age, gender, education and income).

7.3 Recommendations

Based on the results and conclusion, it can give the recommendation as follow:

1. It is necessary to give extra attention to Access to finance of small enterprises in Southeast Sulawesi so that Small enterprises have adequate resources and utilize the resources to create better results of the investment decisions.
2. More Sustainable small enterprises in Southeast Sulawesi that are maintained properly will lead to better Investment experience so that it is necessary to obtain more attention.

7.4 Conclusion

Based on the research results, then it can be formulated the conclusions as follow:

1. Access to finance plays a role in mediating Financial Literacy and Investment decisions, meaning that literacy can be improved by people with adequate resources and utilizing the resources to obtain Access to finance so that it can lead to better results of investment decisions. By using Access to finance, Small enterprises in Southeast Sulawesi with lack enterprises will obtain and understand all information about financial market. Access to finance in this research is built by Equity financing debt financing indicators.
2. Access to finance has no role in mediating Investment experience and Investment decisions in Small enterprises in Southeast Sulawesi; it means that Access to finance has no role in small enterprises in Southeast Sulawesi in fact, they can finance their projects through their own funds, family funds, and funds from their friends; this is caused by some difficulties in obtaining access to bank financing.

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