



Predicting Overseas Filipino Workers' (OFWs) Decision in Obtaining Bank Loan Using Binary Logistic Regression Analysis

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Abstract

The objective of the present study is to ascertain the factors influencing an OFW in availing of bank loans. Furthermore, it aims to evaluate whether the perception of the identified factors predicts their decision to seek a loan from a bank. The study is quantitative research utilizing a descriptive-evaluative design. It used self-constructed questionnaires in the data gathering which underwent and passed validation and reliability test. The obtained sample size (n=157) was computed using EPV and was further validated by the “a priori” result of the G-Power analysis. The obtained computation was then complied with by randomly sending the research instrument to the population of the OFWs across the regions of the Kingdom of Saudi Arabia (KSA) using a combination of stratified sampling and exponential non-discriminative snowball sampling technique. Distribution of questionnaires was administered using an online platform survey – Qualtrics™. It used frequency counting, weighted mean, and z-test through binary logistic regression in the analysis of data. Findings revealed that interest, collateral, loan size, payment scheme, requirements, service attitude, promotion, advertisement, convenience, and loan procedure influenced the decision of OFW to obtain a bank loan. However, when these data were regressed to a dichotomous dependent variable, it revealed that only the variable collateral and loan procedure significantly predicted their decision to obtain a loan from the bank.

Keywords

Business administration, Bank loans, Factors for borrowings, Overseas workers, Binary logistic regression, Philippines

INTRODUCTION

Packed with the baggage of hopes and dreams, the Overseas Filipino Workers (OFWs) left home for abroad, carrying with them the belief of transforming these abstracts into reality (Atos *et al.* 2022, para. 1). Most of them magnanimously embrace hardships not just to satisfy their wants but also to provide for the needs of their families (Atos *et al.* 2022, para. 1; Garcia *et al.* 2022, pp.205). Ironically, the financial challenges prevented them from realizing their dreams and hopes (International Labour Organization [ILO] 2018 p. 34). For instance, many were forced to mortgage and sell properties to secure a job abroad (Moratilla 2018, p. 51). Others were so unlucky to be trapped in exorbitant interest rates, burying them into debt before arriving in their host countries (ILO 2018, p. 34). At trying times, circumstances impel them to collateralize their passport to secure money (GMA News July 2019, para. 2). Back home, they got interested in establishing a business, yet stringent requirements hindered them from availing financing from the bank (Roldan 2020, para. 20). On the other hand, the lack of proper advertisement and promotional activities made them unaware of the few loan facilities intended for them offered by the government (Reyes 2017, pp. 23-38). From paying for their transportation and requirements compliance to establishing a business back home, it is evident that securing funds is their primary concern (Roldan 2017, para. 20).

Accordingly, loan applicants are discouraged from applying for loans from the bank if the procedural processes are too tightened; and the approval is too lengthy (Hapompwe *et al.* 2021, p. 379; Haron *et al.* 2013, p. 184). Likewise, if potential borrowers learn that the bank is offering loans with higher interest rates, higher down payments, and higher monthly installments, there is a chance that they will not apply for those loans (Patro 2015, p. 39). Alternatively, if these factors are favorable, loan applicants will tend to pursue their application with the bank. As indicated in the previous

study, factors such as low-interest rates, promotional schemes, attractive advertisements, and sufficient loanable amounts influence borrowers to avail themselves of loans from the bank (Patro 2015, p.38 - 39).

Despite ample evidence across the fields of discipline, only limited studies, if none, were conducted concerning solving their plight in looking for funds (Acosta et al. 2020, p. 18; Bautista et al. 2020, pp. 1-9; Garcia et al. 2022, pp.203-221, Pacoma 2020, pp. 259 – 281; Parry-Davies 2020, p. 63; Rivera et al. 2020, pp. 1-26). On the other hand, empirical review in the specific field of business and finance revealed that various studies had used perceptions of the individual in assessing the factors influencing their decisions in obtaining loans from the bank (Koi et al. 2019, pp. 81-95; Hieu et al. 2015, pp. 1743-1751; Nguyen et al. 2019, pp. 119-122). For example, in Vietnam, Koi et al. (2019, pp. 81-95), who used Exploratory Factor Analysis (EFA) and multivariate linear regression analysis, found that interest rates, loan procedures, service quality, and form of promotion have a significant influence on the decision of the borrower to avail themselves of a loan. On wider research locale (i.e., citywide), using the mixed method research design, Hieu et al. (2015, pp. 1743-1751) found that loan policy, service quality, price perception, reputation, and images influenced the decision to borrow money. On the larger environment, covering province-wide, Nguyen et al. (2019, pp. 119-122) conducted a study in Tra Vinh. They found that bank brand names, service attitudes, loan interest rates, and loan procedures influenced the decision of the borrower to obtain credit.

In China, due to the booming of online consumer credit and the corresponding increase in consumption needs of Chinese undergraduate students, Hao *et al.* (2019, pp.1-5) investigated the social and economic determinants of consumer credit. Using the ordinary multiple linear regression model, the researchers analyzed the valid responses of 162 students from four universities in China. Notably, the result shows a negative relationship between advertisements on the influence of students on online consumer credit. Moreover, in other neighboring Asian countries such as Indonesia and Malaysia, researchers got interested in investigating the factors influencing Small and Medium Enterprises (SMEs) in the decision to access loans from financial institutions. In Indonesia, for example, Rosavina *et al.* (2019, pp. 260-279) studied the peer-to-peer (P2P) lending platform determining the factors that encourage an SME to obtain a loan. Using the qualitative research method, the researchers gathered data from ten SMEs using semi-structured interviews. They found out that interest rates, loan processes, loan costs, loan amounts, and loan flexibility influenced the decision of SMEs to obtain a loan through P2P. Using the same sample attributes, Wasiuzzaman *et al.* (2020, pp. 293-310) also used SMEs in their study with the objective of empirically assessing the relationship between creditworthiness and access to finance in the Kuala Lumpur and Sengalor regions of Malaysia. The research instruments were distributed to 456 SMEs with 158 turnovers, of which 145 were usable. Using SEM-PLS, the study revealed that, among other findings, the ability of the SME to provide high-quality collateral can significantly influence the decision to access finance.

In the same vein, researchers from South Africa also used SMEs as the subject in their research conducted in Gauteng province (Asah *et al.* 2020, pp.1-10). The main objective was to assess the availability of financing provided to SMEs by the formal financial sector. Using an inter-perspective research paradigm, they collected data from credit and business managers of the eight financial institutions employing semi-structured in-depth interviews and was further analyzed using context analysis. The result shows that collateral, annual business turnover, and audited financial records are essential determinants for financial institutions to offer credit to SMEs. On the other part of Africa, Mwirigi *et al.* (2019, pp. 285 – 292) used the descriptive research design guided by a cross-sectional survey to establish whether the variables they used could predict the strategic access of women who owned SMES to credit. With the aid of correlational analysis and multiple regression, analysis of the data from 370 samples showed that collateral and interest could statistically and significantly predict the strategic assessment of credit. Likewise, the findings show that interest rates affect strategic credit access.

Although these existing works of literature support this study, only a few, if none, were studied subjecting the population of migrant workers (Koi *et al.* 2019, pp. 81-95; Hieu *et al.* 2015, pp. 1743-1751; Nguyen *et al.* 2019, pp. 119-122; Rosavina *et al.* 2019, pp. 260-279; Wasiuzzaman *et al.* 2020, pp.293-310; Asah *et al.* 2020, pp.1-10; Vargas *et al.* 2020, pp. 977-993; World Bank 2020, p.16). It is also evident that no studies have yet been conducted in the Philippines investigating the factors influencing an individual to borrow funds from a bank. Additionally, no studies had done to determine the factors that might assist Filipino migrants in meeting their financial needs. The lack of studies being the gap justifies the need and urgency to conduct the present study. In addition, the impact of the pandemic is also a factor considered in conducting this study as several OFWs return home (Department of Foreign Affairs [DFA], 2021, para 1). Undesirably, due to limitations, not all OFWs around the globe were the subject of this study. Hence, the researcher delimits its research locale to the OFWs working in the Kingdom of Saudi Arabia from June to November 2022. Included in the scope of the participants are the skilled and non-skilled workers. Regrettably, excluded from the study were the dependents of the worker and the visiting Filipinos in KSA during the period of study.

Primarily, the present study was anchored on the Pecking Order Theory (POT) initially introduced by Donaldson in 1961 (Georgiou 2018, p.2). In response to the tradeoff theory of Franco Modigliani and Melton H. Miller in 1958, Steward Meyer and Nicolas Majluf further revised POT in 1984(Maimako *et al.* 2011, pp. 21-39). Generally, it theorizes that the firm preferred the order in the financing with the company: first, they prefer internal funding; second, external debt financing; and third, external equity financing (Ghosh *et al.* 1999, p.32.). In the present study, Pecking Order Theory helps understand the behavior of OFWs in resorting to external funding in case they do not have sufficient to fund their needs.

Aside from understanding the behavior of the need to secure funds, other aspects, such as loan policies and customer services, must also be considered. As a result, in addition to the Pecking Order Theory, the researcher included other theories from different disciplines, such as Albert O. Hirschman's Exit Voice and Loyalty (Tremaria 2021, p.277). EVL postulated that a customer has three alternatives if they experience dissatisfaction. The first option is to stop patronizing the product or services of an organization (Exit). The second option is elevating their concern to the management so that they would know the room for improvement (Voice). The last option is to wait for the situation to improve (Loyalty) (Saunders 1992, p.187). Due to its wide range of applicability and usage, the EVL has been used across the fields of discipline.

In the field of public administration, Hoffmann (2010, pp. 57-73) postulated that people leave the country if they are dissatisfied with the governance of their country (Exit), while others will conduct a protest and organize a rally against the government (Voice); others, however, choose to remain silent or stay on without voicing discontentment (Loyalty). In the field of the marketing discipline, Bejou (2012, pp. 243-260) claimed that parents opted to choose the private school if they were dissatisfied with the service and quality in the public school (Exit); otherwise, they complained to the management to provide them with the quality they preferred (Voice). Other parents remain silent until service quality improves (Loyalty). In the present study, under banking and finance, EVL tried to explain the impact of both loan policies and customer service constructs on their preference to obtain a loan. It hypothesized that if they perceived that factors are unfavorable to them, both the existing borrower and the prospective borrower might not be interested in availing themselves of the loan leading to choices of either Exit, Voice, or Loyalty.

The third theory that supports this study is the Theory of Discourage Borrowers. This theory initiates with the concept of two borrowers: the good borrowers and the bad borrowers. Good borrowers are those low-risk individuals, while bad borrowers are those high-risk individuals (Han *et al.* 2009, p. 415). According to Kon *et al.* (2003, p. 37) of two, the discouraged borrowers are the good borrowers that require financing but prefer not to apply to banks due to fear of rejection. This premise became the foundation of the Theory of Discouraged Behavior formulated by Kon and Storey in 2003. Ropidah (2018, pp. 39-44) argued that the presence of loan collateral and guarantees caused the individual to experience discouragement. With the help of the same theory, the current study used TDB to explain why the loan policy and customer service factors discouraged them from taking out loans from the bank. These factors include high-interest rates, tedious loan procedures, complicated bank loan requirements, and unfavorable collateral conditions.

In general, the objective of the study was to assess the factors that influence OFWs' decision to apply for loans from the bank and determine whether it could predict their decision. Initially, the researcher identified the factors influencing an individual to borrow from the bank. Secondly, it looked at the socio-economic profile of the OFW. Thirdly, it regressed the predictor variables to evaluate whether they can predict borrowing a loan from the bank, being the outcome variable. Supported by the identified theories and the previous literature review, the researcher theorized that all these variables have no significant influence on the OFW's decision toward the bank loan. Finally, based on the evidence gathered, the researcher recommended strategies that will benefit the banking institution and the OFWs.

MATERIALS AND METHODS

Participants

Participants of this study were Overseas Filipino Workers (OFWs) in the Kingdom of Saudi Arabia. These were workers employed between January 2022 and November 2022, the study time frame. Statistically, the Philippines Statistics Authority [PSA] (2022, para. 1) estimated that the total population of OFWs actively working in the global workforce at 1.77 million in 2020, lower than 18.6% compared to 2019 statistics (PSA 2022, para 2). Out of this number, 96.4 percent were categorized as Overseas Contract Workers (OCW) or those who hold active work contracts, while the rest 3.6 percent fall within the category of workers with no valid working permit (PSA 2022, para 1).

In selecting the samples from the total population, not every Filipino residing in the KSA was permitted to participate in the survey. Specifically, the researchers limited the participants to those OFWs working across the regions of KSA in the year 2022 from January to November. As a result, non-working dependents like children, spouses, and parents were not included to take part in the study. Due to the time constraint, data limitation, and limited resources, probability sampling is unfeasible to get the required sample size; hence, the researcher opted to use the non-probability sampling method (Leighton *et al.* 2021, pp. 37-42). Though there were disagreements among the scholars in using this method, the researchers, however, believed that despite the challenges in getting the data, the non-probabilistic snowball sampling technique is an appropriate technique used due to its viability to recruit participants despite researchers not being present in the research locale (Kirchherr *et al.* 2018, p 1; Leighton *et al.* 2021, pp. 37-42; & Cornesse *et al.* 2020, pp. 4-36). Mainly, the mechanism of using a referral is a reason other researchers call sequential sampling or chain sampling. Identifiably, the researchers used exponential non-discriminative snowball sampling to expedite the data gathering (Bhardwaj 2019, p. 162). This was accomplished by contacting colleagues in KSA and asking them if they could refer any OFWs they knew were employed in KSA at the time of the study. Specific procedures are discussed thoroughly in the designs and procedures section.

To ensure that the data is sufficient in formulating a predictive model, the researchers followed the rule of thumb in determining the sample size for the logistics regression model (Bujang *et al.* 2018, p. 122). Accordingly, the sample size in the binary logistic model is usually expressed in events per variable (EPV), a key concept in developing binary outcomes predictive models. It is defined by the number of events divided by the number of predictor variables (Austin *et*

al. 2017, p.797). For simplicity of computation, other researchers just multiplied the EPV number with the total number of variables to get the sample size (Tayfur *et al.* 2020, p.300). Generally, scholars agreed that a lower EPV would indicate a weak predictive model (van Smeden *et al.* 2019, pp 2455 – 2474). For this reason, researchers have established the rule of thumb stating that ten events per variable (EPV) is the acceptable method necessary for the binary logistics study. Researchers often refer to this as the “Rule of Ten” (Walker *et al.* 2020, p. 25).

The “Rule of Ten” sparks debate among the researchers. Some researchers had decreased the $EPV \geq 10$ to $EPV < 10$ variable due to the stringency of this rule in formulating a model (van Smeden *et al.* 2019, pp 2455 – 2474). It means that the sample size has lesser-than-10 events per variable multiplicand. On the contrary, other researchers doubt the “Rule of Ten” due to its laxity in supporting the development of a predictive model. Hence, researchers Steyerberg and Austin (2017, in Bujang *et al.* 2018, p. 122) recommended increasing $EPV \geq 10$ to $EPV \geq 20$. Though it is still not enough, Bujang *et al.* (2018, p. 122) further recommended in their study that $EPV \geq 50$ is the most recommended for binary logistic regression. In this model, he defined the formula as $EPV = 100 + 50i$ (where “*i*” represents the variable). They, however, further agreed that using lower EPVs is still acceptable as long as it is associated with a high effect size.

The researchers followed the recommendation of Bujang *et al.* (2018, p. 122) concerning the acceptability of lowering the sample size below 500 with a high effect size, and one way of computing the effect size is using power analysis. In terms of the execution of the power analysis, the present study used the procedure of Yenipinar *et al.* (2019, pp. 16-22). Computation using G*Power software revealed the odd ratio is 5.44 at the .05 alpha level with a 95% degree of confidence. Results further determined that the minimum required sampling is 134. It is enough to support the obtained 157 respondents. In addition to exponential non-discriminative snowball sampling, the researcher employed a stratified sampling technique by dividing the population into small groups known as strata (Berndt 2020, p. 224-226).

Research Instrument

The researchers used a self-constructed survey questionnaire in the gathering of the data. To give respondents options, the researchers prepared questionnaires in two versions: English and Filipino. Further, there were three sections in the questionnaire, namely: the loan policies, customer service, and socio-economic profile. The first two parts of the questionnaire consist of 10 Likert-type items, each with a 5-point response scale from Strongly Agree to Strongly Disagree. Each item statement was supported by the literature gathered from various research works. The third part, on the other hand, consists of multiple choices questions about items or indicators taken from the statistics report of PSA. The questionnaire concluded with an open-ended question on their insights on bank loans in the Philippines. After ensuring the study passed the reliability and validity test, the researcher encoded the questions in Qualtrics™ in preparation for a full-scale online survey.

Design and Procedures

The study conducted was quantitative research design using descriptive-predictive research technique. The selected type of research is appropriate for the present study since one of its objectives is to make predictions, and data analysis is to identify statistical relationships (Apuke 2017, pp. 1-8). It used the descriptive – survey design to gather appropriate information to assess and analyze the factors influencing OFWs in the decision to avail themselves of a loan from the bank. The researchers distributed the questionnaire to the entire population utilizing the snowball technique. The survey was administered using an online platform, Qualtrics™. The responses from actual data gathering were exported from the Qualtrics™ platform and were collated and tabulated using the Microsoft Excel application. The dataset was then forwarded to the statistician for uploading in Statistical Package for Social Sciences (SPSS) software.

The data was processed through the regression model to predict the logit, i.e., the natural log of odds of choosing one or the other. That is,

$$\ln(ODDS) = \left(\frac{Y}{1-Y} \right) = a + bX1 + bX2 + bX3 + bX4 + bX5 + bX6 + bX7 + bX8 + bX9 + bX10 + e \quad [1]$$

where, Y is the predicted probability of a decision to avail loan from the bank coded with "1" rather than a decision not to avail of a loan coded with "0". Xs, represent the perceptions of the respondents about the following factors: X1 = the Interest Rate, X2 = Collateral, X3 = Loan Size, X4 = Scheme of Payment, X5 = Pre-Approval Requirement, X6 = Service Attitude, X7 = Promotional Activities, X8 = Advertisement Attractiveness, X9 = Convenience, X10 = Loan Procedures.

The study used frequency counting to measure the identified indicator on the socio-economic profile of the respondents. In addition, it used the weighted mean using the Likert Scale to analyze the influencing factors in obtaining bank loans. Furthermore, the outcomes of the predictor variables were regressed to a dichotomous criterion variable. Finally, the result of binary regression with a .05 p-value was used as a basis for accepting or rejecting the formulated hypothesis.

The study used the five-point rating scale describing *strongly disagree*, *somewhat disagree*, *neither agree nor disagree*, *somewhat agree* and *strongly agree* to interpret the data related to the influencing factors to avail of a loan from the bank (predictor variables). Correspondingly, a dependent dichotomous variable was used where “0” code was denoted as respondents will not avail of bank loans, while the “1” code was denoted as respondents will avail of loans from the bank.

RESULTS

Loan Policy as Influencing Factors in Availing of Bank Loan

In examining the perceptions of Overseas Filipino Workers (OFWs) on the usefulness of various loan policy factors, Table 1 presents insightful descriptive statistics. Interest rates emerged as a highly significant factor, with a mean score of 4.68 (SD = 0.744), indicating a very high level of perceived usefulness among OFWs. This suggests that OFWs place substantial importance on the cost of borrowing, possibly reflecting their financial prudence and sensitivity to the economic implications of loan agreements. Similarly, the payment scheme was rated with a very high level of agreement, as evidenced by the highest mean score in the table, 4.70 (SD = 0.645). This underscores the importance OFWs place on the terms of repayment, potentially indicating a preference for flexible and manageable loan repayment structures.

Furthermore, the perceived usefulness of loan size also rated very high, with a mean score of 4.59 (SD = 0.679). This finding implies that the quantum of the loan is a critical consideration for OFWs, possibly reflecting their specific financial needs or goals associated with obtaining a loan. The factor of pre-approval requirements was also rated as very high in terms of agreement with a mean of 4.55 (SD = 0.820), suggesting that OFWs value the clarity and assurance in the loan approval process. Contrastingly, collateral requirements had a lower mean score of 3.95 (SD = 1.125), rated as high, indicating a significant but relatively less uniform agreement among OFWs. The higher standard deviation in this factor could reflect a diversity in OFWs' financial circumstances or their varying attitudes towards securing loans with assets.

Table 1 Descriptive statistics for scaled loan policy factors of obtaining loan

Scaled Variables	Mean	SD	Descriptive Level
Interest	4.68	.744	very high
Collateral	3.95	1.125	high
Loan Size	4.59	.679	very high
Payment Scheme	4.70	.645	very high
Pre-approval Requirement	4.55	.820	very high

Customer Service as Influencing Factors in Availing Bank Loan

Table 2 provides a comprehensive overview of Overseas Filipino Workers' (OFWs) perceptions regarding the extent of customer service experienced during the loan procurement process. The table highlights five key customer service variables: Service Attitude, Promotional Activity, Advertisement, Convenience, and Loan Procedure. OFWs rated the Service Attitude very highly, with a mean score of 4.65 (SD = 0.639), suggesting a strong positive reception of the staff's behavior and approach in financial institutions. This indicates that the attitude of service personnel plays a crucial role in OFWs' loan acquisition experiences. Equally notable is the perceived Convenience and Loan Procedure, both scoring an average of 4.64 (SD = 0.679) and falling under the 'very high' descriptive level. These scores underscore the importance OFWs place on straightforward, accessible, and efficient loan processing, reflecting a preference for a seamless and user-friendly loan acquisition journey.

In addition, OFWs' experiences with Promotional Activity were rated as very high, with a mean of 4.25 (SD = 0.831), suggesting that marketing efforts and promotional strategies by banks are well-received and deemed useful by OFWs in their decision-making process. Advertisement also received a high rating, albeit slightly lower, with a mean of 4.13 (SD = 0.948). This lower score and higher standard deviation may point to more varied perceptions among OFWs regarding the role and impact of advertising in their loan acquisition experience. Collectively, these findings imply that while marketing and promotional activities are influential, the more direct aspects of customer service, such as service attitude, convenience, and loan procedures, hold more significant sway in the OFWs' overall experience of obtaining a loan.

Table 2 Descriptive statistics for customer service factors of obtaining loan

Scaled Variables	Mean	SD	Descriptive Level
Service Attitude	4.65	.639	very high
Promotional Activity	4.25	.831	very high
Advertisement	4.13	.948	high
Convenience	4.64	.679	very high
Loan Procedure	4.64	.679	very high

OFWs' Decision to Obtain Loan from the Bank

Table 3 delineates the responses of Overseas Filipino Workers (OFWs) regarding their decision to obtain a bank loan. The data, reflecting responses from a total of 157 OFWs, indicate a predominant inclination towards securing a bank loan. A substantial majority, 85% (n = 134), responded affirmatively, indicating their decision to obtain a bank loan. This significant percentage underscores the relevance and appeal of bank loans among the OFW community, potentially reflecting their financial needs or preferences for bank loans as a viable means of financial management or investment. The high proportion of positive responses could also suggest a level of trust and confidence in the banking system, or a perceived necessity of loans for various personal, familial, or business-related purposes.

Table 3 OFW Responses to Obtain Bank Loan

Responses	Frequency	Percentage
Yes	134	85%
No	23	15%
Total	157	100%

In contrast, a smaller fraction of the participants, 15% (n = 23), responded negatively to obtaining a bank loan. This minority segment represents a noteworthy portion of the OFW population who might have reservations or alternative preferences regarding their financial strategies. The reasons behind this reluctance or disinterest in obtaining bank loans could be multifaceted, potentially ranging from aversion to debt, past negative experiences, lack of information, or preference for alternative financial instruments. Understanding the underlying factors behind both the affirmative and negative responses is crucial for banks and financial institutions to tailor their services and products effectively to meet the diverse needs and preferences of the OFW community.

Binary Logistic Regression Analysis Result

The succeeding results were yielded from the binary logistic regression analysis performed where scaled and categorical variables were entered in predicting membership classification of OFWs as to their decision to obtain a loan, or otherwise. Table 4 shows the model summary results. With reference to the model, it shows that Cox & Snell R² and Nagelkerke R² are at 23% and 40.6%. Using Nagelkerke R², it means that about 40.6% of the decision to avail bank loan can be explained by the independent variables while the rest is explained by factors outside the model.

Table 4 Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	89.837	0.230	0.406

Moreover, the Hosmer and Lemeshow Test (HL Test) of the present study used to determine whether the model can be used to interpret the relationship between the decision to obtain bank loans and the ten identified variables. The criteria used is if the p-value of the HL Test in the Chi-square distribution is more than .05 to be classified as a fit model. It is known in Table 5 that the model used in this study has a significance value is at .259 which is higher than the .05 p-value, therefore, it can be concluded that the model is a fit.

Table 5 Hosmer and Lemeshow Test

Step	Chi-square	df	Sig.
1	10.082	8	.259

Table 6 provides an insightful look into the predictive accuracy of a model assessing Overseas Filipino Workers' (OFWs) decisions to obtain bank loans. The model correctly identified 11 out of 23 OFWs (47.8%) who chose not to avail themselves of a loan, while it was more effective in predicting loan acquisition among those inclined to obtain a loan, with a 98.5% accuracy (132 out of 134). Overall, the model achieved a notable predictive accuracy of 91.1%, underscoring its effectiveness in differentiating between OFWs likely to obtain loans and those who are not.

Table 6 Classification Table

Observed	Predicted			Percentage Correct
	Decision			
	Will not obtain	Will obtain		
Decision	Will not obtain	11	12	47.8
	Will obtain	2	132	98.5
Overall Percentage				91.1

In analyzing the binary logistic regression results from Table 7, focusing on the decision of Overseas Filipino Workers (OFWs) to obtain a loan, several factors emerged as significant, while others did not show a notable impact. A key predictor in the decision-making process is the "Loan Procedure," which showed a strong positive association (B = 1.771, p = .004), indicating a significant influence on OFWs' likelihood of obtaining a loan. The Exp(B) value of 5.878 suggests that improvements or efficiencies in loan procedures could substantially increase the odds of OFWs deciding to avail of a loan. This finding highlights the critical importance of streamlined and user-friendly loan processing systems in facilitating financial decisions among OFWs.

Another notable predictor, though marginally significant, is "Collateral" (B = .515, p = .068). This positive coefficient indicates that the requirement for collateral is a considerable factor in the loan decision process for OFWs. The Exp(B) value of 1.673 suggests that the presence or the perceived adequacy of collateral can moderately increase the probability of loan acquisition. This might reflect the risk assessment perspective of OFWs or their confidence in securing loans.

Other factors such as interest, size, payment, requirements, service attitude, promotion, advertisement, convenience, and various demographic variables like age, civil status, gender, and income did not show significant predictive power in

this model. This lack of significance suggests that these factors might not play a decisive role in OFWs' loan acquisition decisions within this study's context or that their influence might be overshadowed by more prominent factors like Loan Procedure and Collateral. It is also possible that the nonsignificant predictors could interact with other unmeasured variables, influencing OFWs' decisions in ways not captured by this model.

Table 7 Binary logistic regression results showing the possible predictors of decision of OFWs to obtain loan (N=157)

Predictors	B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I. for EXP(B)	
							Lower	Upper
Interest	-.071	.490	.021	1	.885 ^{ns}	.932	.357	2.434
Collateral	.515	.283	3.319	1	.068*	1.673	.962	2.911
Size	.246	.704	.122	1	.727 ^{ns}	1.279	.322	5.081
Payment	-.096	.688	.020	1	.889 ^{ns}	.908	.236	3.499
Requirements	-.888	.601	2.179	1	.140 ^{ns}	.412	.127	1.338
Service Attitude	.293	.590	.247	1	.619 ^{ns}	1.341	.422	4.261
Promotion	-.378	.511	.545	1	.460 ^{ns}	.685	.252	1.868
Advertisement	-.021	.387	.003	1	.957 ^{ns}	.979	.458	2.092
Convenience	.100	.590	.029	1	.865 ^{ns}	1.106	.348	3.514
Loan Procedure	1.771	.615	8.282	1	.004***	5.878	1.759	19.637
Age			6.288	6	.392 ^{ns}			
15-24	-.312	1.691	.034	1	.854 ^{ns}	.732	.027	20.125
25-29	2.355	1.733	1.847	1	.174 ^{ns}	10.541	.353	314.849
30-34	1.298	1.577	.678	1	.410 ^{ns}	3.664	.166	80.642
35-39	1.653	1.622	1.038	1	.308 ^{ns}	5.221	.217	125.456
40-44	1.328	1.893	.492	1	.483 ^{ns}	3.773	.092	154.101
45-49	2.962	1.961	2.282	1	.131 ^{ns}	19.336	.414	902.202
Civil Status			.203	2	.903 ^{ns}			
single	-18.914	13895.29	.000	1	.999 ^{ns}	.000	.000	.
married	-18.611	13895.29	.000	1	.999 ^{ns}	.000	.000	.
Male	.123	.972	.016	1	.899 ^{ns}	1.131	.168	7.592
Income			5.114	4	.276 ^{ns}			
15,001-above	2.076	1.635	1.612	1	.204 ^{ns}	7.973	.323	196.500
10,001-15,000	-1.208	1.333	.822	1	.365 ^{ns}	.299	.022	4.072
5,001-10,000	-.151	1.221	.015	1	.902 ^{ns}	.860	.079	9.419
2,501-5,000	-.239	1.232	.038	1	.846 ^{ns}	.787	.070	8.800
(Constant)	12.733	13895.29	.000	1	.999	338911		

DISCUSSION

The logistic regression results revealed that the decision to obtain a loan among Overseas Filipino Workers (OFWs) was not significantly influenced by the interest rates, a finding that diverges from the predictions of the Pecking Order Theory (POT). Contrary to POT, which suggests a preference for internal financing over external sources to reduce costs and maximize savings, the lack of significant influence of interest rates on OFWs' loan decisions implies a different financial decision-making process. This deviation could be attributed to the unique financial circumstances of OFWs, where the choice of loan source may not solely be determined by interest rates. The comparison of interest rates in Saudi Arabia (KSA) and the Philippines, as a factor in decision-making, did not strongly resonate with the OFWs' loan acquisition choices in this study. This outcome contrasts with the foundational concept of POT, which suggests a more cost-oriented decision-making approach.

Moreover, the application of the Exit, Voice, and Loyalty (EVL) theory to explain OFWs' preference to not avail loans from the Philippines needs reconsideration in light of these findings. The decision not to avail loans from the Philippines, as suggested by the EVL theory, would imply a choice of 'Exit' due to unfavorable conditions. However, the current study's results indicate that factors other than interest rates, such as the loan procedure, play a more significant role in influencing OFWs' loan decisions. This distinction is particularly noteworthy when compared to the findings of Nguyen et al. (2019, pp. 119-122) and Khoi et al. (2019, pp. 81-95), where interest rates had a positive impact on loan decisions among business households in Vietnam. The variation in findings underscores the importance of context in financial decision-making, highlighting that OFWs in KSA, dealing with loan products available only in the Philippines, may have different priorities and considerations compared to business households in Vietnam. This contrast suggests that OFWs' financial behaviors and decisions are influenced by a complex interplay of factors beyond traditional financial theories.

The binary logistic regression analysis underscored the direct relationship between OFWs' perceptions of collateral and their decision to obtain a loan from a bank. Specifically, a positive coefficient for collateral suggests that an increased agreement on the importance of collateral significantly correlates with a higher likelihood of availing a loan. This finding is particularly relevant given the professional status and income levels of the respondents, most of whom are earning more than 5,000 SAR and have substantial work experience, often exceeding five or ten years. Such demographic characteristics imply that these OFWs likely possess sufficient assets that could serve as collateral, thereby increasing their propensity to engage in loan transactions that necessitate collateral.

However, despite recognizing the influence of collateral in their decision-making, there is an apparent desire among many respondents for more lenient loan application procedures, specifically regarding the elimination of collateral requirements. This juxtaposition between acknowledging the necessity of collateral in securing loans and the aspiration for its removal suggests a nuanced understanding of loan acquisition among OFWs. It reflects a complex financial perspective where practical acknowledgment of lending requirements coexists with a preference for more accessible loan options. The logistic regression results, in conjunction with these insights, indicate that while collateral is a significant factor in the loan decision process, there remains a considerable interest among OFWs in loan products that offer flexibility and reduced barriers, such as the elimination of collateral requirements. The current study's findings on collateral found consistent with those of Mwirigi *et al.* (2019, pp. 285 – 292), whose research showed that collateral statistically and significantly predicts strategic access credit to SMEs owned by women. Contrary to the present study, the obtained result on collateral disagreed with the Theory of Discouraged Borrowers (TDB). Instead of being discouraged due to the fear of rejection caused by the stiff collateral, OFWs are willing to avail of loans with a 67% increase in their decision level, evidenced by the presented analysis on the capacity of the OFW.

The binary logistic regression results indicated that while loan size was not a significant predictor of OFWs' decisions to obtain a loan, the odds ratio suggests a trend where increased agreement on loan size slightly raises the likelihood of obtaining a loan. This finding aligns with the socio-economic profile of the respondents, predominantly married males with substantial earnings, reflecting the cultural expectation of Filipinos viewing the father as the primary provider. Such a perspective possibly heightens the emphasis on larger loan sizes to adequately cater to familial needs. One respondent's willingness to accept higher interest rates for a more considerable loan amount further validates this observation, highlighting a nuanced understanding of financial trade-offs. These results offer a new perspective on loan size as an influencing factor, expanding on the findings of Rosavina *et al.* (2019, pp.260-279), who noted loan size as a critical factor for SMEs in loan decisions.

Moreover, while also insignificant, payment scheme showed an inverse relationship with the decision to obtain a loan, suggesting that more extended payment terms might be perceived as leading to increased financial outflows, in line with the Time Value of Money (TVM) concept. This finding echoes the OFWs' concerns about cost implications, as evidenced in their feedback, and aligns with their reluctance to apply for loans with higher associated costs. The results align with the Exit, Voice, Loyalty framework of Hirschman, indicating a preference for the "Exit" option when faced with unfavorable payment schemes. Despite the quantitative measure showing a decrease of 9.2% in the likelihood of loan acquisition due to payment schemes, these findings add depth to the qualitative research by Rosavina *et al.* (2019, pp.260-279), which highlighted the impact of payment schemes on SMEs' loan decisions.

Finally, the binary logistic regression analysis of OFWs' decision-making regarding bank loans highlights several demographic and loan-related factors, though not all emerged as significant predictors. While loan size was not significantly predictive, its role in the decision-making process cannot be entirely discounted. The socio-economic profile, predominantly consisting of married male OFWs, reflects a cultural orientation where financial decisions, like availing loans, are influenced by the responsibility of providing for the family. This context gives credence to the importance of loan size, even if it did not emerge as a statistically significant predictor in this study. The willingness of respondents to accept higher loan amounts despite potential high interest rates aligns with their role as family providers, emphasizing the practical aspect of their financial choices (Mullainathan & Shafir, 2009). Conversely, the study found that factors like payment scheme, promotion, and advertising did not significantly influence the decision to obtain loans, suggesting these aspects may be less critical in the context of OFWs' financial behaviors. The absence of a significant relationship between these factors and loan acquisition decisions indicates that OFWs may prioritize more tangible aspects of loans, such as the amount and terms, over promotional activities or advertising strategies. The findings underscore the need for financial institutions to focus on the more substantive elements of their loan products when catering to the OFW market. The results suggest that simplifying and streamlining loan procedures could be more effective in attracting OFW borrowers than promotional or advertising efforts, aligning with global trends towards digitalization and convenience in banking services.

CONCLUSION

As the result suggests, all of the variables used are influencing factors for OFWs in obtaining a bank loan. In addition, it could be concluded that, of the variables used, only the collateral and loan procedure can significantly predict their decision to obtain a loan from the bank. However, further examination of their responses, the analysis suggests that their perception, cultural background, and capacity impacted the decision of OFW to apply for a bank loan. The study provides evidence that the decision of OFWs to obtain loans from the bank was affected by the factor that they can avail of the loan at lower interest rates and are flexible in KSA rather than in the Philippines. Also, the study implies that stringent requirements and tedious processes are also a factor to consider in availing loans from the bank.

RECOMMENDATIONS

High interest is one of the reasons why OFWs are hesitant to loan in the Philippines, instead opting to choose KSA. Moreover, most comments revealed that OFWs are hopeful of lowering the interest rate in the Philippines. A practical solution is subsidizing a portion or entire of the interest rates given to the OFWs by the government, considering their contribution to the Philippine economy. The subsidization is attainable when it is offered by a state-owned bank such as

the OFBank. Additionally, as the principle of competition suggests, lowering the interest by the OFB will force other financial institutions to offer low-interest rates to OFWs.

Though the result shows that there is a direct relationship between the agreement that collateral on the decision to avail of the loan, comments from the selected respondents show that they are hoping that the bank could remove the collateral when applying for the loan in the Philippines. It is possible by strictly assessing their monthly income. For instance, OFWs classified as valued clients to the bank through its regular remittance to the Philippines could be also exempted from collateral requirements provided the loanable amount is within their capacity to pay. Another example of exempting collateral requirements is those good-payer holders of a credit card with a credit limit above the amount of loan applied. Their creditworthiness will serve as collateral for the amount loaned.

The same findings to the collateral, although the loan procedure can significantly predict the decision to obtain a bank loan, others find that loan application in the Philippines is tedious and too complex with the lengthy period of approval. Hence, streamlining the loan processes is an essential move to eliminate non-value-added processes. Refined loan processes encouraged prospective borrowers, hence eliminating wasted efforts in their application and increasing the intention to avail loan from the bank.

As evidenced by the result in Loan Procedure and Convenience variables, smoother processes of loan have a positive effect on the decision to obtain a loan from the bank. This could be achieved by the digitalization of processes for loan application and payment. It is beneficial for both the bank and the loan applicant, which increases the scope of the bank of the service as it could offer its product elsewhere without being present in the area. In addition, it also eases loan applicants from transacting with the bank. This win-win situation could strengthen the relationship between both parties and hence would not only encourage the decision to avail of a loan from the bank but also increases the retention of clients.

Complexities and stringent requirements are just two reasons why OFWs prefer not to avail of loans in the Philippines, as revealed in this study. Therefore, eliminating or reducing unnecessary requirements is a must to encourage them to avail themselves of the loan. In connection with the previous recommendation on accrediting OFWs to the bank, some OFWs have records with the bank where they send their remittances, hence, reducing the requirement needed. Lastly, in order not to compromise the exposure of banks to bad loans, increasing their loan screening is one of the practical solutions.

While the result of the power analysis revealed that the study has strong statistical power, it acknowledges the limitation due to the research locale, small sample size, and the sample selection technique. The result might obtain different results when the study used a large sample size and other sampling techniques. Hence, it is recommended to conduct a study on the same topic with a higher sample size. Further, a study on other environs other than the KSA and Middle East countries is also recommended to validate the veracity of the result thereof.

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