

ANALYSIS OF FACTORS THAT SHAPE CONSUMER PREFERENCES IN SUPPORTING THE QUALITY OF KUD ARGOPURO PRODUCTS AND SERVICES

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Abstract: The Argopuro Village Unit Cooperative (KUD) plays a vital role as a community-based economic institution, particularly in providing products and services in the agriculture and livestock sectors. In the midst of increasingly competitive market dynamics, understanding consumer preferences becomes essential for enhancing product and service quality. This study aims to analyze the key factors influencing consumer preferences for Argopuro KUD's products and services, including product quality, pricing, customer service, and cooperative image. Using a descriptive qualitative approach, the research employs in-depth interviews, participatory observations, and documentation as data collection techniques. The findings reveal that the quality of products and services significantly shapes consumer preferences. However, Argopuro KUD still faces several challenges, such as limited product diversification, obstacles in obtaining BPOM (Food and Drug Supervisory Agency) certification, and the effects of the Foot and Mouth Disease (FMD) outbreak that have reduced milk production volumes. Moreover, the cooperative's image and consumer trust are identified as crucial factors in sustaining customer loyalty amidst growing competition.

Keywords: Consumer preferences, Product quality, Service quality, Argopuro KUD

Introduction

In the era of globalization and increasingly open market competition, cooperatives are required not only to function as alternative economic institutions but also as adaptive, professional, and responsive business entities that can meet consumer needs. The Argopuro Village Unit Cooperative (KUD), located in Probolinggo Regency, East Java, is one such cooperative operating in the livestock sector that has long served as a driver of the local economy, particularly through its main product fresh milk produced by smallholder farmers. According to data from the Central Statistics Agency of East Java (2017), Probolinggo Regency ranks among the top ten regions with the highest fresh milk production in the province. As a key player in the local dairy supply chain, KUD Argopuro holds a strategic role in maintaining both the quality and continuity of regional livestock products. However, this strategic position currently faces a series of challenges that directly affect consumer preferences and loyalty.

One of the major challenges faced by KUD Argopuro is production disruption caused by the outbreak of Foot and Mouth Disease (FMD) during 2022–2024. This outbreak not only led to a sharp decline in the number of active dairy cows but also disrupted the consistent supply of fresh milk. Additionally, product rejections from industrial partners such as PT Nestlé Indonesia due to antibiotic contamination highlight that product quality assurance and quality control remain urgent issues for the cooperative. These problems are compounded by limited

product diversification and the absence of BPOM certification, which restrict KUD Argopuro's ability to expand into wider markets. In today's competitive landscape, a deep understanding of consumer preferences is crucial. Consumer preferences are shaped not only by price and quality but also by factors such as service quality, cooperative image, trust, and local social values. As stated by Kotler and Keller (2022), consumer behavior is dynamic and influenced by psychological, social, and cultural factors. Therefore, the development strategy of cooperatives must be grounded in a comprehensive understanding of consumer behavior.

This research is both important and relevant, as few studies have specifically examined the relationship between factors shaping consumer preferences and the quality of cooperative products and services in rural areas, particularly within the smallholder livestock sector. The uniqueness of KUD Argopuro lies in its dual role as both a provider of local products and a promoter of community-based economic welfare. The combination of production challenges, limited product legality, and evolving expectations of modern consumers makes KUD Argopuro a significant case for examining cooperative sustainability in the era of disruption.

Therefore, this study aims to analyze the factors that influence consumer preferences for KUD Argopuro's products and services and to explore how cooperatives can develop consumer-oriented strategies to enhance product quality, strengthen customer loyalty, and ensure long-term institutional sustainability.

Method

This study employs a descriptive qualitative approach aimed at exploring in depth the factors that shape consumer preferences regarding the quality of Argopuro KUD's products and services. This approach is chosen to holistically understand the phenomena experienced by consumers, including their behaviors, perceptions, motivations, and actions.

The research was conducted at KUD Argopuro, located in Krucil District, Probolinggo Regency, East Java an area ranked among the top ten milk-producing regions in the province (BPS, 2017). The research subjects consist of consumers (both loyal and new customers) as well as internal stakeholders of the cooperative, including administrators and employees. Informants were selected using purposive sampling, focusing on individuals with direct experience and a deep understanding of KUD Argopuro's products and services. The number of informants was not predetermined but was determined by the principle of data saturation.

These findings align with the theoretical perspectives of Garvin and Tjiptono, who assert that stable product quality and the fulfillment of customer expectations shape positive perceptions and strengthen consumer preferences. Preferences arise when consumers believe that the products they purchase are of high quality and suitable for consumption factors that ultimately form the foundation of customer loyalty (Tjiptono, 2015). Furthermore, Kotler emphasizes that a positive cooperative image fosters social trust. He argues that institutional or brand image can influence consumer choices, especially when emotional bonds or social values are involved. In this context, consumer preferences are not merely rational but also ideological, as some customers support local products due to the KUD's social identity and community-oriented mission.

The data collection process in this study consists of three main stages:

1. In-depth interviews, conducted to explore consumer perceptions of pricing, product quality, service, trust, and the cooperative's image.

2. Participatory observation, performed to directly observe the service delivery process and assess product quality in the field.
3. Documentation, involving the collection of secondary data from archives, internal cooperative reports, and other supporting materials.

Results and Discussion

The results and discussion section contains research findings obtained from the research data and hypotheses, the discussion of research results and comparison with similar theories and/or similar research. The results and discussion section can be divided into several sub-sections.

Cooperative Product and Service Level at KUD Argopuro

Based on interviews and observations conducted with the Head of the Cooperative Dairy House, it was found that the sales performance of KUD Argopuro's products and services has experienced significant fluctuations over the past two years. This instability is influenced by both internal and external factors that affect overall sales performance and market acceptance. One of the main external factors contributing to this decline is the outbreak of Foot and Mouth Disease (FMD), which struck hundreds of cattle owned by local farmers during 2023–2024. The disease severely reduced the production of fresh milk KUD Argopuro's mainstay product leading to limited stock availability and disruptions in routine supply chains to consumers and industry partners.

Apart from the disease outbreak, the lack of product diversification also poses a substantial challenge. Currently, the cooperative primarily focuses on selling fresh milk, without developing other derivative dairy products. In the modern dairy industry, product diversification plays a crucial role in maintaining business sustainability and broadening market segmentation. Heavy dependence on a single product makes the cooperative vulnerable to fluctuations in both demand and production crises.

Nevertheless, a small number of dairy houses under KUD Argopuro have made early attempts at innovation by collaborating with partner milk posts to produce derivative items such as yogurt, jasuke (corn milk cheese), and ice cream. However, these initiatives remain limited in quantity, product variety, and distribution coverage. The collaboration is still informal and not yet institutionalized within a formal cooperative framework. Efforts to enhance competitiveness have started through cooperative partnerships between dairy houses and milk posts managed under KUD Argopuro. These collaborations aim to add value to milk products and expand market reach, particularly through developing higher-value dairy derivatives.

However, these innovations have not yet reached their full potential due to challenges related to product legality and certification. A major obstacle is the registration and licensing process with the Food and Drug Supervisory Agency (BPOM). For a product to be marketed legally and on an industrial scale, BPOM certification is mandatory to guarantee safety and quality standards. Without such certification, KUD Argopuro's products cannot enter modern retail markets or national distribution networks.

According to an interview conducted with the Chairman of the Dairy Cooperative on August 25, 2025, efforts to register products with BPOM have begun but remain incomplete due to administrative and technical feasibility assessments. The chairman stated:

“We have tried the process of adding products by BPOM, but it is still not the time because the value in the dairy house has not yet reached it.”

This statement indicates that, aside from internal readiness, business feasibility and sustainability assessments are crucial indicators for product legalization. Consequently, the cooperative’s operational efficiency and transparency are affected. Without official certification and strong managerial structures, production and distribution cannot be developed professionally. As a result, growth potential and stakeholder trust both from business partners and consumers remain limited. This condition underlines the need for institutional support from relevant government agencies such as the Livestock Department, BPOM, and Cooperative Development Boards. Technical guidance, training, equipment support, and funding assistance are essential to accelerate innovation and achieve sustainable cooperative growth.

In summary, the main challenges in product development at KUD Argopuro extend beyond production constraints to include issues of legality, managerial capacity, and policy support. A strategic and collaborative approach involving cooperatives, government agencies, and private partners is needed to strengthen product development and competitiveness in an increasingly dynamic market environment.

Obstacles to the Implementation of Cooperative Dairy Products and Services

Field findings indicate several major obstacles faced by the dairy cooperative in enhancing product marketability and innovation, including:

1. Incomplete BPOM certification The cooperative has not yet obtained full legality for its dairy products due to administrative and technical constraints in the certification process.
2. Unachieved product feasibility standards The cooperative’s business valuation and operational readiness have not met BPOM’s minimum standards, delaying the introduction of new dairy products.
3. Impact of Foot and Mouth Disease (FMD) The 2023–2024 outbreak significantly reduced milk production, directly affecting marketability and supply consistency.
4. Limited institutional assistance There is insufficient support and facilitation from relevant authorities, particularly BPOM and the Livestock Department, in terms of training, guidance, and technical supervision.

These factors collectively hinder product innovation and the sustainability of cooperative business operations. Addressing these issues requires stronger government support, improved managerial capacity, and increased awareness among cooperative members regarding product standardization and certification.

The findings of this study indicate that the Dairy House of KUD Argopuro not only faces challenges related to BPOM certification, but also requires preventive measures against Foot and Mouth Disease (FMD), as experienced in 2023–2024. Preventive programs are essential to anticipate disease outbreaks before they occur, given the severe economic impact caused by the previous epidemic.

Several internal and external factors contributed to the obstacles in selling fresh dairy products at KUD Argopuro. One of the main reasons for the decline in the Business Surplus (SHU) in 2022 was the outbreak of FMD, which infected hundreds of dairy cows owned by cooperative members. This condition forced the cooperative to allocate a significant portion of its capital for purchasing veterinary medicines, medical equipment, and covering the losses of deceased livestock. As a result, the volume of milk supplied to the cooperative dropped drastically, affecting both production continuity and member income.

An employee of KUD Argopuro confirmed this situation during an interview, stating: “The FMD outbreak caused the amount of milk entering KUD Argopuro to decrease drastically and had a great impact on the local community’s economy.”

This statement reflects how the absence of technical assistance from related agencies such as BPOM and the Animal Husbandry Service left the cooperative to handle the crisis independently. The lack of veterinary support and disease management training made it difficult for the cooperative to implement effective preventive actions.

In addition to disease-related issues, another major challenge in 2022 was the rejection of milk shipments by PT Nestlé Indonesia due to antibiotic contamination. The contaminated milk was traced to cows that had been injected with antibiotics without proper withdrawal periods. KUD Argopuro’s limited testing equipment prevented immediate detection of antibiotic residues in milk supplied by its members.

An employee explained:

“PT Nestlé Indonesia refused the milk we delivered because it was contaminated with antibiotics. Even a small amount of contaminated milk can spoil the entire batch. Some members inject their cows with antibiotics without informing us, possibly because they don’t know that milk from those cows becomes contaminated. When that happens, PT Nestlé rejects the shipment, but we still have to pay our members and we bear the financial loss.”

This situation illustrates a critical operational weakness in the cooperative’s quality control system. The rejection of contaminated milk shipments not only caused direct financial losses but also damaged the cooperative’s credibility with industrial partners. The cooperative’s obligation to pay members for rejected milk created a financial burden that reduced its overall profitability.

Therefore, the impact of FMD disease and antibiotic contamination demonstrates that KUD Argopuro’s sustainability depends not only on product diversification and certification but also on integrated animal health management and quality assurance mechanisms. Strengthening technical capacity through training, veterinary supervision, and milk testing facilities is essential to prevent future losses and ensure consistent product quality.

DISCUSSION

Consumer Preferences

Consumer preferences are the main indicator that shows the extent to which a product or service is able to meet market needs and expectations. In the context of the Argopuro Village Unit Cooperative (KUD), consumer preferences are greatly influenced by the perception of the quality of fresh milk products, which are the main commodity of the cooperative. Consumers choose products based on various factors, including freshness, safety, and the value of siding with local farmers.

Based on the results of observations and interviews, local consumers in the Probolinggo area are more likely to choose dairy products from KUD Argopuro because they are considered more natural, fresh, and come from people's farms. Cooperative products are considered more "socially valuable" because they help improve the welfare of local farmers compared to buying dairy products from large industries. The aspect of locality and emotional closeness is a strong reason behind consumer loyalty to cooperatives.

However, this preference experienced a significant decline when there was a refusal to deliver milk by PT Nestlé Indonesia in 2022. KUD Argopuro dairy products were rejected because they were contaminated with antibiotics, due to cows injected with antibiotics without adequate supervision procedures. This event resulted in a crisis of trust among consumers, who began to doubt the quality and safety of cooperative products. This case confirms that food safety is the main foundation in maintaining market preferences. Based on the results of interviews with KUD Argopuro employees (2025) and internal reports from the cooperative regarding the rejection of milk shipments by PT Nestlé due to antibiotic contamination, it is evident that this incident had a significant impact on consumer trust and cooperative performance.

According to Kotler and Keller (2022), consumer preferences are not only influenced by product quality but also by perceptions of brand image and consumer trust in the institution's reputation. The image of cooperatives as local fresh milk producers is under pressure when quality issues come to the surface. Consumers are starting to consider other alternatives that are more reliable in terms of security, even though, in terms of price and social value, cooperative products are superior.

In addition to rational factors such as quality and price, consumer preferences are also formed from emotional and ideological attachment to cooperatives. Some consumers remain loyal because they feel they are part of a community that wants to support local products. They not only buy products but also participate in the economic empowerment of the people. This is in line with the opinion of Sumarwan (2011) that purchasing decisions are also influenced by social and cultural values in society.

However, emotional loyalty is fragile if it is not supported by real improvements on the ground. Consumers, despite having social ties with cooperatives, still demand quality assurance, safety, and product innovation. Therefore, preferences must be actively managed through quality improvement strategies, information transparency, and intensive communication with consumers. The limitations of product legality, such as the lack of BPOM certification on dairy products, are also an obstacle to expanding market preferences. Modern consumers are more selective and critical of the legality and clarity of the product information they consume. Without formal legal guarantees, public trust in cooperative products is difficult

to maintain in the long term, as explained by internal sources from the Argopuro KUD. In terms of service, preferences are also influenced by how cooperatives respond to complaints, provide information, and build long-term relationships with their consumers. According to the SERVQUAL model by Parasuraman, Zeithaml, and Berry (1988), the dimensions of reliability, assurance, responsiveness, empathy, and tangibles are very influential in fostering a positive perception of cooperative services and products.

It is important for KUD Argopuro to continue to map changes in consumer preferences through satisfaction surveys, regular feedback, and monitoring of market trends. Today's consumers tend to be dynamic and easily shift if not maintained through a relevant and adaptive approach. This shows that consumer preferences are not fixed but must be managed and grown through value-based business strategies and innovation. Thus, KUD Argopuro's success in maintaining and expanding consumer preferences relies heavily on the integration between product quality, responsive service, strong legality, and communication that builds public trust. Preferences are not only about the product but also about the experience and value that consumers perceive in each transaction.

Product Quality

Product quality is the main foundation in shaping and maintaining consumer preferences, especially in food products such as milk, which are directly related to consumer health and safety aspects. According to Lee, J. Y. (2016), there are eight dimensions of product quality that are relevant to be used as a benchmark: performance, features, reliability, conformance, durability, serviceability, aesthetics, and perceived quality. In the context of KUD Argopuro, the most prominent and relevant dimensions are performance (freshness and natural taste of milk), reliability (consistency of product supply), and perceived quality (public perception of the quality of cooperative milk).

Thus, the big challenge faced by KUD Argopuro is in maintaining and ensuring the quality of its products consistently. The outbreak of Foot and Mouth Disease (FMD) that hit during 2023–2024 caused a drastic decrease in the number of healthy dairy cows, thus having a direct impact on the quantity and quality of milk produced. Not only is it reduced in terms of volume, the milk produced has also experienced a decrease in quality standards due to suboptimal cow health conditions. The health of farm animals is one of the most crucial factors in ensuring the quality of milk biologically (Tumyrkin, Mazzara, Kassab, Succi, & Lee, 2016).

The quality crisis was further exacerbated by the case of refusal to deliver milk by PT Nestlé Indonesia due to antibiotic contamination. This is proof that the cooperative's internal quality control system is still not running optimally. Antibiotic contamination in milk shows a failure at a crucial point in the production chain, namely when cows that are undergoing treatment are still milked and their milk is mixed with other milk without first conducting residue tests. Contamination of antibiotic residues in milk not only impacts consumer health, but also undermines market confidence in local products.

The limitation of laboratory test equipment and lack of education for cooperative member farmers are the main causes of the weak quality control. In a cooperative system consisting of many members with different levels of knowledge, information distribution and technical training are very important to guarantee the quality of products collectively. Research by Astuti et al. (2021) also emphasizes that standard operating procedures (SOPs) that are not followed

in a disciplined manner can create detrimental quality variations in the level of people's milk production.

In addition, the dependence of the Argopuro KUD on one main product, namely fresh milk, shows a lack of diversification strategy. Without diversification, cooperatives become highly vulnerable to market fluctuations and production disruptions. Processed products such as pasteurized milk, yogurt, or ice cream can expand the portfolio and reach a more varied market segment. However, legality obstacles such as the absence of BPOM certification cause these processed products to not be officially marketed, thus limiting the reach of cooperatives in a wider and more competitive market.

Product quality improvement cannot only depend on technical aspects such as tools and raw materials, but must also be supported by good managerial skills. KUD Argopuro needs to strengthen the quality management system, starting from training farmers, monitoring the use of drugs, to periodic evaluation of the production process. The implementation of Hazard Analysis and Critical Control Point (HACCP) can be the first step in building a structured and credible food safety system in a cooperative environment (Widodo & Nursini, 2020).

Efforts to improve quality must also pay attention to the sustainability aspect. The use of appropriate technology for early detection of contamination, the implementation of quality-based incentive systems for farmers, and cooperation with academic institutions or governments for laboratory testing can be medium-term solutions. In addition, cooperatives should start drafting internal quality standards that refer to national and international regulations, in order to build long-term credibility and open access to the modern market and food industry.

Thus, the product quality challenges faced by Argopuro KUD are systemic and require a holistic approach starting from the technical aspects of production, breeder education, contamination risk management, to product legality. Without comprehensive intervention on all fronts, cooperatives will find it difficult to maintain consumer preferences and face increasingly fierce market competition. Therefore, quality improvement must be a strategic and sustainable agenda in cooperative management (Ministry of Cooperatives and SMEs of the Republic of Indonesia, 2021).

Quality of Service

Service quality is one of the fundamental aspects in shaping the overall and sustainable consumer experience. In the context of cooperatives such as KUD Argopuro, service quality is not only limited to service at the point of sale or during transactions, but also includes the relationships and interactions established between the cooperative and its members. Clarity of information, speed of response to complaints, and honesty in conveying product quality are the main factors that affect consumer perception of cooperative services.

The SERVQUAL model developed by Parasuraman, Zeithaml, and Berry (1988) emphasizes five main dimensions in service quality, namely: tangibles (physical proof of service), reliability (reliability in providing promised services), responsiveness (responsiveness in helping consumers), assurance (security and trust guaranteed), and empathy (empathy and attention to consumer needs).

In field research on the Argopuro KUD, it was found that cooperatives still have shortcomings, especially in terms of reliability and responsiveness, such as inconsistent milk

supply and less fast response to customer complaints. Consumer complaints about inconsistent milk supply and limited product variety are the main issues that reduce customer satisfaction. In addition, delays in the distribution of milk to some marketing points also worsened the service experience. This shows that there are operational obstacles that need to be overcome so that services can run smoothly and meet consumer expectations.

Studies by Nasution and Mavondo (2008) confirm that untimely service and product inconsistencies can significantly decrease customer loyalty. In addition to the operational aspect, KUD Argopuro is also less than optimal in providing adequate education to consumers regarding product safety standards and the health benefits of fresh milk produced. This lack of education causes consumers to lack understanding of the advantages of cooperative products compared to mass industrial dairy products. This finding is in line with Lee and Cunningham (2019), who show that consumer education plays an important role in increasing perceived value and building long-term trust.

On the other hand, cooperatives have great potential to build superior service quality by utilizing inherent social and cultural values, such as kinship and emotional closeness between cooperative members. Social attachment and personal relationships can be the main capital in building services oriented towards empathy and social solidarity. The concept of community-based service that emphasizes transparency, participation, and equality can be adopted to strengthen the cooperative's relationship with its members. To realize better service quality, KUD Argopuro needs to develop an effective and systematic consumer feedback collection and management system. This is so that every complaint or input can be followed up quickly and appropriately. In addition, increasing the capacity of human resources in the field of customer service should also be a priority, including communication training and solution-oriented conflict management.

Trust must be the main principle in every cooperative's interaction with its members and general consumers. Building and maintaining this trust will not only increase customer loyalty, but also strengthen the position of cooperatives as professional and reliable people's economic institutions. According to Yusuf Zamzami, Rusdarti, and Sudarma (2022), trust is the main foundation in building successful long-term business relationships. With integrated improvements ranging from operational aspects, education, to strengthening social relationships and trust, KUD Argopuro can provide quality services that not only meet the basic needs of consumers but also provide significant added value. This will have a positive impact on the image of the cooperative and strengthen the sustainability of the business and support of members in the future.

Conclusion

Based on the discussions that have been carried out, it can be concluded that consumer preferences for Argopuro KUD products are greatly influenced by the quality of the product, especially the freshness of fresh milk, as well as the value of locality inherent in the product. However, the case of milk refusal by PT Nestlé due to antibiotic contamination has significantly lowered the level of consumer confidence, making consumer preferences more vulnerable and dependent on consistent product quality, reliability, and safety.

The quality of Argopuro KUD products still faces major challenges, especially in maintaining the quality of fresh milk in the midst of the FMD outbreak and weak internal quality

control. Reliance on fresh dairy products without product diversification also limits the ability of cooperatives to expand the market. Therefore, improving product quality standards, member training, and utilizing early detection technology is essential to maintain the trust of consumers and industry partners.

In addition to products, the quality of services provided by cooperatives is a crucial factor in building consumer experience and loyalty. Although KUD Argopuro has the advantages of emotional closeness and family values with members, cooperatives still need to improve supply reliability, responsiveness to complaints, and education to consumers about product safety and benefits. The development of an effective feedback system and increasing the capacity of human resources in service are strategic steps that need to be taken.

Overall, KUD Argopuro's success in maintaining and improving consumer preferences relies heavily on the synergy between improving product and service quality. With integrated improvements and the enforcement of the principles of trust and transparency, cooperatives can strengthen their position as professional and trusted people's economic institutions, while expanding the market and supporting long-term business sustainability.

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