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Integration of the Theory of Planned Behavior (TPB) and Theory of Financial Planning Behavior in MSMEs Actors

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ABSTRACT

This study aims to integrate the Theory of Planned Behavior (TPB) and behavioral finance theory to explain financial planning behavior among Micro, Small, and Medium Enterprises (MSMEs). Using a descriptive quantitative approach, data were collected through a survey of 399 MSME actors in Malang District and Batu City. The research instruments were developed based on indicators from TPB (attitude, subjective norm, perceived behavioral control) and behavioral finance theory (financial literacy and mental accounting). The results of the descriptive statistical analysis show that the majority of respondents have a moderate level of financial literacy, a positive attitude toward financial planning, but relatively low perceived behavioral control. In addition, it was found that mental accounting behaviors such as present bias tend to influence daily financial decision-making. These findings indicate that integrating TPB and behavioral finance theory provides a more comprehensive understanding of MSMEs' financial planning behavior. The conclusion of this study confirms the importance of a holistic and behavior-based approach in designing educational interventions and appropriate financial policies, particularly to improve the quality of financial decision-making among MSME actors.

Keywords: TPB, Financial Behavior, Financial Planned, MSMEs.

1. Introduction

Micro, Small, and Medium Enterprises (MSMEs) serve as the backbone of the Indonesian economy, contributing 60.5% to the Gross Domestic Product (GDP), equivalent to Rp. 8,573 trillion, and employing 116 million workers, or 96.9% of the national workforce. Although MSMEs account for up to 99% of businesses compared to large enterprises, they continue to face significant challenges, particularly limited access to capital, with 46.6 million MSMEs lacking access to formal financial institutions. Over the past decade, micro-enterprises have dominated at 98.7%, while MSMEs' participation in the global value chain remains low at only 6.3%, posing a critical issue. Moreover, the trade sector contributes up to 46.6%, and the high level of informality at 52.5% reflects the still limited value creation within this sector.

In the context of enhancing the competitiveness and performance of MSMEs, particularly in Malang Regency and Batu City, the quality of human resources (HR) remains a major challenge. Research indicates that HR quality significantly influences financial management capabilities, including resource allocation, cash flow management, and investment decision-making. This study adopts the Theory of Planned Behavior (TPB) as its analytical framework (Ajzen, 2011), intention serves as an important factor in predicting financial behavior, influenced by attitudes, subjective norms, and perceived behavioral control.

The Theory of Planned Behavior (TPB) is an extension of the Theory of Reasoned Action (TRA), which posits that attitudes, subjective norms, and perceived behavioral control influence an individual's intention to perform a behavior (Ajzen, 2011). Over the past several decades, TPB has been applied across various fields of study, including medicine (Hagger & Chatzisarantis, 2009; McEachan et al., 2011), marketing and advertising (King et al., 2008; Yaghoubi & Bahmani, 2010), tourism and hospitality (Han, 2015; Quintal et al., 2010), science information (Shih & Fang, 2004), and human behavior (Kobbeltved & Wolff, 2009; Perugini & Bagozzi, 2001). Result of previous study show effect positive from attitudes, subjective norms, and control perceived behavior to intention and behavior individual

In the context of MSMEs, financial socialization from the social environment also plays an important role in shaping business actors' intentions to engage in sound financial planning (Gudmunson & Danes, 2011). Financial literacy, which encompasses knowledge and skills in financial management, has been proven to significantly influence financial planning behavior (Huston, 2010; Lusardi & Mitchell, 2014). However, the gap between intention and actual behavior remains a challenge that needs to be addressed (Ajzen, 2011; Sheeran, 2002). Psychological phenomena such as mental accounting also influence financial decisions, including cash flow management and resource allocation (Thaler, 1999).

In the context of Malang Regency and Batu City, MSMEs possess unique characteristics, including diverse business sectors, varying business scales, and a dynamic socio-economic environment. An analysis that incorporates these local factors is essential for gaining a deeper understanding of MSMEs' financial behavior. The novelty of this research lies in integrating the Theory of Planned Behavior (TPB) with the moderating role of MSME size, while emphasizing the local context. The findings are expected to provide data-based recommendations to enhance the competitiveness and sustainability of MSMEs.

2. Literature Review

2.1. Theory of Planned Behavior

Financial planning theory is rooted in the Theory of Planned Behavior (TPB) developed by Ajzen (2011). TPB explains that an individual's behavior is influenced by intention, which is shaped by three main components: attitude toward the behavior, subjective norms, and perceived behavioral control. In the financial context, a person's intention to engage in financial planning is influenced by beliefs about the benefits of financial management, social pressure from the environment, and perceived ability to control financial resources.

TPB assumes that individual behavior is not only determined by personal control, but also requires the availability of resources, opportunities, and supporting skills, all of which are perceived to influence intention and behavior (Ramirez & Lim, 2021). In this theory, individual behavior is based on three types of considerations, namely attitudes toward behavior, normative beliefs and subjective norms, and perceived behavioral control (Shuaib & He, 2021). Intention, specifically behavioral intention, represents an individual's readiness to engage in a particular behavior. This readiness is grounded in perceived behavioral control, which is behavioral control that individuals determine and experience through their beliefs. Behavior constitutes the response that an individual provides when reacting to a given stimulus or situation.

Normative beliefs represent a person's perception of the normative social pressures that influence which behaviors they can and cannot perform. Subjective norms constitute an individual's perception of behavior that is shaped by the expectations or judgments of others. Control beliefs refer to individual beliefs regarding factors that can either encourage or inhibit behavioral performance. Perceived behavioral control encompasses the ease or difficulty that an individual experiences when attempting to engage in a specific behavior. The factors underlying individual behavior are personal, informational, and reinforced by social elements (Talom & Tengeh, 2019). Personal factors manifest through an individual's attitude toward particular habits, life values, emotions, and mindset. Informational factors emerge from individual experience, knowledge, social influence, and social group membership. Social factors encompass gender, income, ethnicity, religion, and individual educational background.

2.2. Financial Attitude

Attitude toward behavior represents an individual's evaluation of the profit or risk associated with a certain action (Ajzen, 1991). In the financial context, this attitude is rooted in individual beliefs about the benefits of financial management, such as financial security derived from savings or investment (Ji et al., 2024). Lusardi and Mitchell (2014) research emphasizes that past experiences can influence an individual's attitude toward financial management. For example, individuals with positive experiences in saving or investing tend to possess more favorable attitudes toward financial management, which strengthens their intention to act. Perry and Morris (2005) also point out that positive attitudes toward financial management increase the likelihood that individuals will create effective financial plans.

2.3. Subjective Norms

Subjective norms refer to an individual's perception of social pressure to perform or not perform a particular action (Ajzen, 2011). In the financial context, social norms can be acquired through financial socialization involving family members, business colleagues, or work communities (Shim et al., 2010). These norms encourage individuals to follow financial practices that are considered beneficial, such as saving or avoiding excessive debt. Financial socialization within MSME groups also creates a supportive environment for more collaborative financial management, including capital sharing and risk management strategies (Shim et al., 2010).

2.4. Perceived Behavioral Control

Perceived behavioral control represents an individual's belief about their ability to control factors that influence the implementation of certain behaviors (Ajzen, 2011). In the financial context, this control is influenced by financial literacy and mental accounting. Financial literacy encompasses an individual's ability to understand and effectively use financial information (Lusardi & Mitchell, 2014), while mental accounting is the process by which individuals organize and evaluate their financial resources (Thaler, 1999). Research by Mielitz and MacDonald (2021) demonstrates that perceived behavioral control increases intention to engage in positive financial behaviors, such as managing daily expenditures and saving.

3. Methodology

3.1. Research Design

This study uses a quantitative descriptive approach with the aim of describing and analyzing the financial planning behavior of MSME actors based on the integration of Theory of Planned Behavior (TPB) and financial behavioral theory. This approach was chosen because it is appropriate to explain behavioral phenomena systematically based on the results of measuring relevant quantitative variables. The study was conducted in the context of MSMEs in Malang Regency and Batu City. The selection of this area is based on the consideration that MSMEs in Malang Regency and Batu City are known as areas with a significant number of MSME actors and diverse demographic and business characteristics.

The population of this study is MSMEs actors spread across Malang Regency as many as 55,552 MSMEs actors and Batu City as many as 7,235 MSMEs actors. The sampling technique was carried out using the proportional method. stratified random sampling based on administrative area and type of business, so that 399 respondents were obtained as research samples. This number was determined by considering a 5% error rate and a 95% confidence level. Data collection was carried out through a structured questionnaire compiled based on indicators in the TPB (attitudes, subjective norms, perceived behavioral control) and financial behavior theory (financial literacy, mental accounting). Each indicator was measured using a 5-point Likert scale, from strongly disagree to strongly agree. The questionnaire was tested for validity and reliability before being distributed widely, and delivered online or offline according to respondent preferences.

3.1. Data Analysis

Data analysis was conducted using descriptive statistics, by calculating the average value, percentage, and frequency distribution to describe the tendency of respondents' behavior in each variable. This analysis aims to understand the extent to which the dimensions of the TPB and the theory of financial behavior explain

the financial planning behavior of MSMEs actors. In addition, cross-tabulation was also used to observe differences in behavioral tendencies based on region and demographic characteristics. The results of the analysis are the basis for compiling more targeted policy recommendations and educational programs.

4. Results and Discussion

4.1. Research Results

Table 1. Data analysis

Variables / Dimensions	Top Category	Respondents Amount	Percentage (%)
Financial Attitude - Retention Planning	Agree	310	34.3
Attitude - Achievement-Esteem	Agree	290	32.1
Attitude - Achievement-Esteem	Strongly agree	201	22.3
Financial Attitude - Power Prestige	Agree	142	15.7
Attitude - Anxiety	Agree	141	15.6
Attitude - Anxiety	Enough Agree	99	10.9
Literacy - General Literacy	Agree	179	19.8
Literacy - Literacy Investment	Agree	181	20.0
Literacy - Savings & Loans	Enough Agree	168	18.6
Literacy - Savings & Loans	Agree	139	15.3
Literacy - Literacy Insurance	Agree	145	16.0
Financial Socialization - Media	Agree	209	23.1
Financial Socialization - Media	Strongly agree	37	4.1
Financial Socialization - Family	Agree	155	17.1
Financial Socialization - Family	Strongly agree	95	10.5
Financial Socialization - Community	Agree	145	16.0
Financial Socialization - Education	Agree	123	13.6
Accounting - Wealth Allocation	Agree	376	41.6
Accounting - Wealth Allocation	Enough Agree	109	12.1
Accounting - Expenditure Forecasting	Agree	254	28.1
Accounting - Saving Goals	Enough Agree	118	13.1
Accounting - Saving Goals	Agree	46	5.1

Based on the results of descriptive analysis, the financial planning behavior of MSME actors in Malang Regency and Batu City shows a positive trend. In the aspects of credit management and savings/investment, the majority of respondents stated "agree" and "quite agree". As many as 310 respondents (34.3%) stated "agree" on *Retention Planning*, and 290 respondents (32.1%) stated "agree" on *Achievement-Esteem*, and 201 respondents (22.3%) stated "strongly agree". This reflects that the motivation to save and achieve financial independence is quite strong. Meanwhile, in financial literacy, as many as 179 respondents (19.8%) stated "agree" to the understanding of general literacy, and 181 respondents (20%) stated "agree" to investment literacy. However, in the aspect of savings and loans, the number of respondents who "quite agree" reached 168 people (18.6%) and "agree" as many as 139 people (15.3%), indicating a gap in the practical understanding of debt management and savings strategies.

In the mental accounting dimension, *Wealth Allocation* received a response of "agree" from 376 respondents (41.6%) and "quite agree" from 109 respondents (12.1%). For *Expenditure Forecasting*, as many as 254 respondents (28.1%) stated "agree" and 61 respondents (6.8%) "strongly agree". However, in *Saving Goals*, the highest number is "quite agree" of 118 respondents (13.1%), followed by "agree" only 46 respondents (5.1%) and none "strongly agree". This indicates that the discipline of long-term savings among MSMEs is still low. From the aspect of financial socialization, the media is the most dominant agent, with 209 respondents (23.1%) "agree" and 37 (4.1%) "strongly agree". Family also shows a strong influence, with 155 respondents (17.1%) "agree" and 95 (10.5%) "strongly agree". Community and education are at lower numbers, 145 and 123 respondents respectively stating "agree". Thus, although MSMEs have shown progress in financial behavior, strengthening practical literacy and commitment to long-term planning through an educational approach is still very much needed.

4.2. Discussion

4.2.1. Integration of TFPB in Forming Behavior Planning Finance MSMEs actors

Behavior planning finance MSMEs actors are greatly influenced by internal factors such as attitude finance and literacy finance, as well as factor external like socialization finance and practice mental accounting. Individuals who have attitude finance positive tend more active in make budgeting, saving and investing in a way planned. Based on Theory of Planned Behavior (TPB), this attitude represents an important component in forming behavioral intention that subsequently drives real action in financial planning. Additionally, the Life-Cycle Hypothesis and behavioral theory from Shefrin and Thaler explain that financial attitudes are formed from a combination of rational evaluation and psychological constraints, such as self-control. This attitude also has the potential to mediate between financial literacy and financial planning behavior, where good financial knowledge becomes more effective when accompanied by positive attitudes toward financial management.

On the other hand, financial socialization functions as a learning process that transfers values, norms, and financial practices from the social environment to individuals. This process can originate from family, friends, community, or educational institutions. Theory of Reasoned Action (TRA) and TPB explain that subjective norms obtained from socialization can increase individual intention to engage in financial planning. Empirical findings show that MSME actors who receive financial socialization from early stages or through business communities are more involved in managing their business finances. The relevance between attitudes and financial socialization demonstrates strong synergy, where effective socialization forms positive attitudes that subsequently increase self-confidence and control perception in making financial decisions.

Financial literacy and mental accounting serve as cognitive and psychological pillars in forming rational and sustainable financial planning behavior. Financial literacy refers to an individual's ability to understand and use financial information in making decisions, including matters of budgeting, debt management, and investment. Meanwhile, mental accounting explains how individuals group income and expenses into different mental categories, thus influencing how they organize and plan finances. The integration of both strengthens financial planning behavior, where financial literacy provides a knowledge foundation, while mental accounting strengthens psychological control in financial management. MSME actors who possess high financial literacy and practice effective mental accounting will be more capable of managing business finances systematically, efficiently, and with focus on business sustainability.

4.2.2. Contextualization of Business Scale in Behavioral Models MSME Finance

Company size represents an important indicator that reflects resource capacity, operational complexity, and formality level in business management. In the MSME context, business actors with larger scales tend to possess organizational structure, access to financial information, and professional pressure that drives more systematic financial planning practices. Therefore, positive financial attitudes and adequate financial literacy are more effectively converted into financial planning behavior in small-intermediate scale MSMEs compared to micro MSMEs. This demonstrates that company size functions as a moderator that strengthens the influence of financial attitudes and financial literacy on planning behavior.

On the other hand, regarding financial socialization and mental accounting aspects, their influence on financial planning behavior tends to be stronger in smaller MSMEs. Financial socialization originating from family environment, community, or peer colleagues plays an important role for micro MSME actors who do not have access to formal training or financial consultants. Similarly, mental accounting as a mechanism for grouping and decision-making based on financial perception is commonly applied by small business actors in managing cash, separating personal and business expenses, and designing financial priorities. When businesses grow larger, the influence of personal and social factors tends to weaken because they are replaced by more formal managerial systems.

Thus, company size not only determines the level of financial planning needs but also changes how business actors respond to various psychological and social factors in forming their financial behavior. Positive moderation on attitude and financial literacy variables demonstrates the importance of educational interventions based on business capacity, while negative moderation on financial socialization and mental accounting signifies that more informal approaches are relevant for small MSMEs. These findings confirm the

importance of designing financial strengthening policies and programs customized to MSME scale, so that every intervention can address different root problems at each MSME level.

5. Conclusion

This study confirms that the financial planning behavior of MSME actors is formed through the integration of internal and external factors explained within the Theory of Planned Behavior (TPB) framework and other financial behavior theories. Financial attitudes, financial literacy, financial socialization, and mental accounting practices play significant roles in forming both intentions and real actions of MSME actors in managing their business finances. Positive attitudes toward finance and the capability to understand financial information provide a strong foundation for making rational decisions, while socialization and mental accounting serve as amplifiers of values and psychological control in daily financial management.

However, the effectiveness of each factor is significantly influenced by business size. MSMEs with larger scales demonstrate strengthened influence of attitudes and financial literacy on planning behavior because they are supported by managerial structure and more adequate access to information. Conversely, smaller MSMEs are more influenced by socialization and mental accounting that are informal and experience-based. This demonstrates that business scale moderates the connection between financial behavior determinants and financial planning actions. Therefore, the design of policy interventions and financial educational programs must be contextualized by considering business scale to achieve optimal effectiveness across various MSME layers.

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