

From Access to Behavior: How Digital Financial Inclusion Shapes Sustainable Financial Practices via Cognitive Financial Framing among Coastal MSMEs

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Article Info

Article history:

Received May, 2026

Revised May, 2026

Accepted May, 2026

Keywords:

Digital Financial Inclusion
Cognitive Financial Framing
Sustainable Financial Practices
Behavioral Life-Cycle
Hypothesis
Coastal MSMEs

ABSTRACT

This study examines how digital financial inclusion influences sustainable financial practices through cognitive financial framing among coastal MSMEs in Maluku. Although access to digital financial services has expanded significantly, many MSMEs still struggle to translate this access into disciplined and long-term financial behavior. This research adopts a quantitative explanatory approach using data from 342 respondents and analyzes the relationships using SEM-PLS. The findings reveal that digital financial inclusion has a significant positive effect on cognitive financial framing, which in turn strongly influences sustainable financial practices. While digital financial inclusion also directly affects financial behavior, its impact is weaker compared to the indirect effect through cognitive mechanisms. These results indicate that access alone is insufficient to drive behavioral change without adequate cognitive capacity in managing financial resources. The study highlights the importance of integrating behavioral finance perspectives, particularly the Behavioral Life-Cycle Hypothesis, to explain how financial decisions are shaped over time. The findings provide both theoretical and practical implications for designing more effective financial inclusion policies.

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1. INTRODUCTION

Digital financial inclusion has evolved into a strategic instrument for expanding access to formal financial services, particularly for micro, small, and medium enterprises MSMEs located in remote regions such as Maluku. The advancement of digital technologies, including mobile banking, digital wallets, and fintech services, is conceptually capable of reducing classic barriers such as geographical isolation across archipelagic areas, high transaction costs, and

limited infrastructure of formal financial institutions [1], [2], [3], [4]. However, the primary issue that arises in the context of coastal MSMEs in Maluku is that this increased access remains largely administrative and has not yet addressed the substantive dimensions of financial management. Many business actors already have access to digital financial services but do not understand how to utilize them for long term financial planning [5], [6], [7]. This condition indicates that the expansion of

access has not been accompanied by an improvement in financial management capacity, thereby limiting the benefits of digital financial inclusion and failing to drive significant behavioral change.

Despite the increasing accessibility of digital financial services, coastal MSMEs in Maluku continue to face serious challenges in achieving sustainable financial practices. The characteristics of archipelagic regions, which are highly dependent on natural conditions, result in highly volatile and unstable income streams, thereby encouraging short term financial orientations [8], [9], [10], [11]. In practice, most MSME actors tend to allocate their income toward immediate consumption without clear planning or allocation for savings and investment. In addition, low financial literacy and the lack of consistent financial record keeping practices further exacerbate this condition, as business actors lack sufficient information to manage cash flow effectively. The core problem lies not only in limited access to financial services but also in the inability to internalize disciplined and structured financial practices, making business sustainability highly vulnerable to economic shocks [12], [13], [14].

The fundamental issue in the context of coastal MSMEs in Maluku lies in the evident gap between financial access and financial behavior. While digital financial inclusion provides convenience in conducting transactions and opens opportunities to access various formal financial services, it does not automatically transform the financial decision making patterns of business actors [15], [16], [17], [18]. External access is often not accompanied by changes in mindset, habits, or the capacity to manage finances rationally. As a result, MSME actors remain trapped in short term financial cycles characterized by low savings levels, the absence of investment, and dependence on daily income [19]. This condition demonstrates that the benefits of digital financial inclusion are often suboptimal, as they fail to address the root problem namely the weak capacity for long term financial behavior.

To understand this gap, this study refers to the Behavioral Life-Cycle Hypothesis,

which explains that individual financial decisions are influenced not only by the availability of resources but also by the ability to allocate and manage those resources over time [20], [21]. This theory emphasizes the importance of intertemporal consumption and savings management, where individuals are expected to balance present needs with future goals. However, in the context of coastal MSMEs, the assumption of rationality embedded in this theory is often unmet due to cognitive limitations, economic pressures, and income uncertainty [22], [23]. Consequently, even when access to financial services is available, business actors are not yet able to utilize it optimally to achieve long term financial stability. This highlights the need for a more comprehensive approach to explain how financial access can be translated into sustainable behavior.

From an academic perspective, this condition reveals a significant research gap, particularly in linking financial access with the underlying behavioral mechanisms. Most previous studies have focused on increasing access and usage of digital financial services, yet they remain limited in explaining how such access can drive sustainable financial behavior [24]. In this context, the concept of mental accounting introduced by Richard Thaler becomes highly relevant as a form of cognitive financial framing that explains how individuals categorize, control, and evaluate their financial usage. The primary issue is that MSME actors often lack adequate cognitive structures for managing finances, resulting in suboptimal utilization of available financial access. This limitation represents a critical gap that must be addressed to better understand the relationship between access and behavior in a more comprehensive manner.

Based on this background, this study aims to analyze how digital financial inclusion influences sustainable financial practices among coastal MSMEs in Maluku through the mechanism of cognitive financial framing. This research is grounded in the premise that access to digital financial services does not automatically lead to behavioral change but requires an internal process that mediates this relationship. Accordingly, the primary focus

of this study is to identify how cognitive mechanisms can transform access into more disciplined, structured, and long term oriented financial behavior. The emphasis on the context of coastal MSMEs is particularly important due to their unique and complex characteristics, thereby providing more contextually grounded empirical contributions to the financial literature.

This study offers significant contributions both theoretically and contextually. Theoretically, it enriches the literature by integrating the perspectives of financial inclusion and behavioral finance in explaining the relationship between access and financial behavior. Contextually, it specifically highlights coastal MSMEs in Maluku, which face multiple constraints, including geographical challenges, income volatility, and low financial literacy. The main issue addressed in this study is how to ensure that digital financial inclusion does not stop at merely increasing access but is also capable of generating sustainable financial behavior. Therefore, the findings of this study are expected to provide practical implications for the formulation of more effective and behaviorally informed policies, ultimately enhancing the long term economic resilience of MSMEs.

2. LITERATURE REVIEW

2.1 *Behavioral Life-Cycle Hypothesis and Research Framework*

This study is grounded in the Behavioral Life-Cycle Hypothesis, which emphasizes that individual financial behavior is determined not only by the availability of resources but also by the ability to allocate and manage those resources intertemporally [25], [26]. This theory extends the classical life cycle approach by incorporating behavioral dimensions, particularly bounded rationality, self control, and cognitive processes in financial decision

making. Within this framework, individuals are assumed to allocate resources across different categories such as consumption, savings, and investment, while simultaneously facing conflicts between short term needs and long term objectives. Therefore, this theory provides a strong foundation for understanding why access to financial resources does not always lead to optimal financial behavior.

In relation to the research title *From Access to Behavior How Digital Financial Inclusion Shapes Sustainable Financial Practices via Cognitive Financial Framing among Coastal MSMEs*, this theory explains that digital financial inclusion functions as an external enabling factor that provides access to financial instruments but does not automatically transform financial behavior. The transformation from access to behavior depends heavily on how individuals process, categorize, and allocate financial resources within a specific cognitive framework, which in this study is represented as cognitive financial framing [27], [28]. In other words, the theory asserts that the relationship between digital financial inclusion and sustainable financial practices is indirect, as it is shaped by internal mechanisms that determine how financial decisions are made and implemented in daily practice.

Furthermore, in the context of coastal MSMEs in Maluku, the relevance of this theory becomes even more pronounced due to the unstable and uncertain economic conditions faced by business actors. Fluctuating

income and short term economic pressures make it difficult for MSMEs to apply the principle of consumption smoothing as assumed in classical theory. Without adequate cognitive mechanisms, such as the ability to frame and manage finances systematically, access to digital financial services may instead be used to support short term consumption needs [29], [30], [31]. Therefore, this study positions cognitive financial framing as a key element that bridges the gap between access and behavior, while also extending the application of the Behavioral Life Cycle Hypothesis in the context of coastal MSMEs, which possess unique characteristics and remain underexplored in the financial literature.

2.2 Digital Financial Inclusion

Digital financial inclusion refers to the availability and utilization of formal financial services supported by digital technology, enabling previously underserved populations to connect with the financial system. This concept is commonly measured through three main dimensions, namely access, usage, and quality. The access dimension reflects the extent to which business actors can reach digital financial services, while usage indicates the frequency and intensity of their utilization, and quality represents the effectiveness of these services in meeting users financial needs [32], [33]. In the context of coastal MSMEs in Maluku, digital financial inclusion serves as a solution to geographical constraints and limited formal financial infrastructure. However, a key

issue arises from the imbalance between increased access and the quality of utilization. Many business actors already have access to digital financial services, yet their use remains limited to basic transactional activities without being leveraged for strategic financial planning and control.

Within the framework of the Behavioral Life-Cycle Hypothesis, access to financial instruments is a crucial prerequisite for individuals to manage consumption and savings intertemporally [1], [5]. In this regard, digital financial inclusion functions as an enabling factor that provides the means for managing finances across time. However, in practice, such access does not automatically lead to optimal financial behavior, as individuals are not always capable of processing financial information rationally [6], [16], [18]. Therefore, digital financial inclusion should not be viewed solely as a provider of access, but also as a factor that potentially influences how individuals cognitively frame and manage their finances. Consequently, increased digital access is expected to strengthen the ability of MSME actors to categorize and allocate financial resources in a more structured manner.

H1: Digital financial inclusion positively affects cognitive financial framing.

2.3 Sustainable Financial Practices

Sustainable financial practices refer to financial management behavior that is carried out in a disciplined, well planned, and long term oriented manner to maintain business stability and growth [7], [8]. This

concept includes cash flow management, saving habits, and long term investment as key elements in building financial resilience. In the context of coastal MSMEs in Maluku, sustainable financial practices are particularly critical due to the high income volatility influenced by natural conditions and market uncertainty. The ability to manage finances systematically not only functions as a control mechanism but also serves as an adaptive strategy to cope with significant economic risks [11], [13], [14].

However, the main issue faced is the low level of implementation of sustainable financial practices among coastal MSME actors. Many business owners still lack adequate financial recording systems and are unable to clearly separate business finances from personal finances. This condition leads to unstructured financial decision making that tends to be reactive to short term needs. From the perspective of the Behavioral Life-Cycle Hypothesis, this situation reflects a failure in achieving consumption smoothing, where individuals are unable to optimally allocate resources over time [2], [10], [17]. Therefore, a cognitive mechanism is required to promote discipline in financial management.

H2: Cognitive financial framing positively affects sustainable financial practices.

2.4 Cognitive Financial Framing (Behavioral Finance Perspective)

Cognitive financial framing is an extension of the concept of mental accounting within the behavioral finance perspective,

which explains how individuals construct, categorize, and evaluate financial information within a specific cognitive framework. This concept is rooted in the ideas of Richard Thaler, who emphasizes that financial decisions are not entirely rational but are influenced by how individuals frame and interpret money [24], [29]. In practice, individuals tend to divide financial resources into specific categories such as consumption, savings, and investment, each governed by different usage rules. This process forms the foundation of financial behavior, particularly in controlling expenditures and planning for the long term [26], [27], [33].

In the context of coastal MSMEs in Maluku, cognitive financial framing becomes a crucial factor in determining the effectiveness of digital financial inclusion utilization. The main issue that often arises is the absence of a systematic way of thinking in financial management, making it difficult for business actors to set priorities and control cash flow [12], [20], [21]. Without a clear framing structure, access to digital financial services may instead increase consumptive behavior due to the ease of transactions. Therefore, the ability to cognitively frame financial resources becomes essential in translating access into productive behavior [9], [15], [18]. In this regard, digital financial inclusion is also assumed to have a direct effect on sustainable financial practices, although its effectiveness largely depends on

the cognitive capacity of individuals.

H3: Digital financial inclusion positively affects sustainable financial practices.

2.5 Mediation Role of Cognitive Financial Framing

Although digital financial inclusion provides broad access to various financial services, its influence on sustainable financial practices does not always occur directly. This is due to the presence of internal factors that affect how individuals process and utilize such access in financial decision making. In this context, cognitive financial framing functions as a cognitive mechanism that bridges the relationship between access and behavior [22], [32]. When MSME actors are able to systematically categorize and allocate their finances, access to digital services becomes more effective in promoting disciplined and long term oriented financial behavior [23], [25]. Conversely, without adequate framing, digital access merely increases transaction frequency without generating meaningful behavioral change.

From the perspective of the Behavioral Life-Cycle Hypothesis, this mechanism indicates that financial decisions are determined not only by the availability of resources but also by how individuals manage and allocate them over time [21], [24], [29]. Therefore, cognitive financial framing becomes a key element linking digital financial access to sustainable financial practices [13], [16], [20]. In the context of coastal MSMEs in Maluku, this mediating role is particularly important due to limited financial literacy and

high economic pressure faced by business actors. Accordingly, testing the mediating role is essential to comprehensively understand the relationships among variables

H4: Cognitive financial framing mediates the relationship between digital financial inclusion and sustainable financial practices.

3. METHODS

This study employs a quantitative approach with an explanatory research design to examine the causal relationships between digital financial inclusion, cognitive financial framing, and sustainable financial practices among coastal MSMEs in Maluku. This approach is selected because it is capable of empirically explaining the mechanism of relationships from access to behavior as formulated in the research framework. The population of the study includes all coastal MSME actors, while the sampling technique uses purposive sampling based on specific criteria, such as business actors who have utilized digital financial services. To enhance representativeness and accommodate the heterogeneity of business characteristics, a stratified sampling approach is also considered based on business type and operational region. The total number of respondents in this study is 342 MSME actors, which is considered adequate for structural model analysis and capable of reflecting complex empirical conditions, particularly related to limited access, income volatility, and variations in financial management capacity among coastal MSMEs.

Data collection is conducted through a five point Likert scale questionnaire designed to measure three main variables, namely digital financial inclusion (access, usage, quality), cognitive financial framing (categorization, control, and evaluation of finances), and sustainable financial practices (cash flow management, savings, and long term investment) [34], [35], [36]. The research instrument is developed by adapting relevant

indicators from previous studies to ensure conceptual validity and contextual suitability. The collected data are then analyzed using the Structural Equation Modeling Partial Least Squares (SEM-PLS) method, which is chosen due to its ability to analyze complex models with a predictive approach and without requiring data normality [37], [38]. The analysis process includes measurement model evaluation to assess construct validity and reliability, structural model evaluation to test relationships among variables and hypothesis significance, and mediation analysis to identify the role of cognitive financial framing as a cognitive mechanism that bridges the effect of digital financial inclusion on sustainable financial practices. This approach enables a comprehensive model testing and provides a deeper understanding of the transformation from access to behavior in the context of coastal MSMEs.

4. RESULTS AND DISCUSSION

4.1 Results

This section presents the empirical analysis results aimed at examining the

relationship between digital financial inclusion, cognitive financial framing, and sustainable financial practices among coastal MSMEs in Maluku. The analysis is conducted using the Structural Equation Modeling-Partial Least Squares (SEM-PLS) approach, which enables simultaneous testing of the model at both the measurement model and structural model levels. This approach is selected due to its ability to capture the complexity of relationships among variables within a research framework focused on the transformation from access to behavior. The results presented include the evaluation of construct validity and reliability, discriminant validity testing, and hypothesis testing to identify causal relationships among variables [37]. In addition, this section also explains the mediating role of cognitive financial framing in describing how digital financial inclusion can be translated into sustainable financial practices. Overall, this section provides a comprehensive overview of the empirical findings that serve as the basis for answering the research objectives and clarifying the gap between financial access and financial behavior among coastal MSMEs in Maluku.

Table 1. Construct Reliability and Validity

	Outer Loadings	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
CFF.1	0.894	0.942	0.956	0.812
CFF.2	0.907			
CFF.3	0.884			
CFF.4	0.919			
CFF.5	0.900			
DFI.1	0.674	0.887	0.910	0.559
DFI.2	0.764			
DFI.3	0.725			
DFI.4	0.683			
DFI.5	0.819			
DFI.6	0.828			
DFI.7	0.775			
DFI.8	0.695			
SFP.1	0.803	0.901	0.920	0.593
SFP.2	0.755			
SFP.3	0.783			
SFP.4	0.869			
SFP.5	0.851			
SFP.6	0.688			
SFP.7	0.635			
SFP.8	0.747			

Table 1 presents the results of the measurement model evaluation, including convergent validity and construct reliability tests for all research variables. Based on the outer loadings values, the majority of indicators exceed the threshold of 0.70, indicating that the indicators adequately reflect the constructs being measured. However, several indicators under Digital Financial Inclusion (DFI) and Sustainable Financial Practices (SFP) show loadings below 0.70 but remain within the acceptable range (≥ 0.60), and therefore are retained due to their contribution to the overall construct validity. In particular, the Cognitive Financial Framing (CFF) variable demonstrates very strong consistency, with all indicators showing loadings above 0.88, reflecting excellent and stable measurement quality.

From the reliability perspective, all constructs meet the required criteria, where

both Cronbach's Alpha and Composite Reliability values are above 0.70. The CFF construct records a Cronbach's Alpha of 0.942 and a Composite Reliability of 0.956, indicating a very high level of internal consistency. Similarly, DFI and SFP show Composite Reliability values of 0.910 and 0.920, respectively, confirming strong reliability in measuring the constructs. The Average Variance Extracted (AVE) values for all variables are also above the 0.50 threshold, namely 0.812 for CFF, 0.559 for DFI, and 0.593 for SFP, indicating that more than 50% of the variance in indicators is explained by the latent constructs. Therefore, it can be concluded that all constructs in this research model meet the required validity and reliability criteria in SEM-PLS analysis and are suitable for further structural model testing.

Table 2. Discriminant Validity-Heterotrait-Monotrait Ratio (HTMT)

	Cognitive Financial Framing	Digital Financial Inclusion_	Sustainable Financial Practices
Cognitive Financial Framing			
Digital Financial Inclusion_	0.700		
Sustainable Financial Practices	0.861	0.800	

Table 2 presents the results of the discriminant validity test using the Heterotrait-Monotrait Ratio (HTMT) approach to ensure that each construct in the research model exhibits an adequate level of distinction from one another. Based on the results, all HTMT values are below the recommended threshold of < 0.90 , indicating that there are no discriminant validity issues among the constructs. Specifically, the HTMT value between Cognitive Financial Framing and Digital Financial Inclusion is 0.700, suggesting a moderate relationship while still maintaining clear conceptual distinction. This indicates that although digital financial inclusion plays a role in shaping cognitive financial framing, both constructs remain empirically distinct.

Furthermore, the HTMT value between Cognitive Financial Framing and Sustainable Financial Practices is 0.861, which is still within the acceptable range, although it indicates a relatively strong relationship. This reflects that cognitive aspects are closely related to financial behavior without causing construct overlap. Meanwhile, the relationship between Digital Financial Inclusion and Sustainable Financial Practices shows an HTMT value of 0.800, indicating a fairly strong association while still satisfying discriminant validity criteria. Overall, these findings confirm that each variable in the model possesses unique characteristics and can be measured separately, thereby meeting the assumptions of discriminant validity and supporting the continuation of the research

model to the structural model evaluation stage.

Table 3. Path Coefficients

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
Cognitive Financial Framing -> Sustainable Financial Practices	0.563	0.567	0.048	11.670	0.000
Digital Financial Inclusion_ -> Cognitive Financial Framing	0.666	0.671	0.036	18.273	0.000
Digital Financial Inclusion_ -> Sustainable Financial Practices	0.376	0.374	0.055	6.796	0.000

Table 3 presents the results of the structural model testing, which demonstrates the causal relationships among the variables in this study. Based on the analysis results, all path relationships show positive and significant coefficients, as indicated by t-statistics values greater than 1.96 and p-values of 0.000. The relationship between Digital Financial Inclusion and Cognitive Financial Framing shows a coefficient of 0.666 with a t-statistics value of 18.273, indicating a positive and highly significant effect. This finding confirms that improvements in access, usage, and quality of digital financial services are able to strengthen the cognitive capacity of MSME actors in managing and allocating their finances. It reinforces the argument that digital financial inclusion functions not only as an access enabler but also as a factor that shapes more structured financial thinking.

Furthermore, the effect of Cognitive Financial Framing on Sustainable Financial Practices shows a coefficient of 0.563 with a t-statistics value of 11.670, which is also statistically significant. This result indicates that the ability of MSME actors to categorize, control, and evaluate financial usage plays an important role in fostering disciplined and long-term oriented financial practices. In this context, cognitive financial framing serves as the main mechanism explaining how

sustainable financial behavior is formed, particularly among coastal MSMEs facing economic pressure and income uncertainty. This finding is also consistent with the Behavioral Life-Cycle Hypothesis, which emphasizes the importance of internal processes in shaping intertemporal financial decision-making.

In addition, the direct relationship between Digital Financial Inclusion and Sustainable Financial Practices shows a coefficient of 0.376 with a t-statistics value of 6.796, which is also significant. Although the effect is smaller compared to the indirect path through cognitive financial framing, this result indicates that digital financial inclusion still has a direct contribution to sustainable financial behavior. However, the relatively weaker effect suggests that financial access alone is not sufficient to generate optimal behavioral change without being supported by adequate cognitive mechanisms. Overall, these findings confirm that the transformation from access to sustainable financial behavior is partial and significantly influenced by internal factors, thereby strengthening the importance of integrating access and cognitive dimensions in explaining MSME financial behavior in coastal areas.

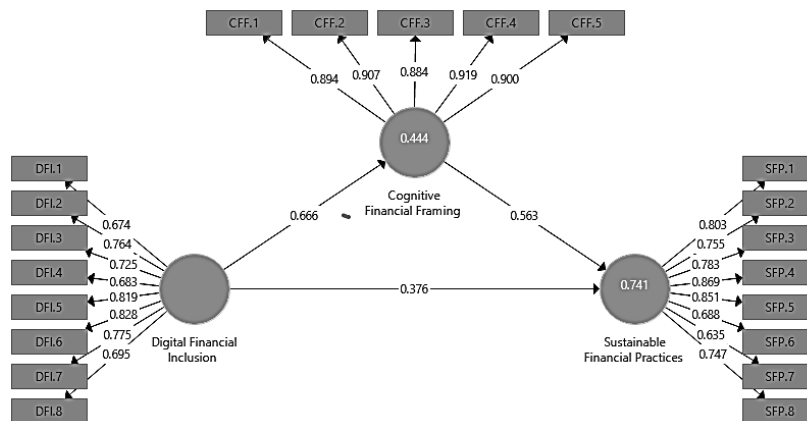


Figure 1. Research Result Model

Discussion

The findings of this study provide strong empirical evidence that the transformation from access to behavior among coastal MSMEs in Maluku does not occur automatically, but rather through a cognitive mechanism that serves as the main link. The results show that digital financial inclusion has a positive and significant effect on cognitive financial framing [10], [27], [31], [33]. This indicates that improvements in access, usage, and quality of digital financial services not only expand MSMEs’ connectivity to the formal financial system but also contribute to shaping how they think about financial management. In this context, digital access functions as an enabling factor that provides information and tools; however, its impact becomes optimal only when individuals are able to cognitively process and organize that information [2], [19], [25]. This finding strengthens the argument that the main issue among coastal MSMEs is not merely limited access, but how such access is internalized into a structured financial mindset.

Furthermore, the results show that cognitive financial framing has a significant effect on sustainable financial practices. This finding confirms that sustainable financial behavior heavily depends on the ability of MSME actors to categorize, control, and evaluate their financial usage. In the context of coastal MSMEs, which face income volatility and high economic pressure, this ability is crucial for maintaining business stability [3]. Without a clear cognitive

framework, entrepreneurs tend to make reactive and short-term financial decisions. Therefore, cognitive financial framing serves as a behavioral foundation that enables MSMEs to allocate resources more rationally and systematically, thereby supporting sustainable financial practices [8], [18].

These findings are also consistent with the Behavioral Life-Cycle Hypothesis, which emphasizes that financial decisions are not only driven by resource availability but also by the individual’s ability to manage and allocate those resources over time [16]. Within this theoretical framework, cognitive financial framing can be understood as an internal mechanism that enables consumption smoothing and the balancing of short-term needs with long-term goals. However, in the context of coastal MSMEs in Maluku, limited financial literacy and income uncertainty often hinder this process. As a result, even when digital financial access is available, MSME actors tend to remain trapped in short-term consumption patterns that are not sustainable without adequate cognitive capacity [8], [14], [16].

In addition, the results show that digital financial inclusion also has a direct effect on sustainable financial practices, although its magnitude is weaker compared to the indirect effect through cognitive financial framing. This indicates that access to digital financial services still contributes to improving financial behavior, for example through transaction convenience, access to savings, and financing opportunities. However, this finding also reinforces that access alone is not

sufficient to generate significant behavioral change [24]. Without the ability to systematically understand and manage finances, MSMEs tend to use digital services merely as transactional tools rather than strategic instruments for financial planning.

The mediating role of cognitive financial framing emerges as a key finding that clarifies the relationship between digital financial inclusion and sustainable financial practices. The results indicate that the effect of digital financial inclusion on financial behavior is largely transmitted through this cognitive mechanism. In other words, cognitive financial framing acts as a bridge connecting external access to internal behavioral change [20]. In the context of coastal MSMEs, this role is particularly important given the limited financial literacy and economic pressure faced by business actors. Without this mechanism, digital financial inclusion risks merely increasing transaction frequency without producing substantial behavioral transformation [1], [4], [17].

Overall, this study provides significant theoretical and practical implications. Theoretically, it strengthens the integration of financial inclusion literature and behavioral finance, particularly in explaining how financial access is translated into behavior through cognitive mechanisms [6], [21], [28]. Practically, the findings suggest that digital financial inclusion policies should not only focus on expanding access but must also be accompanied by efforts to enhance MSMEs' cognitive capacity, such as behavioral-based financial education and financial management training. Therefore, a more holistic approach is required to ensure that digital financial inclusion truly fosters sustainable financial practices and strengthens the long-term economic resilience of coastal MSMEs.

5. CONCLUSION

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This study concludes that digital financial inclusion plays an important role in promoting sustainable financial practices among coastal MSMEs in Maluku; however, its effect is not direct and is highly dependent on internal mechanisms possessed by business actors. The empirical findings show that digital financial inclusion significantly enhances cognitive financial framing, which in turn contributes to the formation of more disciplined, structured, and long-term oriented financial behavior. In addition, although digital financial inclusion also has a direct effect on sustainable financial practices, its influence is relatively weaker compared to the indirect effect through the cognitive mechanism. This confirms that access to digital financial services alone is not sufficient to generate meaningful behavioral change without being supported by individuals' ability to effectively manage and allocate their financial resources.

Furthermore, this study emphasizes that cognitive financial framing is a key element in bridging the gap between financial access and financial behavior. In the context of coastal MSMEs, which face limited financial literacy, income volatility, and high economic pressure, the ability to frame and manage finances becomes a determining factor in achieving business sustainability. These findings also reinforce the relevance of the Behavioral Life-Cycle Hypothesis in explaining that financial decisions are not only determined by resource availability but also by cognitive processes in managing those resources intertemporally. Therefore, this study implies that digital financial inclusion policies should not only focus on expanding access but also on strengthening the cognitive capacity of MSME actors through education and behavioral-based interventions, so as to foster sustainable financial practices and enhance long-term economic resilience.

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