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The Role of Behavioral Finance in Formal Debt Decisions Study of Micro Small Medium Enterprises (MSMEs) Semarang

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A B S T R A C T

This research is to examine behavioral finance and its effect on formal debt decisions to improve business performance in micro, small, and medium enterprises in Semarang. Many studies have been conducted related to behavioral finance, where overconfidence, the illusion of control, and availability will influence formal debt decisions. The characteristics of MSMEs in making debt decisions are strongly influenced by behavioral finance. The analytical method used is quantitative with Smart PLS. The results of the analysis of overconfidence have no significant effect on formal debt decision-making, the illusion of control and availability have a positive and significant effect on formal debt decisions, and formal debt decisions have a positive and significant effect on business performance.

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INTRODUCTION

Micro, Small, and Medium Enterprises (MSMEs) play an important role in the development and economy of Indonesia. This important role is assessed from its job creation and potential involvement in international and national trade. Micro, small and medium enterprises have certain characteristics and funding constraints, compared to those faced by large companies (Aktas 2011). Whereas funding has a strategic role to improve company performance. The financial literature has documented that firms with financing capabilities will grow faster (Chuan Huang et al., 2020; Fowowe 2017), and their productivity increases (Giang et al., 2019; Zhou et al., 2018). On the other hand, firms experiencing financial constraints will have lower growth (Huang et al., 2020) and less innovation (Oudgou 2021; García-Quevedo et al., 2018). According to Gibson (2001), the relationship between sources of funding originating from their capital and debt on micro and small-owned individuals is often complex because the owner's assets are used as collateral for debt, the owner faces the risk returns of uncertain.

The preference for debt as a source of funding is also analyzed through a behavioral finance approach which emphasizes that a person often behaves irrationally when making decisions involving money because psychological factors play a greater role in financial decision-making (Hirchey and Nofsinger, 2008). Decisions that are more dominated by psychological factors will lead to biased decision results because the taste factor in a person exceeds the consideration of the ratio factor. Shefrin (2007) identifies various psychological factors or what he calls psychological phenomena, which are divided into three categories including biases, heuristics, and framing effects. There are three variables in this study, namely overconfidence, the illusion of control, and availability. This is based on the research of Supramono and Putlia (2010) which states that the three dominant psychological aspects make entrepreneurs prioritize emotional factors rather than economic calculations to produce biased decisions. decision making Irrationality is a human behavior that is contrary to the assumptions that underlie classical economic models in decision making which are based on rationality. Several behavioral finances so far have been more directed at analyzing the relationship between certain psychological factors and financial decisions, such as Investor Overconfidence and Trading Volume (Statman, Thorley and Vorkink, 2006); Sensation Seeking, Overconfidence and Trading Activity (Grinblatt and Keloharju, 2009); Overconfident Managers and External Financing Choice (Ishikawa and Takashashi, 2010), while in this study behavioral finance directed at making formal debt decisions to improve MSME business performance in Semarang.

THEORETICAL REVIEW

This theory was born from the anxiety of researchers who saw that the assumption of an efficient market was not the existing reality. Behavioral Finance is a study that studies how a person's psychological phenomena affect their financial behavior (Nofsinger and Wang 2011), meaning that in financial matters, there are behavioral factors that influence financial decision-making, including funding and investment decisions. Several behavioral finances so far

have been more directed at analyzing the relationship between certain psychological factors and financial decisions, for example, Behavioral Finance and its Influence on Debt Decision Making (Study on Small and Medium Enterprises (SMEs) on Lombok Island (Hidayati et al 2018), where Overconfidence has no effect This means that SME entrepreneurs are still rational in determining the decision to use debt as a source of funding, while the illusion of Control has a significant effect on debt decision making.

This means the greater the confidence of SME managers In influencing decisions, the greater the role in debt decision-making, while Availability has no significant effect on debt decision-making made by managers and owners of SMEs, this means that in making debt decisions as a funding source do not only rely on available information but seek other information to avoid making inappropriate debt decisions. Further research is on the perception and psychological factors in debt decision-making (Supramono and Putlia 2007), where SME entrepreneurs admit that they have made inappropriate debt decisions. This cannot be separated from the psychological aspect that plays a role in the decision-making process. The dominant psychological aspects are overconfidence, the illusion of control, and availability. These three psychological aspects can have an impact on entrepreneurs in making decisions that often prioritize emotional factors rather than economic calculations, resulting in biased decisions. The result of study also show that there are differences in the level of overconfidence, the illusion of control, and availability based on demographic factors such as gender, experience, and education.

Overconfidence Theory of overconfidence has become one of the interesting topics that has received wide attention from researchers in the field of psychological and behavioral finance. As humans, it is undeniable that entrepreneurs or managers have a tendency to be overly confident in their abilities and predictions to succeed. normal which is also a reflection of a person's level of confidence to achieve or get something. Excessive belief also arises from the point of view of the marketing field. Prospect Theory Prospecttheoryis concerned with the idea that humans do not always behave rationally. This theory assumes that there is an inherent and persistent bias that is motivated by psychological factors that influence people's choices under conditions of uncertainty. Prospect theory considers preference as a function of decision considerations and assumes that decision scales and assumes that these judgments do not always coincide with probabilities. Specifically, prospect theory argues that judgment tends to be higher than low probability and lower than moderate or high probability.

Empirical Study

Overconfidence is one of the psychological biases in decision-making related to the belief that a person has above-average abilities and knowledge. This is evidenced by research conducted by Statman, Thorley, and Vorkink (2006) which states that overconfident investors can be explained by the presence of high trading volume. Eichholtz and Yonder (2011) also prove that

overconfidence has a negative effect on company performance. Friedman's research (2007) emphasizes entrepreneurial decisions, which states that overconfidence in decision-making can also be seen in entrepreneurial decisions in starting a business. They do not use funds from outside sources to run their business. In relation to working capital, Ramiah, et al. (2012) stated that overconfidence is one aspect of bias that if used correctly can increase working capital efficiency. does not always overconfidence have a negative meaning.

The illusion of control is the human tendency to believe that they can control or at least influence outcomes but in reality, they cannot. Where in general, a person feels able to control the results of the decisions he makes. Entrepreneurs' trust can influence results, so investors overestimate the control they have over results (Nofsinger, 2005). Meanwhile, Shefrin (2007) suggests that when a manager makes a decision, the results obtained are a combination of skills possessed and luck.

This bias will encourage investors to make decisions based on what they remember so that they are not thorough in conducting analysis to make financial decisions. A concrete example of this bias is how workers will trust and buy shares from the company they work for because they believe that they know and are familiar with the company. The effect of this bias is that when the company they work for experiences undesirable things, they have the opportunity to suffer losses. In the sense that they tend not to diversify and perform superficial analysis so that the original goal of making a profit will be in vain. This bias is also evident from investors' decision not to diversify globally and tend to trust domestic stocks because they are familiar and easy to remember. Although the fundamental principle states that portfolio management is an attempt to optimize (Luong and Ha, 2011).

Based on the description above, the following hypothesis is formulated:

H1: *overconfidence* has a positive and significant effect on formal debt decision making

H2: *Illusion* of control has a positive and significant effect on formal debt decision making

H3*: availability* has a positive and significant effect on decision making formal debt

H4: Formal debt decision making has a positive and significant effect on business performance.

From the above explanation, it can be concluded that the basic theoretical model is as follows:

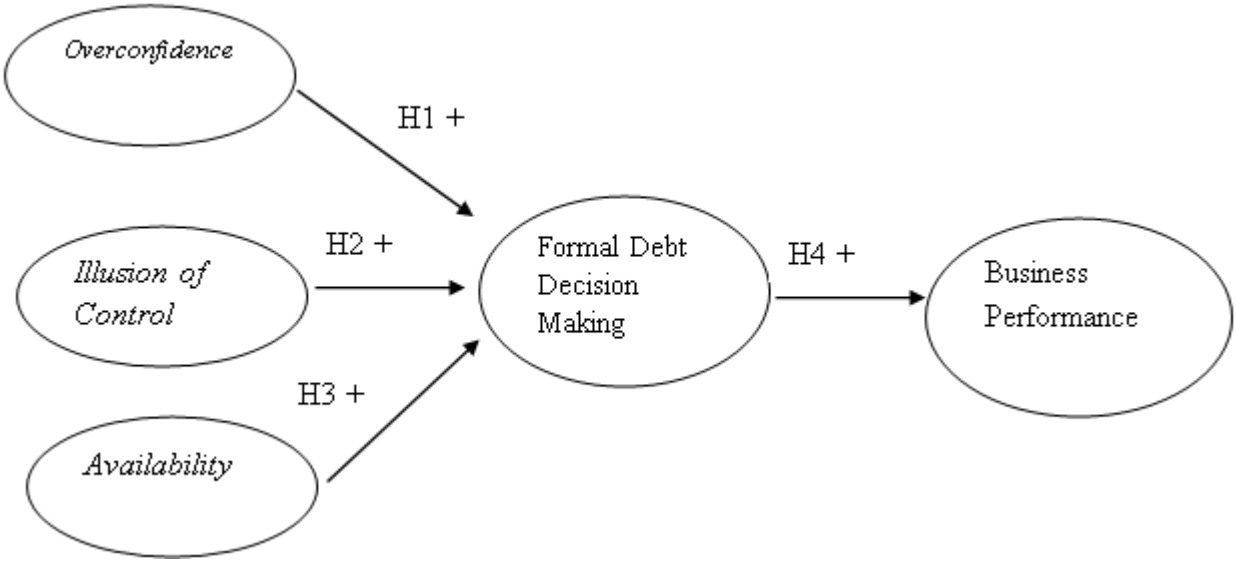

Figure 1. Model Theoretical Framework

METHODOLOGY

Sampling and Survey Procedure

Population in this research are business actors who act as managers and owners of MSMEs. The sample is selected using a sampling technique. The survey was conducted by sending a questionnaire in the form of a google form, of the 391 questionnaires distributed, which responded to 63.42% completely, i.e. 239 forms.

Technical Data Analysis

Based on the empirical research model, theoretical framework and research stages formulated above, the appropriate technique used in this research is Partial Least Square (PLS) which is a multivariate statics technique that makes comparisons between multiple dependent variables and multiple independent variables (Jogiyanto 2019). Partial Least Square (PLS), as a predictive model, does not assume a certain distribution to estimate parameters and predict causality. Therefore, parametric techniques to test the significance of the parameters are not needed and the evaluation model for predictions is non-parametric. PLS model evaluation is done by evaluating the outer model and inner model The outer model testing phase is used to test the validity and reliability of all indicators in measuring the construct, while the inner model testing is used to test research hypotheses. The following are all stages in the PLS analysis.

RESULTS AND DISCUSSION

Characteristics of Respondents

A total of 239 respondents are known Undergraduate education occupies the largest proportion, namely 37.90%, while respondents with a junior high school education level of 6.45%, MSME actors in Semarang City, Indonesia, are

generally of productive age, namely 20 years to 40 years. This information illustrates that MSME actors are young people with their business spirit. The respondents' average length of entrepreneurship (Mean) is around 7 (seven) years. Sales Turnover/month Respondents, on average close to Rp. 10,000,000/month with the smallest turnover of Rp. 2,000,000 and the largest Rp. 35,000,000

Discriminant Validity Test

Discriminant validity can be seen from the cross-loading of each indicator to the construct, the indicator is declared to meet the discriminant validity criteria if the cross-loading indicator to the construct is higher than the cross-loading indicator value to other constructs. Based on the calculation results, the loading factor of all indicators has the highest value in the construct not in other constructs so it can be concluded that all indicators in each construct have met the required discriminant validity criteria. To assess discriminant validity is the Fornell Larcker Criterion, a traditional method that has been used for more than 30 years, which compares the square root value of the Average Variance Extracted (AVE) of each construct with the correlations between other constructs in the model (Henseler et al., 2015). If the square root value of the AVE for each construct is greater than the correlation value between constructs and other constructs in the model, then the model is said to have a good discriminant validity value (Fornell and Larker, 1981 in Wong, 2013).

Table 1. Cross Loading Indicator

	Availbility (X3)	Illusion of Control (X2)	Freedom (Y1.1)	Business Performance (Y2)	Financial performance (Y2.1)	Non . Performance (Y2.2)	Overconfidence (X1)	Decision-making (Y1)	Self-confident (Y1.2)
AV1	0.913	0.825	0.872	0.826	0.825	0.806	0.794	0.905	0.904
AV2	0.892	0.819	0.856	0.821	0.815	0.805	0.737	0.883	0.881
AV3	0.942	0.782	0.855	0.880	0.876	0.860	0.827	0.914	0.930
AV4	0.940	0.860	0.882	0.902	0.895	0.886	0.875	0.895	0.883
AV5	0.943	0.850	0.864	0.855	0.867	0.820	0.823	0.920	0.935
ILC1	0.569	0.808	0.633	0.654	0.692	0.599	0.592	0.611	0.582
ILC2	0.768	0.899	0.774	0.770	0.788	0.731	0.746	0.781	0.767
ILC4	0.835	0.852	0.904	0.766	0.766	0.745	0.744	0.884	0.853
ILC5	0.880	0.918	0.941	0.921	0.930	0.888	0.863	0.911	0.871
Independency 2	0.835	0.852	0.904	0.766	0.766	0.745	0.744	0.884	0.853
Independency 2	0.835	0.852	0.904	0.766	0.766	0.745	0.744	0.884	0.853
Independency 3	0.880	0.918	0.941	0.921	0.930	0.888	0.863	0.911	0.871
Independency 3	0.880	0.918	0.941	0.921	0.930	0.888	0.863	0.911	0.871
Independency 4	0.894	0.884	0.948	0.922	0.919	0.902	0.852	0.937	0.908
Independency 4	0.894	0.884	0.948	0.922	0.919	0.902	0.852	0.937	0.908
Performance finance 1	0.853	0.860	0.874	0.903	0.909	0.874	0.835	0.870	0.846

Performance finance 1	0.853	0.860	0.874	0.903	0.909	0.874	0.835	0.870	0.846
Performance finance 2	0.923	0.849	0.875	0.907	0.911	0.879	0.888	0.909	0.909
Performance finance 2	0.923	0.849	0.875	0.907	0.911	0.879	0.888	0.909	0.909
Performance finance 3	0.816	0.853	0.865	0.947	0.954	0.916	0.816	0.863	0.841
Performance finance 3	0.816	0.853	0.865	0.947	0.954	0.916	0.816	0.863	0.841
Performance finance 5	0.849	0.864	0.876	0.920	0.947	0.870	0.805	0.883	0.867
Performance finance 5	0.849	0.864	0.876	0.920	0.947	0.870	0.805	0.883	0.867
Performance non finance 1	0.823	0.759	0.805	0.891	0.834	0.928	0.749	0.817	0.806
Performance non finance 1	0.823	0.759	0.805	0.891	0.834	0.928	0.749	0.817	0.806
Performance non finance 2	0.814	0.806	0.852	0.916	0.913	0.896	0.869	0.842	0.816
Performance non finance 2	0.814	0.806	0.852	0.916	0.913	0.896	0.869	0.842	0.816
Performance non finance 4	0.765	0.748	0.763	0.883	0.840	0.906	0.726	0.783	0.777
Performance non finance 4	0.765	0.748	0.763	0.883	0.840	0.906	0.726	0.783	0.777
Performance non finance 5	0.897	0.845	0.903	0.922	0.891	0.930	0.838	0.908	0.890
Performance non finance 5	0.897	0.845	0.903	0.922	0.891	0.930	0.838	0.908	0.890
OV1	0.623	0.578	0.598	0.602	0.599	0.589	0.853	0.604	0.594
OV2	0.545	0.583	0.585	0.591	0.592	0.576	0.790	0.559	0.529
OV3	0.641	0.661	0.691	0.673	0.677	0.652	0.875	0.654	0.616
OV4	0.855	0.862	0.877	0.903	0.907	0.875	0.835	0.872	0.847
OV5	0.924	0.846	0.876	0.907	0.908	0.881	0.889	0.910	0.910
Self Confidence 1	0.913	0.825	0.872	0.826	0.825	0.806	0.794	0.905	0.904
Self Confidence 1	0.913	0.825	0.872	0.826	0.825	0.806	0.794	0.905	0.904
Self Confidence 2	0.892	0.819	0.856	0.821	0.815	0.805	0.737	0.883	0.881
Self Confidence 2	0.892	0.819	0.856	0.821	0.815	0.805	0.737	0.883	0.881
Self Confidence 3	0.942	0.782	0.855	0.880	0.876	0.860	0.827	0.914	0.930
Self Confidence 3	0.942	0.782	0.855	0.880	0.876	0.860	0.827	0.914	0.930
Self Confidence 7	0.759	0.749	0.784	0.757	0.766	0.729	0.701	0.839	0.857
Self Confidence 7	0.759	0.749	0.784	0.757	0.766	0.729	0.701	0.839	0.857
Self Confidence 9	0.897	0.869	0.876	0.885	0.902	0.845	0.791	0.922	0.930
Self Confidence 9	0.897	0.869	0.876	0.885	0.902	0.845	0.791	0.922	0.930

All items or indicators have met the validity and reliability requirements and are not there is multicollinearity between indicators. Then the next step is an analysis of the PLS model.

Composite Reliability Test

Based on Table 2 Construct reliability was assessed from the Cronbach's Alpha value and the Composite Reliability of each construct. value of composite reliability and Cronbach's alpha is more than 0.7, but in development research, because the limit of the loading factor used is low (0.5), the value of composite reliability and cronbach's alpha is still acceptable as long as the requirements for convergent validity and validity are discriminant has been met. The results of testing the composite reliability and cronbacs's alpha values for all constructs exceeding 0.7 met the required reliability. In conclusion, the PLS model is reliable.

Table 2. Composite Reliability Test Results

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Availbility (X3)	0.959	0.959	0.968	0.858
Illusion of Control (X2)	0.894	0.911	0.926	0.758
Freedom (Y1.1)	0.923	0.924	0.951	0.867
Business Performance (Y2)	0.971	0.971	0.975	0.831
Financial performance (Y2.1)	0.948	0.949	0.963	0.866
Non-Performance (Y2.2)	0.935	0.936	0.954	0.838
Overconfidence (X1)	0.905	0.928	0.928	0.721
Decision-making (Y1)	0.966	0.967	0.971	0.810
Self-confident (Y1.2)	0.942	0.943	0.956	0.812

Other tests of the model are carried out by looking at the value of R - Square which is a goodness-fit-model test as shown in the following figure:

Table 3. R Square

	R Square	**R Square Adjusted**
Business Performance (Y2)	0.890	0.890
Decision-making (Y1)	0.970	0.969

The R Square value of the joint effect on Y2 is 0.890 with an adjusted r square value of 0.890, it can be explained that all independent variables simultaneously affect Y2 by 0.890 or 89%. Because Adjusted R Square 89% > 50%, the influence of all independent variables on the dependent variable (Y2) is strong, as well as for the Y1 variable.

Direct Effect Test

The PLS Model with the algorithm technique for this research can be seen in the following.

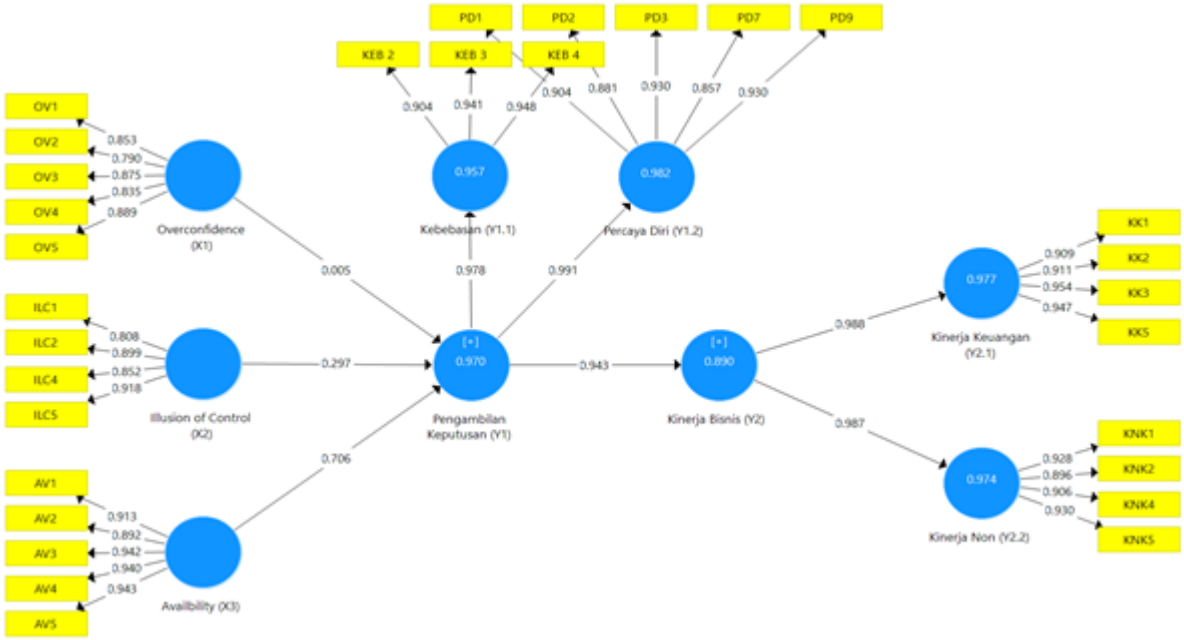

Figure 2. The Estimation Results of the PLS Model with the Algorithm

Hypothesis Testing

Table 4. Partial Effect Test Results

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
Availbility (X3) -> Decision-making (Y1)	0.706	0.707	0.026	27.493	**0.000**
Illusion of Control (X2) -> Decision-making (Y1)	0.297	0.297	0.023	12.846	**0.000**
Business Performance (Y2) -> Financial performance (Y2.1)	0.988	0.988	0.002	544.119	**0.000**
Business Performance (Y2) -> Non . Performance (Y2.2)	0.987	0.987	0.002	407.678	**0.000**
Overconfidence (X1) -> Decision-making (Y1)	0.005	0.004	0.027	0.184	**0.854**

Decision-making (Y1) -> Freedom (Y1.1)	0.978	0.979	0.003	348.857	**0.000**
Decision-making (Y1) -> Business Performance (Y2)	0.943	0.944	0.007	126.787	**0.000**
Decision-making (Y1) -> Self-confident (Y1.2)	0.991	0.991	0.001	882.474	**0.000**

CONCLUSIONS AND RECOMMENDATIONS

The p-value of the effect of overconfidence on formal debt decision-making is 0.854 where > 0.05 so accept H0 which means that there is an insignificant effect of overconfidence on formal debt decision-making The p-value of the influence of Illusion of control on formal debt decision-making is 0.000 where < 0.05 so accept H1 means that there is a significant influence of Illusion of control on formal debt decision making, the p-value of Aviability's influence on formal debt decision making is 0.000 where < 0.05 so accept H1 which means that there is a significant influence of availability on formal debt decision making. The p-value of the influence of formal debt decision-making on business performance is 0.000 where < 0.05 so accepting H1 means that there is a significant influence of formal debt decision-making on business performance. The limitation of this study is that PLS analysis using bootstrapping was carried out because the distribution of estimates was unknown. This can cause no significant value to be obtained unless the bootstrap is. Partial Least Square is not necessarily better than other methods for evaluating possible higher rates. Future research should not use the bootstrapping method. Therefore, future research can use other methods. For example, a non-resampling so that the analysis can be carried out with the original sample. Larger samples need to be considered to improve model reliability. Future research needs to consider other methods such as Covariate Based-Structural Equation Model to conduct theory testing.

FURTHER STUDY

Every research is subject to limitations; thus, you can explain them here and briefly provide suggestions to further investigations.

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