

Premium Rice Agro-Industry Business Innovation in Increasing the Competitiveness of MSMEs in Sidenreng Rappang Regency

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Abstract

Micro, Small, and Medium Enterprises (MSMEs) in the premium rice agro-industry play an important role in strengthening the regional economy of Sidenreng Rappang Regency, one of the major rice-producing areas in South Sulawesi. However, increasing market competition, limited product differentiation, conventional packaging, weak branding, and suboptimal use of digital technology remain challenges to MSME competitiveness. This study aims to examine the forms of business innovation implemented by premium rice agro-industry MSMEs and their contribution to increasing competitiveness in Sidenreng Rappang Regency. This study employed a qualitative descriptive approach. Informants consisted of premium rice MSME owners, representatives of the Cooperatives, SMEs, Manpower and Transmigration Office, the Agriculture Office, agricultural extension workers, rice milling associations, and consumers. Data were collected through observation, in-depth interviews, documentation, and literature review. Data were analyzed using the interactive model of Miles, Huberman, and Saldaña, involving data condensation, data display, and conclusion drawing and verification. Data credibility was strengthened through source triangulation, technique triangulation, and member checking. The findings show that business innovation is implemented through three main areas: product innovation, packaging and branding innovation, and marketing innovation. Product innovation involves the adoption of modern Rice Milling Unit (RMU) technology, improved quality standards, and product diversification. Packaging and branding innovation involves the use of attractive and informative premium packaging and the development of distinctive product identities. Marketing innovation is reflected in the expansion of distribution channels and the use of digital marketing to reach broader markets. These innovations contribute to improving product quality, strengthening brand image, increasing product added value, expanding market access, and building consumer loyalty. The study concludes that business innovation serves as an important differentiation strategy for strengthening the competitiveness and sustainability of premium rice agro-industry MSMEs in Sidenreng Rappang Regency.

Keywords: *Business Innovation, Premium Rice Agroindustry, Competitiveness, MSMEs, Sidenreng Rappang Regency.*

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INTRODUCTION

Micro, Small, and Medium Enterprises (MSMEs) are an important component of Indonesia's economic development because of their contribution to employment, household income, and regional economic activity. Their strategic position has encouraged various government initiatives aimed at strengthening MSME productivity, digital transformation, product downstreaming, and the development of innovations based on local resources. In this context, innovation is increasingly important for MSMEs to respond to changes in consumer preferences, technological development, and intensifying market competition.

Sidenreng Rappang Regency (Sidrap), South Sulawesi, is recognized as one of the important rice-producing areas in the region. The high availability of agricultural raw materials, the presence of Rice Milling Units (RMUs), and established distribution networks provide opportunities for the development of rice-based agro-industry. Rice is no longer marketed solely as a basic agricultural commodity but can be developed into a higher-value product through quality differentiation, processing improvement, attractive packaging, branding, and digital marketing. Research on the rice supply chain in Sidenreng Rappang Regency indicates that improvements in distribution and production management are important for strengthening the competitiveness of the regional rice industry (Qayyum, 2024).

Despite this potential, premium rice agro-industry MSMEs in Sidenreng Rappang Regency continue to face challenges in strengthening their competitiveness. Competition has become increasingly intense, particularly with the presence of premium rice products from other regions that offer modern packaging, stronger brand identities, and more systematic marketing strategies. The existing manuscript also identifies limitations in technological access, branding capabilities, quality certification, and supply-chain integration as factors that may constrain the development of product added value (Aksal, 2023). Consequently, the availability of abundant raw materials alone is insufficient to guarantee competitiveness. MSMEs need to develop innovations that enable them to differentiate their products and respond to changing market demands.

Changes in consumer behavior further strengthen the need for innovation. Consumers increasingly consider not only price but also product quality, cleanliness, food safety, nutritional information, packaging design, halal status, and brand image when purchasing rice. Research on rice quality in Sidenreng Rappang Regency has identified variations in physical rice characteristics, indicating the importance of quality standardization in developing premium rice products (Husain et al., 2020). Therefore, premium positioning requires MSMEs to consistently improve product quality while communicating product value through packaging, branding, and appropriate marketing channels.

Business innovation in MSMEs extends beyond the introduction of new products. It can involve production processes, product quality, packaging, branding, digital marketing, customer service, business management, and partnership development. Continuous innovation can strengthen the ability of MSMEs to adapt to changes in the business environment and create value that differentiates their products from competitors. Previous research cited in this study also indicates that innovation is an important factor in maintaining the sustainability of micro-enterprises in Sidenreng Rappang Regency (Zainal, 2025). From this perspective, innovation can function as a strategic mechanism through which local agricultural resources are transformed into products with greater economic value and stronger market positioning.

The development of premium rice agro-industry is particularly relevant from a regional economic development perspective. Rice that is initially marketed as a relatively undifferentiated commodity can be transformed into a premium product through improvements in processing technology, sorting, quality control, packaging, certification, branding, and market access. Such transformation has the potential to increase product added value and selling prices while strengthening the identity of Sidenreng Rappang Regency as a rice-producing region. However, the effectiveness of these innovations depends on how MSMEs integrate different innovation activities into their business practices.

Previous studies have examined various aspects of the rice agro-industry, including production, distribution, supply chains, quality, productivity, partnerships, and marketing. However, the existing literature identified in this study remains relatively limited in explaining how different forms of business innovation are integrated to strengthen the competitiveness of premium rice agro-industry MSMEs specifically in Sidenreng Rappang Regency. This creates a research gap concerning the practical forms of innovation adopted by MSMEs and how these innovations contribute to product differentiation, market expansion, added value, and consumer loyalty. Addressing this gap is important because the competitiveness of premium rice MSMEs cannot be explained solely by production capacity or the availability of raw materials, but also by their ability to continuously innovate in response to market requirements.

Based on this research gap, this study aims to examine the forms of business innovation implemented by premium rice agro-industry MSMEs in Sidenreng Rappang Regency and to explain their contribution to increasing MSME competitiveness. The study focuses particularly on product innovation, packaging and branding innovation, and market-oriented innovation. By examining these dimensions from the perspective of MSME actors and relevant stakeholders, this study is expected to provide an empirical understanding of how business innovation can support product differentiation, increase added value, expand market access, and strengthen the competitiveness and sustainability of premium rice agro-industry MSMEs in Sidenreng Rappang Regency.

METHOD

Research Design

This study employed a qualitative descriptive approach to examine business innovation in the premium rice agro-industry and its contribution to the competitiveness of MSMEs in Sidenreng Rappang Regency. A qualitative approach was selected because the study seeks to understand business practices, experiences, strategies, and perceptions of MSME actors and relevant stakeholders in their natural context. Rather than measuring the relationship between variables statistically, the study focuses on describing and interpreting how innovation is implemented in the premium rice agro-industry. The research focused on three interrelated aspects of business innovation: product innovation, packaging and branding innovation, and market-oriented innovation. These aspects were examined in relation to their contribution to product differentiation, product added value, market access, and consumer loyalty.

Research Informants and Sampling

Informants were selected using purposive sampling based on their relevance to the research objectives and their knowledge or experience regarding the premium rice agro-industry in Sidenreng Rappang Regency. The informants consisted of premium rice MSME owners, representatives of the Cooperatives, SMEs, Manpower and Transmigration Office, representatives of the Agriculture Office, agricultural extension workers, representatives of rice milling associations, and consumers.

MSME owners were selected because they are directly involved in production, packaging, branding, and marketing decisions. Government officials and agricultural extension workers were included to provide institutional and sectoral perspectives, while rice milling association representatives provided information concerning milling practices and industry conditions. Consumers were included to obtain perspectives regarding product quality, packaging, brand identity, and purchasing considerations.

Informants were selected using purposive sampling based on their relevance to the research objectives and their knowledge or experience regarding the premium rice agro-industry in Sidenreng Rappang Regency. The informants consisted of premium rice MSME owners, representatives of the Cooperatives, SMEs, Manpower and Transmigration Office, representatives of the Agriculture Office, agricultural extension workers, rice milling association representatives, and consumers. These informants were selected because they were considered to have relevant knowledge and experience regarding production, quality, packaging, branding, marketing, and the development of the premium rice agro-industry.

Data Collection

Data were collected through observation, in-depth interviews, documentation, and literature review. These techniques were used complementarily to obtain a comprehensive understanding of business innovation practices in the premium rice agro-industry.

Observation was conducted to examine the actual practices of MSMEs in relation to production, milling, sorting, packaging, product presentation, and marketing activities. The observations were used to complement information obtained from interviews and to identify practices that could be directly observed in the field.

In-depth interviews were conducted with selected informants to explore their experiences, strategies, perceptions, and challenges concerning business innovation. The interviews focused on changes in product quality, the use of milling and sorting technology, packaging development, branding, marketing channels, consumer responses, and factors supporting or constraining innovation.

Documentation was used to complement the primary data. Relevant documents and visual materials concerning products, packaging, business activities, and other supporting information were examined where available. A literature review was also conducted to provide conceptual and empirical context for interpreting the findings.

The use of multiple data collection techniques enabled the researchers to compare information obtained from different sources and strengthen the overall credibility of the findings.

Data Analysis

Data analysis followed the interactive model proposed by Miles, Huberman, and Saldaña (2014), which consists of data condensation, data display, and conclusion drawing

and verification. The analysis was conducted continuously throughout the research process rather than only after all data had been collected.

First, data condensation involved selecting, simplifying, coding, and organizing information obtained from interviews, observations, and documentation. Data relevant to the research objectives were identified and grouped according to emerging themes, particularly product innovation, packaging and branding innovation, marketing innovation, and their contribution to MSME competitiveness.

Second, the condensed data were displayed in an organized form to facilitate comparison and interpretation across informants and data sources. Information from MSME owners was compared with perspectives obtained from government stakeholders, agricultural extension workers, rice milling associations, and consumers.

Third, conclusions were drawn and continuously verified by comparing emerging interpretations with the available empirical evidence. The researchers reviewed the consistency of findings across interviews, observations, and documentation before establishing the final themes and interpretations.

Data Validity

The credibility of the research findings was strengthened through source triangulation, technique triangulation, and member checking. Source triangulation was conducted by comparing information obtained from different categories of informants, including MSME owners, government stakeholders, agricultural extension workers, rice milling associations, and consumers.

Technique triangulation was conducted by comparing information obtained through interviews with evidence from observations and documentation. This process was intended to determine whether statements provided by informants were consistent with observable business practices and available supporting documents.

Member checking was used to confirm the researchers' interpretation of relevant information with selected informants. Through these procedures, the study sought to strengthen the credibility and dependability of the findings and reduce the possibility of relying on a single source or method of evidence (Moleong, 2021; Sugiyono, 2023).

Research Ethics

The research respected the principles of voluntary participation and confidentiality. Informants were involved based on their relevance to the research objectives, and information obtained during interviews was used for research purposes. Direct quotations were presented using informant codes rather than revealing personal identities.

RESEARCH RESULTS AND DISCUSSION

Premium Rice Product Innovation as a Differentiation Strategy for MSMEs

The research results show that product innovation is the main strategy implemented by premium rice agro-industry MSMEs in Sidenreng Rappang Regency in facing increasingly competitive market competition. Based on the results of field observations and in-depth interviews with business actors, it is known that changes in consumer behavior have encouraged MSMEs to no longer only focus on production quantity, but also on improving product quality as an added value that can differentiate their products from similar products. Product differentiation is one strategy that is considered effective because consumers are

currently increasingly selective in choosing the rice they will consume. They consider not only price, but also the physical quality of rice, cleanliness, food safety, aroma, texture, and packaging appearance.

Prior to this innovation, most MSMEs in Sidenreng Rappang Regency marketed rice in conventional form, without optimal sorting processes and without clear quality standards. The resulting rice still had a high level of broken rice, contained impurities such as husks and unhusked rice grains, and had a moisture content that did not meet storage standards. This resulted in relatively low selling prices, making it difficult to compete with premium rice products marketed by large companies and producers from outside the region.

As consumer demand for high-quality rice products increases, MSMEs have begun to innovate in their production processes. One of the most prominent innovations is the use of modern Rice Milling Units (RMUs), which are capable of producing higher-quality rice than traditional milling machines. This technology allows for more efficient hulling, polishing, sorting, and cleaning, resulting in rice with a lower broken rate, brighter color, smoother texture, and higher levels of hygiene.

Based on observations, the use of modern machinery has also increased production efficiency. While previously milling was carried out in stages using several different machines, the entire process can now be integrated within a single machine. This not only saves production time but also reduces losses, which have historically been a contributing factor to low business profits. Furthermore, color sorter technology has begun to be used by several

MSMEs to separate damaged, yellowed, or mixed rice grains, resulting in more uniform product quality. Research findings indicate that product quality improvements are achieved through the implementation of stricter quality standards. Business owners are now paying attention to the moisture content of unhulled rice before milling to ensure it is within the ideal range, resulting in rice that lasts longer during storage. They also implement a multi-layered sorting process to ensure there are no unhulled grains, small stones, or other impurities. These efforts have significantly impacted the physical quality of the premium rice produced. Based on researchers' observations, premium rice is characterized by a pure white color, more whole grains, a distinctive natural aroma, a fluffier texture when cooked, and a longer shelf life than regular rice.

An interview with an MSME owner corroborates these findings. The informant explained that the change in business strategy was driven by changing consumer preferences for product quality. "Nowadays, buyers don't just look at price, but also at quality. That's why we replaced the milling machine and used color sorting to maintain premium rice quality." (Informant A). This statement demonstrates that product innovation is not simply about keeping up with technological developments, but rather about adapting MSMEs to market dynamics. Businesses recognize that competition is no longer solely determined by the ability to produce products in large quantities, but rather by the ability to create products with competitive advantages. In this context, quality is a key factor in determining consumer purchasing decisions.

In addition to improving the physical quality of products, innovation is also carried out through the development of premium rice varieties tailored to market needs. Several MSMEs have begun marketing premium rice with specific characteristics, such as soft rice, dry rice, organic rice, and rice with higher nutritional content. This product diversification provides consumers with a wider choice while strengthening their position in facing

competition with national brands. Field observations also show that product innovation has a direct impact on increasing rice selling prices. Prior to innovation, rice selling prices were relatively similar to conventional products, resulting in low profit margins for businesses. After product quality improved, the selling price of premium rice increased because consumers were willing to pay more for a better product. Thus, product innovation not only increases consumer satisfaction but also provides economic benefits for MSMEs.

From a marketing perspective, consistent product quality contributes to increased consumer trust. Several business owners stated that customers who previously purchased small quantities have now begun making regular purchases and even become repeat customers. This situation demonstrates that product quality is a crucial factor in building consumer loyalty. This trust is further enhanced when products are able to maintain the same quality standards throughout each production process. Research findings also show that product innovation has a positive impact on market expansion. Premium rice products, previously marketed only in Sidenreng Rappang Regency, are now being distributed to various regions in South Sulawesi and even beyond the province through a network of distributors and digital marketing. This demonstrates that improving product quality has opened up broader market opportunities and increased the competitiveness of MSMEs regionally.

From an innovation theory perspective, the findings of this study reinforce the view that product innovation is a key source of competitive advantage. Improving product quality through the application of modern technology, improving quality standards, and diversifying products can create added value that is difficult for competitors to imitate. Thus, innovation not only functions as an effort to increase production efficiency but also as a differentiation strategy that strengthens the position of MSMEs in facing market competition. Overall, the results of this study indicate that premium rice product innovation has been an effective strategy in increasing the competitiveness of agro-industry MSMEs in Sidenreng Rappang Regency. This innovation is reflected in the use of modern milling technology, the application of higher quality standards, product diversification, and increased quality consistency. The combination of these innovations produces premium rice products that have better quality, higher added value, and are able to meet the expectations of modern consumers. Therefore, product innovation can be seen as a key foundation in building business sustainability, expanding market share, and increasing the competitiveness of premium rice agro-industry MSMEs in Sidenreng Rappang Regency.

Product Packaging and Branding Innovation

The research findings indicate that innovation in packaging and branding is a key strategy implemented by premium rice agro-industry MSMEs in Sidenreng Rappang Regency to increase product value and strengthen market competitiveness. Based on observations and in-depth interviews, it was discovered that most business owners have abandoned conventional marketing practices that use plain sacks or plastic bags without product identification. Previously, rice was marketed in simple packaging, making it difficult to distinguish from similar products on the market. This situation resulted in local products lacking a strong identity and tending to be perceived as ordinary commodities competing solely on price.

Changes in consumer behavior, which increasingly prioritize quality, food safety, and product appearance, have encouraged MSMEs to innovate in packaging design. Businesses have begun using premium packaging made from thick, high-quality plastic in a wider variety of sizes, such as 5 kilograms and 10 kilograms, making it more practical and tailored to consumer needs. In addition to providing better protection for rice quality during storage and distribution, the new packaging is also designed with a more attractive visual appearance through the use of color combinations, rice images, and graphic designs that reflect the identity of local products in Sidenreng Rappang Regency. The research also shows that packaging no longer functions solely as a storage container but has evolved into a marketing communication medium. Each package displays various important information, such as the trademark, halal logo, net weight information, nutritional content, barcode, production date, expiration date, and producer identity. This information provides consumers with assurance regarding the quality, safety, and legality of the product they purchase. The presence of the halal logo and producer identity also increases consumer trust because the product is perceived as more professional and meets applicable standards.

This is reinforced by the results of an interview with an MSME owner who stated: "Previously, rice was only put in ordinary sacks, now we use five-kilogram and ten-kilogram packages with our own designs to make it more attractive." (Informant B). This statement indicates a paradigm shift in business owners in viewing packaging as part of a business strategy, not just a product wrapper. Business owners realize that attractive packaging can increase the visual appeal of products when displayed in stores or promoted through digital media. Thus, consumer purchasing decisions are not only influenced by the quality of the rice, but also by the appearance of the packaging that gives a modern, hygienic, and high-quality impression. In addition to packaging innovation, this study also found that branding is an important factor in building MSME competitive advantage. Most business owners have created their own trademarks as product identities that differentiate them from competitors' products. The use of memorable brand names, distinctive logos, and slogans that reflect product quality are strategies to increase brand awareness among consumers. Consistent branding provides a positive image of the product so that consumers more easily recognize and remember premium rice products from Sidenreng Rappang Regency.

Based on observations, packaging and branding innovations significantly impact consumer perceptions. Products with premium packaging are perceived as having better quality than those still using simple packaging. A professional appearance creates the impression that the product is hygienically processed, meets high quality standards, and is worthy of competing with national brands. This positive perception influences increased consumer purchasing interest and encourages customer loyalty. Overall, the research results indicate that packaging and branding innovation have become an effective differentiation strategy in increasing the competitiveness of premium rice agro-industry MSMEs in Sidenreng Rappang Regency. Through more modern, informative, and attractive packaging supported by a strong brand identity, MSMEs have not only succeeded in increasing product added value but also strengthened consumer trust, expanded market reach, and built a positive image of local premium rice products amidst increasingly competitive competition.

Business innovations implemented by premium rice agro-industry MSMEs in Sidenreng Rappang Regency have significantly impacted all dimensions of business competitiveness. These changes are evident in improved product quality, the use of modern

packaging that strengthens brand identity, the expansion of market share from local to regional levels, the transformation of sales systems through the use of digital platforms, increased product added value, and the formation of higher consumer loyalty. These findings indicate that innovation not only results in improved physical product quality but also creates a sustainable competitive advantage, enabling MSMEs to compete with similar products in the broader market.

Discussion

Product Innovation and MSME Competitiveness

The findings of this study indicate that product innovation plays an important role in strengthening the competitiveness of premium rice agro-industry MSMEs in Sidenreng Rappang Regency. The adoption of modern Rice Milling Unit (RMU) technology, color sorting, improved quality standards, and product diversification demonstrates that innovation occurs through both technological improvement and product development. These findings indicate that MSMEs are gradually shifting from competing primarily on production volume and price toward competing through product quality and differentiation.

The use of modern RMU technology enables MSMEs to improve several stages of the rice processing process, including hulling, polishing, cleaning, and sorting. The findings show that these improvements contribute to lower levels of broken rice, more uniform color and appearance, improved cleanliness, and greater production efficiency. This is important for premium rice because consumers associate premium positioning with consistent physical quality. Therefore, technological innovation provides MSMEs with an opportunity to create product characteristics that distinguish their products from conventional rice.

These findings are consistent with Tidd and Bessant (2021), who explain that innovation involves the integration of technological, market, and organizational changes to create value. In the context of the present study, technological innovation becomes meaningful because it is directly connected to consumer demand for higher-quality rice. The adoption of modern milling and sorting technology is therefore not simply a technical improvement but represents an adaptation of MSME production capabilities to changing market expectations.

The findings can also be explained from the perspective of the Resource-Based View. Wernerfelt (1984) argues that resources and capabilities can become sources of competitive advantage when they provide value to the firm. In this study, modern milling technology, quality-control practices, production knowledge, and the ability to develop differentiated products can be viewed as resources and capabilities that support MSME competitiveness. However, technology itself is not sufficient. Its contribution to competitiveness depends on the ability of MSMEs to manage and utilize the technology to produce consistent quality and respond to consumer needs.

Product diversification further strengthens the differentiation strategy. The development of premium rice with different characteristics provides consumers with alternatives that are more closely aligned with their preferences. This finding is relevant to Porter's (1998) concept of competitive advantage through differentiation, in which firms seek to offer products with attributes that are valued by customers and distinguish them from competing products. In the premium rice market, differentiation is created through product quality, consistency, product characteristics, and perceived value.

The findings also show that improvements in product quality were followed by increases in selling value and repeat purchases among some consumers. This suggests that

product innovation can contribute to the creation of economic and market value. Nevertheless, because this study uses a qualitative approach, these findings should be interpreted as empirical patterns and experiences reported by business actors rather than as statistical evidence of a causal relationship between innovation and selling prices or consumer loyalty. Overall, the findings demonstrate that product innovation strengthens competitiveness when technological improvement is accompanied by quality control, product diversification, and an understanding of consumer preferences. The combination of these elements enables MSMEs to transform rice from a relatively undifferentiated commodity into a product with greater added value.

Packaging and Branding Innovation as Differentiation Strategies

The findings concerning packaging and branding demonstrate that premium rice MSMEs are increasingly recognizing the importance of non-physical product attributes in creating competitive value. The transition from conventional sacks or simple plastic packaging toward more attractive and informative packaging represents a change in the way MSMEs communicate product quality and identity to consumers.

Packaging functions not only as protection for the product but also as a means of communication. The inclusion of trademarks, halal information, net weight, nutritional information, barcodes, production dates, expiration dates, and producer identity provides consumers with information that can influence their perception of the product. In this context, packaging becomes an important component of the overall product offering.

This finding is consistent with the marketing perspective of Kotler and Keller (2022), which emphasizes the importance of product presentation and brand identity in creating consumer perceptions and product value. For premium rice products, the physical quality of the rice needs to be communicated effectively to the market. Attractive and informative packaging helps translate invisible attributes such as hygiene, quality, and professionalism into visible product characteristics.

The findings also support the concept of differentiation proposed by Porter (1998). When rice is marketed using simple and undifferentiated packaging, consumers may perceive competing products as relatively similar, making price an important basis for competition. In contrast, distinctive packaging and branding create additional attributes through which consumers can identify and differentiate products. Thus, packaging and branding innovation can help MSMEs reduce dependence on price-based competition.

Branding further strengthens this differentiation process. The development of trademarks, logos, and slogans provides MSMEs with an identifiable product identity. Consistent brand identity can facilitate consumer recognition and recall, particularly when products are marketed through wider distribution networks and digital platforms. In this regard, branding is not merely a promotional activity but part of the process of creating a sustainable market position.

The findings are also consistent with the broader innovation perspective of Tidd and Bessant (2021), because innovation can occur not only in production technology but also in market-facing activities. Packaging and branding represent market-oriented innovations that complement technological innovation. The combination of product quality and effective product presentation enables MSMEs to communicate a more complete value proposition to consumers.

Therefore, packaging and branding should be viewed as complementary to product innovation. Improved rice quality without effective communication may limit consumers' ability to recognize the product's added value, while attractive packaging without consistent product quality may not generate sustainable consumer trust. The findings suggest that competitiveness is stronger when physical product improvements and market communication are developed simultaneously.

Business Innovation, Added Value, and Market Expansion

The findings further indicate that business innovation contributes to the transformation of rice from a basic agricultural commodity into a product with higher perceived and economic value. Improvements in processing technology, product quality, packaging, branding, and marketing allow MSMEs to offer products with characteristics that are distinguishable from conventional rice.

This finding is relevant to the concept of value-added development in agro-industry. Aksal (2021) emphasizes the importance of developing value-added rice agro-industry to strengthen MSME competitiveness. The present study provides empirical support for this perspective by showing that value creation occurs through several interconnected activities rather than through processing alone. The transformation of rice into a premium product involves technological improvement, quality standardization, packaging, branding, and market development.

The findings also complement the study by Aksal (2023), which emphasizes business innovation and development strategies in rice agro-industry MSMEs in Sidenreng Rappang Regency. The present findings indicate that innovation is reflected in practical changes at the business level, particularly in production technology, quality management, packaging, branding, and marketing. These changes provide MSMEs with opportunities to strengthen their position in an increasingly competitive market.

Market expansion represents another important implication of innovation. The findings indicate that premium rice products that were previously marketed mainly within Sidenreng Rappang Regency have reached wider markets in South Sulawesi and, in some cases, outside the province through distributor networks and digital marketing. This suggests that innovation in product and presentation can facilitate access to broader markets because differentiated products are more easily identified and communicated to consumers.

This finding is relevant to the discussion of digital transformation among MSMEs. Zulkarnain (2022) emphasizes the importance of digital transformation in increasing the competitiveness of agro-industrial MSMEs. In the context of this study, digital marketing provides an additional channel through which premium rice products can be introduced beyond their traditional geographic market. However, digital marketing should be supported by product quality, appropriate packaging, and a clear brand identity. Digital channels can expand market access, but they cannot substitute for the underlying quality and value of the product.

The findings therefore indicate that market expansion is the result of an interconnected innovation process. Product innovation creates the value to be offered, packaging and branding communicate that value, while distribution and digital marketing provide channels through which the value can reach a wider market.

Innovation and Consumer Loyalty

Another important finding concerns the relationship between innovation and consumer loyalty. The study indicates that some consumers who initially purchased premium rice in relatively small quantities subsequently became repeat customers. Business actors associated this pattern with improvements in product quality and consistency.

This finding can be interpreted through the concept of perceived value. When consumers receive a product that consistently meets their expectations regarding quality, cleanliness, appearance, and other attributes, their willingness to repurchase may increase. Kotler and Keller (2022) emphasize that consumer perceptions of product value and satisfaction are important components of customer relationships.

The findings also indicate that consistency is particularly important. Innovation is not sufficient if improvements occur only temporarily. Premium rice products require relatively stable quality so that consumer expectations can be maintained across repeated purchases. Consequently, quality-control practices are important not only for production but also for maintaining consumer trust.

From an innovation perspective, this finding demonstrates that the benefits of innovation extend beyond immediate product improvement. When innovation produces a consistent and recognizable product, it can contribute to longer-term relationships between MSMEs and consumers. This is particularly relevant for MSMEs because repeat customers can provide a more stable market base and support business sustainability.

However, as with the findings concerning selling prices, the qualitative nature of this study means that consumer loyalty should not be interpreted as a statistically verified outcome. The findings instead indicate a pattern reported by business actors and observed through the research process.

Integration of Innovation as a Competitiveness Strategy

Taken together, the findings demonstrate that the competitiveness of premium rice agro-industry MSMEs cannot be attributed to a single form of innovation. Product innovation, packaging innovation, branding, and market-oriented innovation operate as interconnected elements of a broader business strategy.

Product innovation improves the physical quality and differentiation of rice. Packaging and branding communicate the product's identity and added value. Distribution and digital marketing expand access to consumers, while consistent quality supports consumer trust and repeat purchasing. The interaction of these elements creates a more comprehensive competitive position for MSMEs.

This integrated perspective is consistent with Tidd and Bessant (2021), who view innovation as a multidimensional process involving technological and market changes. It is also consistent with Wernerfelt's (1984) Resource-Based View, because competitiveness depends on how MSMEs combine and utilize resources and capabilities rather than merely possessing individual resources.

The findings also reinforce Zainal's (2025) argument that business innovation is important for the sustainability of micro-enterprises in Sidenreng Rappang Regency. In the premium rice agro-industry, sustainability is supported by the ability to continuously improve product quality, maintain differentiation, respond to consumer preferences, and expand market access.

Therefore, the main contribution of this study is the identification of business innovation as an integrated strategy for strengthening the competitiveness of premium rice agro-industry MSMEs. The findings suggest that the development of premium rice should not focus solely on increasing production capacity. Greater attention is also required for product quality, processing technology, packaging, branding, market development, and consumer relationships.

At the institutional level, this finding implies that support for MSME development should be designed comprehensively. Government agencies and supporting institutions can contribute not only through production assistance but also through technology facilitation, quality improvement, packaging and branding development, digital marketing capacity, certification, and partnership development. Such an integrated support system can help MSMEs convert the comparative advantage of local rice production into sustainable competitive advantage.

CONCLUSION

This study concludes that business innovation is an important strategy for increasing the competitiveness of premium rice agro-industry MSMEs in Sidenreng Rappang Regency. The findings show that innovation is implemented through improvements in product quality, production technology, packaging, branding, and market development.

Product innovation is reflected in the use of modern Rice Milling Unit (RMU) technology, color sorting, improved quality standards, and product diversification. These practices contribute to better and more consistent product quality and enable MSMEs to differentiate premium rice from conventional rice products. Packaging and branding innovation are reflected in the use of more attractive and informative packaging, the development of product identities, and the strengthening of brand recognition. Meanwhile, market-oriented innovation is reflected in the expansion of distribution channels and the use of digital marketing to reach broader markets.

The combination of these innovations contributes to several dimensions of MSME competitiveness, including improved product quality, stronger brand image, increased product added value, broader market access, and the development of consumer loyalty. The findings indicate that competitiveness is not generated by a single innovation but through the integration of product, technological, packaging, branding, and marketing innovations.

The practical implication of this study is that premium rice MSMEs need to manage innovation as a continuous business strategy rather than as an isolated activity. Improvements in production technology should be accompanied by quality control, attractive packaging, consistent branding, and market development. Local government and supporting institutions also need to strengthen assistance in technology adoption, product quality improvement, packaging and branding, digital marketing, certification, and business partnerships.

This study is limited by its qualitative design and its focus on premium rice agro-industry MSMEs in Sidenreng Rappang Regency. Therefore, the findings provide an in-depth understanding of innovation practices in the specific research context but cannot be statistically generalized to all rice agro-industry MSMEs. Future research may employ quantitative or mixed-method approaches to examine the relationship between different dimensions of business innovation and MSME competitiveness across a broader population and different regional contexts.

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