“Impact of knowledge management, knowledge sharing, and mental accounting on farmer performance in Sasi culture in Maluku Islands, Indonesia”

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IMPACT OF KNOWLEDGE MANAGEMENT, KNOWLEDGE SHARING, AND MENTAL ACCOUNTING ON FARMER PERFORMANCE IN SASI CULTURE IN MALUKU ISLANDS, INDONESIA

Abstract

The welfare of farmers and agricultural productivity are significantly influenced by challenges in business and financial management. This study investigates how knowledge management, knowledge sharing, and mental accounting impact farmer performance within the unique context of Sasi culture in Maluku Islands, Indonesia. Knowledge management provides farmers with the tools to acquire, utilize, and apply agricultural insights, while mental accounting shapes their financial decision-making and resource allocation. Using a mixed-method approach that combines WarpPLS and ethnomethodology, data were gathered through questionnaires distributed to 65 respondents and in-depth interviews with selected participants. The analysis revealed that knowledge management significantly impacts farmer performance with a path coefficient of 0.717 ($p < 0.001$), while mental accounting also has a positive effect with a coefficient of 0.164 ($p = 0.050$). However, knowledge sharing did not significantly affect performance (coefficient = 0.372, $p = 0.382$). The results suggest that Sasi culture, deeply rooted in local wisdom, helps integrate knowledge management and mental accounting to improve farmer welfare and agricultural income. Despite the ineffectiveness of formal knowledge sharing, the cultural practice of Sasi inherently promotes the sharing of knowledge within the community, enhancing the overall management of agricultural practices. This study emphasizes the role of local wisdom in creating sustainable agricultural practices and highlights the potential of Sasi culture to synergize modern knowledge management with traditional financial behaviors.

Keywords knowledge, mental accounting, behavior, culture, local wisdom

JEL Classification D83, G41, M40, Q15

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INTRODUCTION

The welfare of farmers in Maluku, Indonesia, is significantly affected by a lack of knowledge in business and financial management, leading to declining agricultural productivity and, consequently, reduced farmer income. Addressing these challenges requires integrating knowledge management, knowledge sharing, and mental accounting practices. Knowledge management helps farmers access, apply, and share valuable agricultural knowledge, enabling them to adopt better farming techniques and improve productivity (Matsvai et al., 2022). Knowledge sharing facilitates the exchange of ideas and practices among farmers, fostering a collaborative environment that enhances skill development and innovation. In rural farming communities with Sasi local wisdom, mental accounting is particularly critical, as it influences financial decision-making and resource allocation, helping farmers make informed choices that directly impact their income and economic stability (Huang et al., 2020). The traditional Sasi culture

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in Maluku, which emphasizes community wisdom and resource management, offers a unique framework for integrating these practices, yet their potential remains underexplored. Although previous research highlights the importance of financial behavior in improving farmer productivity (Hammond et al., 2023), the intersection of local cultural practices and these management techniques has not been thoroughly examined. Investigating how knowledge management, knowledge sharing, and mental accounting interact within the Sasi culture, can fill this gap and provide insights into how these practices can improve farmers' income and welfare sustainably. Understanding this relationship is important for developing agricultural strategies aligning with modern practices and local traditions.

1. LITERATURE REVIEW

Knowledge Management (KM) is a systematic approach used by organizations to collect, store, share, and utilize the knowledge contained within them. This knowledge includes information, skills, experience, and insights possessed by individuals and groups within the organization. The main goal of KM is to ensure that relevant knowledge is accessible to all members of the organization for better decision-making and improved performance. Knowledge management can play an important role in the agricultural sector. Farmers can access the latest information regarding farming techniques, fertilizer use, and pest management. This allows farmers to implement best practices and increase their productivity (Alshawabkeh et al., 2020). Through knowledge management, farmers can take part in community-based or digital training, which improves their skills and knowledge regarding modern agricultural technology. Measuring the effectiveness of knowledge management in an organization or farming community can be done by making knowledge easily accessible to farmers, including technical information, training and market data (Ta'Amnha et al., 2023). Availability of knowledge used in daily work processes, including the adoption of new practices and implementation of agricultural technology. Frequency and quality of knowledge sharing between community members or farmer groups. This includes discussions, workshops and collaboration activities. By implementing effective Knowledge Management, farmers can optimize their work processes, increase production yields, and reduce risks, thereby contributing to improving overall agricultural performance.

Farmer groups have knowledge management obtained from formal education within their members' scope of agricultural science and technology. Indonesia as an agricultural country provides many opportunities for people to complete formal education in the agricultural sector. However, in reality, agricultural activities have been trapped in an increasingly difficult situation due to decreasing resources. Urban expansion in developing countries has encroached on fertile agricultural land (Weldearegay et al., 2021). Farmers are now losing land for farming, losing their livelihoods and decreasing food production (Matsvai et al., 2022). The specific benefit of knowledge management is that farmers can easily use it to plant agricultural products that have superior varieties. This knowledge is usually obtained by farmer groups through outreach from the local government which is routinely scheduled three times a year. Farmers increase their knowledge of using agricultural technology from the results of discussions between farmer groups to increase the productivity of their agricultural products (Yoshikuni et al., 2024; Mantow & Nilasari, 2022). Farmer groups can easily utilize knowledge sources to increase their knowledge in selecting seeds with superior varieties, processing agricultural land effectively and efficiently, and producing superior agricultural products (Qi et al., 2023; Ma et al., 2018). The impact for farmer groups with good knowledge management will increase income (Rezaei et al., 2021). Farmer groups in Indonesia acquire knowledge management through formal education in agricultural science and technology, supported by government outreach programs. This knowledge helps farmers adopt superior crop varieties, improve agricultural practices, and boost productivity.

The knowledge-sharing process involves exchanging ideas, learning, and transferring knowledge to enhance individual skills and capabilities (Liu et al., 2024; Farahian et al., 2022). Knowledge sharing is often described as a collaborative process

of discussion and idea exchange. This helps organizations maintain a competitive edge. It is a key component of knowledge management, providing opportunities for group members, teams, or company employees to share their knowledge, techniques, experiences, and ideas with one another. Effective implementation of knowledge sharing aligns with the company's performance processes. As highlighted by Farahian et al. (2022), successful knowledge sharing improves innovation in processes and product quality through new technology adoption, which in turn enhances overall company performance. Thus, knowledge sharing can be seen as a method for distributing knowledge among individuals, stimulating creative thinking, and improving effectiveness, ultimately benefiting the organization. It also supports employees in solving daily work challenges. Knowledge sharing leads to the optimal utilization of existing knowledge (Hilmawati et al., 2023). Moreover, it fosters exploration and the creation of new knowledge. Therefore, cultivating a strong culture of knowledge sharing among employees is essential for ensuring that both internal and external developments are communicated effectively across all levels of the organization. Knowledge sharing is a collaborative process that enhances individual skills, stimulates creativity, and improves organizational effectiveness by facilitating the exchange of ideas, techniques, and experiences. Cultivating a strong knowledge-sharing culture is essential for fostering innovation, optimizing the use of existing knowledge, and ensuring effective communication across all organizational levels.

Mental accounting theory was first initiated by Richard Thaler in 1985. Mental accounting is a model of consumer behavior viewed from psychological and microeconomic aspects (Thaler, 1985). Furthermore, Silva et al. (2023) explain that mental accounting is a mental process used by individuals or households to organize, evaluate, and track their financial activities. The mental accounting process is a cognitive process that includes recording, summarizing, analyzing transactions, and reporting transactions that occur within an individual or household, like a company. Mental accounting helps individuals make decisions based on the utility of financial transactions, as reflected in a person's behavior. Lipscomb and Schechter (2018) argue that households categorize purchasing transactions based on targeted household budgets. In conclusion, mental accounting provides a structured cognitive process for individuals and households to manage, evaluate, and track their financial activities, much like a business. By categorizing financial transactions, mental accounting helps guide decision-making and optimize the use of resources based on budgetary goals

The manifestation of mental accounting can be seen not only in the planning and control process but also in the form of financial decisions (Thaler, 1999). This manifestation clearly illustrates that the harvest obtained by the community when the Sasi has been opened is not only for the benefit of the resource owner but is also distributed to the local government. The manifestation of mental accounting in financial decisions made by farming communities in Maluku is identical to decisions in managing rights and obligations towards biological assets and structuring the function of natural resources. This is done to manage opportunities to earn income in the form of money. The financial decisions made not only have implications for material accounts but also have an impact on achieving non-material income accounts, namely the establishment of the strength of togetherness in society in the form of cooperation to obtain prosperity and happiness. In addition, the form of mental accounting in financial decisions also has implications for increasing community income in the long term through profit sharing based on local wisdom. Cooperation capital is a mental accounting component that can encourage sustainable community economic cooperation. Mutual cooperation is carried out repeatedly every time the Sasi culture is implemented.

Farmers have an important role in maintaining food security. By giving high appreciation to farmers, we can understand the importance of maintaining farmer welfare and supporting sustainable agriculture. Increasing agricultural value production and off-farm income has proven to be an important mechanism for avoiding poverty (Huang et al., 2021). Increasing the production of agricultural value can provide a way out of poverty even though it is only intended for households that have sufficient resources. According to Anang and Apedo (2023), one important strategy for farmers in low-income countries is to diversify

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their income. By diversifying their income, farmers can invest the income they receive from outside agriculture to increase their income. Farmers become key person in ensuring food security, and their welfare is vital for achieving sustainable agriculture. Strategies such as increasing agricultural value production and diversifying income sources enable farmers, particularly in low-income countries, to improve their financial stability and invest in long-term economic growth.

Improving the welfare of small farmers requires assistance from local governments and agricultural experts to increase the productivity of agricultural products. In addition, the results of a study by Huang et al. (2021) show that social support, both formal and informal, plays a role in the development transformation process of small farmers, which has implications for sustainable poverty alleviation to improve welfare. Meanwhile, according to Li et al. (2023), culture influences a company's economic decisions. The results of a study by Wang et al. (2023b) show that culture plays an important role in shaping farmer behavior in achieving sustainable agricultural production. Social capital can be a stimulant capital for poor farmers to provide energy to get out of the problems they face. Farmer poverty alleviation can also be done through improving skills in financial management (Weldearegay et al., 2021) and increasing the value of agricultural production (Hammond et al., 2023). In addition, increasing agricultural productivity, improving financial management capabilities, and implementing sustainable agriculture play an important role in alleviating poverty and achieving prosperity for farmers (Beyene et al., 2020. Furthermore, to increase income, farmers need to improve their skills in managing finances, managing resources efficiently, and building relationships of mutual trust (Anang & Apedo 2023). Improving the welfare of small farmers requires a multifaceted approach, including support from local governments, social capital, and financial management training to enhance agricultural productivity and resource efficiency. Cultural influences and social support systems play a critical role in shaping farmer behavior, while sustainable agricultural practices and skill development are essential for poverty alleviation and achieving long-term prosperity.

The literature informs that knowledge management, knowledge sharing, and mental accounting will add the required ingredients to increase agricultural productivity and improve financial decisions. It is bounded by culturally specific frameworks, such as Sasi culture, and will foster sustainability as traditional wisdom is combined with modern agricultural and financial strategies.

This study aims to explore the relation knowledge management, knowledge sharing and mental accounting behavior in the Sasi culture of Maluku Islands, Indonesia. The hypotheses are:

H_1: *Knowledge management influences farmer performance in Sasi culture.*

H_2: *Knowledge sharing influences farmer performance in Sasi culture.*

H_3: *Mental accounting behavior influences farmer performance in Sasi culture.*

2. METHODS

This study explores the behavior of farming communities in Maluku, which is shaped by knowledge management, knowledge sharing, and mental accounting in Sasi culture local wisdom. Sasi is a traditional system of resource management unique to Maluku Islands, Indonesia. It encompasses customary laws and practices designed to regulate the use of natural resources, promote sustainable agricultural practices, and uphold social harmony within the community. These elements make Sasi culture a compelling case for studying the integration of knowledge management, knowledge sharing, and mental accounting, as it inherently combines elements of communal governance, ecological sustainability, and financial prudence.

The Sasi system represents a rare and enduring example of local wisdom that aligns with modern principles of sustainable development. By regulating access to resources and encouraging collective decision-making, Sasi offers a natural framework for exploring how traditional cultural practices can intersect with contemporary management techniques to improve farmer performance and

welfare. Maluku is characterized by its strong reliance on agriculture for livelihood and economic stability, yet farmers in the region face persistent challenges, including low productivity, limited financial literacy, and resource constraints. The Sasi culture addresses these challenges through its unique mechanisms.

1. Knowledge Management: Traditional leaders, such as kings and pastors, act as custodians of agricultural knowledge, facilitating the dissemination of best practices through community meetings and rituals.

2. Knowledge Sharing: Sasi fosters a culture of collaboration and mutual support, where farmers informally share insights and experiences during collective activities.

3. Mental Accounting: The cultural emphasis on shared benefits and long-term planning aligns with the principles of mental accounting, ensuring sustainable use of resources.

The Sasi culture in Maluku was chosen due to its specific characteristics and for its potential to be illustrative in broader agricultural development strategies. In the Sasi system, Indigenous knowledge and cultural values merge with contemporary practices to solve urgent issues like resource scarcity, economic vulnerability, and environmental degradation. The relevance of Sasi culture lies in its capacity to address several critical issues faced by smallholder farmers in the region, including low agricultural productivity, limited financial literacy, and resource management challenges. Sasi embodies local wisdom that promotes sustainable practices and collective well-being, offering a rich context to explore the interactions among knowledge management, knowledge sharing, and mental accounting. These attributes make Sasi culture a compelling case study for investigating how traditional practices can enhance farmer income and welfare sustainably.

Table 1. Research instrument measurement

Authors	Definition of variable	Measurement
Knowledge Management (X_1)		
Almuayad and Chen (2024), Alharbi and Aloud (2024)	A strategy that can create, acquire, and bring towards the use of knowledge to improve organizational performance	Knowledge identification (X_1.1) Knowledge creation. (X_1-2) Stock of knowledge (X_1-3) Level of understanding (X_1.4) Share knowledge. (X_1-5) Delivery of knowledge (X_1.6) Use of knowledge (X_1-7)
Knowledge sharing (X_2)		
Liu et al. (2024), Farahian et al. (2022)	Knowledge Sharing process is described as a process of exchanging ideas, learning, and imparting knowledge in order to increase individual excellence	Information Sharing (X_2.1) Skill Sharing (X_2-2) Receiving Knowledge (X_2.3) Accepting other people's expertise (X_2-4) How to convey information (X_2-5) Knowledge channel (X_2-6) Information openness and neutrality (X_2-7)
Mental Accounting (X_3)		
Thaler (1985), Mahapatra et al. (2022)	Mental accounting is a model of consumer behavior viewed from psychological and microeconomic aspects to organize their financial activities	Environmental sensitivity (X_3-1) Self-actualization (X_3-2) Decision making (X_3-3) Opportunity taking (X_3.4) Financial decisions (X_3-5) Results orientation (X_3-6) Work seriousness (X_3-7)
Performance (Y)		
Mantow and Nilasari (2022)	Performance is the achievement of quality and quantity results for individuals or groups that are in accordance with organizational goals that are measurable and whose benefits can be identified	Reliability (Y-1) Quality of results (Y-2) Yield quantity (Y-3) Ability to work together (Y-4) Ability to adapt to the environment (Y-5) Welfare (Y-6) Production increase (Y-7)

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A mixed-methods approach was thus applied to capture such complexity. Integrating quantitative and qualitative methods helps present an all-rounded comprehension of the subject at hand:

1. Quantitative Analysis: Quantitative data collection was done from 65 farmers using structured questionnaires. WarpPLS software was used to analyze the associations between knowledge management, knowledge sharing, and mental accounting and their consequences on farmer performance.

2. Qualitative Analysis: The interviews with the key informants, including customary leaders, farmers, and academics, were conducted using the ethnomethodological approach to investigate the unique attributes of Sasi culture (Neyland & Whittle, 2018; Kamayanti, 2016).

The interpretive paradigm describes how cultural practices shape farmers' behaviors and decisions.

The data collection was done using several ways to ensure validity and reliability:

a) The questionnaires were used for capturing quantitative data on practices and perceptions of respondents regarding knowledge management and sharing, and mental accounting (Table 1).

b) In-depth interviews with traditional leaders and members provided qualitative data on the cultural and behavioral features of Sasi.

c) Field visits to take a first-hand look at field practices concerning Sasi, such as community discussions and rituals in resource management.

3. RESULT

3.1. Validity test

Convergent Validity occurs when the values obtained from different instruments measure the same construct and have a high value. It can be seen from the standard loading factor to evaluate convergent validity, which is said to be valid if it has a value > 0.7 and an AVE value > 0.5 (Hair et al., 2019). Table 2 shows that all questionnaire items in this study were declared valid with Loading Factor values and AVE test results greater than 0.7

Table 2. Loading factor

Variable	Indicator	loading factor	AVE	Conclusion
Knowledge management X_1	X_1-1	(0.753)	(0.744)	Valid
	X_1-2	(0.718)		Valid
	X_1-3	(0.716)		Valid
	X_1-4	(0.720)		Valid
	X_1-5	(0.831)		Valid
	X_1-6	(0.750)		Valid
	X_1-7	(0.813)		Valid
Knowledge sharing X_2	X_2-1	(0.717)	(0.701)	Valid
	X_2-2	(0.737)		Valid
	X_2-3	(0.785)		Valid
	X_2-4	(0.721)		Valid
	X_2-5	(0.719)		Valid
	X_2-6	(0.708)		Valid
	X_2-7	(0.718)		Valid
Mental accounting X_3	X_3-1	(0.758)	(0.709)	Valid
	X_3-2	(0.735)		Valid
	X_3-3	(0.751)		Valid
	X_3-4	(0.758)		Valid
	X_3-5	(0.823)		Valid
	X_3-6	(0.754)		Valid
	X_3-7	(0.716)		Valid
Farmer perfomace Y	Y-1	(0.743)	(0.767)	Valid
	Y-2	(0.744)		Valid
	Y-3	(0.869)		Valid
	Y-4	(0.804)		Valid
	Y-5	(0.741)		Valid
	Y-6	(0.741)		Valid
	Y-7	(0.780)		Valid

3.2. Reliability test

Testing can be done by examining the latent variable coefficients view. There are two criteria that need to be considered, namely, the composite reliability value and Cronbach's alpha. This is considered good if it is ≥ 0.5 and sufficient ≥ 0.3. If these values are met then the construct is considered reliable.

Table 3. Composite reliability and Cronbach's alpha

Composite Reliability	Cronbach's alpha
0.895	0.864
0.868	0.822
0.874	0.832
0.908	0.882

Table 3 shows that the value for composite reliability and Cornbach's alpha for each variable is > 0.70, then it can be concluded that the test results are reliable.

The APC and ARS values are considered acceptable if the p-value is < 0.05 and the AVIF value is less than 5. The suitability of the model in this study can be seen in the following table:

Table 4. APC, ARS, and AVIF test results

Index	Value	P value
Average path coefficient	0.304	0.002
Average R-squared	0.686	0.001
Average Varians Factor	4.148	< 3.3

Based on Table 4, the APC value is 0.305 with a p-value of 0.002, and the ARS value is 0.686 with a p-value of 0.001. These two indices have a p-value < 0.05 so they are accepted. The AVIF value is 4,148 and is smaller than 5 so the AVIF value can be said to be acceptable. This shows that the model in this study fits the data.

Table 5. R-Square (R^2) test

Variable	*R-Square* (R^2)	Conclusion
Farmer performance	0.671	Moderate

It can be seen that the R-Square value of interest is 0.671, which means it equals 67.1% in Table 5. This means that the ability of the independent variable can be considered moderate.

3.3. Hypothesis testing

Table 6. Path coefficients and P values

Hypothesis	Path coefficients	P Values	Conclusion
H_1: KM → FP	0.717	0.001	Accepted
H_2: KS → FP	0.372	0.382	Rejected
H_3: MA → FP	0.164	0.050	Accepted

This test was carried out to determine the direction of the relationship and the significance value of the influence of the variables of knowledge management, knowledge sharing and mental accounting on farmer performance

Hypothesis 1 has a Path coefficient value of 0.717 with P Values of 0.001, so H_1 is accepted. It can be seen from Table 6 that the knowledge management variable influences farmer performance.

Table 6 shows that Hypothesis 2 has a Path coefficient value of 0.372 with P Values of 0.382 so H_2 is rejected. This shows that the knowledge-sharing variable has no effect on farmer performance.

Hypothesis 3 has a Path coefficient value of 0.164 with P Values of 0.050, so H_3 is accepted. Table 6 shows that the mental accounting variable influences farmer performance.

4. DISCUSSION

The research findings show that knowledge management affects farmer performance in the Sasi culture. The results of in-depth interviews with key informants in Saniri Soahuku Village in this study, state Sasi, is led by the King, while church Sasi is led by the Pastor, both are believed to be sources of knowledge for farmer groups. The implementation of Sasi must be discussed together as a form of knowledge management, starting with a discussion in Baeleo to implement the agricultural development. Knowledge management is an important aspect of agricultural development, as it ensures that the acquisition, dissemination, and utilization of relevant information are carried out systematically. In the Sasi culture, knowledge management takes on a unique form that is deeply intertwined with the traditional governance structures led by customary leaders such as kings and pastors. The Saniri Negeri meetings are traditional and representative of a participatory platform where farmers make collective decisions concerning resource management, seasonal planning, and review of past agriculture activities. These discussions have exemplified the locally adapted knowledge management model in which the community, not the external agents, becomes the major driver of agricultural knowledge creation and application.

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The findings address that knowledge management in Sasi culture goes beyond technical farming techniques, including the preservation of ecological systems and governance of resource use. Involving customary leaders in this process cements trust for compliance and collective action. Sasi culture thus provides a resilient setup for agricultural sustainability by combining wisdom passed down through generations with opportunities for modern knowledge exchange. The process mechanism in knowledge management includes collecting aspirations from farming communities regarding the implementation of Sasi culture, including the form of accountability of the local government to the implementation of Sasi. Saniri Negeri is one form of participatory knowledge management process that reflects transparency and accountability to God, humans, and nature. The interview results also show that knowledge management is needed in Sasi culture to mobilize farmers who have the knowledge, manage the system, and are committed to processes that involve knowledge to improve farmer performance. Alharbi and Aloud (2024) and Almuayad and Chen (2024) found that Knowledge Management positively and significantly influences performance. Similar finding was also expressed by Harb et al. (2024) who stated that Knowledge Management positively and significantly affects performance.

While the quantitative analysis did not reveal significant influences of formal knowledge-sharing processes on farmer performance, this finding needs to be put in the appropriate light of the sociocultural context of Sasi. Knowledge sharing is by its very nature very informal and integrated into daily interaction, as well as group responsibility, in the Sasi culture. In other words, farmers share ideas and techniques through collective activities of field clearing and management of common irrigation systems. These informal meetings are supplemented with the telling traditions of the community; whereby older people convey agricultural knowledge to younger generations in stories that effectively weave practical suggestions into cultural messages. This is how the informal and trust-based approach ensures wide dissemination without any need for formal structures, making the system efficient as well as culturally resonant.

Additionally, the cooperative nature of Sasi amplifies this effect of knowledge sharing. In pooling resources and expertise, farmers may collectively adopt a set of innovations impossible to carry out individually, such as using organic fertilizers or conservation practices. Such synergy indeed increases productivity levels while reducing costs, hence net incomes. Whether we realize it or not, these values encourage the emergence of knowledge and order in the social interactions of Maluku society to overcome farmers' limited knowledge (Wang et al., 2023a). The local wisdom of the Sasi culture has been proven to shape the personality and behavior of farmers who are not selfish and individualistic. This means that the knowledge-sharing process does not need special treatment and conditions for its implementation (Farahian et al., 2022). Traditional meetings in Sasi culture are a place for farmer groups to share knowledge. Farmer groups complete work together and share experience and knowledge on many occasions to reduce transaction costs, save time, and create cost efficiencies in processing agricultural products. In this context, it was found that implementing knowledge sharing in farming communities requires strengthening collaboration between components of the customary government structure and the community.

Mental accounting has emerged as a great driver of farmers' performance, unraveling its deep roots in financial decisions of the Sasi framework. This cognitive process enables farmers to compartmentalize and apportion resources, ensuring funds are allocated in a manner responsive to immediate needs and long-term community goals. Moreover, the culture of Sasi itself enforces mental accounting by having systematized rules of resource usage, such as disallowing premature harvesting and insisting on equitable sharing of profits. Results show that mental accounting in Sasi culture can manage individual private finances to enhance the community's well-being.

Mental accounting can provide an overview of the self-control exercised by individuals (Mahapatra & Mishra, 2020). Cheng and Baskin (2021) emphasize that every individual always applies mental accounting in life. As previous research results show, financial behavior is important in improving farmer welfare in the agricultural context.

Farmers who have wise financial behavior tend to manage their resources better. Individual economic cognition plays a role in a person's mental accounting process and strengthens psychological processes' position in financial decisions (Mahapatra et al., 2022). Sasi culture consists of legal provisions relating to the prohibition of entering, taking, or doing something in a certain area within a certain period of time (Renjaan et al., 2013). Sasi culture regulates the exploitation of resources on land (forests) and at sea. Sasi culture creates community awareness and participation, which is useful for realizing environmentally sound development.

The study results show that mental accounting influences the performance of farmers in the Sasi culture. The results of this research are supported by the informant's statement that accounting is a science that studies human behavior. Financial behavior is related to psychological aspects such as individual characteristics, attitudes, knowledge, and skills (Muehlbacher & Kirchler, 2019). Mental accounting influences important decisions that are beneficial for farmer groups. Mental accounting is used to investigate farmer behavior and can explain their agricultural product management behavior (Javareshk et al., 2024; Mahapatra et al., 2020). Mental accounting has been proven to influence the financial well-being of farmer groups (Zhang & Sussman, 2018; Fisher et al., 2023). Through mental accounting, a farmer or farmer group can minimize the decline in farmer performance that causes poverty (Adeyonu et al., 2022). Gu and Zhang (2020) stated that mental accounting provides a basic mindset for farmers to set account reference points in determining profits and losses. However, each farmer has a different mental accounting pattern. Mental accounting makes it easier for farmers to carry out financial management activities for their agricultural products. The research findings are in line with Baucells et al. (2018) and are not supported by Adiputra et al. (2024).

The interaction of knowledge management, knowledge sharing, and mental accounting within Sasi culture creates a self-reinforcing cycle that drives sustainable agricultural development. These elements are not isolated practices; instead, they operate in tandem to address the challenges farmers face. Knowledge management provides the foundation for informed decision-making by ensuring that relevant agricultural insights are accessible to all. In turn, informal knowledge-sharing networks disseminate this information throughout the community. For example, a farmer who learns about a new pest-control technique during a Saniri Negeri meeting can share this knowledge with others during collaborative farming activities, creating a ripple effect that benefits the entire community. The trust and reciprocity inherent in knowledge-sharing practices enhance the effectiveness of mental accounting. Farmers who understand the financial and ecological implications of their actions, such as the timing of planting and harvesting, are more likely to adopt practices that optimize both individual and collective outcomes. This alignment of shared knowledge and financial decision-making strengthens the community's economic resilience.

CONCLUSION

This study investigates the relationship between knowledge management, knowledge sharing, and mental accounting on farmer performance. Traditional leaders carry out knowledge management in the Sasi culture to increase the efficiency of agricultural land management and develop agricultural knowledge among all group members. The results found that knowledge management influences farmer performance. However, knowledge sharing does not affect farmer performance because the Sasi culture is full of local wisdom to share knowledge with each other without any factors influencing it. The accounting mentality in farming communities, which is influenced by local cultural components, can shape the actualization of planning behavior, self-control, financial decisions, and investments, which play a role in realizing farmer performance to increase farmer welfare and income. The system contained in Sasi culture can be used as a basis for government policy or strategy in managing agriculture and natural resources to improve community welfare and village income. These findings are important to contribute to agricultural and natural resource management to ensure sustainable increases in agricultural

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productivity and natural resources. This study will provide solutions to increase farmer income, village income, and preserve the natural environment by implementing knowledge management. Comparative studies across various regions and cultures could provide deeper insights into how local wisdom interacts with modern financial and management practices to improve farmer performance.

AUTHOR CONTRIBUTIONS

Conceptualization: Tri Handayani Amaliah.
Data curation: Tri Handayani Amaliah.
Formal analysis: Tri Handayani Amaliah.
Investigation: Tri Handayani Amaliah.
Methodology: Tri Handayani Amaliah.
Project administration: Tri Handayani Amaliah.
Supervision: Tri Handayani Amaliah.
Validation: Tri Handayani Amaliah.
Visualization: Tri Handayani Amaliah.
Writing – original draft: Tri Handayani Amaliah.
Writing – review & editing: Tri Handayani Amaliah.

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APPENDIX A. Research instrument

Dear Respondent,

Thank you for taking the time to participate in this research study. The purpose of this questionnaire is to understand how knowledge management, knowledge sharing, and mental accounting interact within the context of Sasi culture and how they influence farmer performance and welfare.

Your responses will help us gain valuable insights into the role of cultural and financial practices in improving sustainable agricultural outcomes. Please answer each question honestly based on your experiences. There are no right or wrong answers, and all responses will remain confidential and used solely for research purposes.

For each statement, please indicate the extent to which you agree or disagree by selecting a number on the scale from 1 (Strongly Disagree) to 5 (Strongly Agree).

We greatly appreciate your contribution to this research.
Thank you.

Table A1. Likert scale justification

Scale	Meaning	Description
1	Strongly Disagree	The respondent completely disagrees with the statement or finds it entirely untrue in their context
2	Disagree	The respondent disagrees with the statement but not strongly; the statement is generally untrue for them
3	Neutral	The respondent neither agrees nor disagrees; they are undecided, or the statement has no strong relevance
4	Agree	The respondent agrees with the statement and finds it generally true in their experience
5	Strongly Agree	The respondent completely agrees with the statement and finds it fully reflective of their situation

Table A2. Questionnaire

No.	Question	Likert Scale (1-5)
	Knowledge Management (KM)	
1.	I can easily identify relevant information to improve my farming techniques.	☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
2.	I actively participate in creating new ideas or solutions for farming challenges in my community.	☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
3.	The knowledge available in my community helps me make informed decisions about farming.	☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
4.	I understand the farming knowledge shared during community discussions or training.	☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
5.	I frequently share my farming knowledge with others in my group or community.	☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
6.	I can effectively explain and share farming knowledge with others.	☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
7.	I apply the farming knowledge I acquire to improve my productivity.	☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
	Knowledge Sharing (KS)	
1.	I regularly share information about farming practices with others in my community.	☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
2.	I share specific skills and techniques with other farmers to improve their farming activities	☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
3.	I am open to learning new farming techniques and ideas from others	☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
4.	I value and trust the farming expertise shared by others in my community	☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
5.	I am confident in conveying useful farming information to others	☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
6.	My community provides effective ways to share farming knowledge	☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
7.	I feel that knowledge shared in the community is unbiased and beneficial to everyone	☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
	Mental Accounting (MA)	
1.	I consider environmental impacts when making financial decisions for my farming activities	☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
2.	I feel a sense of personal achievement when I manage my farm finances effectively	☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
3.	I make financial decisions based on careful evaluation of available resources	☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
4.	I seize financial opportunities that benefit my farming operations	☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
5.	I allocate my farming income effectively for both short-term needs and long-term goals	☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5

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Table A2 (cont.). Questionnaire

No.	Question	Likert Scale (1-5)
6.	I focus on maximizing the financial outcomes of my farming activities	☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
7.	I take financial management of my farming business very seriously	☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
	Farmer Performance (FP)	
1.	My farming practices consistently deliver good results	☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
2.	The quality of my crops has improved significantly over time	☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
3.	I have experienced an increase in the quantity of my agricultural yields	☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
4.	I can effectively work with others to achieve farming goals	☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
5.	I can adapt quickly to changing conditions in farming	☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
6.	My overall welfare has improved as a result of better farming performance	☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
7.	My farming performance has contributed to increased production and profitability	☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5