

The mediating role of financial behavior on business performance with human and spiritual capital

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Abstract

Purpose – This study aimed to analyze the influence of human capital, spiritual capital, and financial behavior on business performance mediated by the financial behavior of fisherwomen at the fish auction site in Situbondo regency. **Method** – This study uses a quantitative approach with primary data in the form of a questionnaire. The sample in this study was 66 members of the fisherwomen's association at the fish auction place in Situbondo regency, using the census sampling technique. The analysis tool used is a structural equation model with partial least squares and a mediation test using Sobel. **Findings** – The study's results explain that human capital, spiritual capital, and financial behavior positively affect business performance. Human capital and spiritual capital have a direct significant effect on financial behavior. Financial behavior can mediate human and spiritual capital's effect on business performance. **Implications** – This study contributes to resource-based theory with Intangible assets on human and spiritual capital. Practically related agencies of Situbondo regency and the marine and fisheries agency pay attention to fisherwomen in improving business performance with a focus on how financial behavior is supported by human capital and spiritual capital.

Keywords: human capital, spiritual capital, financial behavior, business performance.

Introduction

Indonesia is one of the archipelagic countries and is known as a maritime country in the world; in addition, Indonesia is ranked second as the largest fish producer in the world in the global marine fisheries market, with a catch of 78.8 million tons in 2020. The ranking recorded in the 2022 Food and Agriculture Organization (FAO) report places Indonesia after China, which is in first place with an achievement of 11.70 million tons in 2020 (Iipcnnewyork 2024). Indonesia is the largest archipelagic country in the world and has marine and fisheries potential that can be a source of income for fishing communities. Based on data from the Ministry of Marine Affairs and Fisheries (MMAF) in 2023, the number of fishermen was recorded at 3,205,512 people (Muliando, Asropi, and Rajab 2024), and one of the areas that contributed to the number of fishermen was Situbondo regency, East Java. The rhythm of life of the Situbondo fishing community is closely related to the natural cycle, especially the ebb and flow of seawater and the fishing season. However, amid the harsh struggle to earn a living at sea, strong Islamic religious values are rooted in everyday life. Although strong in Islamic values, some local traditions and beliefs related to the sea are still maintained. Ceremonies or thanksgiving are sometimes carried out as a form of gratitude for the sea's produce or hope for safety while at sea. However, they may have been acculturated with religious values. Respect for nature and the sea as a source of livelihood is also part of the local wisdom passed down from generation to generation (Habiba and Wulandari 2024).



The social conditions of the fishing community in Situbondo regency are a unique combination of a life that depends on the sea and upholds strong Islamic religious values, which are still maintained until now so that Situbondo regency has quite enormous marine resource potential and fisheries are an important livelihood for some people who live in coastal areas including for fisherwomen. The role of fisherwomen is to significantly contribute to the family economy (Budiarto, Suharso, and Kantun 2020). Fisherwomen in Situbondo regency often involve post-harvest activities such as sorting, cleaning, processing (for example, into salted fish and fish crackers), and marketing their husband's catch or their catch. By processing, fisherwomen can increase the selling value of fish, increase family income, and have an important role in selling fish in local markets, directly or through intermediaries (Nissa et al. 2025). Listiyandra, Anna, and Dhahiyat (2016) revealed the unstable economic situation and the relatively low and uncertain income of husbands as fishermen; the only people who can help maintain the family's livelihood are fishermen (fishermen's wives). Although helping to maintain the family's livelihood, fisherwomen (fishermen's wives) are not free from problems in managing businesses, such as limited access to capital, modern fishing technology, and profitable markets, which are often obstacles. Fluctuations in catches due to weather and environmental factors can also affect the stability of the family's economy (Barrowclift et al. 2017). The gap between traditional fishermen, capital owners, and fishery entrepreneurs is also an obstacle.

The challenges faced by fisherwomen in operating their businesses impact their performance. Business performance is defined by the degree of success attained in both quality and quantity, relative to the objectives set forth, achieved through the organization's operational capabilities by utilizing resources such as human capital, assets, competencies, organizational processes, company characteristics, information, and knowledge effectively and efficiently (Daft 2010). Enhancing business performance can be achieved through the resource-based theory (RBT) framework. RBT refers to the capability and resources encompassing tangible and intangible assets, which may be utilized to identify and formulate plans to enhance efficiency and effectiveness (Barney, Ketchen, and Wright 2011). Belkaoui (2003) asserted that integrating tangible and intangible assets may enhance business performance. This study reveals that human and spiritual capital are internal resources classified as intangible assets. Human capital constitutes the primary element of intellectual capital, founded on a synthesis of knowledge, skills, experience, and competencies (Bontis, Keow, and Richardson 2000). Human capital enhances corporate success regarding human knowledge and experience (Iskandar et al. 2021). Numerous prior research examining the impact of human capital on corporate success have been done by Ahangar (2011); Tran and Vo (2020), stated that human capital affects performance. Different results were shown by Khalique et al. (2013); Rambe, Erlina, and Zulkarnain (2021), who stated that human capital does not affect performance.

Efforts to develop and improve business performance have been widely studied based on resource-based theory by prioritizing intangible assets. Religious traditions and beliefs are manifested as spiritual capital (Vasconcelos 2021). The development and application of spiritual capital are essential for business development because they can influence how a business is managed by ensuring that business operations are carried out by laws and standards honestly, ultimately improving performance (Abdullah and Sofian 2012). Lucellia and Agustina (2024) revealed the importance of spirituality in overcoming difficulties and achieving success for female entrepreneurs. Several previous studies that tested the effect of spiritual capital on business performance were conducted by Neubert et al. (2017); Ma'arif, Majid, and Dzikrulloh (2021); Kumara and Putra (2023); Tjahjadi et al. (2023); Putri (2024) stated that spiritual capital affects business performance. Different results were shown by Ariyanto et al. (2023), who stated that spiritual capital does not affect business performance.



Previous research findings on human and spiritual capital's impact on business performance reveal inconsistencies, indicating research gaps. This presents an opportunity to re-evaluate the effects of human and spiritual capital on business performance, with financial behavior as a mediating factor.

Financial behavior is a critical determinant of corporate performance. Ratnawati et al. (2022) asserted that financial behavior encompasses any human conduct pertinent to financial management. Kempson, Finney, and Poppe (2017) elucidated that financial behavior focuses on managing funds concerning expenditure, savings, loan (credit) management, and the formulation of budgets for business financial planning. Disciplined, sensible, and long-term financial behavior is crucial for sustaining financial health and enhancing business performance. Research findings supporting this assertion were conducted by Esiebugie, Richard, and Emmanuel (2018); Singh et al. (2019); Mellinia, Budiarti, and Ulfah (2023); Sajuyigbe et al. (2024); Setiani, Pratiwi, and Komara (2024), stating that financial behavior influences business performance. Moreover, financial behavior is influenced by human capital, defined as the aggregate economic value of skills, knowledge, experience, and education that enhance productivity and performance. Research by Opoku, Poku, and Domeher (2024) states that the outcomes of financial behavior studies are affected by human capital. Spiritual capital is a determinant of financial behavior, encompassing a collection of virtuous ideals, beliefs, ethical principles, and life objectives that inform financial decision-making. The research findings elucidate the influence of spiritual capital on financial behavior were conducted by Sina and Noya (2012); Neubert et al. (2017); Moghadam and Makvandi (2019).

Novelty from this study explores the incorporation of spiritual capital within resource-based theory, positioning spiritual capital comprising business ethics, honesty, integrity, belief, inner peace, and intrinsic motivation rooted in spiritual values as a distinctive and invaluable strategic resource that is rare, imperfectly imitable, and irreplaceable. The concept of valuable, rare, inimitable, and non-substitutable (VRIN) is innovative. Furthermore, the originality of the mediating function of financial behavior. While financial behavior is frequently linked to corporate performance, studies identifying it as a mediating variable between social and spiritual capital and commercial performance remain uncommon, particularly in fisherwomen. This indicates that social and spiritual capital does not directly influence performance but rather through the decision-making and behavior of individuals or business owners in managing their finances. The distinctive study paradigm that integrates social capital, spiritual capital, financial behavior, and company performance represents a novel amalgamation of variables. Enhancing RBT demonstrates that resources yielding competitive advantage extend beyond traditional economic or managerial dimensions. The study seeks to analyze the performance of fisherwomen's enterprises, focusing on the influence of social and spiritual capital in mediating financial behavior. This study's originality enhances the resource-based theory (RBT), which emphasizes internal elements that elevate the performance of fisherwomen's enterprises through the influence of human capital, spiritual capital, and financial conduct as intangible assets. This study uniquely examines financial behavior as a mediating element that influences the relationship between human capital and spiritual capital on business performance articulated within a single model and elucidated by resource theory as the primary theoretical framework.

Literature review

Resource based theory (RBT)

Barney, Ketchen, and Wright (2011) posit that, from the standpoint of resource-based theory (RBT), firm resources encompass all assets, capacities, organizational processes, qualities, information, and knowledge possessed by the firm. This idea posits that businesses



can attain superior performance and competitive advantage by optimizing their tangible and intangible resources. According to Wernerfelt's (1984) interpretation of the resource-based theory, organizations will gain a competitive advantage and attain favorable financial outcomes by possessing, managing, and leveraging critical strategic assets, both tangible and intangible. Belkaoui (2003) proposed techniques to enhance corporate performance, which involve integrating tangible and intangible assets.

Business performance

MSMEs serve a crucial function as incubators for entrepreneurs to cultivate their ventures and as sources of capital, addressing issues related to unemployment, job creation, innovation, and sustainable economic growth (Eniola and Entebang 2015). The performance of MSMEs is the outcome produced by an individual or organization in executing specified tasks, contingent upon their abilities, expertise, dedication, and time management (Le et al. 2023). The performance of MSMEs is the outcome of an individual's efforts (Kafetzopoulos 2022). Completion will coincide with the individual's responsibilities within the MSME during a designated timeframe. It will be associated with the value or standards of the MSME for which the individual is employed.

Human capital

Human capital is the information, skills, attitudes, abilities, and other attributes that affect and enhance the production function (Arokiasamy et al. 2023). Human capital constitutes a primary element of an organization's intangible assets (Baron and Armstrong 2007). Human capital is an individual's contribution and all types of knowledge and experience gained by individuals (Uzule, Zarina, and Shina 2024). Human capital is essential to intellectual capital because it can create organizational competitiveness. Human capital constitutes the paramount component of intellectual capital due to its competitive advantage for the organization (Ployhart et al. 2014). Human capital is the most important resource in a company because it is the leading resource in its production process. This knowledge comes from human capital indicators such as personality, skills, experience, commitment, and education (Abraham and Mallatt 2022).

Spiritual capital

The concept of spiritual capital emerged and was developed from the concept of social capital (Hansell, Horwell, and Oppenheimer 2006). Meanwhile, spiritual capital is related to human spirituality. Spiritual capital is understood as the basis of individual and group commitment that always asks what, why, and where the purpose of life is (Saffitri and Maryanti 2021). Spiritual capital can be an intangible resource and transcendent based on beliefs about values, religion, and morals organized by individuals who are in the organization as a supporter of economic activities (Neubert et al. 2017).

Financial behavior

Financial conduct can significantly impact the welfare of individuals, households, communities, nations, and the global population (Rahman et al. 2021). According to Perry and Morris (2005), financial conduct is characterized by the administration of an individual's savings, expenditures, and budgetary allocations, while Shim et al. (2010) asserted that human actions associated with monetary management, including currency, savings, and credit, are classified as financial conduct. Brügger et al. (2017) reported that financial behavior directly impacts financial well-being. Klontz and Britt (2012) state that individual financial behavior means the financial management skills they acquire.



Hypothesis development

Resource-based theory (RBT) is a significant theoretical framework for comprehending the impact of human and spiritual capital on corporate performance and behavior. RBT posits that a company's enduring competitive advantage derives from distinctive and non-replicable resources and capabilities. RBT framework, human capital, is regarded as one of the most essential and strategic internal resources. When a business possesses human capital that satisfies the characteristics of valuable, rare, inimitable, and non-substitutable (VRIN), it will directly and indirectly enhance business performance. Human capital is of little value to a firm in isolation (Mayo 2000). Intangible assets embodied by individuals represent human capital. Roos and Roos (1997) contend that individuals accumulate capital through their abilities (manifested in skills and education), their attitudes (including employees' perspectives on their work), and their intellectual agility (reflected in creativity and receptiveness to change). Human capital can be considered employee knowledge, skills, intelligence, relationships, attitudes, talents, and behavior (Schiuma and Lerro 2008). Research conducted by Uzule, Zarina, and Shina (2024) discovered that human capital positively and significantly impacts business performance. Additional research that corroborates the direct impact of human capital on business success are Wajdi et al. (2018); Rambe, Erlina, and Zulkarnain (2021); Masyhuri et al. (2024). Based on these studies, the research hypothesis states that:

H1: human capital has a positive influence on business performance.

In the resource-based theory (RBT) framework, spiritual capital is regarded as an intangible resource with significant potential to generate and sustain competitive advantage and influence corporate performance. In the RBT approach, spiritual capital is an intangible asset that is difficult to replicate, enhancing productivity and innovation and facilitating sound decision-making to improve organizational performance. Spiritual capital refers to the assets obtained from beliefs, convictions, and exemplars transmitted through generations via religious traditions, connecting humans to the transcendent source of human fulfillment (Palmer and Wong 2013). Spiritual capital denotes individuals' intangible concepts, knowledge, and emotions that provide vision, direction, guidance, principles, values, and culture inside an organization (Abdullah and Sofian 2012; Nasrullah and Pohan 2020). Additional research substantiating the direct correlation between spiritual capital and corporate performance includes studies by Suyono and Septiana (2022); Ma'arif, Majid, and Dzikrulloh (2021); Lucellia and Agustina (2024). Based on these studies, the research hypothesis states that:

H2: spiritual capital has a positive influence on business performance.

RBT human capital encompasses not just formal education, but also local knowledge, traditional skills, and experiential insights derived from the environment, rendering them distinctive and important internal resources. Human Capital as a Strategic Resource aids in financial decision-making, financial management, and navigating specific economic circumstances, influencing financial behavior. Human resources are human capital, which can be interpreted as the capability of everyone with all the knowledge and abilities that work for the company. Human capital can create added value for the company through employee competency development, knowledge transfer from workers to the company, and changes in management culture (Mayo 2000). explained that financial behavior emphasizes how to manage finances in terms of spending, being able to save, managing loans (credit), and making budgets for their business financial planning so that they can improve financial performance. Other studies support the direct influence of human capital on financial behavior (Usman, Wirawan, and Zulkifli 2021). Based on the study above, the hypothesis in this study is:

H3: human capital has a positive influence on financial behavior.



Spiritual capital is seen as a profound intangible internal resource within the framework of RBT. This resource is both a personal asset and a strategic component that impacts financial actions and decision-making. Spiritual capital will promote adaptive and optimal financial behavior if it satisfies the RBT framework's VRIN criteria (valuable, rare, inimitable, non-substitutable). Spiritual capital is an intangible and transcendent resource derived from individual religious and moral beliefs mixed in organizations used for economic activities (Istianingsih and Suraji 2020). Famous works by sociologists and economists have addressed this theme and emphasized that religious beliefs shape individual activities (Rahman et al. 2021). Spiritual intelligence is the ability to understand and give spiritual meaning to one's life; by having good spiritual intelligence, one will be better able to face various problems experienced. The results of research explaining the influence of spiritual capital on financial behavior were carried out by Sina and Noya (2012); Neubert et al. (2017); Moghadam and Makvandi (2019); Kumara and Putra (2023). Based on the study above, the hypothesis in this study is:

H4: spiritual capital has a positive influence on business performance.

From the standpoint of RBT, a company's financial conduct reflects the management and utilization of internal resources to attain competitive advantage and enhance business performance. Financial behavior constitutes a component of the strategic skills inherent in human resources that can enhance corporate performance. Ratnawati et al. (2022) stated that financial behavior is any human behavior relevant to financial management. Positive financial behavior can improve financial performance (Falahati, Sabri, and Paim 2012). Financial performance is realized when someone can meet all needs and has money left over, can control their finances, and feels financially secure, now and in the future (Muir et al. 2017). Esiebugie, Richard, and Emmanuel (2018) stated that financial behavior is one of the important contributors to the performance of an MSME. The results of research explaining the influence of financial behavior on business performance were carried out by Esiebugie, Richard, and Emmanuel (2018); Singh et al. (2019); Mellinia, Budiarti, and Ulfah (2023); Sajuyigbe et al. (2024). Based on the study above, the research hypothesis is as follows:

H5: financial behavior has a positive influence on business performance.

According to RBT, the connection between human capital and corporate success is not invariably direct and necessitates mediation. As a mediating variable, financial behavior elucidates the mechanisms via which human capital in a corporation might enhance performance outcomes. Robust human capital will foster more efficient financial practices, enhancing business success. Humans are an important resource to develop because they have the knowledge, skills, and competencies that can be used to increase company assets in the production processes and the creation of new knowledge. Human capital can create added value for the company through employee competency development, knowledge transfer from workers to the company, and changes in management culture (Mayo 2000). Business performance is an achievement or level of success an individual or organization achieves in carrying out work in a specific period. The results of human capital research on business performance were conducted by Wajdi et al. (2018); Rambe, Erlina, and Zulkarnain (2021); Uzule, Zarina, and Shina (2024), who state that human capital influences financial behavior. Research by Sina and Noya (2012); Adam, Frimpong, and Boadu (2017) stated that sound financial management arises from financial behavior, which can create a good business performance. Based on the study above, the research hypothesis is as follows:

H6: financial behavior can mediate the influence of human capital on business performance.

From the standpoint of RBT, the correlation between spiritual capital and corporate performance is not invariably direct. As a mediating variable, financial behavior elucidates the mechanisms via which spiritual capital enhances performance. Spiritual capital establishes a framework of values and principles that guide financial decisions and behaviors, ultimately



yielding favorable outcomes in corporate success. Spiritual capital is a high spirit supporting a victory that grows within a person; with this spirit, a work ethic will be born to move and direct humans in carrying out each activity. Spirit, in the form of attitude, personality, character traits, and beliefs about something (ethos), is possessed by individuals, groups, and even society. Suyono and Septiana (2022); Lucellia and Agustina (2024) explain the influence of spiritual capital on the performance of MSME businesses. Sina and Noya (2012) state that financial management behavior impacts people's desire to meet their needs according to their income level, so self-confidence is needed to manage their finances. The study's results on the influence of spiritual capital on financial behavior are Neubert et al. (2017); Moghadam and Makvandi (2019). While financial behavior affects business performance carried out by Mellinia, Budiarti, and Ulfah (2023); Sajuyigbe et al. (2024). Based on the above study, the research hypothesis is as follows:

H7: financial behavior can mediate the influence of spiritual capital on business performance. While the conceptual framework of the study is illustrated as Figure 1.

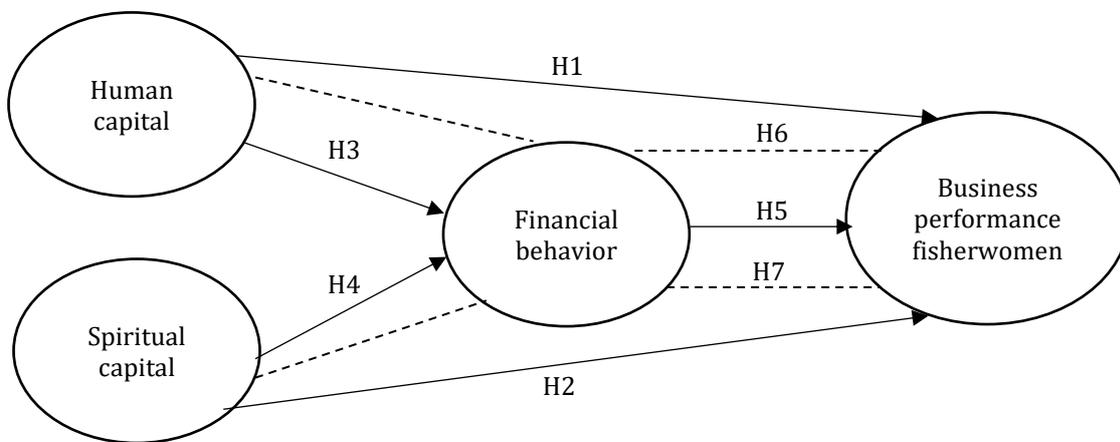


Figure 1 research concept framework

Method

This explanatory research uses a quantitative approach with primary data, testing the proposed hypothesis. Hypothesis testing uses a structural equation model analysis technique with partial least squares and mediation tests using Sobel. Data collection techniques using questionnaires based on the instruments proposed based on previously tested variables and indicators, with variable measurement using the Likert scale (scale 1 to scale 5 - strongly disagree to agree strongly). The population of this study was fisherwomen at the Situbondo regency fish auction place as members of the association, totaling 66 female fishermen. Determination of the number of samples using saturated sampling techniques, all population numbers are used as samples. Instrument measurement in research describes variables and indicators explained in Table 1.

Table 1 operational variables

Variables	Indicators	Statements	Scale
Human capital (HC)	Social competence	<ol style="list-style-type: none"> Together with fellow fishermen's wives, they help each other in the process of drying fish, processing seafood, or other economic activities. Accustomed to communicating with traders or buyers regarding the sale and purchase of seafood. The ability to diversify marine products (for example processing fish into crackers, shredded fish, or salted fish) to increase sales value. Able to manage family finances with uncertain income from fishing catches 	Likert
(Easmon et al. 2019)			

Variables	Indicators	Statements	Scale
	Motivation	5. The main income from fishing is sufficient to meet the family's basic needs every month. 6. Feel that you have expertise or skills that are relevant to the business you are running	
	Leadership skills	7. Able to manage family finances well, including when income is uncertain 8. Tell your husband/relative to stay safe while at sea. 9. Have ideas or suggestions to increase family income other than from fishing catches	
	Spiritual capital (SC) (Khalique et al. 2013; Neubert et al. 2017)	Faith	
	Emotion	3. Able to manage household finances well, especially during lean seasons or when the husband's income is uncertain. 4. Can understand that the work of fishermen has high risks and challenges. 5. Willing to sacrifice time or personal desires to support her husband's work as a fisherman.	
	Ethical values	6. Always honestly report the amount of income obtained from selling seafood to your husband. 7. Never belittle or laugh at other people's opinions in your environment	
Financial behavior (FB) (Kempson, Finney, and Poppe 2017; Kaban and Safitry 2020; Rahim and Balan 2020)	Financial planning	1. Make a plan to achieve your desired financial goals 2. Establish a spending plan in financial allocation 3. Creating a financial plan for special and unexpected events	Likert
	Financial management	4. Record all daily income and expenses in business activities 5. Conduct a financial evaluation before making a significant purchase for your business.	
	Credit management	6. Taking credit to add merchandise/materials for production 7. Taking credit/loans to purchase assets 8. Pay bills on time	
Business performance fisherwomen (BP) (Mellinia, Budiarti, and Ulfah 2023)	Financial performance	1. Profit achievement in one period 2. Rate of return on assets 3. Increase in business capital.	Likert
	Product performance	4. Growth in the number of fish obtained, 5. Increased fish catch.	
	Market performance	6. Sales volume development, 7. Growth in consumers served (market share).	

Results and discussion

Respondent demographics

Table 2 explains demographic characteristics, including age range, education level, sales turnover, and length of time as a fisherwoman. Table 2 shows that the characteristics based on age are mostly between 41 and 50, the average education level is junior high school, the maximum monthly sales turnover is between five million and ten million, and the length of time as a fisherwoman is between 5 and 10 years.

Table 2 respondent demographics

Description		Frequency	Percentage
Age	20 years - 30 years	11	16.66
	31 years - 40 years	16	24.24
	41 years - 50 years	21	31.82
	Over 50 years	18	27.28
Level of education	Elementary school	12	18.18
	Junior high school	25	37.88
	Senior high School	23	34.85
	College	6	9.09
Sales turnover (in a month)	Less than 5 million	23	34.85
	5 million to 10 million	31	46.97
	Above 10 million	12	18.18
Long time as a fisherwoman	Less than 5 years	17	25.76
	5 years to 10 years	27	40.91
	10 years and above	22	33.33

Source: primary data (processed, 2025)

Outer model

Outer model testing aims to determine a model's validity and reliability. This test analysis will consider the influence of the loading factor, average variance extracted (AVE), and composite reliability. The results of measuring the variable indicators that can form latent variables with CFA on human capital, spiritual capital, financial behavior and business performance fisherwomen.

Table 3 validity and reliability results

Variables	Items	Factor loading	Cronbach's alpha	Composite reliability	AVE
Human capital (HC)	HC1	0.709	0.894	0.904	0.544
	HC2	0.625			
	HC3	0.777			
	HC4	0.723			
	HC5	0.638			
	HC6	0.786			
	HC7	0.786			
	HC8	0.804			
	HC9	0.764			
Spiritual capital (SC)	SC1	0.705	0.855	0.867	0.533
	SC2	0.784			
	SC3	0.809			
	SC4	0.781			
	SC5	0.655			
	SC6	0.649			
	SC7	0.709			
Financial behavior (FB)	FB1	0.659	0.862	0.871	0.512
	FB2	0.673			
	FB3	0.617			
	FB4	0.751			
	FB5	0.798			
	FB6	0.799			
	FB7	0.748			
	FB8	0.654			

Variables	Items	Factor loading	Cronbach's alpha	Composite reliability	AVE
Business performance fisherwomen (BP)	BP1	0.730	0.893	0.895	0.610
	BP2	0.792			
	BP3	0.796			
	BP4	0.756			
	BP5	0.768			
	BP6	0.797			
	BP7	0.824			

Source: primary data (processed, 2025)

Table 3 shows that the items that form human capital, spiritual capital, financial behavior and business performance of fisherwomen have a factor loading value > 0.6. Thus, all items can form human capital, spiritual capital, financial behavior and business performance of fisherwomen. The item that is considered to have the greatest contribution to forming human capital is the ability to motivate others, the greatest contribution to forming spiritual capital is the ability to complete tasks, the greatest contribution to forming financial behavior is taking credit to add merchandise/materials for production and the greatest contribution to forming business performance of fisherwomen is the growth of consumers served (market share). Cronbach's alpha value > 0.6, composite reliability > 0.7, and the AVE value > 0.5. These results indicate that for all consistency variables in measuring research variables, no dimensionality problems were found, and convergent validity was stated when forming each variable.

Inner model

The evaluation of the structural model, or inner model, involves assessing the R-square value of the latent variable by the Geisser Q-square test, followed by an analysis of the magnitude of the structural path coefficient. The reliability of the structural route coefficient estimate is assessed by the t-statistics derived from the bootstrapping method. The inner model test is indicated by the R-square value in the equation involving latent variables. The R-square calculation results are presented in Table 4.

Table 4 R-square results

Construct	R-square
Financial behavior	0.881
Business performance fisherwomen	0.894

Source: primary data (processed, 2025)

The total determination coefficient (Q^2) was employed to evaluate the model's feasibility, as indicated by the calculation results in Table 4. Q-square assesses the accuracy of the observed values generated by the model and its parameter estimations. The Q-square value is calculated using the following formula:

$$Q^2 = 1 - (1 - R_1^2) * (1 - R_2^2)$$

The calculation of Q-square using the R-square data in the three models above can be done as follows:

$$Q2 = 1 - (1 - 0.8812) \times (1 - 0.8942)$$

$$Q2 = 1 - (0.224) \times (0.201)$$

$$Q2 = 1 - (0.045)$$

$$Q2 = 0.955$$

The Q-square (Q^2) computation yielded a value of 0.955, indicating that the study model accounts for 95.5% of the variance. The influence of human capital and spiritual capital



on the financial behavior and business performance of fisherwomen is 95.5%, indicating that the developed model possesses a high predictive relevance value.

Table 5 hypothesis results

Hypothesis	F-square	Coefficient	T-statistics	P-values
H1: HC → BP	0.136	0.303	2,890	0.004
H2: SC → BP	0.264	0.337	4,070	0.000
H3: HC → FB	1,160	0.675	9,517	0.000
H4: SC → FB	0.228	0.299	4.085	0.000
H5: FB → BP	0.121	0.348	2,529	0.011
H6: HC → FB → BP	-	0.235	2.426	0.015
H7: SC → FB → BP	-	0.104	2,086	0.037

Source: primary data (processed, 2025)

Table 5 shows that the influence of human capital on business performance of fisherwomen produces a t-statistics = 2,890 > 1.96, with a p-value = 0.004 < 0.05, so H1 is accepted. This means human capital positively and significantly influences the business performance of fisherwomen. Increasing human capital is followed by increasing the business performance of fisherwomen by 13.6%, and the magnitude of human capital's influence on fisherwomen's business performance provides a weak contribution with an f-square value of 0.136 > 0.02. The influence of spiritual capital on the business performance of fisherwomen produces a t-statistics = 4.070 > 1.96, with p-values = 0.000 < 0.05, so H2 is accepted. This means spiritual capital positively and significantly influences the business performance of fisherwomen. An increase in spiritual capital is followed by an increase in the business performance of fisherwomen by 33.7%, and the magnitude of the influence of spiritual capital on the business performance of fisherwomen provides a moderate contribution with an f square value of 0.264 > 0.15.

The influence of human capital on financial behavior produces a t-statistics = 9.517 > 1.96, with p-values = 0.000 < 0.05, so H3 is accepted. This means human capital positively and significantly influences financial behavior. An increase in human capital is followed by an increase in financial behavior of 67.5%. The magnitude of the influence of human capital on financial behavior provides a strong contribution with an f-square value of 1,160 > 0.35. The influence of spiritual capital on financial behavior produces a t-statistic = 4.085 > 1.96, with p-values = 0.000 < 0.05, so H4 is accepted. This means spiritual capital positively and significantly influences financial behavior. An increase in spiritual capital is followed by an increase in financial behavior of 29.9%, and the magnitude of the influence of spiritual capital on financial behavior provides a moderate contribution with an f-square value of 0.225 > 0.15.

The influence of financial behavior on the business performance of fisherwomen produces a t-statistics = 2.529 > 1.96, with p-values of 0.011 < 0.05, so H5 is accepted. This means financial behavior positively and significantly influences the business performance of fisherwomen. An increase in financial behavior is followed by an increase in the business performance of fisherwomen by 34.8%, and the magnitude of financial behavior's influence on fisherwomen's business performance provides a weak contribution with an f square value of 0.121 > 0.02. The results of indirect testing of financial behavior mediate the influence of human capital on business performance of fisherwomen, producing t-statistics = 2.426 > 1.96, with p-values of 0.015 < 0.05, so H6 is accepted. This means financial behavior can mediate the influence of human capital on business performance of fisherwomen. An increase in human capital is followed by an increase in financial behavior and has an impact on the business performance of fisherwomen by 23.5%.

The results of indirect testing of financial behavior mediate the influence of spiritual capital on business performance of fisherwomen, producing a t-statistics = 2.086 > 1.96, with

a p-values = $0.037 < 0.05$, so H7 is accepted. This means financial behavior can mediate the influence of spiritual capital on business performance of fisherwomen. An increase in spiritual capital is followed by an increase in financial behavior and has an impact on the business performance of fisherwomen by 10.4%

The influence of human capital on business performance

The analysis results prove that human capital positively influences the business performance of fisherwomen at the fish auction place in Situbondo regency. These results explain that business performance is indicated by the achievement of profit, development of assets owned, and increased capital; fish results obtained and constant innovation on fish obtained from others, such as salted fish and smoked fish, can increase sales volume and meet consumer market share. The urgency of human capital from fisherwomen is that the skills, knowledge, and attitudes they have in traditional fishing families are generally strategic, both as one of the potential family economic supports and as productive workers that can be utilized to provide added value to fish caught by traditional fishermen. The social capital fisherwomen own is built by working together, the communication they build, and the ability to face pressure to maintain and improve the family economy. Motivation is social capital owned by fisherwomen, and they try to meet family needs with their work and skills to sell fish and processed products from the fish they get. The statement pertains to RBT, indicating that fisherwoman possess innovation and networking capabilities that enhance their business performance.

Human capital includes the individual knowledge of an organization that exists in its employees, which is generated through competence, attitude, and intellectual intelligence. Fisherwomen have sufficient practical skills, learning, and experience in the long term to improve performance. The results of this study extend or support research conducted by Wajdi et al. (2018); Rambe, Erlina, and Zulkarnain (2021); Masyhuri et al. (2024); Uzule, Zarina, and Shina (2024) who stated that social capital influences business performance. The results suggest that the human capital of female fishermen enhances marine product productivity, fosters innovation, and enables adaptation to environmental factors, particularly in responding to market and technological changes, thereby improving their business performance. Human capital is key to improving fisherwomen's business performance. Therefore, investment in education, technical training, and capacity building of fisherwomen will bring significant and sustainable economic and social impacts.

The influence of spiritual capital on business performance

The results of the analysis prove that spiritual capital positively influences business performance of fisherwomen. These results can be explained by the fact that fisherwomen at the fish auction place in Situbondo regency are in an area where the community has a high spiritual level, and spiritual capital is inherent in their daily lives. It is a city of Islamic boarding schools where religious education is number one, and the number of Islamic boarding schools is the spiritual capital that influences the characteristics of fisherwomen. Fisherwomen apply the role of spiritual capital in carrying out their daily lives by carrying out their business activities by surrendering and seeking Allah's pleasure in working, solving work problems, prioritizing the common interests of fellow fisherwomen, and giving empathy to each other. In addition, the spiritual capital possessed by fisherwomen always upholds ethical values by trying to be honest and respecting fellow fisherwomen traders. So, spiritual capital can improve the performance of fisherwomen's businesses in terms of finance, marketing, and products. According to the description, if associated with resource-based theory (RBT), the spiritual capital of fisherwomen encompasses values, ethics, and beliefs

rooted in their religious context, influencing their activities, behaviors, and decision-making processes based on religious doctrines.

Spiritual capital is the values of virtue that are embedded and drive their behavior, which is created by a person's beliefs, knowledge, and spiritual practices. The aspect of faith is the most dominant aspect that reflects spiritual capital. This means that fisherwomen always have and apply faith, emotions, religious knowledge, and ethical values that are good in carrying out their business activities. The results of this study are in line with research conducted by Ma'arif, Majid, and Dzikrulloh (2021); Suyono and Septiana (2022); Tjahjadi et al. (2023); Lucellia and Agustina (2024), which show that there is an influence of spiritual capital on business performance. The results show that the spiritual capital of fisherwomen, when aligned with positive ideals, can enhance company performance. Fisherwomen frequently encounter numerous obstacles, including restricted access to cash, technology, markets, and societal conventions that may constrain their responsibilities. Fisherwomen communities frequently serve as the foundation of the family economy by engaging in post-harvest activities, like processing fish into crackers, prawn paste, salted fish or selling products at local markets. Enhancing the enterprises of fisherwomen necessitates mentorship, fortification of business collectives, and leadership rooted in spiritual principles. Spiritual capital encourages fisherwomen to run businesses with strong values, build trust, and face challenges with resilience. The implication is that the economic empowerment of fisherwomen will be more successful if their spiritual aspects are also considered and strengthened.

The influence of human capital on financial behavior

The results of the analysis prove that human capital positively influences financial behavior. These results explain that fisherwomen at the fish auction place in Situbondo regency have the skills and knowledge to manage finances well. The financial behavior of fisherwomen in Situbondo regency is that they can plan finances well by allocating some of their shopping plans to business and personal finances. They also record their daily business income at the fish auction place. This is an indication that the human capital owned by female fishermen influences financial behavior. According to the description, when aligned with RBT, human capital exhibits a robust and direct correlation with the financial behavior of a person, team, or organization. RBT asserts that valuable, rare, inimitable, and non-substitutable internal resources are the primary determinants of competitive advantage, with human capital frequently fulfilling these criteria in financial decision-making.

Rambe, Erlina, and Zulkarnain (2021) revealed that human capital influences financial behavior. The marginalization of women in the role of women in the fisheries and marine sector emphasizes the importance of human capital in good financial behavior. The social capital they have will guarantee that they can manage themselves, motivate others and fellow fisherwomen, and make financial decisions to improve their business performance. The results of this study expand or support the research conducted by Wajdi et al. (2018); Masyhuri et al. (2024); Uzule, Zarina, and Shina (2024), which states that social capital influences business performance. The results of the hypothesis testing regarding the positive impact of human capital on financial behavior encompass knowledge, skills, experience, and individual competencies, which significantly affect the formulation and execution of financial decisions. The human capital fisherwoman possesses encompasses financial behavior characterized by financial literacy and innovative practices in finance, particularly in fintech adoption. Financial behavior that adapts to new technologies, particularly fintech adoption for transaction operations. Therefore, investment in education, training, and individual capacity building is key to creating a financially intelligent society, ultimately strengthening micro and



macroeconomic resilience. The implication is that the financial empowerment of female fishermen must start with improving human capacity, not just providing financial access.

The influence of spiritual capital on financial behavior

The results of the analysis prove that spiritual capital positively influences financial behavior. This result can be explained by the fact that female fishermen at the fish auction place in Situbondo regency always behave financially based on the ability of the spiritual capital they have. Every person, every group of people, has spiritual capital. Conscience is spiritual capital about human activities as human builders. With material capital or lust capital, people strive for their physical needs. Here, conscience capital meets material capital (in a positive sense) to utilize these objects to benefit humans: lust capital or the drive within humans to utilize material capital with sound financial management. According to the description, when aligned with resource-based theory (RBT), spiritual capital encompasses values, ethics, life objectives, and an understanding of profound significance. Once these values are internalized, they will affect financial behavior. The RBT idea posits that the spirituality of fisherwomen fosters Ethics and Integrity in financial decision making, cultivates long-term and sustainable financial behavior, and enhances discipline and resilience in financial management.

The dominant picture of the spiritual capital of fisherwomen is ethical values, where they will behave honestly in managing their finances and respect the rights of others. The values of goodness that drive entrepreneurs are that they firmly adhere to the philosophy that working humans must surrender to God Almighty by working hard. Surely, their activities will receive the blessing of Allah. This study's results align with research conducted by Neubert et al. (2017); Moghadam and Makvandi (2019) stated that spiritual capital influences financial behavior. The results regarding the positive impact of spiritual capital on financial behavior indicate that the spiritual capital possessed by female fishermen, which encompasses ethical values, integrity, purpose, and meaning, can establish a moral and motivational framework that affects financial behavior. The financial discipline and self-restraint exhibited by fisherwoman exemplify the manifestation of spiritual capital, as evidenced by their avoidance of illicit lending institutions, prudent resource management, meticulous financial planning, and abstention from impulsive expenditures. High spiritual capital helps fisherwomen form ethical, responsible, and resilient financial behaviors against economic pressures. Therefore, the financial empowerment of fisherwomen needs to focus not only on technical and material aspects but also on strengthening the spiritual values underlying their financial habits.

The influence of financial behavior on business performance

The results of the analysis prove that financial behavior positively influences business performance. This means that the financial behavior of fisherwomen, along with indicators of financial planning, financial management, and credit management, can improve business performance. Financial planning is carried out by fisherwomen in Situbondo regency, who can plan spending, allocate finances, and prepare plans for their finances. Good financial management is done by recording daily income and expenses from their business activities and assessing whether purchases are made. Credit activities carried out by fisherwomen are accommodated by existing fisherman cooperatives that can produce innovations in fish products, borrowing to increase assets for their businesses. According to the description, when aligned with RBT, a distinctive resource and robust capability are the primary determinants of exceptional business success. The expertise and competencies (human capital) of fisherwomen can enhance operational efficiency and innovation, hence influencing profitability. Financial behavior influences resource utilization (RBT) and business



performance among fisherwomen with developed financial planning and effective cash management.

The key metric is the proficient financial planning of female fishermen to improve their business performance. The conduct of financial management is a factor that can affect the performance of MSME firms. Financial management conduct denotes an individual's ability to manage their financial resources. Research conducted by Fathurrahman, Icih, and Kurniawan (2020) indicates that financial management behavior is a strategy designed to optimize financial operations for effectiveness and efficiency. Research by Humaira and Sagoro (2018) indicates that financial management behavior is an individual's approach to managing funds, influenced by personal psychology and habits. The research findings elucidating the impact of financial behavior on business performance were conducted by Esiebugie, Richard, and Emmanuel (2018); Singh et al. (2019); Mellinia, Budiarti, and Ulfah (2023); Sajuyigbe et al. (2024). The findings demonstrate that financial behavior favorably affects business performance using financial management, financial planning, and knowledge of shifts in digital finance utilization to improve business results. Good financial behavior helps fisherwomen manage business capital and plant growth and sustain their businesses in the long term. Therefore, improving the performance of fisherwomen's businesses needs to be supported by efforts to build wise and sustainable financial behavior.

Financial behavior mediates the influence of human capital on business performance

The results of the analysis prove that financial behavior can mediate human capital's influence on fisherwomen's business performance. This result indicates that social competence, motivation, and leadership skills reflect the human capital of female fishermen in Situbondo regency. Leadership qualities in self-management, motivating others, and decision-making can improve business success by augmenting fish yields and diversifying fish products to elevate sales volume and meet consumer expectations. RBT posits that financial behavior mediates the connection between human capital and business performance, suggesting that human capital—consisting of valuable and rare internal resources such as individual knowledge, skills, and experience—does not directly improve business performance. The positive influence of human capital on corporate success is mainly explained by its financial dynamics. Uzule, Zarina, and Shina (2024) elucidated that human capital exerts a favorable and significant influence on success, indicating that elevated human capital will propel the success of MSMEs. Mayo (2000) delineated human resources into three dimensions: talent and potential, motivation and commitment, and creativity and learning, which can enhance corporate success. Previous studies indicated that human capital influences corporate success (Wajdi et al. 2018; Rambe, Erlina, and Zulkarnain 2021; Masyhuri et al. 2024).

Financial behavior examines human actions in financial decision-making, particularly the psychology behind these decisions to enhance business success. Prior study indicates that financial conduct influences corporate performance (Esiebugie, Richard, and Emmanuel 2018; Singh et al. 2019; Mellinia, Budiarti, and Ulfah 2023; Sajuyigbe et al. 2024; Setiani, Pratiwi, and Komara 2024). Human capital encompasses knowledge, skills, innovation, and an individual's capacity to do tasks that generate value for attaining objectives in financial management. Prior research findings indicate that human capital influences financial behavior, as evidenced by Wajdi et al. (2018); Masyhuri et al. (2024) Uzule, Zarina, and Shina (2024).

Financial behavior is a vital connection in clarifying how the human capital of fisherwomen, encompassing traditional knowledge of marine products, fish management skills, and networking experience, may be transformed into improved firm success. Although fisherwomen possess adequate skills and expertise, their ability to augment revenue or guarantee business sustainability would remain unrealized without robust financial processes. This includes adequate financial literacy (understanding of selling prices,



operational costs, or profits), disciplined financial practices (such as differentiating between personal and business finances or keeping records of income and expenses), and judicious money management habits (for example, designating a portion of sales revenue for savings or investing in high-quality fishing equipment). Positive financial behavior will facilitate the optimal utilization of robust human capital, empowering fisherwomen to make judicious economic decisions, improve risk management, and ultimately attain significant enhancements in their business performance. Therefore, investment in human capital will only be effective in improving business performance if accompanied by changes in financial behavior. This means that a successful empowerment strategy is not enough to increase knowledge; it must also ensure fisherwomen manage their finances wisely and with discipline.

Financial behavior mediates the influence of spiritual capital on business performance

The results of the analysis prove that financial behavior can mediate the influence of spiritual capital on the business performance of fisherwomen. This result means that faith, emotions, and ethical values indicate fisherwomen in Situbondo regency have spiritual capital. The dominant indicator in the spiritual capital of fisherwomen is ethical values, where fisherwomen, in their business activities, have honest behavior and respect for fellow fisherwomen. Within the framework of RBT, spiritual capital is regarded as a highly valued and distinctive intangible asset. It pertains not solely to religion but rather to fundamental values, convictions, and ethical standards that direct people in conducting business. The performance of a business is influenced by its distinctive resources and competencies. These resources are frequently intangible and location-specific for fisherwomen rather than substantial physical assets. Lucellia and Agustina (2024) stated the importance of spirituality in overcoming difficulties and achieving success for female entrepreneurs. This shows that spiritual practices can provide peace and support for business success. The results of the study on spiritual morals affecting business performance were conducted by Ma'arif, Majid, and Dzikrulloh (2021); Tjahjadi et al. (2023). Garman and Forgue (2001) asserted that financial behavior entails the administration of financial resources to attain success in financial management, credit management (debt), financial planning, and financial evaluation to enhance corporate performance. The findings of a study elucidating the impact of financial behavior on business performance.

High spiritual intelligence facilitates efficient financial management, leading us toward a deeper understanding of the meaning of life and broader goals. Spiritual intelligence helps individuals discover their values and formulate correct financial management goals, preventing inappropriate financial accumulation (Tjahjadi et al. 2023). Meanwhile, financial management behavior refers to an individual's ability to manage their funds, including planning, budgeting, and saving. People try to meet their needs based on income. The results of this study support research conducted by Ma'arif, Majid, and Dzikrulloh (2021); Suyono and Septiana (2022); Tjahjadi et al. (2023); Lucellia and Agustina (2024) that spiritual capital affects business performance. Financial behavior may mediate between spiritual capital and business performance among fisherwomen, where elevated spiritual capital, characterized by integrity, trust, and a robust work ethic, influences the management of their business finances. Effective financial management, encompassing budget planning, prudent investment, and risk mitigation, will ultimately enhance business performance, evidenced by improved earnings, business expansion, or financial stability. Consequently, spiritual capital does not directly enhance corporate success but influences it through appropriate financial practices. Therefore, spiritual values need to be realized in the form of concrete financial behavior to impact business performance. The implication is that empowerment programs are not enough



to only touch on moral or value aspects but must also ensure a change in financial behavior in the daily practices of fisherwomen.

Conclusions

Human capital, spiritual capital, and financial behavior positively influence the commercial success of fisherwomen at the fish auction place in Situbondo regency. Human capital and spiritual capital positively influence financial behavior. The beneficial impact of human and spiritual capital on corporate performance indicates that social competence, motivation, and leadership abilities in human capital, along with faith, emotions, and ethical ideals in spiritual capital, can enhance business performance and financial conduct. Financial behavior encompassing planning, financial management, and credit management can enhance corporate performance. The indirect effect posits that financial behavior mediates the impact of human capital and spiritual capital on fisherwomen's business performance and financial behavior in Situbondo regency, indicating that planning, financial management, and credit management can enhance the influence of human capital and spiritual capital on business performance.

This study provides contributions and theoretical implications for the resource theory that fisherwomen can manage human resources through human capital and spiritual capital as indicated by their knowledge, skills, and abilities to achieve business performance spiritual capital with faith, emotions, and ethical values as intangible assets. Practical implications, especially for related agencies of Situbondo regency and the marine and fisheries agency, are to pay attention to fisherwomen in improving business performance, focusing on how financial behavior is supported by human and spiritual capital. In addition, programs for developing fisherwomen through training in increasing spiritual capital, human capital, and financial management should be prepared to improve their business performance. This study is limited in that it investigates social capital by correlating human and spiritual capital with business performance, using financial behavior as a mediating factor. Further research is advised to investigate the facets of government regulation and the application of digital finance in business growth studies. In addition to the study's limitations, the sample size is less than 100 respondents. The sample is only fisherwomen registered as members of the association in Situbondo, so the study's results cannot be generalized to fisherwomen in other areas.

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