Volume 5 Issue 2 (2025) Pages 1133 - 1145
Amkop Management Accounting Review (AMAR)
ISSN : 2828-2248 (On line)

The Role of Financial Inclusion and Women's Participation in Enhancing Food Sovereignty: Evidence from Coastal Communities

Nurul Wahyuni ✉ [1],Rahmat Eko Prabowo[2], St Salmah Sharon[3], Muh Arif[4], Sumarni S[5]
[1] Accounting Study Program, Wira Bhakti University, Indonesia
[2] Management Study Program, Wira Bhakti University, Indonesia
[3] Management Study Program, Sekolah Tinggi Ilmu Ekonomi Ciputra Makassar, Indonesia.
[4] Department of Economics, Universitas Muslim Indonesia, Indonesia
[5] Management Study Program, Wira Bhakti University, Indonesia

Abstract

This study aims to analyze the role of digital financial inclusion and women's participation in strengthening food independence among coastal communities in South Sulawesi. The research sample consisted of 100 female respondents from Takalar, Bantaeng, and Bulukumba Regencies. Data were collected using a structured questionnaire and analyzed through the Partial Least Squares-Structural Equation Modeling (PLS-SEM) approach. The findings reveal that digital financial inclusion has a positive but not significant effect on food independence (β=0.176; p=0.139), while women's participation has a positive and significant effect on food independence (β=0.568; p<0.001). Simultaneously, the two variables explain 50.4% of the variation in food independence, with the remaining 49.6% influenced by factors outside the model. These results highlight that the active role of women in economic activities, social participation, and household decision-making is more decisive in achieving food independence than mere access to digital financial services. The practical implications of this study emphasize the importance of strengthening women's empowerment programs through financial literacy and digitalization, as well as expanding cross-sector collaboration to support the achievement of the Sustainable Development Goals (SDGs), particularly in the areas of gender equality, poverty alleviation, and food security in coastal regions.

Keywords: financial inclusion; women's participation; food independence .

✉Corresponding author:
Email Address: revelationniiayu0999@gmail.com

INTRODUCTION

Coastal areas are among the areas with high socio-economic vulnerability. Coastal communities often face poverty (Niankara, 2023) , limited access to banking (Náñez Alonso et al., 2024) , and low financial literacy (Anh & Thu, 2025) . These conditions are further exacerbated by limited infrastructure (Mashamba & Gani, 2024) and institutional support (Ahamadou & Agada, 2023) , placing coastal women, who play a central role in family food management, in a position of economic vulnerability (Hlahla, 2022) .

In the context of coastal households, women have a strategic role (Garcia et al., 2025) , both as processors of catches (Adetoyinbo et al., 2024) , coastal farmers (Abdullah et al., 2020) , and food-based micro-entrepreneurs (Siteneski et al., 2024) . Women contribute significantly

DOI: 10.37531/amar.v5i2.3186

to maintaining household food sustainability. (Gualoto, 2023) . However, limited access to economic resources and financial services results in low participation in the formal economic system (Ngu et al., 2023) . This situation directly impacts the food security of families and coastal communities. Financial inclusion presents an opportunity to bridge this gap (Lundvig Hansen & Lima Santos, 2025) . Through services such as digital wallets, mobile banking, and fintech platforms, coastal women can gain easier access to savings, financing, and business transactions (Mabrouk et al., 2023; Zhu et al., 2025) . This access is believed to strengthen household economic independence (Vélez Santana et al., 2024) while increasing women's participation in productive activities (Chaerul Rizky et al., 2025) , thus contributing to local food self-sufficiency (Li et al., 2022) . Despite its significant potential, implementing digital financial inclusion in coastal areas is not without challenges. Low digital literacy, limited internet network infrastructure, and sociocultural norms that still place women in domestic roles are factors that hinder the adoption of digital services (Hlahla, 2022; Lundvig Hansen & Lima Santos, 2025; Mashamba & Gani, 2024; Nisha et al., 2020; Zhu et al., 2025) . This indicates a gap between the potential of digital financial inclusion and the reality on the ground, particularly for coastal women.

Previous research has highlighted financial inclusion found that digital technology enhances inclusive innovation processes through different mechanisms (Barrios et al., 2025) and women's economic empowerment (Bhukta et al., 2025; Chaerul Rizky et al., 2025; Mabrouk et al., 2023) . However, most studies focus on urban contexts or non-coastal communities. Few studies have focused on coastal women, particularly regarding how digital financial access can support their participation in food economy activities. Furthermore, previous research tends to examine the direct impact of digital financial inclusion on economic well-being (Verma & Chatterjee, 2025) or household financial stability. Few have linked digital financial inclusion to food independence, a vital issue in coastal areas. Food independence is not only related to economic access but also to women's active participation in managing and optimizing local resources. This research is important to provide a deeper understanding of the role of digital financial inclusion in empowering coastal women while supporting food independence. This study not only fills a gap in previous research that rarely highlights the direct link between digital finance, women's participation, and food independence, but also presents a new perspective by positioning women's participation as a crucial mediating factor. Therefore, the results are expected to inform the formulation of more effective policy strategies and empowerment programs for coastal women, as well as contribute to the achievement of sustainable development goals, particularly in the areas of gender equality, poverty alleviation, and food security.

Capability Approach Theory

The Capability Approach theory developed by Amartya Sen. Emphasizes that the welfare of society is not only measured by income or resources, but by the capability of individuals/groups to choose, access, and utilize existing opportunities to improve the quality of life. (Sen, 1988) . Measuring well-being using the Capability Approach (CA) by Amartya Sen is a development of the theory and concept of well-being that emphasizes the importance of ethics and morals in economics. Amartya Sen also incorporates the concept of freedom into his capability approach to achieving well-being. He believes that greater capabilities create freedom to respond to various opportunities, enabling individuals to live more meaningful, or in other words, more prosperous, lives. Amartya Sen's capability approach (CA) earned him the Nobel Prize in Economics in 1998 for his contributions to the development of economics. According to Amartya Sen (Gotoh, 2021) , a person's capabilities consist of a collection of alternative functioning vectors that represent their real freedom as opportunities to achieve goals (doing something or being something) based on the average resources and their ability to utilize them.

DOI: 10.37531/amar.v5i2.3186

Digital Financial Inclusion

Digital financial inclusion (DFI) has brought about a significant transformation in access to financial services, primarily through three main mechanisms. (Huang et al., 2025) : cost reduction, risk mitigation, and revenue enhancement. First, the significantly lower cost of digital transactions compared to traditional banking enables service providers to profitably reach previously underserved rural communities (Christensen, 2015; Sun, 2025) . Second, innovations in algorithm-based credit scoring can overcome the limitations of formal collateral by leveraging alternative data, thereby reducing the problem of information asymmetry in the credit market. (Osuma, 2025; Serena, 2025; Zheng, 2025) . Third, access to digital financial services not only expands the market for rural producers, but also increases capital accumulation and investment that supports the acceleration of economic convergence. (Gupta et al., 2025) . Previous literature reviews found that access to financial inclusion provides significant benefits for low-income women. (Diop, 2025; Shahriar et al., 2025) , especially in building financial management skills such as planning, saving, and financial discipline that contribute to new business initiation (Aripin & Zuhriyah, 2025; Bonin et al., 2024; Boyle et al., 2025; Ghosh & Vinod, 2017) . These skills not only strengthen resilience to economic shocks but also increase women's capacity to accumulate capital and strengthen control over their financial decisions.

Women's Participation

In general, women's participation in household decision-making in this study was quite high (70.55%) (Bitew et al., 2023) . This is greatly influenced by women's socio-demographic and economic characteristics (women's residence, education, religion, ownership index, respondent's employment status, husband's employment status, and gender and age of the head of the household). This study indicates that educating women, improving their economic status through employment opportunities, empowering women as heads of households (increasing women's autonomy) will increase their participation in household decision-making. Off-farm activities have a positive and significant impact on rural women's income, that educational status, family size, work experience, personal income, savings, and training significantly influence rural women's involvement in off-farm activities (Islam et al., 2022) .

Food Independence

Financial independence can be understood as the ability of an individual or household to meet their living needs without excessive dependence on other parties, whether family, financial institutions, or government assistance (Lusardi & Mitchell, 2014) . This concept includes not only income sufficiency, but also skills in managing financial resources effectively to achieve short-term and long-term goals (Xiao & Porto, 2017) . Financial independence also emphasizes a person's capacity to make wise financial decisions, including budget planning, savings, investments, and debt control (Perry & Morris, 2005) . Furthermore, financial independence is closely related to financial literacy because understanding financial products and services is the basis for building healthy financial attitudes and behaviors (Huston, 2010). In the context of economic development, financial independence plays an important role in improving community welfare and reducing vulnerability to external economic shocks (Balasubramnian & Sargent, 2020; Iwatsubo et al., 2025) . Some households maintain pure aquaculture livelihoods by adopting adaptation strategies in aquaculture practices, but most are unsuccessful in addressing environmental hazards (Castillo et al., 2025) . that residents with pure aquaculture livelihoods tend to experience low levels of well-being (Wang et al., 2024) . Furthermore, low well-being is also associated with larger family sizes, lower household incomes, and lower levels of financial, environmental, and social resilience to adverse shocks. Therefore, it can be suggested that, amidst the environmental crisis in the area, livelihood diversification is crucial for purely fishing households, especially those with larger family sizes (Thu Trang & Loc, 2021) . Building financial, social, and environmental resilience should also be promoted to improve the well-being of the population .

DOI: 10.37531/amar.v5i2.3186

METHODOLOGY

This study employed a quantitative approach with a survey method through the distribution of structured questionnaires to measure the level of digital financial inclusion and women's participation in food self-sufficiency in coastal areas of South Sulawesi. Stratified random sampling was used to ensure a diverse population, while statistical software was used to analyze the findings to enhance objectivity. Data collection was conducted through a survey using a closed-ended questionnaire distributed directly to respondents. The instrument was designed based on the theoretical indicators of each variable and measured using a five-point Likert scale, ranging from "strongly disagree" to "strongly agree" (Sholihin & Ratmono, 2021) . Data analysis was conducted using the Structural Equation Modeling-Partial Least Squares (SEMPLS) approach . The analysis stages included convergent and discriminant validity testing, instrument reliability assessment using composite reliability and Cronbach's alpha, structural model evaluation using R-squared values, and testing the influence between variables using path analysis by examining t-statistics and p-values (Sholihin & Ratmono, 2021) .

RESULTS AND DISCUSSION

Descriptive Analysis of Variables

This research was conducted in South Sulawesi, with respondents being coastal women in Takalar Regency, Bantaeng Regency, and Bulukumba Regency. The research variables consisted of three variables: digital-based financial inclusion (X) and women's participation (X2), and the dependent variable was food independence (Y).

Convergent Validity Test

Evaluation of Measurement Model (Outer Model)

The measurement model evaluation aims to ensure that the instruments used in this study are valid and reliable in measuring the variables studied. This evaluation includes validity and reliability tests . Evaluation of the measurement model was conducted to ensure that the indicators used in this study were valid and reliable in measuring the latent constructs. The test results showed that all indicators in the variables of Digital Financial Inclusion (X1), Women's Participation (X2), and Food Independence (Y) had outer loading values above 0.70, which means these indicators were valid in reflecting the constructs being measured.

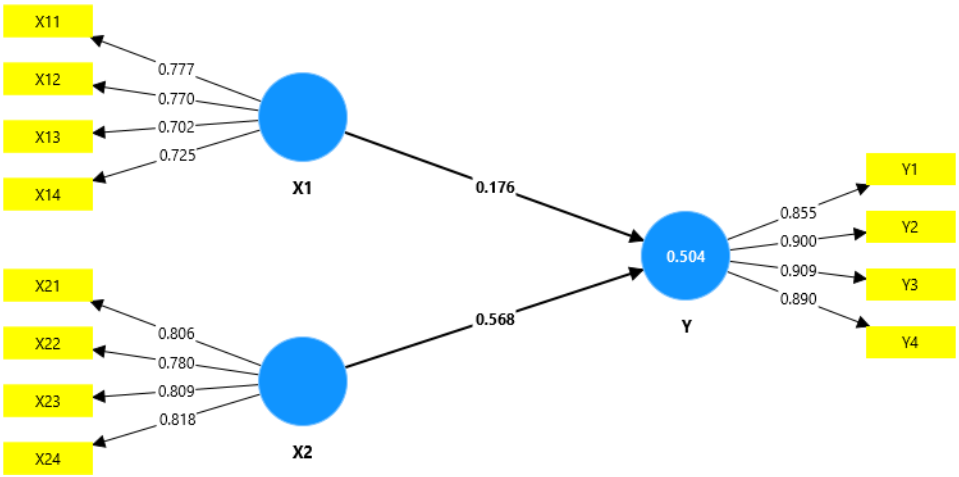

Figure 1. Evaluation of the Measurement Model

The results of the measurement model evaluation in Figure 1 include the relationship between the indicators and the latent variables studied. Each indicator has a loading factor value

DOI: 10.37531/amar.v5i2.3186

indicating its level of contribution to the measured variable. These results are used to assess the construct's validity and reliability before testing the structural model .

Table 1 Validity of Research Variables

Variables	Indicator	Outer Loading	Information
Digital Financial Inclusion (X 1)	X1 . 1	0.777	Valid
	X 1 . 2	0.770	Valid
	X 1 . 3	0.702	Valid
	X 1 . 4	0.725	Valid
Women 's Participation (X2)	X2 .1	0.806	Valid
	X2 .2	0.780	Valid
	X2 .3	0.809	Valid
	X2 .4	0.818	Valid
Food Independence (Y)	Y 1	0.855	Valid
	Y 2	0.900	Valid
	Y 3	0.909	Valid
	Y 4	0.890	Valid

Source: Data management with SmartPLS, 2025

Based on the results of the first stage of outer loading, it can be seen that the indicators for each variable in this study have an outer loading of more than 0.5 and are considered valid. This indicates that variable indicators with an outer loading value greater than 0.5 have a high or sufficient level of validation, thus meeting convergent validity.

Reliability

This method is used to assess *discriminant validity* by using *the Average Variance Extracted* (AVE) value. The construct reliability test through Cronbach's Alpha and Composite Reliability shows a value above 0.70 for all variables, thus meeting the reliability criteria. Similarly, the Average Variance Extracted (AVE) value for each construct is above 0.50, which indicates that more than 50% of the indicator variance can be explained by the latent construct. Thus, it can be concluded that all constructs in this study are valid and reliable and can be used for further analysis .

Table 2 Reliability of Research Variables

Construct	Average Variance Extracted (AVE)	Composite Reliability (CR)	Cronbach's Alpha
Digital Financial Inclusion	0.554	0.832	0.737
Women's Participation	0.645	0.879	0.821
Food Independence	0.790	0.938	0.911

Source: Data processed with SmartPLS, 2025

The reliability value for the digital financial inclusion independence variable is 0.832, the female participation variable is 0.879, and the food independence variable is 0.938. These results indicate that all variables have a composite reliability value greater than 0.70. Thus, the model in this study has met composite reliability .

DOI: 10.37531/amar.v5i2.3186

Structural Model (Inner Model)

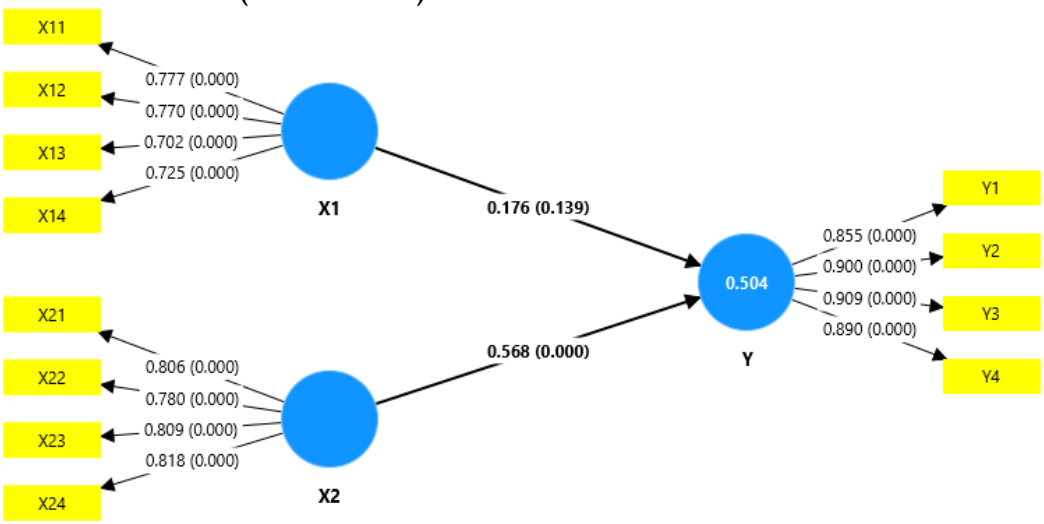

Figure 2. Structural Model

Structural model testing was conducted to determine the causal relationship between variables. The path test results showed that Digital Financial Inclusion (X1) on Food Independence (Y). This path produced a coefficient of 0.176 with a T-Statistic value of 1.479 and a P-Value of 0.139 (> 0.05). This indicates that although the direction of the relationship is positive, the effect of digital financial inclusion on food independence is not significant. In other words, digital financial access has not been able to directly increase food independence in coastal communities. Women's Participation (X2) on Food Independence (Y). This path produced a coefficient of 0.568 with a T-Statistic value of 5.180 and a P-Value of 0.000 (< 0.05). These results indicate that women's participation has a significant positive effect on food independence. This means that the higher the involvement of women in economic and social activities, the greater their contribution to realizing food independence at the household and coastal community levels.

Path Coefficients or Path Coefficients

Path coefficients are values that indicate the magnitude and direction of influence between latent variables in a structural model (inner model). This value reflects how strongly an exogenous (independent) variable influences the endogenous (dependent) variable. A positive path coefficient indicates a unidirectional relationship, meaning that if the value of the exogenous variable increases, the endogenous variable will also increase. Conversely, a negative path coefficient indicates a reverse relationship, where an increase in the exogenous variable will cause a decrease in the endogenous variable. To test the significance of the relationship between these variables, the bootstrapping method is used, a resampling technique used in SEM-PLS to address the problem of non-normally distributed data. Bootstrapping allows for inferential statistical calculations of path coefficient values by generating T-statistics and P-values. The T-statistic value is compared with the T-table value (usually at a significance level of 5% = 1.96). If the T-statistic > 1.96, then the relationship between the variables is declared statistically significant. Furthermore, a P-value < 0.05 also indicates that the influence between the latent variables is significant, so the proposed hypothesis is accepted. Thus, the analysis of path coefficients through bootstrapping provides a basis for concluding whether the hypotheses formulated in the study are empirically proven or not. The explanation of the results of the path coefficients obtained in this study is based on Bootstrapping (T-Statistic & P-Value) from the results of data processing that can be described:

DOI: 10.37531/amar.v5i2.3186

Table. 3 Tests Coefficient Track

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	Mark P (P values)
X1 -> Y	0.176	0.175	0.119	1,479	0.139
X2 -> Y	0.568	0.581	0.110	5,180	0,000

Source: SEM-PLS output, processed 2025

The results of the structural model analysis (inner model) using SmartPLS obtained path coefficients that indicate the relationship between research variables. Bootstrapping results were used to test the significance level of each path by considering the T-Statistic and P-Value. The path X1 → Y shows a coefficient value of 0.176 with a T-Statistic of 1.479 and a P-Value of 0.139 (> 0.05). This indicates that the effect of variable X on Y is positive but not significant. Thus, variable X cannot directly increase variable Y. This indicates that although access to digital financial services can contribute to increasing the economic capacity of coastal communities, its influence is not yet strong enough to directly encourage food independence. The path X 2 → Y produces a coefficient of 0.581 with a T-Statistic of 5.180 and a P-Value of 0.000 (<0.05). These results indicate that variable X has a significant positive effect on Y. This means that the higher the level of women's involvement in economic, social, and household decision-making activities, the greater their contribution to family and coastal community food independence.

Table. 4 Path Coefficient

	P. Value	Path Coefficient)	Results
X1 -> Y : Digital Finance Inclusion -> Food Independence	0.176	0.139	Rejected
X2 -> Y : Women's Participation -> Food Independence	0.568	0,000	Accepted

Source: SEM-PLS output, processed 2025

From the path coefficient above, we can see whether the influence is positive or negative, and the p-value is used as a reference to decide whether the hypothesis is accepted or rejected. The hypothesis is accepted if the p-value is less than 0.05.

Determinant Coefficient Test (R Square)

R Square (R^2) or coefficient of determination is a statistical measure that shows how much of the variation in the endogenous (dependent) variable can be explained by the exogenous (independent) variables in a model. The R^2 value is used to determine the contribution of the influence of independent variables simultaneously on the dependent variable. In other words, R^2 shows the extent to which the independent variables in the model are able to explain the variation in the value of the dependent variable. The higher the R^2 value, the greater the model's ability to explain the relationship, so the structural model is said to be better. Conversely, a low R^2 value indicates that the independent variables only explain a small portion of the dependent variable, so there are other factors outside the model that may have an influence. In the context of SEM-PLS, the R^2 value is used to assess the predictive power of the structural model and is one of the main indicators in evaluating the inner model. The R-Square test is used to determine how strong the effect or influence of the independent variables on the dependent variable is, the value of the coefficient of determination is shown in Table 5.

DOI: 10.37531/amar.v5i2.3186

Table 5 R-Square Values

Dependent Variable	R-Square Value	R-Square Adjusted
Digital Financial Inclusion (X1)	0.504	0.493
Women's Participation (X2)		
Food Independence (Y)		

Source: Data processed with SmartPLS, 2025

The R-Square value is 0.504 and the Adjusted R-Square is 0.493 in the model explaining the variables of Digital Financial Inclusion (X1) and Women's Participation (X2) towards Food Independence (Y). The R-Square value of 0.504 indicates that 50.4% of the variation in changes in Food Independence (Y) can be explained by Digital Financial Inclusion and Women's Participation, while the remaining 49.6% is influenced by other variables outside this research model. Meanwhile, the Adjusted R-Square value of 0.493 indicates that after considering the number of independent variables and sample size, the model's ability to explain variations in Food Independence remains in the moderate category.

Digital Financial Inclusion (X1) on Food Independence (Y)

The results of the study indicate that digital financial inclusion has a positive but insignificant effect on food self-sufficiency. This condition can be explained through Amartya Sen's Capability Approach, which emphasizes that access to resources (including financial services) will only improve welfare if accompanied by the capability to utilize them. With limited digital literacy, technological infrastructure, and a preference for cash transactions in coastal communities, digital financial inclusion has not fully developed their capabilities to achieve food self-sufficiency . This finding is in line with (Náñez Alonso et al., 2024; Verma & Chatterjee, 2025) who stated that the availability of formal financial services alone is not enough, there is still a tendency to make informal financial savings (Sumarni et al., 2024) ; financial literacy and institutional support are needed for financial inclusion to have a real impact on welfare. Other studies by (Hlahla, 2022; Lundvig Hansen & Lima Santos, 2025) also emphasize that barriers to access and low public understanding of financial technology are factors that weaken the contribution of financial inclusion to improving quality of life (Ahamadou & Agada, 2023; Aripin & Zuhriyah, 2025) . Thus, digital financial inclusion in coastal communities only serves as a potential opportunity, but has not yet become a determining factor in achieving food self-sufficiency.

Women's Participation (X2) Towards Food Independence (Y)

Unlike digital financial inclusion, women's participation has been shown to have a significant positive impact on food self-sufficiency. This can be explained through Empowerment Theory, which emphasizes that women's empowerment in decision-making and economic involvement will strengthen household and community food security. With a strategic role in food production, processing, and distribution, women are key actors in maintaining food availability and sustainability in coastal communities. Various previous studies have reinforced the finding that women's participation significantly contributes to household food self-sufficiency. (Bitew et al., 2023; Chaerul Rizky et al., 2025) emphasize that women's empowerment through access to resources and participation in economic decision-making has direct implications for improving family welfare, including meeting food needs. (Islam et al., 2022) also found that when women have greater control over household income, spending allocations for food, health, and education increase significantly. (Hlahla, 2022; Shahriar et al., 2025) . This shows that women's active role in the economic sphere not only benefits them individually but also strengthens the foundation of food security at the family and community levels.

DOI: 10.37531/amar.v5i2.3186

CONCLUSION

This study aims to analyze the role of digital financial inclusion and women's participation in food self-sufficiency among coastal communities in South Sulawesi. The results show that digital financial inclusion has a positive but insignificant effect on food self-sufficiency. This finding indicates that the availability of access to digital-based financial services cannot directly promote food self-sufficiency without adequate literacy and infrastructure support. Conversely, women's participation has been shown to have a significant positive effect on food self-sufficiency. This confirms that the greater women's involvement in economic, social, and household decision-making activities, the stronger their contribution to food self-sufficiency in coastal communities. Simultaneously, these two variables explain 50.4% of the variation in food self-sufficiency, with the remainder influenced by factors outside this research model.

Based on these results, several policy implications warrant consideration. First, local governments, along with financial institutions, need to strengthen digital infrastructure and improve financial literacy in coastal communities so that digital financial inclusion extends beyond access and also enhances families' economic capabilities to support food self-sufficiency. Second, gender-based development strategies must be strengthened through women's empowerment programs, including entrepreneurship training, expanding access to business capital, mentoring local food management, and strengthening the capacity of women's organizations at the community level. Third, cross-sector collaboration between government, educational institutions, and the private sector needs to be expanded to create an inclusive digital ecosystem, enabling technology-based financial services to be optimally utilized by coastal communities according to their needs.

The implications of this research align with efforts to achieve the Sustainable Development Goals (SDGs), particularly Goal 1 (No Poverty), Goal 2 (Zero Hunger), and Goal 5 (Gender Equality). By encouraging women's participation while strengthening sustainable digital financial inclusion, food self-sufficiency in coastal communities is expected to increase, thereby strengthening the socio-economic resilience of vulnerable areas. Future research is recommended to incorporate other variables such as financial literacy, institutional support, and technological innovation, to provide a more comprehensive understanding of the determinants of food self-sufficiency in coastal areas.

THANK-YOU NOTE

We express our sincere thanks to all those who have provide support in this research . We express our deepest appreciation to The Ministry of Education, Culture, Research, and Technology of the Republic of Indonesia for their research grant support. This support was instrumental in the completion of this research and the publication of this article. We also extend our gratitude to the leadership of Wira Bhakti University , our colleagues, and all those who assisted in this research process .

References:

Abdullah, Khan, S.M., Pieroni, A., Haq, ZU, & Ahmad, Z. (2020). Mazri (Nannorrhops ritchiana (Griff) Aitch.): A remarkable source of manufacturing traditional handicrafts, goods and utensils in Pakistan. *Journal of Ethnobiology and Ethnomedicine* , *16* (1), 1–13. https://doi.org/10.1186/s13002-020-00394-0

Adetoyinbo, A., Asravor, J., Olaleye, S.A., & Owusu, V. (2024). Food quality and supply chain networks in dynamic business environments: evidence from the Nigerian shrimp subsector. *British Food Journal* , *126* (3), 995–1013. https://doi.org/10.1108/BFJ-02-2023-0171

Ahamadou, M., & Agada, D. B. (2023). Adopting FinTech to promote financial inclusion: Evidence from western African economic and monetary union. *International Journal of Applied Economics, Finance and Accounting* , *17* (1), 135–145.

DOI: 10.37531/amar.v5i2.3186

https://doi.org/10.33094/ijaefa.v17i1.1090

Anh, NT, & Thu, LT (2025). Impact of financial behavior on savings strategies among the poor in Vietnam. *Asian Development Policy Review* , *13* (2), 190–209. https://doi.org/10.55493/5008.v13i2.5400

Aripin, & Zuhriyah, NA (2025). Empowering women through financial literacy and business management skills: Empirical evidence from Indonesia. *Social Sciences and Humanities Open* , *12* (March). https://doi.org/10.1016/j.ssaho.2025.101976

Balasubramnian, B., & Sargent, C. S. (2020). Impact of inflated perceptions of financial literacy on financial decision making. *Journal of Economic Psychology* , *80* (January), 102306. https://doi.org/10.1016/j.joep.2020.102306

Barrios, A., Camacho, S., & Reficco, E. (2025). Digital technologies for inclusive innovations in humanitarian response. *Journal of Business Research* , *201* (September). https://doi.org/10.1016/j.jbusres.2025.115714

Bhukta, R., Jha, C.K., Joshi, S., & Sedai, A.K. (2025). Does bank expansion reduce domestic violence? Causal evidence from India. *Journal of Economic Behavior and Organization* , *231* (January), 1–20. https://doi.org/10.1016/j.jebo.2025.106933

Bitew, DA, Asmamaw, DB, Belachew, TB, & Negash, WD (2023). Magnitude and determinants of women's participation in household decision making among married women in Ethiopia, 2022: Based on Ethiopian demographic and health survey data. *Heliyon* , *9* (7), e18218. https://doi.org/10.1016/j.heliyon.2023.e18218

Bonin, S., Rashed, T., Nair, R., Chaudhary, S., V.R., B., Natarajan, A., & Bhavani, R. (2024). A financial maturity model for the empowerment of women's savings groups. *World Development Perspectives* , *34* (March), 100573. https://doi.org/10.1016/j.wdp.2024.100573

Boyle, P., Mitchell, O.S., Mottola, G.R., & Yu, L. (2025). Declining financial and health literacy among older men and women. *Journal of the Economics of Aging* , *30* (January), 100547. https://doi.org/10.1016/j.jeoa.2025.100547

Castillo, L.S., Ferguson Irlanda, C.E., Aceves-Bueno, E., Froelich, H., Mancilla, C., Rivera, A., & Gaines, S.D. (2025). Aquaculture isn't always the answer: rethinking blue transitions through justice and community experience. *Global Environmental Change* , *94* (May), 103046. https://doi.org/10.1016/j.gloenvcha.2025.103046

Chaerul Rizky, M., Anwar, Y., & Ardian, N. (2025). The Gendered Dynamics of the Blue Economy: Women's Contribution to Sustainable Development in Coastal Communities. *International Review of Management and Marketing* , *15* (3), 150–163. https://doi.org/10.32479/irmm.18167

Christensen, C. M. (2015). *The innovator's dilemma: when new technologies cause great firms to fail* . Harvard Business Review Press.

Diop, M. (2025). Financial inclusion and women's empowerment: An application based on data from Senegal. *Development and Sustainability in Economics and Finance* , *7* (March), 100055. https://doi.org/10.1016/j.dsef.2025.100055

Garcia, M.F., Liu, H.F., Triana, M. del C., & Treviño, L.J. (2025). Support for Sustainable Development Goal 5 and Social Performance: The Role of Diversity Targets, Work - Life Balance Practices, and Female Representation. *Human Resource Management* , *64* (5), 1457–1479. https://doi.org/10.1002/hrm.22312

Ghosh, S., & Vinod, D. (2017). What Are the Constraints of Financial Inclusion for Women? Evidence from Indian Micro data. *World Development* , *92* , 60–81. https://doi.org/10.1016/j.worlddev.2016.11.011

DOI: 10.37531/amar.v5i2.3186

Gotoh, R. (2021). *The ethics and economics of the capability approach* . Springer.

Gualoto, E. (2023). Female farmers in the Galapagos: An invisible force. *Journal of Agriculture and Rural Development in the Tropics and Subtropics* , *124* (2), 115–127. https://doi.org/10.17170/kobra-202311028938

Gupta, A., Kokas, S., Michaelides, A., & Minetti, R. (2025). Networks and information in credit markets. *Journal of Corporate Finance* , *94* , 102840. https://doi.org/10.1016/j.jcorpfin.2025.102840

Hlahla, S. (2022). Gender perspectives of the water, energy, land, and food security nexus in sub-Saharan Africa. *Frontiers in Sustainable Food Systems* , *6* . https://doi.org/10.3389/fsufs.2022.719913

Huang, Z., Han, J., Xu, Z., & Dai, R. (2025). Digital financial inclusion and urban-rural disparities. *International Review of Economics and Finance* , *104* (August), 104563. https://doi.org/10.1016/j.iref.2025.104563

Islam, M.S., Islam, S., Fatema, K., & Khanum, R. (2022). Rural women participation in farm and off-farm activities and household income in Bangladesh. *Heliyon* , *8* (9), e10618. https://doi.org/10.1016/j.heliyon.2022.e10618

Iwatsubo, K., Araki, C., & Yamori, N. (2025). *Gender gap in financial literacy – numeracy, financial concepts and retirement financial planning* . *1* (September), 1–8.

Li, Y., Long, H., & Ouyang, J. (2022). Digital Financial Inclusion, Spatial Spillover, and Household Consumption: Evidence from China. *Complexity* , *2022* (1). https://doi.org/10.1155/2022/8240806

Lundvig Hansen, A., & Lima Santos, L. (2025). The Impact of Geographical Factors on the Banking Sector in El Salvador. *International Journal of Financial Studies* , *13* (2), 1–23. https://doi.org/10.3390/ijfs13020110

Lusardi, A., & Mitchell, O. S. (2014). The economic importance of financial literacy: Theory and Evidence. *Journal of Economic Literature* , *52* (1), 5–44. https://doi.org/10.1257/jel.52.1.5

Mabrouk, F., Bousrih, J., Elhaj, M., Binsuwadan, J., & Alofaysan, H. (2023). Empowering Women through Digital Financial Inclusion: Comparative Study before and after COVID-19. *Sustainability* , *15* (12), 9154. https://doi.org/10.3390/su15129154

Mashamba, T., & Gani, S. (2024). Upstarts vs incumbents: the interaction between fintech credit and bank lending in Sub-Saharan Africa. *Cogent Economics and Finance* , *12* (1). https://doi.org/10.1080/23322039.2024.2375643

Náñez Alonso, S.L., Jorge-Vazquez, J., Arias, L.G., & del Nogal, N.M. (2024). What Factors Are Limiting Financial Inclusion and Development in Peru? Empirical Evidence. *Economies* , *12* (4). https://doi.org/10.3390/economies12040093

Ngu, NH, Tan, NQ, Non, DQ, Dinh, NC, & Nhi, PTP (2023). Unveiling urban households' livelihood vulnerability to climate change: An intersectional analysis of Hue City, Vietnam. *Environmental and Sustainability Indicators* , *19* , 100269. https://doi.org/10.1016/j.indic.2023.100269

Niankara, I. (2023). Socioeconomic and geospatial determinants of households' food and non-food consumption dynamics within the West African Economic and Monetary Union. *Scientific African* , *20* , e01724. https://doi.org/10.1016/j.sciaf.2023.e01724

Nisha, N., Nawrin, K., & Bushra, A. (2020). Agent banking and financial inclusion: The case of Bangladesh. *International Journal of Asian Business and Information Management* , *11* (1), 127–141. https://doi.org/10.4018/IJABIM.2020010108

Osuma, G. (2025). The impact of financial inclusion on poverty reduction and economic

DOI: 10.37531/amar.v5i2.3186

growth in Sub-Saharan Africa: A comparative study of digital financial services. *Social Sciences and Humanities Open* , *11* (December 2024), 101263. https://doi.org/10.1016/j.ssaho.2024.101263

Perry, V. G., & Morris, M. D. (2005). Who Is in Control? The Role of Self - Perception, Knowledge, and Income in Explaining Consumer Financial Behavior. *Journal of Consumer Affairs* , *39* (2), 299–313. https://doi.org/10.1111/j.1745-6606.2005.00016.x

Sen, A. (1988). Freedom of choice: concept and content. *European Economic Review* , *32* (2–3), 269–294.

Serena, J. M. (2025). Credit market sentiment, investor monitoring and firms' international borrowing. *Latin American Journal of Central Banking* , *October 2024* , 100174. https://doi.org/10.1016/j.latcb.2025.100174

Shahriar, A.Z.M., Chase, S.R., & Shepherd, D. (2025). Financial inclusion and low-income women's new venture initiation: A Field experiment. *Journal of Business Venturing* , *40* (5), 106525. https://doi.org/10.1016/j.jbusvent.2025.106525

Sholihin, M., & Ratmono, D. (2021). *SEM-PLS analysis with WarpPLS 7.0 for nonlinear relationships in social and business research* . Andi Publisher.

Siteneski, A., Gómez Mieles, VS, Romero Riaño, PA, Montes Escobar, K., Lapo-Talledo, GJ, Dueñas-Rodriguez, AV, Palma Cedeño, MA, Villacis Lascano, YC, & Echeverria Zurita, LO (2024). High levels of anxiety and depression in women farmers from Ecuador: A cross-section study in Coastal and Highlands regions. *International Journal of Social Psychiatry* , *70* (6), 1138–1154. https://doi.org/10.1177/00207640241260017

Sumarni, S., Wahyuni, N., & Baso, R. (2024). Financial Literacy Practices Based on Cultural Values of the Kajang Tribe. *Innovative: Journal of Social Science Research* , *4* (4), 10321–10334. https://doi.org/10.31004/innovative.v4i4.14414

Sun, Y. (2025). A study of the impact of digital finance on the economic development of Latin American countries. *International Review of Financial Analysis* , *107* (11), 104587. https://doi.org/10.1016/j.irfa.2025.104587

Thu Trang, N.T., & Loc, H.H. (2021). Livelihood sustainability of rural households in adapting to environmental changes: An empirical analysis of ecological shrimp aquaculture model in the Vietnamese Mekong Delta. *Environmental Development* , *39* (February), 100653. https://doi.org/10.1016/j.envdev.2021.100653

Vélez Santana, AG, Olivares, BO, Murillo Lucas, KD, & Serrano Rodríguez, R. (2024). Sustainability and climate change: gender perspective in the traditional fishing sector in Ecuador. *Humanities and Social Sciences Communications* , *11* (1), 1–13. https://doi.org/10.1057/s41599-024-03398-3

Verma, R., & Chatterjee, D. (2025). Relative impact of digital and traditional financial inclusion on financial resilience: Evidence from 13 emerging countries. *Journal of Economics and Business* , *133* (January), 106233. https://doi.org/10.1016/j.jeconbus.2025.106233

Wang, Q., Rossignoli, C.M., Dompreh, E.B., Su, J., Griffiths, D., Htoo, K.K., Nway, H.M., Akester, M., & Gasparatos, A. (2024). Diversification strategies have a stabilizing effect for income and food availability during livelihood shocks: Evidence from small-scale aquaculture-agriculture systems in Myanmar during the COVID-19 pandemic. *Agricultural Systems* , *217* (March), 103935. https://doi.org/10.1016/j.agsy.2024.103935

Xiao, J. J., & Porto, N. (2017). Financial education and financial satisfaction. *International Journal of Bank Marketing* , *35* (5), 805–817. https://doi.org/10.1108/IJBM-01-2016-0009

Zheng, M. (2025). Digital finance, financing constraints, and regional trade development. *Finance Research Letters* , *85* (PC), 108037. https://doi.org/10.1016/j.frl.2025.108037

DOI: 10.37531/amar.v5i2.3186

Zhu, S., Chen, H., & Tang, Y. (2025). From digital wallets to social dividends: How digital financial inclusion drives household prosocial behavior in China. *Economic Modeling* , *151* (March 2024), 107205. https://doi.org/10.1016/j.econmod.2025.107205