Factors influencing financial behavior: The role of income as a moderator of financial knowledge

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A B S T R A C T
The purpose of this study is to analyze the financial behavior of female MSME entrepreneurs, with income as a moderating variable. The data were collected by using a survey as the instrument in the form of a questionnaire. The respondents for this study were female MSME entrepreneurs residing in Solo and Yogyakarta, totaling 400 respondents, with 200 from each region. The distribution of the questionnaire was carried out offline and online via google form. The results indicate that financial knowledge and income do not influence financial behavior, while financial technology and lifestyle negatively affect financial behavior. Internal locus of control and spiritual intelligence positively impact financial behavior, with income which is not able to moderate the relationship between financial knowledge and financial behavior. These results have implications for the financial behavior of women who work as MSME entrepreneurs to improve their financial knowledge so that they become better and wiser in their financial behavior.

A B S T R A K
Tujuan dari penelitian ini untuk menganalisis perilaku keuangan pengusaha UMKM perempuan dengan pendapatan sebagai variabel moderasi. Metode pengumpulan data yang digunakan adalah melalui survey dengan menggunakan instrument berupa kuesioner. Re-sponden penelitian ini adalah pengusaha UMKM perempuan yang berdomisili di Solo dan Yogyakarta. Jumlah responden sebesar 400 dengan jumlah masing-masing wilayah sebanyak 200 responden. Penyebaran kuesioner dilakukan secara offline maupun online melalui google form. Hasil penelitian ini menunjukkan bahwa literasi keuangan dan pendapatan tidak berpengaruh terhadap perilaku keuangan, financial technology dan gaya hidup berpengaruh negatif terhadap perilaku keuangan, locus of control internal dan kecerdasan spiritual berpengaruh positif terhadap perilaku keuangan, pendapatan tidak mampu memoderasi hubungan literasi keuangan dengan perilaku keuangan. Hasil ini berimplikasi pada perilaku keuangan masyarakat perempuan yang berprofesi sebagai pengusaha UMKM untuk meningkatkan literasi keuangannya agar semakin baik dan bijak dalam perilaku keuangannya.

Kata Kunci:
Female MSMEs, Financial Behavior, Financial Knowledge, Solo Yogyakarta, Lifestyle

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1. INTRODUCTION

Micro, Small, and Medium entrepreises (MSMEs) in Indonesia contribute 57.24% to the GDP and function as a primary pillar of the economy, making their development and empowerment necessary to enhance their contributions (Khairunnisa & Wijaya, 2024). This empowerment and development are reflected in financial behavior. According to Wahyuni & Raprayogha (2021), financial behavior is an individual's ability to manage and save money. Financial behavior involves personal financial management, demonstrated through attitudes. As a form of management, financial behavior has three components: consumption, saving, and investment (Purwidianti & Mudjiyanti, 2019). Indonesia's consumptive financial management tendencies impact irresponsible financial behavior, with limited financial knowledge being the primary cause of poor financial management among MSME entrepreneurs (Yuhaprizon, 2022).

Digitalization accelerates activities, including digital financial services known as financial technology. This represents one of the most important innovations in the financial industry, driven by regulations, information technology, and the sharing economy (Niemand et al., 2020). The emergence of digitalization has led to a lifestyle shift, influencing how individuals manage money. Many people are more focused on satisfying their needs for comfort and social recognition, which impacts their spending habits (Gunawan & Carissa, 2021). The rapid development of financial technology makes transactions easier, more practical, and cost-effective. On the other hand, financial technology expands access to financial services, such as online lending. However, if not managed properly, advancements in financial technology can lead to new financial problems. The ease of transactions, discounts, and cashbacks can encourage overspending. As the evidence in research by Purwanto et al. (2022), it shows that financial technology negatively influences financial behavior. On the other hand, according to Agarwal & Chua (2020), financial technology has positive impact on financial behavior.

Financial behavior is also influenced by spiritual intelligence. Spiritual intelligence, which helps individuals develop financial behavior based on positive values, is closely linked to general intelligence. Higher intelligence often correlates with well-developed spiritual intelligence (Nursin et al., 2023). According to social learning theorist Rotter (1966), locus of control refers to how individuals perceive events and their ability to control them. Internal locus of control is the belief that one's circumstances and fate are under one's own control (Kholilah & Irmani, 2013a). Individuals who have low self-control tend to be selfish, less sensitive to the suffering and needs of others, sometimes have an unfriendly attitude, or tend to care less about socializing with others (Ardiana, 2017). In addition, according to Wicaksono & Nuryana (2020) locus of control internal has positive impact on financial behavior.

Wages/salaries derived from activities performed are referred to as income (Sari et al., 2022). Income can also moderate the impact of financial knowledge on financial behavior. When a person possesses good financial knowledge and is supported by a high income, their financial behavior is likely to be positive. In relation to this fact, Putri & Tasman (2019) found that income has positive effect on financial behavior.

Research Focus: This research focuses on female MSME entrepreneurs in Solo and Yogyakarta. In 2016, the number of Female Small Entrepreneurs (PUK) in Java was 18,000, and by 2024, this number had reached 925. As of 2024, the total number of MSMEs in the Solo Raya region-including Surakarta City, Boyolali, Sukoharjo, Karanganyar, Wonogiri, Sragen, and Klaten is 28,651. In Yogyakarta, female-led MSMEs totaled 342,584 in 2023, with monthly turnovers from 2021 to 2023 recorded at Rp 87,447,386, Rp 471,165,064, and Rp 470,748,398. In Central Java, MSME monthly turnovers per quarter from 2021 to 2023 were Rp 5,686,833,333, Rp 5,715,083,333, and Rp 5,729,833,333 (MSME Time Series Data for Central Java Province, 2024). Based on this urgency, this study has some objectives such as: to test and analyze the influence of financial knowledge, spiritual intelligence, lifestyle, financial technology, and locus of control, both partially and simultaneously on the financial behavior of women MSME actors in Solo and Yogyakarta and to test and analyze whether income can moderate the influence of financial knowledge on the financial behavior of women MSME actors in Solo and Yogyakarta.

2. THEORETICAL FRAMEWORK AND HYPOTHESIS

Financial Behavior

Financial behavior, according to Shefrin (2010), is a study of how psycological phenomena influence financial conduct. It refers to human behavior related to financial management. In addition, it involves financial responsibility, money management, and asset management and is also connected to income, expenses, loans, and savings. Financial behavior indicators discovered by Hilgert et al (2003) include paying bills on time, paying bills periodic, making spending plan, using some money for savings or investment, emergency funds, pension funds, and for insurance.

Financial Knowledge

Financial knowledge is defined as an individual's intelligence or ability to manage their finances. According to Budiono (2020), financial knowledge can serve as a tool for making financial-related decisions, thus making it quite important in life. The more knowledge one has about finance, the better the financial decisions one can make, which in turn is likely to result in more efficient, improved, and responsible financial management behavior. Financial knowledge indicators discovered by Chen and Volpe (1998) include basic personal finance, saving and borrowing, insurance, invensment.

Spiritual Intelligence

Human intelligence is not solely based on intellectual intelligence or IQ (Intelligence Quotient); humans also possess other forms of intelligence, such as EQ (Emotional Quotient) and SQ (Spiritual Quotient). According to Faridawati and Silvy (2017), spiritual intelligence is the intelligence that elevates the function of the soul as an internal aspect of oneself, capable of perceiving and understanding the deeper meaning behind a reality or specific event. Spiriltual intelligence indicators discovered by Arganata & Lutfi, (2019) include having good behavior to take time to pray, good behavior in living life according to the religion that is believed, good behavior in considering that religion is very important to answer questions about the meaning of life, good behavior in approaching life based on the religion that is believed, good behavior in carrying out worship to get protection from God, and good behavior in interpreting prayer.

Lifestyle

Lifestyle refers to an individual's behavior, patterns, and way of life, demonstrated through activities, interests, and preferences in spending money and allocating time. Robards (2014) describe lifestyle as human life. Lifestyle reflects the entirety of a person's self in interacting with their environment. Life style indicators discovered by Shinta dan Lestari (2019) include pattern of following the latest trends and fashion, people's views, views about branded goods.

Financial Technology

According to Bintarto (2018), financial technology is a digital financial service that allows payments without requiring physical contact. This innovation transforms traditional transaction systems within society. The benefits of financial technology include increased transparency and the ability to monitor funds digitally in real-time. Financial technology indicators discovered by Davis (1989) include usefulness and easiness of be understood and be used for transactions, benefits felt by consumers.

Internal Locus of Control

Marsela and Supriatna (2019) define locus of control as the ability to organize and direct oneself toward a positive path. This path can then be developed and applied in life, including adapting to environmental conditions. Self-control is essential for humans, as they are social beings who depend on one another. Internal locus of control indicators discovered by Kholilah dan Iramani (2013) include financial decision-making ability, feelings in living life, ability to change important things in life, ability to realize ideas, level of confidence in the future, ability to solve financial problems.

Income

Income refers to the monthly or daily earnings received by an individual for their work or performance. Hestanto (2019) explains that income can be defined as the total earnings an individual gains from their work, calculated annually or monthly.

Hypothesis Development

The Influence of Financial Knowledge on Financial Behavior

According to the OECD (2014), financial knowledge encompasses knowledge and understanding of financial concepts and risks, along with the skills, motivation, and confidence to apply this knowledge for decision-making across various financial aspects. This promotes individual or collective financial well-being and enables active economic participation. Greater financial knowledge is likely to lead to better financial decisions, resulting in efficient, improved, and responsible financial management. Research by Siswanti and Halida (2020), Hwang, H., & Park, H. I. (2023) indicate that financial knowledge has positif relationship with financial management behavior.

H1: Financial knowledge has a positive influence on financial behavior

The Influence of Spiritual Intelligence on Financial Behavior
Individuals with high spiritual intelligence tend to be flexible, guided by vision and mission, avoid unnecessary harm, and recognize interconnectedness. This intelligence aids responsible financial behavior, such as sound money management and wise spending. Those with high spiritual intelligence are more likely to pay bills on time and allocate funds for investments. Research by Arganata and Lutfi (2019) and Rahmayanti (2023) indicates that spiritual intelligence positively affects financial behavior.
H2: Spiritual intelligence has a positive influence on financial behavior

The Influence of Lifestyle on Financial Behavior
Female entrepreneurs in MSMEs who adopt trends, such as purchasing branded bags or clothing, often require more money to support their lifestyle choices. This can lead to spending that prioritizes lifestyle over financial investments or insurance, resulting in poor financial behavior. Research by Gunawan and Chairani (2019) and Pham, Yap, and Dowling (2012) found that a consumerist lifestyle, such as brand-oriented spending and fashion trends, contributes to poor financial behavior, including excessive debt and limited savings.
H3: Life style has a negative influence on financial behavior

The Influence of Financial Technology on Financial Behavior
The rapid development of financial technology, especially the use of e-wallets, makes transactions easier, more practical, and cost-effective. On the other hand, financial technology expands access to financial services, such as online lending. However, if not managed properly, advancements in financial technology can lead to new financial problems. The ease of transactions, discounts, and cashbacks can encourage overspending. Research by Purwanto et al. (2022) shows that financial technology negatively influences financial behavior.
H4: Financial technology has a negative influence on Financial Behavior

The Influence of Internal Locus of Control on Financial Behavior
Internal locus of control relates to self-regulation, including how individuals manage habits, impulses, and desires. Strong self-control enables individuals to discern beneficial from detrimental actions. Those with good self-control are more likely to manage finances responsibly. In contrast, poor self-control hampers effective financial management. Wicaksono and Nuryana (2020) and Rahmayanti (2023) found that self-control positively affects financial management behavior.
H5: Internal locus of control has a positive influence on financial behavior

The Influence of Income on Financial Behavior
Individuals with high incomes are more likely to allocate their earnings toward fulfilling personal desires, which can lead to financial behavior that exceeds reasonable limits. Conversely, those with lower incomes have limited funds, which must often cover essential needs. High demand on limited income can deplete resources, leaving little room for investment or insurance. Findings by Andrew and Linawati (2014) and Fitri and Ibrahim (2023) suggest that income has positive effect on financial behavior.
H6: Income has a positive influence on financial behavior

Income Moderates the Relationship between Financial Knowlegde and Financial Behavior

When individuals possess strong financial knowledge and enjoy a high income, they tend to display favorable financial behavior. High-income individuals are likely to plan their finances by prioritizing savings or investments, leading to stable financial conditions. On the other hand, individuals with moderate financial knowledge and low income tend to prioritize obligations, such as timely debt payments, while saving any remaining funds.

H7: Income moderates the relationship between financial knowledge and financial behavior.

3. RESEARCH METHODS

The type of research used is basic research and causal research because it explains the effect of the independent variable (financial knowledge, spiritual intelligence, life style, financial technology, locus of control on the dependent variabel (financial behavior). This research used income as moderating variable.

Variable Measurement

Financial Behavior

The item scale used to measure financial behavior consists of 7 questions. The dimensions and statements related to financial behavior were adapted from Hilgert et al. (2003) which include paying bills on time, paying bills periodic, making spending plan, using some money for savings or investment, emergency funds, pension funds, and for insurance.

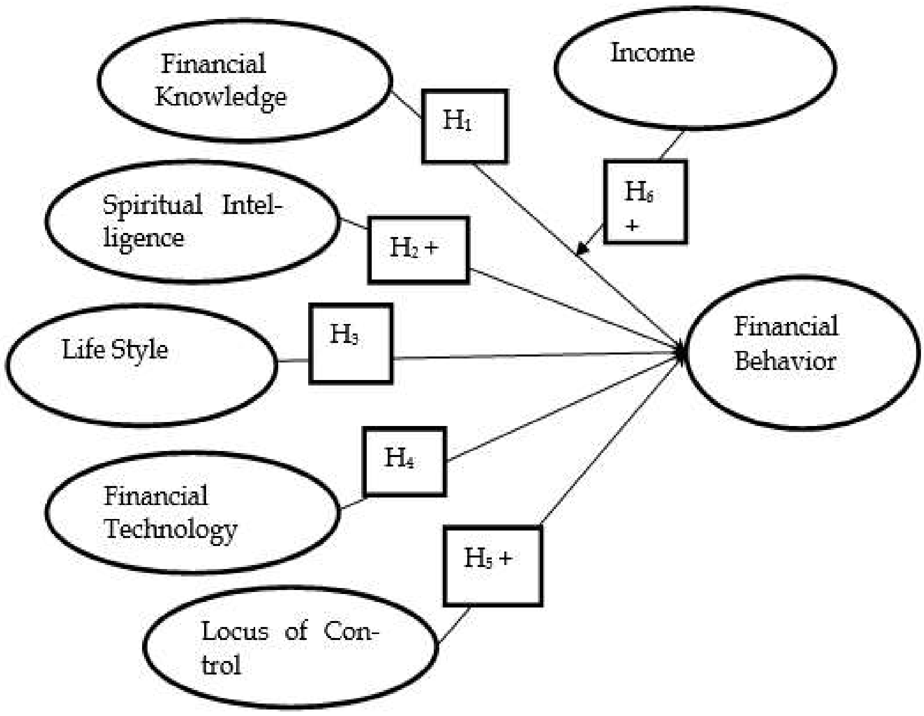

Figure 1
Research Chart

Financial Knowledge
The item scale used to measure financial knowledge consists of 10 questions. The statements were modified and adapted from Chen and Volpe (1998) which include basic personal finance, saving and borrowing, insurance, and invensment.

Spiritual Intelligence
The item scale used to measure spiritual intelligence consists of 6 questions. The statements were modified and adapted from Arganata & Lutfi (2019) which include have good behavior to take time to pray, have good behavior in living life according to the religion that is believed, have good behavior in considering that religion is very important to answer questions about the meaning of life, have good behavior in approaching life based on the religion that is believed, have good behavior in carrying out worship to get protection from God, have good behavior in interpreting prayer.

Lifestyle
The item scale used to measure lifestyle consists of 7 questions. The statements were modified and adapted from Shinta and Lestari (2019) which include pattern of following the latest trends and fashion, people's views, views about branded goods.

Financial Technology
The item scale used to measure financial technology consists of 7 questions. The statements were modified and adapted from Davis (1989) include usefulness and easiness of be understood and be used for transactions, benefits felt by consumers.

Internal Locus of Control
The item scale used to measure internal locus of control consists of 7 questions. The statements were modified and adapted from Kholilah and Irmani (2013) which include financial decision-making ability, feelings in living life, ability to change important things in life, ability to realize ideas, level of confidence in the future, ability to solve financial problems.

Income
Income indicators are based on the minimum wage in Yogyakarta Province, which is Rp2,125,897.61, and the minimum wage in Surakarta, which is Rp2,269,070, with further breakdowns as follows:

Table 1
Income Indicators

Indicator					
	IDR 1.900000-3.900.000	IDR 3,900,001-5.900.000	IDR 5,900,001-7,900,000	IDR 7.900.001–9.900000	> IDR 9.900.000
Score	1	2	3	4	5

Source: Processed Data

Validity and Reliability Testing of the Research

Validity testing is conducted using the loading factor value, with the criterion that the loading factor should be greater than 0.70. Reliability testing is performed using composite reliability and Cronbach's alpha values, with the criterion that both composite reliability and Cronbach's alpha should be greater than 0.60.

Data Analysis Techniques

The inferential analysis used in this study is Structural Equation Modelling-Partial Least Square (SEM-PLS) utilizing SmartPLS software. The steps in testing with the SEM-PLS analysis technique are as follows:

Model Conceptualization

The conceptualization of the model in this research is:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 (LK^*I) + e$$

Notes:

Y: financial behavior; β_0, β_1, β_2, β_3, β_4, β_5, β_6, β_7,: regression coefficient; X_1: financial knowledge; X_2: spiritual intelligence; X_3: life style; X_4: Fincancial technology; X_5: Internal Locus of Control; X_6: Income; e: error

Evaluation of the Outer Model

The evaluation of the outer model is measured using convergent validity, discriminant validity, and composite reliability. Convergent validity is assessed by considering the loading factor value and Average Variance Extracted (AVE). The loading factor should be ≥ 0.70. If it falls between 0.40 and 0.70, it may still be considered for removal only if deleting the indicator leads to an increase in composite reliability (or AVE) above the recommended threshold value (Hair et al., 2017).

Evaluation of the Inner Model

The inner model aims to determine the relationships between independent variables and the dependent variable. Evaluation of the inner model can begin by examining the R^2 value for each endogenous latent variable as an indicator of the structural model's predictive strength. The measurement of the structural model is summarized in Table 2.

Hypothesis Testing

Hypothesis testing is carried out by comparing the p-value with alpha (5%). Acceptance and rejection criteria are as follows:

H0 is accepted : P-Value ≥ 0.05; H0 is rejected: P-Value ≤ 0.05

Table 2
Structural Model Measurements

	Rule of thumb		
Criteria	strong model	medium model	weak model
Adjusted R-Square	≤ 0.69	≤ 0.33	≤ 0.19

Source: (Hair *et al.*, 2017)

4. DATA ANALYSIS AND DISCUSSION

The subjects in this study are individuals who work as small and medium enterprises (SMEs) residing in Solo and Yogyakarta. The distribution of the questionnaire was conducted both offline and online. The offline distribution involved directly seeking respondents in Solo and Yogyakarta, while the online distribution utilized Google Forms shared on social media platforms such as WhatsApp and Instagram. The respondent data that met the criteria included: 1. Female SME entrepreneurs; 2. Residing in Solo and Yogyakarta; 3. Using e-wallets. The process for the number of questionnaires is as follows: 1. A total of 462 questionnaires were filled out, with 4 questionnaires deemed unusable, resulting in 458 questionnaires available for processing. Ultimately, 450 questionnaires were processed.

After examining the data, it can be concluded that 100% of the respondents are women who work as small and medium enterprises (SMEs). The majority of the respondents are over 35 years old, accounting for 44.75%, while 34.5% are aged between 25 and 35 years, and 20.75% are under 25 years old. Among the respondents, 90.25% are married, and 9.75% are single. The majority have a high school/vocational education level, making up 64.75%, followed by 18.5% with elementary education, 13.25% with a diploma, and 3.5% holding a bachelor's degree. Regarding monthly income, most respondents (55,25%) have an income between Rp1.900.000 until Rp3.900.000.

This reasearch also evaluate outer model for small samples (50 respondents). The evaluation of the outer model is conducted to test the validity and reliability of the question items. The validity test uses loading factor values, while the reliability test utilizes composite reliability and Cronbach's alpha values. Appendix 1 presents the validity and reliability test results for the small sample of 50 respondents. The result shows that all indicators for each variable have loading factor values above 0.7. Additionally, for composite reliability and Cronbach's alpha, all variables have values above 0.6. Based on these results, it can be concluded that the indicators and variables used meet the validity and reliability tests.

To the next step, this research is also evaluate outer model for large sample (400 respondents). Appendix 2 shows that all indicators for each variable have loading factor values above 0.7. For the composite reliability and Cronbach's alpha values, all variables have values above 0.6. From these test results, it can be concluded that the indicators and variables used meet the validity and reliability tests. The next analysis is the inner model evaluation. The R square test is conducted to determine the actual effect of variable X on variable Y. The results of the R square test are presented in Table 3.

Table 3
R-Square Value

	R adjusted Square
PK	0,729

Source: Processed Data

In Table 3, it can be concluded that financial behavior has an R-square of 0.729, indicating that 72.9% of the financial behavior variable is influenced by the variables of financial knowledge, spiritual intelligence, lifestyle, financial technology, internal locus of control, and income. In comparison, other variables outside the study influence the remaining 27.1%. Table 22 presents the results of the hypothesis testing using SmartPLS 4.1.0.3. Explanation of Table 4 Regarding the testing results:

The Effect of Financial Knowledge on Financial Behavior

Table 4 shows a path coefficient of 0.026, indicating a positive effect with a t-statistic result of 0.943 and a P value of 0.173. The results of the testing prove that H1 is rejected and H0 is accepted because the t-statistic is less than 1.96 and the P value is greater than 0.05, leading to the conclusion that financial knowlege does not influence the financial behavior of female MSMEs residing in Solo and Yogyakarta. This suggests that a higher level of financial knowledge does not necessarily result in better financial behavior among female MSMEs.

The results of the testing indicate that financial knowledge does not impact the financial behavior of female SMEs residing in Solo and Yogyakarta. This suggests that a higher level of financial knowledge in a female SME does not necessarily lead to better financial behavior. Conversely, if someone has poor financial knowledge, it does not determine whether they are incapable of managing their finances well.

In some segments of society, a person's savings may not necessarily imply that they understand the benefits of saving. This could occur because saving has become a commonplace activity in society. Similarly, someone with an insurance product may only sign up for a certain insurance product that most people have without knowing about other types of insurance, or someone who understands credit and the risks associated with late payments may still choose to make payments after the due date, possibly because they prioritized other urgent needs first.

The results of this study do not align with the research by Siswanti and Halida (2020), which states that financial knowledge significantly influences financial management behavior. However, this study's findings are consistent with the research by Arganata and Lutfi (2019), which demonstrated that the financial knowledge does not have a partial effect on financial behavior.

Table 4
Path Coefficients

Information	Original Sample	T Statistic	P Values	Test Results
LK→PK	0,026	0,943	0,173	H0 is accepted
FT→PK	-0,300	6,761	0,000	H0 is rejected
I→PK	0,010	0,355	0,361	H0 is accepted
GH→PK	-0,319	6,537	0,000	H0 is rejected
LC→PK	0,215	4,329	0,000	H0 is rejected
S→PK	0,192	4,230	0,000	H0 is rejected
I*FK→PK	0,074	2,426	0,008	H0 is rejected

Source: Processed Data

The Effect of Financial Technology on Financial Behavior

Table 4 shows a path coefficient of -0.300, indicating a negative effect with a t-statistic of 6.761 and a P value of 0.00. The results of the testing prove that H1 is accepted and H0 is rejected because the t-statistic is greater than 1.96 and the P value is less than 0.05, leading to the conclusion that financial technology negatively influences the financial behavior of female MSMEs residing in Solo and Yogyakarta. This indicates that a higher usage of financial technology among female MSMEs leads to poorer financial behavior.

The results of the testing show that financial technology has a negative influence on financial behavior, meaning that if someone uses financial technology improperly, it will adversely affect their financial behavior. The rapid advancement of financial technology, especially the use of e-wallets, makes transactions easier because it is more practical and can save transaction costs. On the other hand, financial technology opens up financial access, such as online loans. The rapid growth of financial technology, if not handled properly, can lead someone to new problems. Likewise, the ease of transactions offered, along with discounts and cashback when transacting, can lead someone to become more extravagant in spending if not managed properly. The results of this study are consistent with Purwanto et al. (2022), which indicates that financial technology has a negative impact on financial behavior.

The Effect of Income on Financial Behavior

Table 4 shows a path coefficient of 0.010, indicating a positive effect with a t-statistic of 0.355 and a P value of 0.361. The testing results prove that H1 is rejected and H0 is accepted because the t-statistic is less than 1.96 and the P value is greater than 0.05. This leads to the conclusion that income does not positively influence the financial behavior of female MSMEs residing in Solo and Yogyakarta. This suggests that a higher income does not necessarily lead to better financial behavior among female MSMEs.

The results of the testing indicate that income does not influence financial behavior, meaning that having a high income does not guarantee that a person will exhibit good financial behavior. A person with a high income is more likely to use that income to fulfill their desires, leading to financial behavior that exceeds limits. Conversely, a person with low income will have limited funds, even though that money needs to cover many needs. If there are many needs to meet, the money will run out, leaving no opportunity to invest or have insurance. Based on tables 17 and 18, the majority of female SMEs residing in Solo and Yogyakarta have a monthly income of IDR 1,900,000 to IDR 3,900,000, with 241 respondents or 60.25%. This finding indicates that the monthly income of female SMEs in Solo and Yogyakarta is relatively low, but above the minimum wage of Solo and Yogyakarta. This study's results are in line with the research by Putri and Andayani (2022), which mentions that income does not affect financial behavior.

The Effect of Lifestyle on Financial Behavior

Table 4 shows a path coefficient of -0.319, indicating a negative effect with a t-statistic of 6.537 and a P value of 0.000. The results of the testing prove that H1 is accepted and H0 is rejected because the t-statistic is greater than 1.96. The P value is less than 0.05, leading to the conclusion that lifestyle negatively influences the financial behavior of female MSMEs residing in Solo and Yogyakarta. This indicates that a higher lifestyle following trends or fashions among female MSMEs results in poorer financial behavior.

The results of the testing reveal that lifestyle negatively influences the financial behavior of female SMEs residing in Solo and Yogyakarta. This indicates that the higher a female SME's lifestyle, characterized by following trends or fashions, the worse her financial behavior will be. Female SMEs who maintain a lifestyle by following trends, such as owning branded bags and clothing and having a wide variety of items, will require more money to satisfy those desires. This will result in more money being spent on lifestyle than on investments or insurance. This leads to poor financial behavior. The results of this study align with research by Gunawan and Chairani (2019) and Pham, Yap, and Dowling (2012), which found that a consumptive lifestyle, such as a preference for branded items and following fashion trends, results in poor financial behavior, such as excessive debt and insufficient savings.

The Effect of Internal Locus of Control on Financial Behavior

Table 4 shows a path coefficient of 0.215, indicating a positive effect with a t-statistic of 4.329 and a P value of 0.000. The testing results prove that H1 is accepted and H0 is rejected because the t-statistic is greater than 1.96 and the P value is less than 0.05. This leads to the conclusion that internal locus of control positively influences the financial behavior of female MSMEs residing in Solo and Yogyakarta. This suggests that a higher internal locus of control among female MSMEs results in better financial behavior.

The testing results indicate that the internal locus of control positively influences the financial behavior of female SMEs residing in Solo and Yogyakarta. This means that the higher the internal locus of control in a female SME, the better her financial behavior will be. The internal locus of control relates to self-control originating from within a person, such as how one acts and controls habits, impulses, and desires. A person with good self-control can distinguish between what is good and bad for themselves. Good self-control leads to better financial management behavior. However, a person needs better self-control to be able to manage their finances well. The results of this study are consistent with research by Wicaksono and Nuryana (2020), which found that self-control positively influences financial management behavior.

The Effect of Spiritual Intelligence on Financial Behavior

Table 4 shows a path coefficient of 0.912, indicating a positive effect with a t-statistic of 4.230 and a P value of 0.000. The testing results prove that H1 is accepted and H0 is rejected because the t-statistic is greater than 1.96 and the P value is less than 0.05. This leads to the conclusion that spiritual intelligence positively influences the financial behavior of female MSMEs residing in Solo and Yogyakarta. This suggests that a higher level of spiritual intelligence among female MSMEs results in better financial behavior.

The study results show that spiritual intelligence positively influences financial behavior. Spiritual intelligence is the highest form of intelligence rooted in human beings. Spiritual awareness relates to a person's ability to find meaning in everything as a path to achieve both physical and spiritual happiness. Spiritual intelligence can awaken and encourage a person's soul to consistently act according to prevailing ethics.A person with good spiritual intelligence will have the ability to be flexible, a quality of life inspired by vision and mission, a reluctance to cause unnecessary harm, and a tendency to see the connections between various matters. Good spiritual intelligence helps someone in their financial behavior, such as managing finances correctly and using money wisely, so a person with good spiritual intelligence will be able to pay bills on time and consistently set aside money for investment. The findings of this study are consistent with the research by Arganata and Lutfi (2019), which states that spiritual intelligence positively influences financial behavior.

Income Moderates Financial knowledge and Financial Behavior

Table 4 shows that financial knowledge has no effect on financial behavior. The condition for do a moderation test is that financial knowledge must have partial effect on financial behavior. Because these conditions cannot be met, the moderation test cannot be carried out.

This leads to the conclusion that income can not moderate the relationship between financial knowledge and financial behavior of female MSMEs residing in Solo and Yogyakarta. The study results indicate that a higher level of financial knowledge in a female SME does not necessarily lead to better financial behavior. Conversely, if someone has poor financial knowledge, it does not determine whether they are incapable of managing their finances well. The survey shows female MSMEs residing in Solo and Yogyakarta has a medium level of financial knowledge.

It will have an impact on bad financial behavior. The lowest score is obtained knowledge about risk diversification. They do not know how to reduce risk by using portfolio diversification. This will have an impact on the suboptimal activities related to investment and the results obtained from investing. Having a high income and good financial knowledge is the main basis for managing one's income well and effectively to achieve financial well-being. Individuals with better financial knowledge tend to behave more responsibly financially (Hilgert, Hogarth, and Beverly, 2003). If someone has good financial knowledge and is supported by a high income, their financial behavior will be good. Individuals with a high-income level tend to plan their finances more effectively, opting to save or invest, which will lead to stable financial conditions. However, if someone has sufficient financial knowledge but a low income, they will prioritize their obligations, such as paying debts on time, before setting aside any excess for savings.

5. CONCLUSIONS, IMPLICATIONS, SUGGESTIONS AND LIMITATIONS

This study aims to investigate the influence of financial knowledge, spiritual intelligence, lifestyle, financial technology, internal locus of control, and income as a moderating variable on financial behavior. The sample used in this research consists of female SMEs residing in Solo and Yogyakarta who use financial technology. Based on the predetermined sample criteria, 458 respondents were obtained who met the criteria. Out of the 458 respondents, 50 were used as a small sample and 400 as a large sample. Based on the analysis conducted, the following results were obtained and can be concluded: 1. Financial knowledge and income do not influence financial behavior; 2. Financial technology and lifestyle have a negative influence on financial behavior; 3. Locus of control and spiritual intelligence positively influence financial behavior; 4. Income can moderate and strengthen the relationship between financial knowledge and financial behavior.

The limitation of this study is researcher could not reach all respondents in various districts in the Solo area, such as Sragen, Wonogiri, Sukoharjo, and Boyolali, and respondents from various districts in Yogyakarta, such as Gunung Kidul and Kulon Progo. These results have implications for the financial behavior of women who work as MSME entrepreneurs to improve their financial knowledge so that they become better and wiser in their financial behavior. Based on this research, several suggestions are provided: 1. If researching financial behavior, it is advisable to include respondents who also manage finances in the sample criteria; 2. Consider adding intention to behave as a mediating variable, as behavioral intention serves as the basis for taking action or making decisions.

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Appendix 1. Validity and Reliability Test Result for Small Sample

Variable	Item	Validity Test	Reliability Test	
		Factor Loading	Composite Reliability	Cronbach's Alpha
Financial Behavior	PK1	0,8282	0,700	0,929
	PK2	0,8664		
	PK3	0,8033		
	PK4	0,8720		
	PK5	0,8392		
	PK6	0,8427		
	PK7	0,8034		
Lifestyle	GH1	0,8243	0,738	0,941
	GH2	0,7939		
	GH3	0,8342		
	GH4	0,8914		
	GH5	0,8737		
	GH6	0,9032		
	GH7	0,8860		
Internal Locus of Control	LC1	0,8686	0,685	0,924
	LC2	0,8069		
	LC3	0,7174		
	LC4	0,8483		
	LC5	0,8417		
	LC6	0,8383		
	LC7	0,8620		
Financial Knowledge	LK1	0,7641	0,621	0,911
	LK2	0,7609		
	LK3	0,7391		
	LK4	0,7177		
	LK5	0,7349		
	LK6	0,7028		
	LK7	0,7256		
	LK8	0,7263		
	LK9	0,7353		
	LK10	0,8083		
Spiritual Intelligence	S1	0,7319	0,659	0,896
	S2	0,7901		
	S3	0,7876		
	S4	0,8669		
	S5	0,9134		
	S6	0,7666		

Variable	Item	Validity Test	Reliability Test	
		Factor Loading	Composite Reliability	Cronbach's Alpha
Financial Technology	FT1	0,8411	0,734	0,91
	FT2	0,8616		
	FT3	0,8793		
	FT4	0,8547		
	FT5	0,8474		
Income		Not Tested		

Source: Processed Data

Appendix 2. Validity and Reliability Test Result for Large Sample

Variable	Item	Validity Test	Reliability Test	
		Factor Loading	Composite Reliability	Cronbach's Alpha
Financial Behavior	PK1	0,869	0,730	0,938
	PK2	0,857		
	PK3	0,865		
	PK4	0,800		
	PK5	0,822		
	PK6	0,863		
	PK7	0,903		
Lifestyle	GH1	0,775	0,687	0,924
	GH2	0,828		
	GH3	0,842		
	GH4	0,828		
	GH5	0,891		
	GH6	0,832		
	GH7	0,801		
Internal Locus of Control	LC1	0,797	0,622	0,889
	LC2	0,781		
	LC3	0,784		
	LC4	0,780		
	LC5	0,796		
	LC6	0,786		
	LC7	0,796		

Variable	Item	Validity Test	Reliability Test	
		Factor Loading	Composite Reliability	Cronbach's Alpha
Financial Knowledge	LK1	0,703	0,610	0,897
	LK2	0,717		
	LK3	0,710		
	LK4	0,727		
	LK5	0,708		
	LK6	0,724		
	LK7	0,710		
	LK8	0,709		
	LK9	0,716		
	LK10	0,714		
Spiritual Intelligence	S1	0,858	0,655	0,895
	S2	0,779		
	S3	0,793		
	S4	0,819		
	S5	0,798		
	S6	0,809		
Financial Technology	FT1	0,802	0,683	0,884
	FT2	0,842		
	FT3	0,827		
	FT4	0,831		
	FT5	0,830		
Income		Not Tested		

Source: Processed Data