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CLIENT'S PREFERENCES FOR A MULTI-PURPOSE COOPERATIVE LOAN PRODUCTS: A CONJOINT ANALYSIS

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Abstract:
The study used a descriptive research design through conjoint analysis to examine clients' preferences for loan products offered by a multi-purpose cooperative in Compostela, Davao de Oro. A fractional factorial design was applied to identify the optimal combination of loan attributes. The sample included 230 banana workers selected through stratified random sampling, who responded to 19-item plan cards developed from Key Informant Interviews (KII). The results revealed that clients prefer five key loan product attributes: interest on investment, loan collateral, loan terms, online facilities, and transaction notifications. These findings contribute to refining cooperative loan products by reinforcing ethical standards, prioritizing member interests, transparency, and social responsibility. They also guide cooperatives and regulators in designing sustainable, customer-focused loan policies aligned with cooperative values, supporting financial needs and long-term social and environmental well-being.

Keywords: business management, multi-purpose cooperative, client's preference, conjoint analysis, Davao de Oro

1. Background of the Study

Changes in clients' preferences for multi-purpose cooperative loan products are inevitable, particularly evident in the significant shifts in clients' preferences and other social issues, notably during the COVID-19 pandemic, which raised global concerns

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(Grashuis *et al.*, 2020). This international health crisis has profound effects on the economy and society, leading to substantial changes in the behavior of businesses and customers (Saadi-Sedik & Xu, 2020). As a result, there have been significant changes in customers' inclinations towards multi-purpose cooperative loan products, presenting an ongoing challenge for many cooperatives striving to provide appealing products to meet this demand (Manousakis *et al.*, 2024). By acknowledging these shifts in clients' expectations and investing in adaptable strategies, financial institutions and cooperatives can better navigate the complexities of the current business landscape. However, this period also witnessed a notable rise in cooperatives across developing countries, such as the Philippines, intensifying market competition, as highlighted in the 2017 Annual Report (CDA, 2017). Effective and successful cooperatives bring about healthy competition, which elevates market prices for products, the range of services offered, and overall quality (Wegner *et al.*, 2024).

Consequently, studying and understanding clients' preferences for multi-purpose cooperative loan products is essential since it is crucial for their success and sustainability. It helps tailor services, improve customer satisfaction, mitigate risks, and stay competitive while contributing positively to the community. Moreover, comprehending clients' preferences is crucial for cooperatives to set themselves apart in a highly competitive global market. Its capacity to customize services in response to customer feedback can improve its cooperative standing and relevance in the market. Personalized experiences are becoming increasingly valued in consumer behavior; thus, cooperatives prioritizing their clients' preferences for loan products will fare better than those that do not.

Further, member commitment is the key to cooperative success. It is impacted by how cooperatives satisfy members' needs and preferences, particularly internal operations and strategic choices (Manousakis *et al.*, 2024, p. 37). Thus, cooperatives prioritize the interests of their buying members that cater services directly to member needs (Ghirlanda & Kirov, 2024). Despite competition from larger enterprises, cooperatives remain competitive by adhering to cost-efficient practices that benefit their members and the broader market (Kollman Hensellek, De Cruppe, and Sirges, 2020, p. 274). Additionally, cooperatives enhance their market presence by diversifying members' products (Ibrahim & Ngina, 2019, p. 10).

The implications drawn from Previous research underscore the crucial role of understanding client preferences for a loan product in determining the success and sustainability of multi-purpose cooperatives. Studies have consistently highlighted the significant impact of client preferences on member satisfaction, loyalty, and overall organizational performance within cooperative settings. Despite this, existing research often fails to examine clients' preferences within the multi-purpose cooperative context comprehensively. To address this gap, the current study aims to investigate clients' preferences in multi-purpose cooperative loan products. By doing so, it seeks to provide valuable insights that can inform strategic decision-making processes within cooperatives, enabling the development of tailored services and initiatives that better

meet the needs and expectations of members. Ultimately, the findings of this study have the potential to enhance member engagement, organizational effectiveness, and the long-term sustainability of multi-purpose cooperatives (Liu *et al.*, 2023).

Moreover, defining the attributes marks the initial and critical phase in developing a conjoint application. Claxton (1995) emphasized the significance of carefully pinpointing the attributes relevant to consumers. One of the primary stages in designing a conjoint experiment is identifying a suitable set of attributes, as it forms the foundation for evaluation and analysis. This stage is frequently time-consuming and demands meticulous attention (Romank, 1992). This research has identified five (5) preferable attributes from the literature review and key Informant Interviews: loan terms, interest on investment, collateral on loans, transaction notification, and online facility for a multi-purpose cooperative.

The first attribute, loan terms, refers to the number of days, months, and years to pay the loan. Three levels for loan terms: (12 months, 18 months, 24 months). These levels substantially impacted debt heterogeneity and covenant intensity (Lou & Otto, 2020, p.75). Additionally, as Billiet *et al.* (2021) point out, cutting down on payment cycles helps with customer readiness and enhances payment terms. Zahid and Rao's (2022, p. 187) study emphasizes how social capital and loan terms affect microenterprise performance.

Second, investment interest is the amount added to the loan granted as a percentage based on the loan terms provided in the contract. The study of Demirguç-Kunt and Singer (2017, p. 13) stated that having interest rate savings can help members have an immediate increase in their accounts. Also, it is easy to measure cost savings, revenue growth, cash inflows, or increased profits (Lu, Wu, Peng, and Lu, 2020, p. 326). Third, the attribute identified for this study pertains to collateral on loans. It refers to the property and any borrower offers as security for the amount borrowed; collateral holds substantial importance, shaping the monetary policy transmission mechanism and financial market operations (Ioannidou, Pavanini, and Peng, 2022). Fourth, Transaction Notification is a popular method for communicating with customers. The development of the banking sector enables banks to be more proactive for the consumer. Saxena *et al.* (2021) suggest a preference for proactive automatic transaction alerts, which is consistent with Cacas *et al.*'s (2022) results about the importance of proactive reminders for consumer choice and Jaiswal and Singh's (2020) integration of quick notification in assessing online customer happiness. Lastly, an online facility will help customers have updated information about their status on loans and investments. Notably, cooperatives and financial institutions in China are spearheading the establishment of digital platforms, integrating payment and information systems to cater to evolving customer needs (Chen & Yuan, 2021). As highlighted by Allen, Gu, and Jagtiani (2021), this fusion of finance and technology drives significant innovations, democratizing credit access, expediting services, and ensuring transparency, aligning with consumer preferences (Allen, Gu & Jagtiani, 2021). Studies by Jebarajakirthy and Shankar (2021) underscore the impact of online banking facilities, particularly mobile and Internet banking, on customer adoption. Vătămănescu *et al.* (2024) suggest that the younger generation's preference for

internet channels due to accessibility and information abundance further reinforces the importance of such online facilities. Additionally, leveraging social media platforms for communication enhances outreach to target customers across local and global levels (Widmer *et al.*, 2019, p.1546). Appel *et al.* (2020, p. 82) highlight that social media's pervasive influence enables strategic promotional activities, leveraging celebrity endorsements and maintaining aesthetic consistency across various promotional channels (Nia & Shokouhyar, 2020, p. 16).

This research study used the Random Utility Theory of Manski and McFadden (1981), which asserts that the probability of picking a product is the sum of a systematic portion and a random error. The product attributes determine the systematic portion. It provides the mathematical foundation for linking the probability of consumer choice of a product to its qualities. Furthermore, the usual assumption is that purchasing a product follows the utility maximization rule. Because customers are known to be wealth maximizers, the rule assumes the highest utility or part-worth among alternative products on the market (Samuelson, 1972). The various part-worths of each attribute level determine the entire worth of a product. In addition, the Random Utility Theory stipulates that the utility of each alternative of a product is a linear function of the observed attributes of the product plus the error component (Ba, Stallaert, and Zhang, 2012). For instance, if a product has three alternatives, the customer will have three separate utilities for each option.

Furthermore, this study applies to the Rational Choice Theory (Bettman, Luce, and Payne, 1998). It extends to the selection of a multi-purpose cooperative for the banana workers. This theory assumes that consumers are rational when choosing different products and services. Rationality entails that clients have well-defined preferences, and these consumers' decisions are not dependent on a particular description of options or specific methods used to obtain these preferences.

Figure 1 is the study's conceptual framework, showing several key attributes influencing client preferences for multi-purpose cooperative loan products. Firstly, *loan terms*, defined as the conditions under which a loan is provided, including the duration, repayment schedule, and associated fees, play a significant role. Second is *investment interest, which* refers to the rate of return members receive for their deposits or investments in the cooperative, and loan collateral consists of the assets or guarantees required to secure a loan. Third is *transaction notification*, essential to inform clients about their transactions, including loans, deposits, and repayments. Finally, the *online facility*, which pertains to the availability and quality of online services provided by the cooperative, such as online banking, loan applications, and account management, significantly impacts client preferences. These attributes directly affect how clients perceive and choose the multi-purpose cooperative. By understanding and optimizing these attributes, multi-purpose cooperatives can enhance their attractiveness to clients, ultimately leading to greater satisfaction and loyalty.

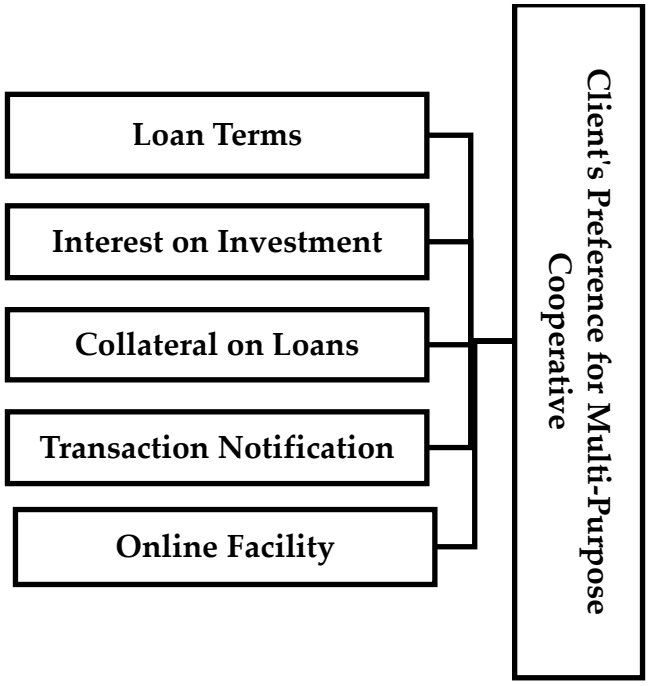

Figure 1: The conceptual framework of the study

However, the absence of empirical studies on determining client preference attributes for multi-purpose cooperative loan products locally highlights a significant knowledge gap. Given that multi-purpose cooperatives frequently encounter difficulties due to limited resources, expertise, and knowledge in meeting evolving client preferences, resulting in a decline in members' loyalty and potential bankruptcy (Harisudin *et al.*, 2020). Recognizing this, there is a clear need for research tailored to understand and meet customers' preferences in Compostela, Davao de Oro. This study lies in its direct impact on the viability and success of multi-purpose cooperatives in the community. While existing studies often focus on cooperative savings, this research aims to uncover specific preferences of banana workers, influencing cooperative management practices and member decisions. By addressing this gap, the study examines client preferences to improve product and service quality in multi-purpose cooperatives, contributing to better client satisfaction and market competitiveness. This thorough analysis is essential given the growing number of cooperatives and the need to fulfill client obligations effectively, guiding cooperative management to enhance their market position and meet client needs (De Jesus & Cruz, 2021).

To overcome this challenge, the present study seeks to investigate the preferences of banana workers when selecting a multi-purpose cooperative. The main aim is to determine the client preferences regarding a multi-purpose cooperative loan product in Compostela, Davao de Oro. The study sets out to achieve the following objectives: First, to determine the demographic profiles of respondents. Second, the relative importance of the attributes of multi-purpose cooperative loan products must be determined. Third, evaluate the utility estimate of levels of attributes, including loan terms, interest on investments, collateral on loan, transaction notification, and online facility. Fourth,

individual and aggregate utility estimates of the most and least preferred combination of levels of attributes are established. Lastly, the individual aggregate models of preference for a multi-purpose cooperative are preferred by banana workers. Utilizing data on desired characteristics, this study aims to produce findings through conjoint analysis that can have significant implications for the products and services offered by existing multi-purpose cooperatives and for the establishment of future ones.

This study contributes to the literature by examining client preferences in multi-purpose cooperative loan products, enriching our understanding of cooperative loan dynamics. It has significant social value by helping cooperatives better meet community needs and promoting sustainable development aligned with SDG Goal 8, which focuses on decent work and economic growth. By enhancing product and service offerings, cooperatives can create jobs, improve livelihoods, and strengthen local economic resilience. Direct beneficiaries include a cooperative board of directors, managers, and departments of finance and marketing, who will gain insights to refine their offerings. Future researchers will benefit from a deeper understanding of client preferences, enabling further exploration and comparative studies.

2. Method

This chapter covers research respondents, materials and instruments, design, and procedure.

2.1 Research Respondents

The study included 230 banana workers from three multi-purpose cooperatives in Compostela, Davao de Oro. To ensure the creation of a dependable conjoint estimating tool and to stay in line with the research objectives, it was appropriate to use a sample size between 150 and 1,200 respondents, as recommended by Orme (1990). The targeted respondents of this study consist of banana workers aged between 18 and 65 years, possessing a minimum of one year of work experience, regardless of their marital or employment status. Additionally, they must earn a monthly income of at least 10,000.00 and reside in Compostela, Davao De Oro. Exclusions encompassed workers with less than one year of tenure, those earning below the specified income threshold, non-residents of Compostela, individuals below the legal age, and those lacking cooperative experience. These rigorous criteria were implemented to bolster the reliability of the findings during the estimation process.

The study utilized a stratified random sampling approach to ensure enough respondents, aiming for a representative population sample. Researchers were responsible for identifying individuals with the necessary expertise or experience and actively sought their contribution to the study. These individuals were expected to assist in the research process (Etikan, Musa & Alkassim, 2016).

Further, the study is in Compostela, Davao de Oro. It is situated in the southern part of the Philippines and is known for its lush landscapes and agricultural activities.

The region is characterized by tropical weather, warm temperatures year-round, and a distinct wet and dry season. Compostela is renowned for its banana plantations, which serve as a primary source of livelihood for many residents. Indeed, the selection of Compostela as the study locale likely revolves around the welfare or working conditions of banana workers. As such, Compostela's significance lies in its status as a hub for banana cultivation and the employment opportunities it provides in the agricultural sector. Understanding the conditions or state of these workers in Compostela is essential for comprehending the broader socio-economic dynamics of the region and identifying areas for improvement or intervention.

2.2 Materials and Instrument

The researcher used a Key Informant Interview (KII) to identify the top five preferred attributes of multi-purpose cooperative loan products among customers. Further, reviewing relevant literature and studies forms part of the survey questionnaire. Before refining the survey questionnaire, the KII enlisted ten participants, including two government employees, two cooperative employees, two banana workers, two coop customers, and two business owners, to pilot-test the survey instrument.

The survey questionnaire contains plan cards with 19 items evenly spread across five categories: loan terms, interest on investment, collateral on loans, transaction notification, and online facility. The 7 Likert scale ranges from one (1), indicating the least preferred option, to seven (7), representing the most preferred option.

To identify a combination of the attributes, this research employed a fractional factorial design, which eliminated the need to assess every possible combination of the five attributes identified by the key informants. The researcher chose a reduced subset of options for evaluation. Fractional factorial design involves utilizing only a fraction of the complete set of potential factor combinations (Stewart, 2005). The study also utilized orthogonal array design software to create a total of nineteen (19) plan cards, which were then included in the survey questionnaire. An orthogonal array is a mathematical arrangement of symbols ensuring that, for any selection of columns, the same number of occurrences is observed (Ye, Tsai, and Li, 2007). This design aimed to meet statistical requirements, such as efficiency and balance between levels, and later to estimate part worth. It achieved this by minimizing the number of evaluations collected while accurately representing respondents' preferences for the four traits.

2.3 Design and Procedure

The research design is descriptive research through the utilization of conjoint analysis. Descriptive research design seeks to gather data methodically to characterize a condition, population, or phenomenon (Sweetman *et al.*, 2010). Conjoint analysis was employed to evaluate how the exclusion, inclusion, or degree of specific attributes influences client decision-making and to understand the significance of various product qualities (Rao, 2010). Eggers and Sattler (2011) also recognized that conjoint analysis aids in measuring clients' preference structures. This method was selected as it aligned with the researcher's

objective of examining the impact of five factors—loan terms, interest on investment, collateral on loan, transaction notification, and online facility—on the preferences of banana workers for a multi-purpose cooperative. The crucial aspect of this relationship lies in the ability of factor A to either generate factor B or exert an effect leading to the occurrence of B (Chakrapani, 2004). Conjoint analysis is applicable across various domains, including preferences for condominium properties (Calixijan & Murcia, 2015), low-cost residential properties (Matillano & Murcia, 2022), retirement facilities (Castillo-Ho & Murcia, 2016), smartphones (Tobias & Murcia, 2022), and even presidential candidates (Murcia & Bolo, 2017), wherein the respective attributes serve as the basis for preference computation.

Before data collection, the researcher asked for clearance or certification of approval from the University of Mindanao Ethics Research Committee (UMERC) with the UMERC protocol number UMERC-2023-201. Data acquisition began following the necessary authorization, and data were gathered from three multi-purpose cooperatives participating in the study. The study aimed to secure a minimum of 230 participants from these cooperatives. Upon obtaining clearance, survey questionnaires were distributed face-to-face to the respondents. Participants were instructed to provide accurate responses based on their preferences regarding various combinations of five features of a multi-purpose cooperative and the corresponding attribute levels. Data collection took place in November 2024. After reaching the target number of participants, collected responses were extracted and converted into a spreadsheet format. The researcher reviewed the data for missing values or uniform responses to ensure its quality and integrity. Subsequently, the data was prepared for importation into software for further analysis. Conjoint syntax within IBM-SPSS software was utilized for data analysis, determining the relative importance of the four qualities and the part-worth utilities associated with each level of these attributes.

The statistical tool used in this study is the Conjoint analysis to determine the relative importance of the five selected criteria with the score subcommand, which scores clients' preference profiles in Compostela, Davao de Oro. Ratings on the profiles were fragmented, yielding part-worth estimations for each attribute level.

The other one is the additive model, which assesses the overall utility of clients' preferences for multi-purpose cooperative products and services by adding each attribute's constant and highest utility estimates.

3. Results and Discussion

In this section, the researcher presents the findings of the data gathered. Discussions of the topics are arranged in the following order: (1) the demographic profile of the respondents in terms of Age, Sex, Marital Status, Educational Background, and Monthly Income; (2) the relative importance of the attributes, which include collateral, notification, facility, terms, and interest preferred by banana workers via conjoint analysis; (3) the utility estimates for various level of attributes; (4) the individual and aggregate models

of the least and most preferred attributes for a multi-purpose cooperative among banana workers.

Table 1: Demographic Profile of Respondents

Demographic Profile	Percentage
Age	
21-30	49%
31-40	22%
>20	22%
41-50	6%
<50	1%
Sex	
Female	60%
Male	40%
Marital Status	
Married	51%
Single	46%
Widowed	3%
Educational Background	
High School Level	60%
College Level	18%
Elementary Graduates	16%
Postgraduate	1%
Monthly Income	
10,000-20,000	68%
>10,000.00	29%
<20,000.00	3%

The study investigated the demographic profile of banana workers in Compostela, Davao de Oro, and found some variation. The age distribution of the respondents is as follows: 22% are under 20 years old, 22% are between the ages of 31 and 40, and 49% are between the ages of 21 and 30. Of these, 6% are between 41 and 50, while 1% are over 51. Regarding gender, 60% of the sample were female and 40% male respondents. In terms of marital status, there are 51% of married workers, 46% of single workers, and 3% of widowed workers. Regarding education, 60% of the respondents are high school graduates, 18% are college graduates, 16% are elementary graduates, and 1% are postgraduate degree holders. Regarding monthly earnings, 29% make less than $10,000, 68% fall into the 10,000 to 20,000 range, and 3% have an income exceeding $20,001.

Table 2: Relative Importance of the Attributes for a Multi-purpose Cooperative Preferred by Banana Workers Via Conjoint Analysis

Attribute	Relative Importance
Interest on Investment	32.041%
Collateral on Loan	20.821%
Loan Terms	17.071%
Online Facility	14.379%
Transaction Notification	13.801%

The results of the relative importance of the five attributes of the client's preference for multi-purpose cooperatives, as shown in Table 2, confirm that the importance measures are relative and within the study. If the range of the tested attribute levels changes, the relative importance of that attribute will likely change. It is how they interact to measure a particular respondent's preference. The attribute that is least liked will have the lowest value reflected.

Table 2 presents a conjoint analysis detailing the significance of assessments of diverse attributes that banana workers consider when choosing a multi-purpose cooperative. These attributes exhibit varying levels: interest in investment, collateral on loan, Loan terms, Online Facility, and Transaction Notification. The constant term in the analysis, with a utility estimate of 1.545 (SE= 0.051), serves as a baseline utility level for comparing the estimates of different attribute levels. Among the attributes, *investment interest* is the most significant, with a relative importance of 32.041%. It implies that banana workers in Compostela prefer lower interest rates on investments, which might significantly reduce their financial burden. Because cooperatives that offer lower interest rates on investments can also offer lower interest rates on loans. The result supported the study of (Lian, Ma, and Wang, 2018, pp. 2107-2148) shows that low interest rates can increase the tendency for risk-taking among both institutional and individual investors.

The *collateral on loan* ranks second in relative importance, with a value of 20.821% in the decision-making process. These results suggest that banana workers preferred cooperatives that mandate collateral, indicating that the perceived security associated with collateral may be a positive factor despite the additional requirements. To support these results, research conducted by Mutai (2020) revealed a significant impact of collateral requirements on loan provisions in Savings and Credit Cooperative Societies (SACCOS).

Loan Terms ranks third in relative importance, contributing 17.071%. It implies that loan terms are vital for banana workers because they can directly affect their financial well-being. In addition, favorable terms can ease financial pressure, allowing clients to manage their finances more effectively (Nandini & Shubha, 2021, pp. 47–56). Clients must assess whether they can meet these obligations without jeopardizing their other financial commitments (Latilo *et al.*, 2024).

The *online facility* ranks fourth in relative importance for banana workers when selecting a cooperative, accounting for 14.379%. This low ranking reflects a combination of limited access to technology, a preference for traditional services, community

engagement priorities, and security concerns. These factors influence the decision to choose other characteristics of cooperative membership over digital capabilities. Supporting this finding, Zhongchen, G., Jie, H., and Chen, C. (2023) found that digital adoption in rural areas is limited by low digital literacy, poor infrastructure, and a preference for face-to-face interactions—factors that align with banana workers' preference for traditional cooperative services.

The low ranking of *transaction notifications* (13.801%) in the decision-making process of banana workers when choosing a cooperative suggests a lack of trust or familiarity with technology or a preference for more personalized communication. It aligns with findings from Mao *et al.* (2024), highlighting how a lack of trust in AI systems, such as generative design assistants, can hinder their adoption. Workers may feel more comfortable with direct, human communication than automated, impersonal notifications.

Table 3: Utility Estimates of Level of Multi-purpose Cooperative Attributes

Attribute	**Levels**	**Utility Estimate**	**Std. Error**
Interest on Investment	1%	-.213	.020
	2%	-.426	.039
	3%	-.639	.059
Collateral on Loan	With collateral	.025	.016
	Without collateral	-.025	.016
Loan Terms	24 months	.063	.059
	18 months	.042	.039
	12 months	.021	.020
Online Facility	Without online facility	.006	.016
	With an online facility	-.006	.016
Transaction Notification	The customer finds a notification automatically	-.040	.016
	The coop provides notifications manually	.040	.016
	(Constant)	1.545	.051

In computing the overall utility of the five (5) attributes of multi-purpose cooperative products and services, partial utility estimates (or part-worths) can be used. It is done by converting part-worth estimates to a standard scale (e.g., a minimum of zero to a maximum of 100 points) to allow for comparison across attributes for an individual and across individuals, as can be gleaned from Table 3. Scaling part-worth estimates is a simple yet effective way of presenting each level's relative position, implying that the attributes with the highest utility value are the most important (Hair *et al.*, 2014). Consequently, a negative value does not mean a given level has" negative utility." Chapman (2023) says that a factor level with a negative estimated utility is preferred over a factor with a positive estimated utility. Further, in Table 3, the interest on investment attribute has remained consistent as the primary attribute preferred by the banana workers client, with the 1% interest registering the highest utility estimate value from the

conjoint output (β= -.213). According to Chopra (2020, pp. 286–296), investment minimizes the risk and earns maximum return.

The utility estimates for investment interest are -0.213 for 1% (SE = 0.020), -0.426 for 2% (SE = 0.039), and -0.639 for 3% (SE = 0.059). All values are negative and decrease as the rate increases, indicating a strong preference among banana workers for lower interest rates. It implies that banana workers prefer a cooperative that offers lower interest on investment because if there is less interest in investment, the interest rate on loans will also be lower, emphasizing the importance of affordability in the workers' selection of a cooperative. With collateral on loan, the utility estimate for the 'with collateral' level is 0.025 (SE = 0.016), while for 'without collateral,' it is -0.025 (SE = 0.016). These results suggest that banana workers preferred cooperatives that mandate collateral, indicating that the perceived security associated with collateral may be a positive factor despite the additional requirement.

Furthermore, in terms of *loan terms,* the utility estimates increase with longer terms: 12 months at 0.021 (SE = 0.020), 18 months at 0.042 (SE = 0.039), and 24 months at 0.063 (SE = 0.059). This progression indicates a clear preference for more extended repayment periods, which is attributed to perceptions of financial stability and better alignment with the workers' budgeting needs (Anagnostopoulou & Δράκος, 2016). Regarding *online facility,* there is a slight positive utility for the "without online facility" level (0.006, SE = 0.016), suggesting a marginal preference for traditional, in-person interactions over digital platforms. It may be due to limited digital access, technological literacy, or greater trust in face-to-face transactions. In terms of transaction notification, the utility estimate for "customer finds notifications automatically" is 0.040 (SE = 0.016), compared to -0.040 (SE = 0.016) for "cooperative manually provides notifications." This contrast reveals a strong preference for automated notification systems, underscoring the value placed on convenience and efficiency. Moreover, a study conducted by Diener and Špaček (2021) uncovered that aspects such as strategy and management, technology, and regulation, as well as the considerations of customers and employees, receive considerable attention in digital transformation. Additional significant hurdles are identified in the domains of market knowledge and products, involvement of employees and customers, and public benefit. Each primary obstacle is characterized by multiple sub-challenges of varying significance for banks' digital transformation, and these are elucidated in detail.

Table 3 shows the total utility estimate, reflecting the overall preference score from the generalized conjoint model. A total utility of 1.545 indicates that banana workers in Compostela, Davao de Oro, prefer a multi-purpose cooperative product and services with the highest value.

Table 4: Total Utility Estimates of the Most Preferred Attributes of Multi-purpose Cooperative Products and Services

Attribute	Levels	Value
Loan Terms	24 months	.063
Transaction Notification	Coop provides notification manually	.040
Collateral on Loans	With collateral	.025
Online Facility	Without an online facility	.006
Interest on Investment	1%	-.023
Preference Score		-0.097

The utility score for loan terms, particularly for 24 months, is .063. This result highlights that banana workers prefer longer loan terms, as they require additional time to effectively manage their businesses and achieve stable returns. Longer terms help them avoid financial strain during the early stages of their ventures, allowing for better cash flow management. This preference aligns with the findings of Kiros (2023), who suggests that offering a more extended grace period gives borrowers the necessary time to implement their projects successfully. By doing so, borrowers can use the loan as intended, ensuring they generate sufficient income once their operations are fully established and running smoothly.

Transaction Notification ranks as the second most preferred attribute, with a value of .040, indicating that banana workers prefer manual notifications over automated ones. It suggests that banana workers value a more personal and direct approach to staying informed about their financial activities, such as transactions and account updates. They prefer manual notification rather than relying on automated systems, which may offer them a more personal connection and reassurance. This preference aligns with the findings of Gaspar and Pinto (2024), who highlight that some customers feel more in control and secure when they receive manual notifications, as it allows for more direct communication and potentially clearer information about their finances.

Collateral on loans, with a score of .025, ranks as the third most preferred attribute among banana workers, indicating that they value the security it provides when borrowing. This preference aligns with Mutai's (2020) research, which shows that collateral requirements significantly impact loan provisions in Savings and Credit Cooperative Societies (SACCOs). The implication is that banana workers feel more confident and secure when offering collateral, as it reduces borrowing risks and helps them access better loan terms.

The online facility, which prefers "without online facility" (value of .006), ranks 4th among banana workers. It suggests they prefer traditional banking methods over digital options. The implication is that banana workers may have limited access to or trust in online banking, which aligns with findings from Sandhu and Arora (2020), who note that despite the rise of digital banking, many customers, particularly in rural or less technologically advanced areas, still prefer in-person interactions. It highlights the need for cooperatives to offer personalized, face-to-face services while gradually introducing digital options to accommodate the evolving preferences of their clientele.

Interest on investment, with a score of 1% (-.023), ranks 5th, or last, among the attributes. It suggests that banana workers are less influenced by interest rates, prioritizing factors like loan terms and collateral. Low interest rates are recommended to encourage risk-taking (Adrian *et al.*, 2024). Still, banana workers prefer stability and security over potential higher returns. It implies that cooperatives should offer reliable, risk-averse financial products rather than emphasize investment returns.

The preference score of -0.097 reflects the relative appeal of specific attributes associated with the multi-purpose cooperative. This negative score indicates a general disapproval among banana workers toward the cooperative's products and services. The preference score is a quantitative measure of how many banana workers like or dislike what the cooperative offers, with negative values indicating lower preference and positive values indicating higher favorability.

Table 4.1: Total Utility Estimates of the Least Preferred Attributes of Multi-purpose Cooperative Products and Services

Attribute	**Levels**	**Value**
Interest on Investment	3%	-.639
Transaction Notification	The customer finds a notification automatically	-.040
Collateral on loans	Without collateral	-.025
Online Facility	With an online facility	-.006
Loan Terms	12 months	.021

Table 4.1 presents the total utility estimates for the least preferred attributes of multi-purpose cooperative products and services, as indicated by banana workers. The table shows the utility values for different levels of attributes, where negative values indicate lower preferences and positive values suggest higher preferences.

Interest is 3%, and the utility value for this attribute is -.639, the lowest among the listed attributes. It suggests that banana workers show a strong disinterest in high-interest investment options, possibly because they prioritize more stable and secure financial solutions over speculative or higher-return opportunities. As highlighted by Sinha *et al.* (2024), individuals who prefer low-risk, low-reward investments often gravitate toward conservative financial products like bonds or savings accounts. These options provide predictable returns and lower exposure to market volatility, reflecting an apparent inclination towards long-term financial stability over short-term gains.

Transaction Notification (Customer finds notification automatically)

With a value of -.040, this attribute ranks second least preferred. Banana workers strongly prefer cooperatives that provide manual notifications, indicating they value personal, human-driven communication over automated systems. This preference suggests that banana workers may feel more connected and reassured by direct, hands-on interaction, fostering a sense of trust and reliability. Gaspar and Pinto (2024) highlight that some customers feel more in control and secure when they receive manual notifications, as it allows for more direct communication and potentially clearer information about their

finances. It aligns with the workers' inclination towards personal engagement and traditional methods over automated, impersonal communication channels."

Collateral on loans (without collateral) The utility value for this level is -.025, showing a low preference for loans that do not require collateral. It suggests that banana workers feel more secure and confident in taking out loans when collateral is involved, as it provides security for both the borrower and the lender. Fatmawati Sungkawaningrum *et al.* (2024) support this result by noting that borrowers may view unsecured loans as riskier or less reliable due to the absence of collateral. The negative value for "without collateral" indicates that banana workers may view unsecured loans as riskier or less reliable.

*For online facilities, t*he utility value for the without online facility level is -.006, indicating that banana workers prefer to avoid online banking services. This result suggests that despite the increasing popularity of digital banking, banana workers in this region may still be more comfortable with traditional, face-to-face banking methods. The low preference for online facilities could be due to limited access to technology or concerns about security and trust in online platforms, as Islam (2024) explores the impact of online payment systems on customer trust and loyalty in e-commerce, emphasizing security and convenience.

The utility value for the "12 months" loan term is .021, the only positive value in this table, although it is pretty small. It suggests that banana workers show a mild preference for loans with shorter terms (12 months) compared to longer loan options. The positive score, though small, indicates that banana workers may appreciate a quicker repayment period because it aligns with their need for faster returns on investment or shorter financial commitments (Dipon & Cabudol, 2024).

Table 5: Individual and aggregate models of preference for a multi-purpose cooperative preferred by banana workers

Attribute Levels	Individual Models			Aggregate Model
	Worker 51	Worker 92	Worker 205	
(Constant)	3.710	-0.017	4.381	1.545
Collateral on Loans				
With collateral	.063	-.062	.313	.025
Without collateral	-.063	.062	-.313	-.025
Transaction Notification				
The customer finds notifications automatically	.063	-.062	.187	.040
The coop provides notifications manually	-.063	.062	-.187	-.040
Online Facility				
With an online facility	-.312	.063	-.188	-.006
Without online facility	.312	-.063	.188	.006
Loan Terms				
12 months	.205	.114	-.114	.021
18 months	.409	.227	-.227	.042
24 months	.614	.341	-.341	.063

Interest on Investment				
1%	-.432	-.068	-.568	-.213
2%	-.864	-.136	-1.136	-.426
3%	-1.295	-.205	-1.705	-.639
Attributes				
Collateral on Loans	5.820	16.923	22.822	20.821
Transaction Notification	5.820	16.923	13.693	13.801
Online Facility	29.101	16.923	13.693	14.379
Loan Terms	19.048	**30.769**	8.299	17.071
Interest on Investment	**40.212**	18.462	**41.494**	**32.041**
Pearson's r	0.559*	0.637*	0.782*	0.963*
Kendall's tau	0.406*	0.360^{ns}	0.598*^{s}	0.778*
Kendall's tau for holdouts	0.816^{ns}	-1.000^{ns}	1.000^{ns}	1.000^{ns}

Table 5 provides an in-depth analysis of individual preferences among banana workers for various attributes of multi-purpose cooperatives and an aggregate model that integrates these preferences. The attributes analyzed include loan terms, interest on investment, collateral on loan, transaction notification, and online facility.

For Worker 51, investment interest is the most essential characteristic, accounting for 40.212% of their preference model. This worker has a substantial negative utility for increased interest on investment, showing a clear preference for lower interest rates, a common issue among those in financially vulnerable situations. It implies that 51 banana workers prefer cooperatives with lower interest rates on investments, as these also typically offer lower loan interest rates, making borrowing more affordable. Lower rates stimulate economic activity, support business growth, and enhance financial flexibility for borrowers and investors (Maharani & Saputra, 2021).

Worker 92's model shows the highest relative relevance for loan terms (30.769%), emphasizing the importance of loan duration when selecting a cooperative. Longer loan terms are preferred, as they offer greater utility due to their lower monthly payments, making them more manageable for banana workers with limited income and tighter budgets (Xiao, 2021). This preference for long-term loans helps alleviate financial strain, particularly during periods of economic uncertainty or unexpected expenses, by spreading the repayment burden over an extended period, thereby reducing the immediate financial pressure on workers.

Worker 205's preferences are primarily driven by interest rates (41.494%), highlighting the critical importance of loan security and affordability in their decision-making process (Aslam *et al.*, 2019). For Worker 205, access to loans with favorable interest rates is essential for minimizing financial risk and ensuring that repayment terms remain manageable, ultimately influencing their choice of cooperative.

The aggregate model, representing the combined preferences of all participants, shows the highest relative importance for investment interest (32.041%), reflecting a general preference across participants for lower interest rates for investment.

The correlational analysis using Pearson's r and Kendall's tau provides insights into the predictive validity of the models. Significant Pearson's r values for all

participants and the aggregate model (ranging from 0.559* to 0.963*) indicate a moderate to strong positive correlation, suggesting the models are good predictors of worker preferences. Kendall's tau values are significant for Workers 51 and 205, further reinforcing the reliability of these models. However, Kendall's tau for Worker 92 and the holdouts are not substantial (indicated by ns), suggesting that these models may not be as robust in predicting preferences outside the analyzed data set.

In summary, the aggregate model shows that banana workers prioritize lower interest rates on investments, reflecting a strong sensitivity to affordability and financial returns. It highlights the need for cooperatives to offer low-cost, accessible loan products that align with the members' economic realities. Tailoring products to these preferences can enhance cooperative appeal, strengthen member engagement, and support long-term sustainability.

4. Conclusion and Recommendation

This chapter outlines the key conclusions derived from the study's significant findings. It provides evidence-based recommendations for multi-purpose cooperatives, aligning loan products with the preferences, financial priorities, and decision-making behavior of banana workers in Compostela.

The study reveals that banana workers have distinct and clear preferences regarding loan product attributes: interest rates on investment, loan collateral, loan terms, online facility, and transaction notification. These findings support the Random Utility Theory of Manski and McFadden (1981), which assumes that members in cooperatives make choices solely to maximize utility based on product attributes. This study also aligned with the Rational Choice Theory of (Bettman, Luce, and Payne, 1998), which states that clients are rational when choosing different products and services. Rationality entails that clients or cooperative members have well-defined preferences, and members' decisions are not dependent on a particular description of options or specific methods used to obtain these preferences. Indeed, the theories collectively suggest that the members' choices are influenced by practical and contextual considerations beyond simple utility maximization.

Based on the findings, transaction notifications rank the lowest among the five attributes. However, it remains one of the essential features of client preferences for cooperative loan products. To strengthen this area, the board of directors, the chief executive officer, the manager, and all department heads must develop strategic and flexible plans to respond effectively to unforeseen events that may disrupt daily operations. Thus, there is a need for multi-purpose cooperatives to educate clients or coop members on the importance of transaction notifications by having workshops and one-on-one interaction, especially for those less familiar with digital tools. Clear and timely notifications through real-time access enable members to conveniently monitor their loan activities, repayments, savings transactions, and membership benefits. It helps members detect errors or fraud quickly and make informed financial decisions without physical

visits. Next, introduce real-time digital channels such as SMS, mobile apps, and voice alerts in local languages to ensure timely and accessible communication. The language must be simple, relevant, and straightforward to build trust, promote financial transparency, and encourage responsible behavior. Therefore, this results in continuous improvement of their notification and online facilities, and regular member feedback leads to the refinement of cooperative systems.

Moreover, cooperative management may create a team assessment review on the attributes of interest investment, collateral, loan term, and online facilities, despite being highly preferred by coop members. The team may examine whether it is workable with the members' economic realities. Achieving this requires coordinated efforts from cooperative management and departments: the board sets inclusive policies and guides digital adoption; managers shall implement the systems, coordinate with the teams, and gather feedback. The finance department shall ensure accurate figures with timely transaction data and help members understand updates. In contrast, the marketing department fosters member trust and engagement by delivering clear information and culturally appropriate messaging that raises awareness and promotes transparency. Therefore, tailoring products to these preferences can enhance cooperative appeal, strengthen member engagement, and support long-term sustainability.

Lastly, future researchers shall extend a broader geographical range to analyze client preferences in loan products in various cities or provinces and examine the impact of regulations and technology to sustain cooperative goals.

Conflict of Interest Statement

This study presents no indications of any conflict of interest. It was conducted solely with a focus on primary objectives, including the well-being of participants and the integrity of research outcomes, without being influenced by any secondary interests.

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