

# Clients' preference for a car loan program in Digos City: A conjoint analysis

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## Article Info

### Article history:

Received March 17, 2024

Revised June 30, 2024

Accepted August 14, 2024

### Keywords:

client preference  
car loan program  
conjoint analysis  
additive model  
Philippines

### JEL Classification:

C83, D12, G21

## ABSTRACT

This study aims to determine the relative importance of attributes of car loan program as preferred by clients in the Southern Philippines – individually or aggregate. To do this, the study utilized the metric conjoint analysis (CJA) wherein 20 orthogonally-generated placards representing combination of attribute levels for hypothetical car loan plans were rated in an online survey involving 200 respondents, with the goal of determining the best combination of attributes (i.e., downpayment, loan term and interest rate, mode of payment, and collateral). Results of the conjoint analysis revealed highest importance of mode of payment for car loan plans, insinuating that clients prefer payment flexibility the most, while collateral gained the least relative importance value. Specifically, the strong inclination for auto-debit arrangements as a mode of payment indicates a wider consumer desire for convenience and automation in financial operations. Implications of the findings, including the best and least- preferred combinations for a car loan program, are discussed in the paper.

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Similarity Index: 10%  
Grammarly Score: 98%

## 1. INTRODUCTION

Amidst the Philippines' swiftly growing economy and the resulting rise in the middle class, the automotive industry is experiencing a notable boost in buying capacity, leading to a jump in car sales. The current economic situation, marked by the Auto Purchase Index reaching its highest level since it was established in 2013 (J.P. Morgan, 2023), shows that a significant group of potential automobile buyers are dealing with the complexities of financing choices. The main issue is the financial accessibility of buying vehicles: many consumers, even with sufficient income, require a loan to fulfill their desire to own a car. The complexity of this situation is exacerbated by the wide range of distinct preferences that consumers have regarding the terms of car loans, such as down payments, interest rates, and amortization schedules (Wonder, Wilhelm & Fewings, 2008). This requires a sophisticated comprehension of financial products (White, 2016; PR Newswire, 2022).

The need to customize automobile loan programs to the specific preferences of potential clients is emphasized by the changing dynamics of consumer expectations and the introduction of digitalization in the auto finance industry (Lee & Lee, 2020; Tripsas, 2008). The diversity in consumer preferences, exemplified by some individuals choosing larger monthly payments instead of lower total interest rates and vice versa (Wonder et al., 2008), poses a challenge and an opportunity for automobile companies and financing institutions (Genzlinger, Zejnilovic & Bustinza, 2020). It is crucial to strategically shift towards providing personalized loan options, based on a thorough comprehension of customer requirements. This technique not only ensures an increase in customer satisfaction but also strengthens the competitive position of financial organizations in the market (Pantielieieva et al., 2019; Simanjuntak et al., 2020). The significant advantages of such alignment encompass, but are not restricted to, increased market reach (Train & Winston 2007), strengthened customer loyalty (Odekerken-Schröder et al., 2003), and the development of a strong, flexible car finance ecosystem that aligns with the financial and lifestyle ambitions of the modern consumer.

Given the current circumstances, the lack of empirical research specifically examining client preferences for auto lending programs in the Philippines like in Digos City, Davao del Sur, is particularly noticeable. In order to address this gap, the present study utilizes conjoint analysis to analyze and comprehend the preferences of prospective vehicle loan customers. This analysis is suitable to examine the attributes that customers take into account when choosing car loan packages. By identifying the optimal combination of loan attributes that align with consumer preferences, this study aims to offer pivotal insights that can guide car companies and financing institutions in designing financial products that are not only responsive to client needs but also conducive to the sustainable growth of the auto finance industry. Ultimately, this research aims to address the intersection of market demand and financial innovation, with the goal of connecting consumer expectations with the strategic offerings of the automotive financing sector.

The landscape of car financing has evolved into a complex ecosystem where lenders extend various loan packages to accommodate the burgeoning demand for car ownership, a symbol of status and lifestyle for many individuals (Gatersleben, 2012). This demand has spurred financial institutions to innovate and diversify their loan offerings, creating competitive schemes that feature reduced interest rates and flexible repayment periods, thereby reducing the barriers to car ownership (Firnkorn & Müller, 2012). These evolving consumer finance options reflect a dynamic market responding to changing consumer preferences and economic conditions, underscoring the critical role of adaptable financial models in predicting consumer behavior and shaping policy and investment decisions (Wang, 2012).

The downpayment aspect of car loans significantly influences consumer access to financing, with regulatory bodies now mandating that borrowers provide a portion of the car's cost upfront. This measure aims to mitigate default risks, prompting institutions to offer more favorable terms to those who can afford larger downpayments, thus aligning financial risk with loan accessibility (Ee, 2016; Singh, 2012). The structuring of downpayments reflects a balance between lender security and consumer affordability, playing a pivotal role in the financial dynamics of automobile purchasing.

Interest rates and loan terms constitute the financial backbone of car loans, directly impacting consumer decision-making. Research indicates that consumer perceptions of interest rates critically affect their automobile purchasing decisions, with variations in credit conditions influencing sales as significantly as unemployment and income levels (Carnecer & Murcia, 2019; Cross et al., 2019). The complexity of loan contracts, encompassing varied interest rates and repayment periods, underscores the nuanced nature of consumer finance choices, where preferences for lower monthly payments may override concerns about total loan costs (Chisasa & Dlamini, 2013).

The mode of repayment has evolved, reflecting advancements in financial technologies and changing consumer preferences. Today's borrowers value flexibility and convenience, opting for repayment methods that align with their lifestyles and financial management practices, ranging from traditional cash payments to modern electronic transfers (Carruthers & Ariovich, 2010; Nissenbaum, Raasch & Ratner 2004). This shift towards accommodating diverse payment preferences highlights

the financial sector's response to consumer demand for more personalized and accessible loan servicing options.

Collateral, typically the vehicle itself, secures the loan, offering lenders a measure of protection against default. This security feature enables more favorable interest rates for borrowers but also introduces the risk of repossession should they fail to meet their repayment obligations (Delbridge, 2019; Menkhoff et al., 2012). The practice of collateralization underscores the intertwined nature of loan security and consumer risk, reflecting broader trends in credit management and financial planning within the auto finance industry.

Conjoint analysis emerges as a potent tool in dissecting consumer preferences, offering insights into the relative importance of various car loan attributes from downpayments to interest rates and repayment terms. It is heralded as a pivotal marketing research technique that dissects product attributes to determine the value (part-worth) consumers assign to each level, informed by their overall preferences among various choices. Studies by Segal (1995), Charles et al. (2008), Wu, Liao and Chatwuthikrai (2014), and Nickkar and Lee (2022) collectively underscore its utility across a broad spectrum of applications, from market segmentation and product design to pricing strategies and positioning in the marketplace. This methodology not only facilitates a deep understanding of consumer preferences in hypothetical purchase situations — where buyers weigh attributes like price, performance, and brand to make decisions — but also replicates real-world decision-making processes, allowing marketers to capture the essence of consumer choice dynamics effectively.

The strategic importance of conjoint analysis extends into the banking sector, where institutions leverage it to craft appealing credit offers that resonate with client preferences, a crucial aspect for retaining and attracting new clients, as highlighted by Milunovic (2012). By employing a multivariate approach, conjoint analysis aids banks in quantitatively modeling how various loan attributes — such as interest rates, repayment terms, and additional benefits — impact consumer choices, thereby informing product development and optimization efforts. Through engaging with clients' preferences, banks not only tailor their offerings more closely to meet market demand but also enhance their competitive positioning and market value, illustrating the profound impact of conjoint analysis on both marketing theory and practice.

In sum, while the existing literature provides a comprehensive overview of the factors influencing car loan preferences globally, it underscores a significant research opportunity within the Philippines. Despite the global application of conjoint analysis in understanding consumer finance preferences, there remains a notable gap in localized research within the Filipino context. The distinct socio-economic and cultural landscape of the Philippines necessitates focused studies to uncover the unique preferences of Filipino consumers regarding car loans (Conoza, 2018; Lorenciana, 2015). This absence of specific insights into the local consumer behavior highlights a critical area for future research, offering the potential to enhance the design and delivery of financial products in the Philippines. The nuanced understanding of Filipino consumer behavior towards car financing, especially in light of unique cultural and economic conditions, remains largely unexplored. Addressing this gap through targeted conjoint analysis could yield critical insights, enabling financial institutions to better align their offerings with the specific needs and preferences of the local market.

With these, the study seeks to determine clients' preferences for a car loan program in Digos City to develop a new combination through the application of the conjoint model. Specifically, the study seeks to address the following objectives: (1) identify the relative importance of the following attributes in determining clients' preferences for a car loan program in terms of downpayment, loan term and interest rate, mode of payment, and collateral; (2) ascertain the individual and aggregate utility model of clients' preference for a car loan program in Digos City; and (3) assess the most and least preferred combination of a car loan program in Digos City. Furthermore, this study will test the assumption stating that the four attributes are all important in determining the client's preference for a car loan program.

## 2. RESEARCH METHOD

### 2.1 Research Design

The study applied a quantitative market research design, involving the collection of numerical data that often resulted in statistical analysis to understand trends within the data (Bradenburg, 2013). The data were quantified to infer customer behavior, attitudes, and preferences in numerical terms, enabling straightforward interpretation and comparison with other data facts. In line with the conjoint experiment design, the study utilized the fractional factorial method to examine the effects of different combinations of factor values on process outputs. This method was chosen to avoid evaluating all possible combinations of the four attributes (as determined by the key informants) by selecting a smaller, more manageable subset of these alternatives.

### 2.2 Research Respondents

The study involved a total of 200 respondents from Digos City in the past study, comprising 100 potential clients for a car loan program and 100 individuals who already owned automobiles. These participants were of legal age, naturally born Filipino citizens residing in Digos City, of either gender, possessing a monthly income, and in a healthy condition with a proper state of mind. Adhering to ethical standards, qualified respondents may withdraw from participation without penalty at any time of the study. The selection of respondents was carried out online, based on their willingness to complete the survey questionnaire, using targeted sampling of online respondents. Targeted sampling was the method in determining the targeted sample size, as it was established that respondents of the study are "hidden" as they are online (Watters & Biernacki 1989). This approach entailed online recruitment and filtering of respondents who are potential members of any commercial bank, financing company, and lending institutions within Digos City.

Moreover, the range of sample sizes for conjoint analysis typically varies from 150 to 1,200 respondents, a range that was deemed sufficient to develop a reliable estimating tool for conjoint analysis (Orme & Huber 2000), thereby effectively addressing the study's objectives.

### 2.3 Research Instruments

Key Informant Interview (KII) was conducted to determine the four (4) most preferred attributes of a car loan program among clients derived from the review of related literature and studies, before finalizing the survey questionnaire. The KII involved ten people in Digos City to pilot-test the survey instrument. The four (4) most preferable attributes were sourced from generated hypothetical profiles of car loan program in the survey questionnaire. The questions [1] *Do you have an idea about car financing?*, [2] *Have you availed before, or currently availing, or planning to avail for a car loan?*, and [3] *What are the factors that you consider in availing a car loan?* were asked during the interview. These were defined into specific descriptions, or attribute levels, to generate combinations into twenty (20) placards, which will be rated by scoring using a 1-5 scale.

The questionnaire consisted of two parts. The first part will include the profile of the respondents in terms of age, sex, civil status, educational attainment, employment status, number of dependents and gross monthly income. The second part will contain twenty (20) placards for car loan illustrating the combinations of attributes and the corresponding levels using fractional factorial design.

### 2.4 Data Collection Procedure

Data collection commenced once the study's scope was defined, and the research instrument was validated by experts. However, the onset of the global pandemic, COVID-19, necessitated a shift to online channels for data gathering, in compliance with public health ordinances and to maintain safety protocols. Consequently, the questionnaire was encoded using an online data collection tool, Google Forms. This tool served as an alternative research instrument, maintaining the integrity of the paper questionnaire validated by the experts. The use of this technological substitute ensured the understandability and confidentiality of the information provided by the respondents, who were given the option to remain anonymous by marking certain portions of the questionnaire as optional.

The study aimed to engage at least 200 respondents, selected via purposive sampling technique. These selected participants were sent a pre-filled survey link through email or other online channels,

and were requested to answer the questionnaire honestly, based on their preferences for the combinations of the four attributes and their corresponding levels within a car loan program.

For more comprehensive interpretation and analysis of the data, the following statistical treatments will be used. Conjoint analysis was used to determine the order of relative importance of the five chosen attributes. This study will run conjoint analysis' SCORE subcommand to rate the car loan profiles. Ratings on the profiles were decomposed, resulting to part-worth estimates of each attribute levels. Meanwhile, additive model was employed to measure the total utility of a car loan program. Total utility will be calculated by adding the constant and the highest utility estimations of levels of the four (4) attributes.

### 2.5 Ethical Considerations

The study observed full ethical standards in administering the study and underwent examination and approval from the University of Mindanao Ethics Review Committee (UMERC) with approval number 2020-143.

## 3. RESULTS AND DISCUSSIONS

### 3.1. Relative Importance and Utility of Clients' Preference for a Car Loan Program

Table 1 presents the relative importance and utility estimates of various attributes associated with a car loan program.

Table 1. *Relative importance of the attributes of a car loan program*

Attributes	Importance Value	Attribute Levels	Utility Estimate	Std. Error
Mode of Payment	33.956	cash	-0.042	0.055
		postdated checks	-0.164	0.051
		auto-debit arrangement	0.206	0.065
Loan Term and Interest Rate	26.497	12 months with $\leq 5\%$ total interest	0.003	0.030
		24 months with $\leq 10\%$ total interest	0.007	0.059
		36 months with $\leq 16\%$ total interest	0.010	0.089
		48 months with $\leq 21\%$ total interest	0.014	0.119
		60 months with $\leq 27\%$ total interest	0.017	0.148
Downpayment	24.692	20%	-0.113	0.031
		30%	-0.226	0.062
		40%	-0.340	0.093
		50%	-0.453	0.125
Collateral	14.856	plainly automobile unit	0.070	0.038
		automobile unit and with co-maker	-0.070	0.038
(Constant)			3.311	0.122

The attribute of mode of payment emerged as the most important, with an importance value of 33.956%. Within this category, the auto-debit arrangement had a positive utility estimate (0.206), indicating a preference for this payment method, while cash and post-dated checks had negative utility estimates of -0.042 and -0.164, respectively.

The attribute of loan term and interest rate held the next level of significance, with an importance value of 26.497%. The utility estimates for this attribute increased incrementally from 12 months with  $\leq 5\%$  total interest (0.003) to 60 months with  $\leq 27\%$  total interest (0.017), suggesting a trend toward favoring longer loan terms with higher total interest rates, although the standard errors associated with these utility estimates were relatively high, indicating less certainty about these preferences.

Downpayment was the next most important attribute, with an importance value of 24.692%. All levels of downpayment yielded negative utility estimates, with increasing negativity as the

percentage of downpayment rose, from -0.113 for a 20% downpayment to -0.453 for a 50% downpayment. This indicates a clear preference for lower downpayment requirements among respondents.

Collateral had the lowest importance value at 14.856%, with the plain automobile unit having a positive utility estimate (0.070), and the inclusion of a co-maker resulting in an equivalent negative utility estimate (-0.070), suggesting a neutral stance towards collateral when considered alongside a co-maker. Finally, the constant term of the model had a value of 3.311 (SE = 0.122), reflecting the baseline utility of the car loan program when all attributes are at their reference levels. Overall, these findings indicate that the mode of payment is the most crucial factor influencing the preferences of individuals considering a car loan program, followed by the terms of the loan and the downpayment required, with collateral being of lesser importance.

The utilization of conjoint analysis in this study has revealed that the method of payment is of utmost significance in influencing the preferences of respondents with regards to car loan programs. This aligns with the findings of Nissenbaum et al. (2004), which emphasize the crucial financial endeavor of identifying appropriate bill payment methods. In modern financial management, it is essential to have a wide range of choices that go beyond just cash transactions and include automatic debit plans and regular checking accounts. This viewpoint is supported by findings from the Anderloni and Carluccio (2007), which emphasize the importance for creditors, particularly financial institutions, to enable a range of payment methods, such as electronic checks and debit cards, without imposing high processing fees. This reflects a trend towards more diverse approaches to financial transactions.

Moreover, the importance of the loan duration and interest rate became apparent as the subsequent crucial factor impacting client decision-making, confirming Benard's (2011) claim about the direct influence of interest rates on a consumer's ability to repay a loan. The relationship between interest rates and loan demand is essential for evaluating investment opportunities and possible returns. Huhmann and McQuitty (2009) explained that loan demand is highly sensitive to changes in interest rates, with higher rates discouraging borrowing and encouraging saving. In contrast, reduced interest rates can encourage spending, as consumers tend to prefer the most favorable rates when financing their car acquisitions (Malkoc & Zauberaman 2019).

Although the importance of downpayment and collateral may have been considered less significant, they should not be ignored when making decisions. Ee (2016) emphasized that the downpayment is a major obstacle for car buyers, even though leasing is becoming more popular as an alternative financing option. On the other hand, multiple studies (e.g., Meles et al., 2017; Ono & Uesugi, 2009; Steijvers & Voordeckers, 2009; Degryse, Karapetyan & Karmakar, 2021) have demonstrated that collateral is commonly utilized in the process of obtaining credit.

### **3.2. Individual and Aggregate Models for a Car Loan Program**

In discussing the results from Table 2, it should be noted that the data reveal individual and aggregate preferences for various attributes of a car loan program. Starting with the constant term across individual models for Clients 1 to 3, values ranged from 2.450 to 3.240, while the aggregate model indicated a constant of 3.311. This suggests a baseline preference for the car loan program before considering the impact of specific attributes.

Regarding downpayment, Clients 1 to 3 exhibited an increasing negative utility as the downpayment percentage rose, indicating a preference for lower downpayment requirements. The aggregate model also showed negative utilities for downpayment percentages, aligning with the individual preferences. In terms of the loan term and interest rate, Client 1 displayed a consistent positive utility across extending loan terms, contrasting with Client 3, who showed a consistent negative utility, suggesting a preference for shorter loan terms. The aggregate model's utilities were positive but very close to zero, indicating a more neutral stance on the loan term and interest rate across the wider population.

For the mode of payment, Client 1 had a negative utility for cash and post-dated checks, but a high positive utility for the auto-debit arrangement. Client 3 showed a particularly strong preference for auto-debit arrangement with the highest positive utility among all clients. This preference is

Table 2. *Individual and aggregate models of preference for a car loan program*

Attribute Levels	Individual Models			Aggregate Model
	Client 1	Client 2	Client 3	
(Constant)	2.450	2.657	3.240	3.311
<b>Downpayment</b>				
20%	0.013	-0.276	-0.251	-0.113
30%	0.025	-0.553	-0.501	-0.226
40%	0.038	-0.829	-0.752	-0.340
50%	0.051	-1.105	-1.002	-0.453
<b>Loan Term and Interest Rate</b>				
12 months with $\leq 5\%$ total interest	0.180	0.313	-0.192	0.003
24 months with $\leq 10\%$ total interest	0.359	0.626	-0.383	0.007
36 months with $\leq 16\%$ total interest	0.539	0.939	-0.575	0.010
48 months with $\leq 21\%$ total interest	0.719	1.252	-0.767	0.014
60 months with $\leq 27\%$ total interest	0.899	1.565	-0.959	0.017
<b>Mode of Payment</b>				
cash	-0.125	0.153	-0.333	-0.042
postdated checks	-0.254	-0.249	-0.231	-0.164
auto-debit arrangement	0.379	0.096	0.564	0.206
<b>Collateral</b>				
Plainly automobile unit	0.459	-0.044	-0.18	0.070
Automobile unit and with Co-maker	-0.459	0.044	0.18	-0.070
<b>Importance Values of Attributes per Respondent (%)</b>				
Downpayment	1.652	32.241	30.653	24.692
Loan Term and Interest Rate	31.142	48.704	31.279	26.497
Mode of Payment	27.437	15.645	36.603	33.956
Collateral	39.769	3.411	1.465	14.856

reflected in the aggregate model, where the auto-debit arrangement also had the highest positive utility estimate. Concerning collateral, Client 1 showed a strong positive utility for the plain automobile unit, while Client 2 and Client 3 had negative utilities for the same, suggesting divergent perceptions of risk associated with collateral.

The importance values assigned to each attribute by individual clients differed significantly. Downpayment was of relatively low importance to Client 1 but was the most significant attribute for Client 2 and relatively important for Client 3, as reflected in their respective percentages. The loan term and interest rate were most important for Client 2, followed closely by Client 1, with Client 3 assigning it less importance. Mode of payment was highly significant for Client 3 and less so for Client 2, while collateral held the greatest importance for Client 1 but was the least important for Client 3. These individual importance values indicate varying priorities and decision-making criteria among clients when selecting a car loan program.

Overall, the aggregate model aligns with individual preferences to some extent but also reveals the heterogeneity of client priorities. While the mode of payment and loan term and interest rate are significant across both individual and aggregate models, the degree of importance varies among individual clients, showcasing the personalized nature of financial product preference. Such varied preferences underscore the complex interplay of individual financial priorities and perceptions toward car loan programs. The strong preference for auto-debit arrangements as a mode of payment, highlighted by the highest utility values, resonates with McHugh and Ranyard (2012), who

emphasized the evolving consumer demand for convenient and automated bill payment solutions. This trend is further supported by the Anderloni and Carluccio (2014), which pointed to the growing need for creditors to adapt to electronic payment methods.

The divergent responses to downpayment and loan terms reflect the findings of Benard (2011) and Huhmann and McQuitty (2009), who noted that the level of interest rates directly impacts consumers' financial decisions, suggesting that preferences for loan terms and interest rates may be influenced by individual assessments of financial flexibility and cost over time. The importance placed on collateral, particularly the preference for simply using the automobile unit as security, aligns with the risk assessment behaviors described by Singh (2012), indicating a nuanced evaluation of loan security measures against personal financial risk tolerance. Collectively, these findings underscore the multifaceted nature of consumer decision-making in car loan programs, influenced by a blend of desire for convenience, financial management strategies, and risk assessment, indicating a spectrum of priorities that financial institutions must navigate to cater to diverse client needs effectively.

Moreover, Table 3 presents the statistics in every individual model and the aggregate mode, Pearson's R and Kendall's tau, which make available measures of the correlation between the observed and estimated preferences. It also displays Kendall's tau for the holdout profiles. It can be seen that the four holdout profiles in the present study were valued by the subjects but not utilized by the conjoint procedure for estimating utilities. Instead, the conjoint procedure computes correlations between the observed and predicted scores for these profiles as to ensure the validity of the utilities.

Table 3. *Correlation between observed and estimated preferences*

	Value	Sig.
Pearson's R	0.890	0.000
Kendall's tau	0.778	0.000
Kendall's tau for Holdouts	0.667	0.087

Based on the table, the Pearson's R value is 0.890,  $p < 0.05$  while Kendall's tau value is 0.778,  $p < 0.05$ . Therefore, the tau value was significant (1.000,  $p < 0.05$ ). The result is indicative that there seems to be an agreement between the clients' ratings on the 20 placards as well as the four holdout profiles of a car loan program which also means that the conjoint model has a good fit

### 3.3. Most and Least Preferred Combination of a Car Loan Program

The total utility can be derived by combining the part-worth utilities, according to the idea of part-worth utility. To achieve this, one must aggregate the utility values of the attribute levels for each attribute, and then add the value of the constant obtained from the conjoint estimation. The constant value displayed in Table 1 is 3.311. The estimated preference model can be utilized to compute the overall utility for the combinations.

Shown in Table 4 are the 20 placards generated by the SPSS software designated as Card ID. Table 4 presents the findings from the collected data, indicating that the combinations with the highest preference are Card ID 7, 17, and 12. These combinations have total utility values of 3.488, 3.368, and 3.341 respectively. Card ID 7 exhibited the greatest overall usefulness, signifying a car loan program that requires a 20% initial payment, can be repaid over a period of 48 months, with a maximum interest rate of 21%, and must be paid through an automatic debit arrangement. The car itself serves as collateral. The outcome was obtained by calculating the sum of various utility values. These include a constant value of 3.311, a utility value of -0.113 for downpayment, a utility value of 0.014 for loan duration and interest rate, a utility value of 0.206 for mode of payment, and a utility value of 0.070 for the collateral.

Moreover, Card ID 17 followed as the second preferable combination of car loan program with a 30% downpayment, payable in 24 months with  $\leq 10\%$  total interest, to be paid through an auto-debit arrangement, and plainly automobile unit as a collateral. Among the respondents, Card 12 was the third most preferred option for a car loan program. This program requires a 20% downpayment and can be paid off in 24 months with a total interest rate of no more than 10%. The payments will



be automatically deducted from the borrower's account, and a co-maker is required to secure the loan with their automobile unit. On the other hand, Card ID 6 was revealed to be the least preferred combination for a car loan program resulting to a total utility value of 2.627 which ranked last among other combinations in the table. Results showed that most respondents least prefer a car loan program with a 50% downpayment (-0.453), payable in 12 months with ≤5% total interest (0.003), to be paid thru post-dated checks (-0.264), and automobile unit with a co-maker as a collateral (-0.070).

Table 4. *Most and least preferred combination of a car loan program*

Card	Constant	$x_1$	$x_2$	$x_3$	$x_4$	Total	Rank
<b>7</b>	<b>3.311</b>	<b>-0.113</b>	<b>0.014</b>	<b>0.206</b>	<b>0.070</b>	<b>3.488</b>	<b>1</b>
<b>17</b>	<b>3.311</b>	<b>-0.226</b>	<b>0.007</b>	<b>0.206</b>	<b>0.070</b>	<b>3.368</b>	<b>2</b>
<b>12</b>	<b>3.311</b>	<b>-0.113</b>	<b>0.007</b>	<b>0.206</b>	<b>-0.070</b>	<b>3.341</b>	<b>3</b>
19	3.311	-0.113	0.010	-0.042	0.070	3.236	4
16	3.311	-0.113	0.003	-0.042	0.070	3.229	5
9	3.311	-0.453	0.017	0.206	0.070	3.151	6
15	3.311	-0.226	0.010	-0.042	0.070	3.123	7
10	3.311	-0.113	0.017	-0.164	0.070	3.121	8
3	3.311	-0.113	0.010	-0.164	0.070	3.114	9
14	3.311	-0.113	0.010	-0.042	-0.070	3.096	10
1	3.311	-0.226	0.007	-0.164	0.070	2.998	11
20	3.311	-0.226	0.010	-0.042	-0.070	2.983	12
18	3.311	-0.113	0.007	-0.164	-0.070	2.971	13
5	3.311	-0.453	0.007	-0.042	0.070	2.893	14
4	3.311	-0.340	0.014	-0.164	0.070	2.891	15
8	3.311	-0.340	0.017	-0.042	-0.070	2.876	16
13	3.311	-0.340	0.007	-0.042	-0.070	2.866	17
11	3.311	-0.226	0.014	-0.164	-0.070	2.865	18
2	3.311	-0.453	0.010	-0.164	-0.070	2.634	19
6	3.311	-0.453	0.003	-0.164	-0.070	2.627	20

**4. CONCLUSION**

The conjoint analysis used in this study emphasized the highest importance of payment flexibility in consumer choices for car loan programs. The strong inclination for auto-debit arrangements as a payment method, as indicated by the highest utility scores, indicates a wider consumer desire for convenience and automation in financial operations. This phenomenon not only mirrors the changing nature of consumer finance but also corresponds with the growing digitization of banking services.

Furthermore, the study's preference rankings provide detailed insight into the intricate compromises that customers are willing to accept, specifically with the proportion of the initial payment and the corresponding conditions and interest rates of automobile loans. The evident dislike for larger downpayments and the deliberate preference for specific loan lengths highlight the crucial equilibrium that customers strive for between initial expenses and long-term financial obligations. These preferences emphasize the necessity for financial products that are not only competitive in terms of interest rates, but also possess sufficient flexibility to fit a wide range of financial situations and objectives. The differentiations identified between the most and least favored combinations of

car loan attributes (and their levels) offer lenders a guide to customize their offerings more precisely to meet customer requirements, perhaps resulting in heightened contentment and allegiance among borrowers. Moreover, the robust association between observed and estimated preferences further confirms the efficacy of conjoint analysis in capturing the complexities of consumer decision-making. These important insights are crucial for financial organizations seeking to improve the appeal of their car loan services.

The study's findings provide a persuasive argument for the deliberate adjustment of car loan programs in accordance with consumer preferences. In order to better cater to their clients, financial institutions should enhance their ability to meet customer expectations for payment flexibility, smaller downpayments, and advantageous loan conditions by giving priority to these attributes. Moreover, the proven effectiveness of conjoint analysis in comprehending consumer preferences provides a strong methodological framework for future study in optimizing financial products. The findings of this study can provide valuable information for the improvement of current car loan programs and the creation of new ones, aligning them better with customer expectations and preferences in light of the changing financial landscape.

Putting emphasis on the result, this study concludes that selecting the best car loan program could be based on considering the most preferable levels of its attributes, the downpayment, loan term and interest rate, mode of payment, and collateral, for this may as well become beneficial to both the clients and the car dealership companies. This confirms the Random Utility Theory of Domencich and McFadden (1975) as well as the proposition of Iman, Pieng and Gan (2012), which gave a general presumption that the decision to purchase an item seeks after the utility maximization rule. The rule expects that every customer will pick a combination with the highest utility.

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