

Financial Literacy and Financial Management Behavior: Mediating Effects of Financial Self-Efficacy and Family Financial Socialization in Food and Beverage MSMEs

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Abstract— Poor money handling still creates problems for micro, small, and medium enterprises (MSMEs), particularly in the food and drink sector. Issues like low financial literacy (FL), insufficient financial self-efficacy (FSE), and the effect of family financial socialization (FFS) are thought to change how business owners manage their finances (FMB). This study aims to look at how FL affects FMB, while also considering the parts played by FSE and FFS as connecting factors among MSME owners in the food and drink area of DKI Jakarta. A measurement approach is used, using a questionnaire method, with information being processed using Structural Equation Modelling–Partial Least Squares. Discoveries show that FL has a good effect on FMB, FSE, and FFS. Furthermore, both FSE and FFS are proven to have a helpful impact on FMB and act as connectors between FL and FMB. These outcomes indicate that the FMB of MSMEs is affected not only by how much financial understanding the owners have, but also by both mental and group factors that impact how financial understanding is put into practice in actual situations. This paper provides a conceptual benefit that deepens the grasp of MSME money actions and offers a useful benefit that can guide the making of fuller and longer lasting rules and plans for MSME expansion.

Keywords—*Financial Management Behaviour; Financial Self-efficacy; Family Financial Socialization; Financial Literacy; MSME*

I. INTRODUCTION

Micro, Small, and Medium Enterprises (MSMEs) function as an essential component of this nation's financial structure, particularly in terms of employment absorption, sustaining economic circulation within society, and

strengthening economic resilience amid global uncertainty [1]. The success of MSMEs is shaped not just by their operational skills but also by how well owners handle their money matters with financial management behavior (FMB) [2]. Weak FMB is often reflected in undisciplined budgeting practices, inefficient allocation of funds, and unmeasured financing decisions, which ultimately increase the risk of business failure [3]. These challenges usually come not just from having insufficient financial means, but also from behavioral and mental factors that affect entrepreneurs' capacity to make wise and lasting financial choices [4].

FMB can be improved by advancing financial literacy (FL), which is defined as an individual's ability to understand, navigate, and make appropriate decisions regarding financial matters [5]. A solid understanding and awareness of financial concepts empower entrepreneurs to make wise and responsible financial decisions [4]. Nonetheless, having strong FL by itself does not automatically result in changes in behavior; it needs to be complemented by financial self-efficacy (FSE), which indicates a person's belief in their capacity to manage their personal finances effectively [6]. Studies by [6], [7], [8], [9] Research indicates that both FL and FSE have a favorable impact on FMB. Individuals with high levels of FSE typically exhibit greater confidence in budgeting, saving, and avoiding precarious financial choices [10].

In addition to these two factors, FFS(FFS) also plays a significant role [11]. Research conducted by [12], [13], [14] indicates that FL can foster FFS, which refers to the values, habits, and financial mindsets acquired from an early age through interactions within the family environment [5]. In the MSME context, where the boundaries between personal and business finances are often blurred, inherited financial values

and habits from the family exert a profound influence on business financial management practices [15]. Despite its substantial potential, FFS remains relatively underexplored in financial management studies involving MSME populations, particularly in collectivist cultures such as Indonesia.

Entrepreneurs with strong FL understand essential financial management practices, such as the importance of recording income and expenses, setting aside emergency funds, and avoiding the careless use of debt [7]. However, what makes such knowledge effective in practice is the confidence to apply it in real-life situations [16]. This is where FSE serves as a critical bridge. Entrepreneurs who are confident in their financial management abilities are more likely to exhibit sound FMB [17]. Furthermore, individuals who grow up in families that actively discuss financial matters, demonstrate saving habits, exercise caution in spending, and maintain transparency in financial decision-making are generally better prepared to apply FL in business settings [18]. These experiences, embedded through FFS, form fundamental principles that shape FMB [19]. Individuals who are exposed to FL from an early age through FFS are more likely to be prepared to implement effective FMB in both business and personal contexts [20].

The food and beverage industry is the largest contributor to the non-oil and gas manufacturing sector, which serves as the backbone of Indonesia's economy [21]. As of the first quarter of 2024, the structure of the non-oil and gas manufacturing GDP was dominated by the food and beverage industry, contributing 39.91% of the sector or 6.47% of total national GDP [21]. According to data from Statistics Indonesia (BPS), MSMEs in the food sector account for 1.51 million business units, representing approximately 36% of all MSMEs nationwide, which total 4.21 million units, thereby positioning the food and beverage sector as the dominant MSME segment in Indonesia [22]. Existing studies have largely emphasized FL or technical skills alone, whereas in practice, MSME actors often fail not because of a lack of knowledge, but due to insufficient confidence and inadequate financial habits [23]. By examining these factors collectively, a more holistic understanding of entrepreneurs' financial behavior can be achieved, highlighting that technical competence must be accompanied by self-confidence and supportive social habits [24].

This study aims to empirically examine the relationships between FL, FSE, and FFS on FMB among MSMEs in the food and beverage sector. The findings are expected to contribute both theoretically and practically to the development of contextual financial education programs, as well as to inform policymaking and the design of more inclusive and sustainable entrepreneurial training strategies, by recognizing that financial behavior is influenced not only by cognitive aspects but also by individuals' self-confidence and socio-cultural experiences.

In principle, this study improves current writings by blending mental, feeling-related, and group-culture perspectives to offer a full grasp of money handling actions by people in very small, small, and medium businesses,

especially within the food and drink sector. Rather than viewing money dealings only as a matter of comprehension, this research stresses the importance of inner confidence and shaping group exposures in affecting the way money decisions are formed. From an applied angle, the findings supply useful knowledge for rule makers, teachers, and organizations helping new business ventures when making money learning and skill building efforts that not only boost money awareness but also strengthen money self-assurance and encourage a helpful money setting inside homes.

II. METHOD

The tools utilized to evaluate the variables in this research were created by adjusting and refining measurement tools that have been used in earlier research. The FL variable was quantified with 12 items taken from [16]. The FSE variable was assessed through six items, while another variable was evaluated using six items based on adaptations from [25]. At the same time, the FMB variable was assessed with 11 items designed from [16]. Each measurement item was evaluated employing a Likert scale that spanned from 1 (strongly disagree) to 5 (strongly agree).

In the initial stage of the research, a face validity test was conducted to ensure that each instrument used visibly represented the concept to be measured. This assessment was preliminary and was based on a subjective evaluation of the suitability of the item content with the research construct. Next, a preliminary test involving 34 respondents was conducted to test the quality of the instrument more empirically. The accuracy and dependability of the items were assessed through SPSS software. The construct validity was examined using Kaiser-Meyer-Olkin (KMO) and Measure of Sampling Adequacy (MSA) values, where a figure exceeding 0.5 suggested that the data satisfied the requirements for additional examination. At the same time, the consistency of the tool was analyzed via Cronbach's Alpha coefficient. The nearer the value is to 1, the greater the internal consistency among items, thus making the instrument deemed more trustworthy for assessing the research variables.

Data gathering for this research was performed through a survey approach by distributing an online questionnaire using Google Forms. A purposive sampling method was used to choose the participants for the study, specifically MSME owners within the food and beverage industry located in the DKI Jakarta region, focusing on areas like Blok M, Jalan Sunda/Sarinah, Danau Sunter, as well as other MSME sites. The data collection phase lasted for two months, spanning from November to December 2025. The sociodemographic factors evaluated in this study included gender, age, level of education achieved, marital status, number of dependents, duration of business operation, and monthly revenue. A total of 186 respondents were successfully gathered for the research.

This research utilized a quantitative methodology through the Partial Least Squares Structural Equation Modeling (PLS-SEM) technique. The processing and examination of data

were completed with SPSS version 27 and SmartPLS version 4.0 tools. A factor analysis was performed via SPSS to evaluate the validity of the instruments, employing the Kaiser–Meyer–Olkin (KMO) measure and the Measure of Sampling Adequacy (MSA), where values that surpassed 0.5 signified adequacy. The reliability of the instruments was assessed using Cronbach’s Alpha, with results nearing 1 reflecting greater internal consistency [26]. Following this, the measurement model and structural model were analyzed using SmartPLS 4.0, with evaluation benchmarks that encompassed both the outer and inner models. The outer model was evaluated in terms of factor loadings, composite reliability (CR) values above 0.70, and average variance extracted (AVE) values exceeding 0.50 [27]. Discriminant validity was assessed by the Fornell–Larcker criterion and the heterotrait–monotrait ratio (HTMT), where values under 0.90 suggested acceptable discriminant validity [28]. Additionally, the inner model was appraised using indicators such as R-square, Q-square predictive relevance, effect size (f^2), standardized root mean square residual (SRMR), and normed fit index (NFI) [27]. In conclusion, hypothesis testing was performed with a two-tailed test, where t-values exceeding 1.96 and p-values lower than 0.05 demonstrated statistical significance [27].

III. RESULTS AND DISCUSSION

Paper MSMEs functioning within the food and beverage industry in the DKI Jakarta region were the subject of this research. Before executing the primary data collection, a group of 34 participants took part in a preliminary test intended to evaluate the effectiveness and consistency of the measurement instruments. The data from this preliminary test were analyzed using SPSS version 27. The findings revealed that every measurement item fulfilled the criteria for validity and reliability as established by Hair et al. (2014). This was confirmed by the Kaiser–Meyer–Olkin (KMO) and Measure of Sampling Adequacy (MSA) values, which were greater than 0.5, in addition to Cronbach’s Alpha values nearing 1. Therefore, the research instrument was recognized as meeting the necessary methodological standards and was considered appropriate for the following phases of the study.

This study involved 186 respondents, predominantly legally registered business owners, accounting for 73.66% of the sample. The majority of respondents were male (61.83%) and within the productive age range, with those aged over 35 years representing the largest proportion (38.17%). In terms of educational background, most respondents had attained a relatively high level of education, with 80.65% holding a bachelor’s degree. From a social perspective, the majority of respondents were married (74.73%) and had one to two family dependents (79.57%). Regarding business experience, more than half of the respondents had been operating their businesses for more than four years (59.68%), indicating a relatively strong level of business sustainability. In terms of financial performance, most respondents reported average monthly revenues ranging between IDR 15–50 million (37.63%) and IDR 50–100 million (34.41%), suggesting that the majority of businesses operated at a micro and small scale with relatively stable growth.

Outer model examination reveals that every construct examined in this research has fulfilled the predefined criteria for validity and reliability. This is demonstrated by the Composite Reliability (CR) figures being at least the required minimum of 0.70 and the Average Variance Extracted (AVE) values surpassing the threshold of 0.50. Furthermore, the internal reliability was substantiated by Cronbach’s Alpha values that approached 1, as suggested by [27]. As a result, it can be inferred that the constructs utilized in this research possess a satisfactory degree of consistency and measurement validity. The specifics pertaining to the validity and reliability test results for the constructs can be found in Table 1.

TABLE I. VALIDITY AND RELIABILITY

Variable	Cronbach’s alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
Family Financial Socialization	0.865	0.867	0.899	0.596
Financial Literacy	0.932	0.933	0.941	0.571
Financial Management Behavior	0.943	0.945	0.951	0.636
Financial Self-Efficacy	0.883	0.883	0.911	0.63

Discriminant validity was evaluated to confirm that each component within the research framework demonstrated adequate empirical distinctions. The evaluation was performed utilizing the Fornell-Larcker criteria, cross loading analysis, and the Heterotrait-Monotrait Ratio (HTMT). The findings indicate that the square root of the Average Variance Extracted (AVE) for each component exceeds the correlation levels between the components, the highest loading value is associated with the construct being analyzed, and the HTMT value remains beneath the defined limit [28]. Thus, all constructs are declared to meet the discriminant validity criteria.

Next, the evaluation of the inner model utilized R^2 values to illustrate how well the independent variables account for the changes observed in the dependent variables. The findings reveal that FFS possesses an R^2 value of 0.336, meaning 33.6% of the differences in this construct can be accounted for by the model’s variables. Additionally, FSE demonstrates an R^2 value of 0.276, showing a moderate degree of explanatory capability of 27.6%. In contrast, FMB achieved an R^2 value of 0.516, which indicates a relatively strong explanatory capacity of 51.6% for FMB. Moreover, the Q^2 predictive value indicates that all variables register a Q^2 value above zero, which suggests that the research model possesses substantial predictive relevance for endogenous variables. The results from the effect size (f^2) analysis indicate that FL significantly affects both FFS ($f^2 = 0.496$) and FSE ($f^2 = 0.399$). In conclusion, these results imply that the research model has ample ability to elucidate the dynamics of the relationships among constructs, although it is possible that additional factors not included in the model may also influence the outcomes.

According to the test results for model adequacy (quality model), the SRMR measurement was under the acceptable threshold of 0.08, demonstrating a favorable degree of model compatibility. The d_{ULS} and d_G values in the proposed model are fairly similar to those in the saturated model,

suggesting that the gap between the observed and estimated covariance matrices remains within reasonable boundaries. Additionally, the NFI score of 0.799 reflects a satisfactory degree of model efficacy (marginal fit) (Hair et al., 2017). Overall, these results indicate that the research model has an adequate level of suitability, making it feasible for further structural analysis and hypothesis testing. Meanwhile, the results of the structural model testing, which includes path coefficients, can be illustrated in Figure 1 below.

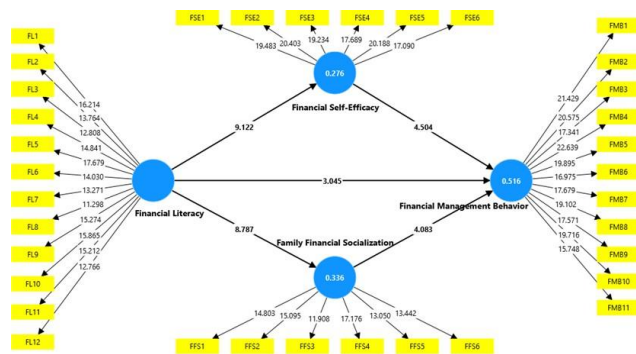


Figure 1. Path Diagram T- Value

In reference to the T-Value path diagram illustrated in Figure 1, the findings from the hypothesis testing conducted in this research are compiled in Table II. According to Table I, which outlines the hypothesis tests of the research model, the outcomes from the SEM-PLS analysis reveal that seven of the hypotheses exceed a T-Value of 1.96, suggesting that the interactions among variables in these hypotheses are statistically meaningful. Therefore, all seven hypotheses put forward in this study are validated and corroborated by the empirical evidence gathered. These results reinforce that the causal links established in the research model possess adequate statistical strength.

TABLE II. RESEARCH MODEL HYPOTHESIS TESTING

Hypothesis	Hypothesis Statement	T-Value	P-Value	Description
H1	Financial literacy has a positive effect on financial management behaviour.	3.045	0.002	Hypothesis Accepted
H2	Financial literacy has a positive effect on financial self-efficacy.	9.122	0.000	Hypothesis Accepted
H3	Financial literacy has a positive effect on family financial socialisation.	8.787	0.000	Hypothesis Accepted
H4	Financial self-efficacy has a positive effect on financial management behaviour.	4.504	0.000	Hypothesis Accepted
H5	Family financial socialisation has a positive effect on financial management behaviour.	4.083	0.000	Hypothesis Accepted
H6	Financial self-efficacy mediates the relationship between financial literacy and financial management behaviour.	4.379	0.000	Hypothesis Accepted
H7	Family financial socialisation mediates the relationship between financial literacy and financial management behaviour.	3.443	0.001	Hypothesis Accepted

This study aims to explore the influence of FL, FSE, and FFS on FMB among MSME actors in the food and beverage sector in DKI Jakarta. The results show that FL has a positive effect on FMB, confirming that the level of financial

understanding is a key factor in shaping the quality of business financial management. FL is not merely related to mastery of financial terms or products, but also includes the ability of business actors to understand financial risks, manage cash flow, allocate resources effectively, and make rational and long-term financial decisions. MSME actors with good FL tend to exhibit more structured FMB, such as consistent financial record-keeping, separation of personal and business finances, healthy debt management, and more mature financial planning. Reflected in the statistical values in this study, it can be concluded that MSME players with good FL are considered capable of understanding the time value of money, managing financial risks in business, and making strategic financial decisions, even if they are difficult, thereby forming competent FMB. This finding is further strengthened by the characteristics of the research respondents, where the majority of MSME players have a bachelor's degree as their highest level of education and have been running their businesses for more than four years. A higher level of education and relatively long business experience enable MSME players to have better cognitive capacity and practical experience in understanding and applying financial concepts in their daily business activities. In addition, the length of time that the business has entered a relatively stable phase encourages MSME players to be more aware of the importance of professional financial management as the basis for business sustainability. Thus, the results of this study reflect the empirical condition that increasing FL, especially among MSME players who already have an adequate educational foundation and business experience, plays a significant role in encouraging the formation of FMB that is disciplined, adaptive, and oriented towards sustainability. Therefore, efforts to strengthen FL through applicable and sustainable education programmes need to be continuously encouraged by the government, practitioners, financial or capital institutions, and other stakeholders, especially to ensure that MSMEs can grow healthily and competitively in the long term.

Secondly, FL has a positive effect on FSE, indicating that the financial understanding possessed by MSME actors not only contributes to FMB but also strengthens FSE in managing their business financial decisions. FSE reflects the level of confidence that business actors have in their ability to face financial challenges, control financial conditions, and make decisions that impact business continuity. When MSME players have financial knowledge, they are more likely to have a high level of confidence in managing their finances and do not experience significant difficulties in achieving their financial goals. These findings become even more relevant when linked to the characteristics of the research respondents, where the majority of MSME entrepreneurs are male and aged over 35 years. Psychologically and socially, men in middle adulthood tend to have longer life and business experiences, so that the financial learning process obtained from formal education and daily business practices can be better internalised into financial self-confidence. A number of previous studies have shown that age and experience play an important role in strengthening the relationship between FL and FSE, as individuals who are more mature in age have generally experienced various financial consequences from past decisions, making them more realistic and confident in

assessing their own abilities [29], [30]. In Indonesia, the role of men, who are still often socially positioned as the main decision-makers in business and family financial matters, contributes to higher levels of confidence when supported by adequate financial understanding. Thus, these findings emphasise the importance of FL programmes that not only focus on improving technical knowledge but are also designed to build the FSE of MSME actors through experience-based approaches, case studies, and continuous mentoring. The government and MSME practitioners need to consider age and gender segmentation in designing policy interventions so that improvements in FL can be optimally translated into strengthened FSE, which ultimately supports the resilience and sustainability of MSMEs.

Third, FL has a positive effect on family financial socialisation, indicating that the financial understanding possessed by MSME actors not only plays a role at the individual and business levels, but also influences interaction patterns and the formation of financial values within the family. FFS is an important process in which financial knowledge, attitudes and behaviours are transmitted through communication and daily financial practices within the family. Good FL contributes to shaping financial education patterns within the family, which ultimately contributes to an understanding of responsible saving behaviour and the use of credit instruments. This study becomes even more relevant when linked to the characteristics of the research respondents, the majority of whom are married. Married MSME actors generally face more complex financial responsibilities, so individuals with better FL tend to take a more active role in family financial discussions, joint financial decision-making with their spouses, and the formation of healthy financial habits in the household. These results are in line with previous research findings which show that individuals with high FL are more involved in the FFS process and act as the main agents in transferring financial values and behaviours to other family members [30], [31], [32]. The link between business and family finances further strengthens the role of FL in promoting more open financial communication and learning within families. Policies should focus on a holistic approach to FL, involving the family dimension as part of the MSME ecosystem. The government and SME practitioners need to develop family-based FL programmes so that improving the financial understanding of business actors can simultaneously strengthen FFS and support long-term financial stability, both at the household and business levels.

Fourth, the acceptance of the hypothesis stating that FSE has a positive effect on FMB shows that MSME actors' belief in their ability to manage finances plays an important role in shaping effective business FMB. FSE represents an individual's confidence in facing financial challenges, controlling financial conditions, and making financial decisions independently and responsibly. MSME actors with high levels of self-efficacy tend to be more proactive in financial planning, consistent in recording transactions, disciplined in managing cash flow, and more capable of controlling debt and financial risk. The ability of MSME players to achieve financial goals and consistency in following spending plans, even when faced with unexpected expenses, encourages the routine recording of business

financial transactions and efforts to reconcile financial records to minimise errors. Conceptually, belief in one's own abilities functions as a psychological mechanism that encourages individuals to translate knowledge and intentions into concrete actions. These findings are in line with previous research stating that self-efficacy is a strong predictor of healthy FMB, as individuals with high levels of self-efficacy are more confident in implementing good financial management practices and persisting in the face of financial pressure [33]. Business uncertainty and resource constraints are often major challenges, making FSE an important psychological factor in maintaining consistent FMB. Interventions to improve the quality of SME financial management should not only focus on increasing FL but also be directed at strengthening business owners' confidence through assistance, mentoring, and practice-based learning. This approach is expected to encourage MSME entrepreneurs to be more courageous, disciplined, and sustainable in implementing sound FMBs.

Fifth, research findings indicating that FFS has a positive effect on FMB suggest that the FMB of MSME entrepreneurs is not formed solely on an individual basis but is influenced by the social learning process that takes place within the family environment. Through daily interactions, the family becomes the initial space where individuals learn how to manage income, deal with expenses, and make financial decisions in conditions of limited resources. Families with open and planned financial communication tend to develop a more systematic mindset in managing business finances, such as the habit of planning expenses, evaluating financial decisions, and maintaining a balance between short-term needs and long-term goals. Family involvement in discussing household finances and teaching the importance of saving contributes to the formation of disciplined business FMB, which is reflected in routine budget evaluation and the timely payment of loan or credit obligations. In line with previous research findings, families act as agents of socialisation that shape individuals' financial values and attitudes, which in turn influence FMB in adulthood [12], [14], [24]. Family and business finances are often fluid, and the financial experiences and habits formed within the family have a direct impact on the way business actors and business finances operate. From a policy perspective, these findings emphasise the need for a more inclusive approach to SME development by involving families as part of the financial learning ecosystem, so that healthy FMB practices can be internalised more comprehensively.

Finally, FSE and FFS act as mediating variables in the relationship between FL and FMB, indicating that the influence of FL on FMB is not entirely direct. Belief in financial management abilities and financial socialisation from the family environment contribute to systematic and sustained business budget planning and evaluation. These findings confirm that the financial understanding possessed by MSME actors needs to be translated into psychological and social aspects before it manifests itself in actual FMB. FL contributes to shaping FSE by increasing self-efficacy in one's ability to manage financial decisions, which in turn encourages consistency and discipline in business financial management practices. At the same time, FL also strengthens FFS by encouraging more active financial communication and learning

within the family environment, so that the financial values and habits that are formed also influence the FMB of MSME actors. In the context of MSMEs, where the relationship between business and family finances is very close, these two mechanisms work complementarily in bridging the influence of FL on FMB. These findings provide a more comprehensive understanding that increasing FL alone is not necessarily sufficient to produce sustainable changes in FMB if it is not accompanied by strengthening the FSE of business actors and the support of the family social environment or family financial socialisation. From a policy perspective, these results emphasise the importance of integrated MSME development programme design, which should not only focus on improving FL but also be directed at strengthening FSE through practice-based mentoring and strengthening FSE through family-based financial education approaches, in order to encourage the formation of more adaptive and sustainable FMB.

IV. CONCLUSIONS

Overall, the results of this study indicate that FL plays a broad and significant role in shaping the FMB of MSMEs. A good understanding of finance has been shown to not only have a direct impact on FMB, but also contribute to strengthening FSE and encouraging the formation of positive family financial socialisation. Furthermore, FSE and FSE function as intermediary mechanisms that bridge the influence of FL on business FMB. These findings indicate that FL does not necessarily automatically translate into effective FMB without the support of FSE and conducive family financial socialisation. Therefore, MSME FMB needs to be understood as the result of interactions between cognitive, psychological, and social aspects. Thus, this study emphasises that efforts to improve the quality of MSME FMB require a comprehensive and integrated approach, focusing not only on increasing knowledge but also on strengthening individual capacity and supporting the surrounding environment.

The findings of this study provide several implications, including that strengthening the financial capacity of MSME actors cannot be understood solely as a process of increasing cognitive knowledge related to basic financial principles. More than that, effective business financial management requires FSE and the support of the immediate social environment, especially the family, through open and constructive financial communication patterns. The role of the government, practitioners, and SME development institutions is crucial in designing FL programmes that are applicable, contextual, and sustainable. These programmes should not only be oriented towards knowledge transfer, but also towards building practical skills and confidence among business actors through financial record-keeping assistance, case study-based decision-making simulations, and financial education involving family members. This approach is expected to create a learning process that is more relevant to the business realities and household lives of MSME entrepreneurs, thereby encouraging more disciplined, adaptive, and long-term sustainability-oriented financial management practices.

From the perspective of SME policy and development, the results of this study emphasise the importance of integrated

and inclusive intervention designs that take into account demographic characteristics such as age and gender so that improvements in FL can be optimally translated into strengthened FSE. Interventions that focus solely on improving FL have the potential to produce normative understanding, but this does not necessarily lead to changes in FMB. Therefore, MSME development strategies need to be directed towards a combination of financial education, practice-based mentoring, and strengthening the process of family financial socialisation. This family-based approach not only strengthens household financial stability but also creates a learning ecosystem that supports the internalisation of healthy and sustainable FMBs. Thus, MSME FL policies that integrate cognitive, psychological, and social dimensions are believed to be an important foundation in building the resilience and competitiveness of MSMEs in a sustainable manner.

Further research is recommended to expand the scope of the study by involving various other MSME sectors and covering more diverse geographical areas, both at the regional and national levels, so that the research findings have stronger generalisation power. In addition, subsequent researchers can develop research models by including additional variables, such as financial attitude, digital FL, institutional support, and access to financial services, in order to gain a more comprehensive understanding of the determinants of SME FMB in an increasingly dynamic context. A more diverse methodological approach also needs to be considered, such as the use of longitudinal research designs to capture changes in the financial behaviour of SME actors over time, or qualitative approaches through in-depth interviews and case studies to explore the processes, experiences, and social contexts that underlie financial decision-making. With the development of these variables and methods, future research is expected to provide more in-depth theoretical and practical contributions to understanding the complexity of SME FMB.

This study has several limitations that need to be considered when interpreting the research results. First, the research data was obtained through a cross-sectional questionnaire, so it was not able to capture changes in the financial behaviour of MSME actors in the long term. Second, the research subjects were limited to MSME actors in the food and beverage sector in DKI Jakarta, so the research results may not fully represent the conditions of MSMEs in other sectors and regions. Third, no screening questions were used in collecting respondent data, potentially allowing respondents who did not fully meet the research criteria to be included. In addition, the use of respondent perception data has the potential to cause subjective bias, so the research results need to be understood in the context of these limitations.

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