



DETERMINANTS OF CREDIT MARKET CHOICES FOR URBAN LOW-INCOME HOUSEHOLDS, SAMPALOC MANILA

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ABSTRACT

This study investigates the determinants influencing credit market choices among low-income urban households in Barangay 571, Sampaloc, Manila. Despite efforts to expand financial inclusion in the Philippines, many low-income households remain dependent on informal credit providers due to persistent structural and socioeconomic barriers. Using a cross-sectional primary data gathered through surveys from August to October 2025, this research analyzes three critical dimensions of household credit behavior: credit participation, access to formal credit, and the likelihood of facing credit constraints. Utilizing the theories of financial dualism, credit rationing, and social capital, the study employs probit regression to estimate how income, employment status, financial literacy, and asset ownership shape household borrowing decisions. Results show that low-income households exhibit high participation in the credit market, driven largely by insufficient income and vulnerability to financial shocks. However, access to formal credit remains limited, with many respondents reporting difficulties. Findings further indicate that informal lenders continue to fulfill essential credit needs, functioning as substitutes or complements to formal institutions depending on borrower characteristics. The study concludes that district-level financial inclusion initiatives improve the responsiveness of formal financial institutions to the needs of low-income borrowers.

Keywords: *Financial Inclusion, Credit Market Participation, Credit Constraints, Informal Lending, Low-Income Households, Probit Regression, Urban Philippines, Formal Credit Access*

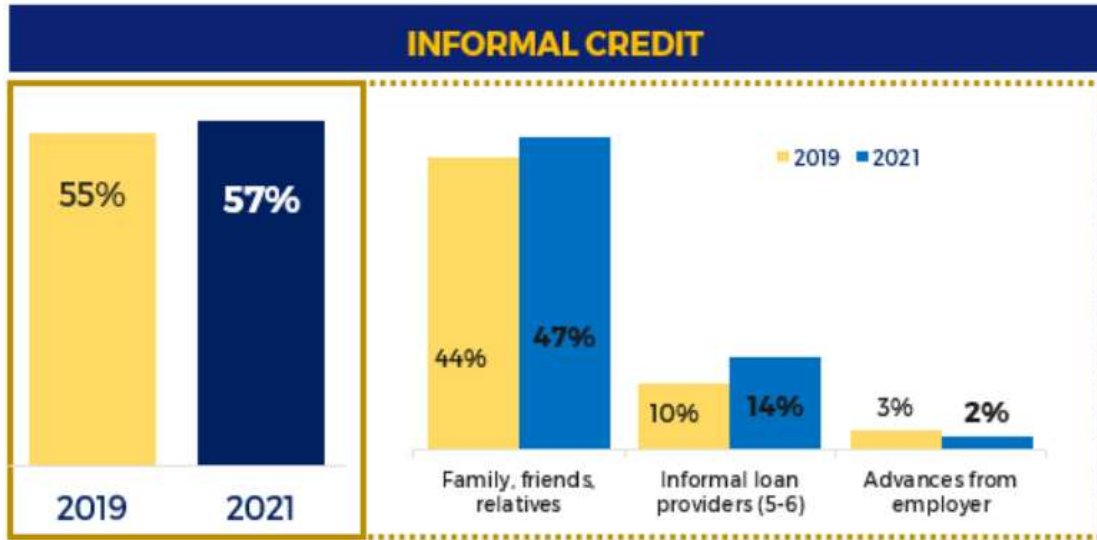
INTRODUCTION

Access to financial services remains uneven across the globe. According to Demirgüç-Kunt et al. (2022), the share of adults in developing nations borrowing from formal credit sources increased over the decade but remains low on average at 21 percent. Financial exclusion remains a global concern. It is particularly pronounced in places like the Philippines. Financial exclusion continues to undermine the potential benefits of economic development, despite empirical evidence showing that basic access to savings, payments, credit, and investment services can improve people's livelihoods (BSP, 2013). As such, the promotion of financial inclusion programs is essential to improving the welfare of underserved and unserved markets (BSP, 2013).

A key innovation in financial inclusion has been the emergence of microfinance as a tool for expanding access to financial services. Microfinance has contributed to improving the well-being of low-income individuals and reducing poverty in both developing and developed economies. Studies also show that financial inclusion helps bridge inequality gaps (Demirgüç-Kunt et al, 2022). Furthermore, microfinance addresses the shortcomings of earlier directed credit and guarantee programs (BSP, 2013). Despite the expansion of microfinance, a significant portion of low-income households continue to rely heavily on informal credit sources, highlighting ongoing gaps in financial service accessibility.

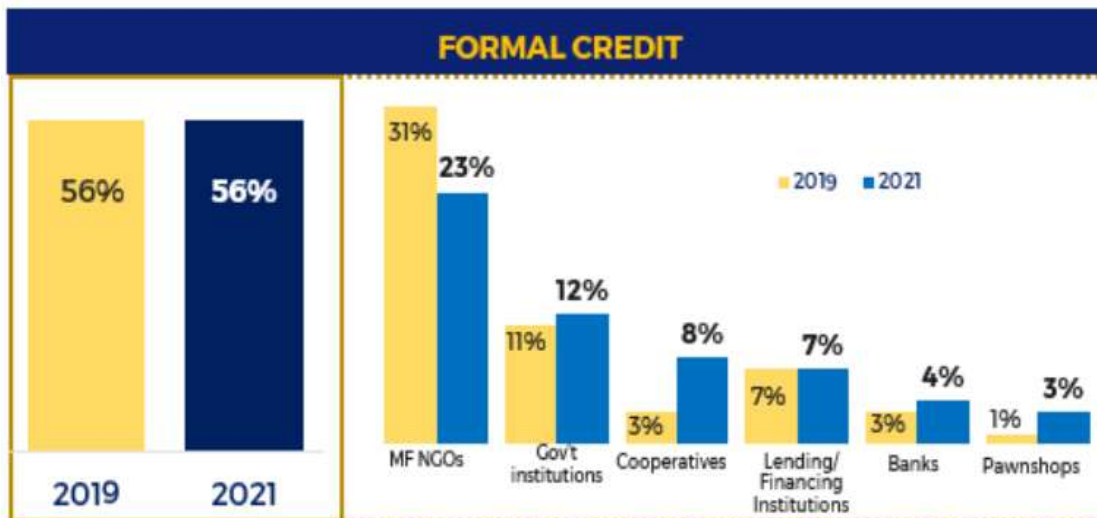
The persistence of informal credit in low-income countries stems from the inability of formal providers to meet the financial needs of the poor (Shem & Atieno, 2001). In the Philippines, informal credit remains a common funding source for households, particularly those with low incomes. This trend can be further visualized by the 2021 Financial Inclusion Survey by the Bangko Sentral ng Pilipinas (2022), where borrowing from family, friends, and informal lenders slightly increased to 47% and 14%, respectively (Figure 2). Despite the consistent overall usage of formal credit among Filipinos, shifts occurred within the formal lending landscape. The dominance of microfinance non-government organizations (MFNGOs) as a credit source lessened, even as they remained the top provider. Concurrently, borrowing from other formal institutions saw an upward trend (Figure 3). According to the BSP (2022), most Filipino households borrow to cover daily expenses, with interest rates, loan amounts, and maturity periods being key considerations. About half of the adult population perceives borrowing from formal institutions, including banks and online lenders, as difficult.

Table 1.0: Informal Credit Sources by 2021FISTopline Report (BSP, 2022)



Note: Respondents can report more than one response

Table 2.0: Formal Credit Sources by 2021FISTopline Report (BSP, 2022)



Note: Respondents can report more than one response

To contextualize this landscape, the study distinguishes between formal and informal credit providers. Formal providers include banks, quasi-banks, pawnshops, and other financial intermediaries authorized and regulated under the Bangko Sentral ng Pilipinas (BSP) or the Securities and Exchange Commission (SEC). These providers operate without relying on personal relationships to enforce repayment (Karaivanov &

Kessler, 2018). According to Abdelzaher (2019), formal credit aims to improve the conditions of the poor by offering broader savings and lending services. In contrast, informal credit refers to loans from family, friends, neighbors, or moneylenders that rely on social ties. These arrangements are not subject to formal legal enforcement (Abdelzaher, 2019).

Literature exploring the determinants of credit decisions has been well-studied (Asiamah et al., 2021; Tang & Guo, 2017; Doan et al., 2010; Chivakul & Chen, 2008). These studies reveal various factors affecting access to credit, for example, in Bosnia, credit participation follows a U-shaped pattern by age, peaking around 45 (Chivakul & Chen, 2008), while Tang & Guo (2017) explained that the government in rural China can play a significant role in constraining households by making the formal credit more flexible. Other studies find that higher income and younger age correlate with greater credit participation (Doan et al., 2010). According to Asiamah et al. (2021), the drivers of credit participation and credit constraints can vary significantly between urban and rural contexts. Although global financial technology and mobile banking are expanding, structural barriers, like low financial literacy, insufficient documentation, and gender disparities, continue to limit inclusion (Demirgüç-Kunt et al., 2022).

Doan et al. (2010) further reported that nearly half of poor households face difficulties obtaining adequate formal credit. Income and assets are significant factors influencing credit access (Doan et al., 2010; Chivakul & Chen, 2008), leading low-income borrowers to often rely on informal sources, even if they prefer formal options. Employment also plays a role in financial access (Allen et al., 2016). In developing countries, key barriers include limited documentation, irregular income, and poor access to banks (Llanto et al., 2018). Madestam (2005) highlighted that underdeveloped credit markets often result in households using both informal and formal funding simultaneously. These constraints underscore the credit rationing by formal lenders due to asymmetric information, where borrowers possess more knowledge about their repayment ability than lenders.

Informal credit serves as a viable alternative for many Filipinos unable to access formal options. Santos (2019) noted that Filipino borrowers are often satisfied with informal lenders, who help them cover daily needs. The infamous “5-6” lenders are popular because they require no collateral or documentation, making access easier (Dula & Grego, 2015). Despite financial market innovations and regulations, informal credit continues to thrive. Mansour et al. (2024) found a positive relationship between the demand for formal loans and informal borrowing, suggesting informal credit complements rather than substitutes for formal lending. One of the disadvantages of formal credit is inflexibility; borrowers often find that informal credit providers are more flexible when it comes to payment deadlines, and are easier to access compared to formal credit providers that require borrowers to offer collateral. Despite government efforts of microfinance programs offering better terms, Zapata (2006) & Karaivanov & Kessler (2018) highlighted that borrowers prefer informal credit providers for their lower nominal rates and fewer requirements.

Manila, being the capital of the Philippines, has a population that spans a wide varying characteristic. McFarlane et al. (2025) cited that Manila is characterized as the world's densest and unequal city, with over half of the households living in low-income areas. The district of Sampaloc, classified as a low-income neighborhood (Hickman et al., 2017), presents a diverse urban population that could provide relevant insight into the variations in household credit decisions in the credit market conditions. Moreover, low-income individuals often find themselves unable to access formal credit markets due to their limited social network and financial capabilities (Yuan & Xu, 2015). Reflecting the broader trend in the Philippines, they are often financially vulnerable and more susceptible to informal lenders such as the widely known "5-6" and the "paluwagan" for their immediate credit needs. This diversity in income, employment, financial literacy, and assets within Manila could enable researchers to assess the influence of these characteristics on credit decisions.

This paper complements existing literature by deconstructing credit decisions into three stages: participation, access, and constraint. Where credit participation is whether the household borrowed or did not borrow from any credit source; Credit access shall be the household's ability to obtain a loan from formal credit sources; Credit constraints is where a household needs or desires a formal loan but is unable to obtain it due to rejection. Then the study analyzes the socio-economic profile of households and understands how it influences their credit participation in the credit market, Barangay 571, Sampaloc, specifically chosen for being a low-income neighborhood with high rates of informal workers. Subsequently, this study will also measure the probability of them successfully obtaining formal credit sources. Afterwards, it will measure the credit constraints faced by low-income households when accessing formal credit providers. Utilizing a logistic regression, this study will assess the probability of a borrower participating in the credit market and difficulties in borrowing from formal sources based on their socio-economic profile. Data collection will be gathered through primary surveys, employing a probit model as the statistical tool. This research will explore how these factors influence an individual to participate in the credit market, their access to formal credits, and their likelihood of being rejected by formal credits affects their financial decisions, and see whether these factors will help alleviate or reinforce financial exclusion.

Research Questions

Prior studies have shown that access to financial services plays a crucial role in improving the livelihoods of individuals and also enhances economic development. Despite efforts to strengthen formal credit providers, however, the persistence of informal credit among the low-income and marginalized communities raises critical questions regarding its role. The district of Sampaloc may provide insight into the dynamics of the credit market on the demand side.

This study sought to address the following research questions:

1. What is the socio-demographic profile of the households in the credit market of the city of Manila?

- a) Gender
 - b) Marital Status
 - c) Age
 - d) Number of Dependents
2. What are the factors? How do these factors influence a household's likelihood of credit market participation, their access to formal credit sources, and their likelihood of being credit-constrained when trying to access formal credit providers?
 - a) Income per Month (Individual)
 - b) Employment status (Full Time Only / Part Time Only / Unemployed)
 - c) Financial Literacy (Tertiary Level or Not)
 - d) Assets (Collateral)
 3. What are the policy recommendations based on the researcher's findings?

METHODOLOGY

This study's framework, adapted from Chivakul and Chen (2008), illustrates the decision-making process of households within the credit market. As shown in Figure 5, the analysis begins with the household, whose socio-economic characteristics, such as monthly income, financial literacy, employment status, and asset ownership, influence its decision to participate in the credit market.

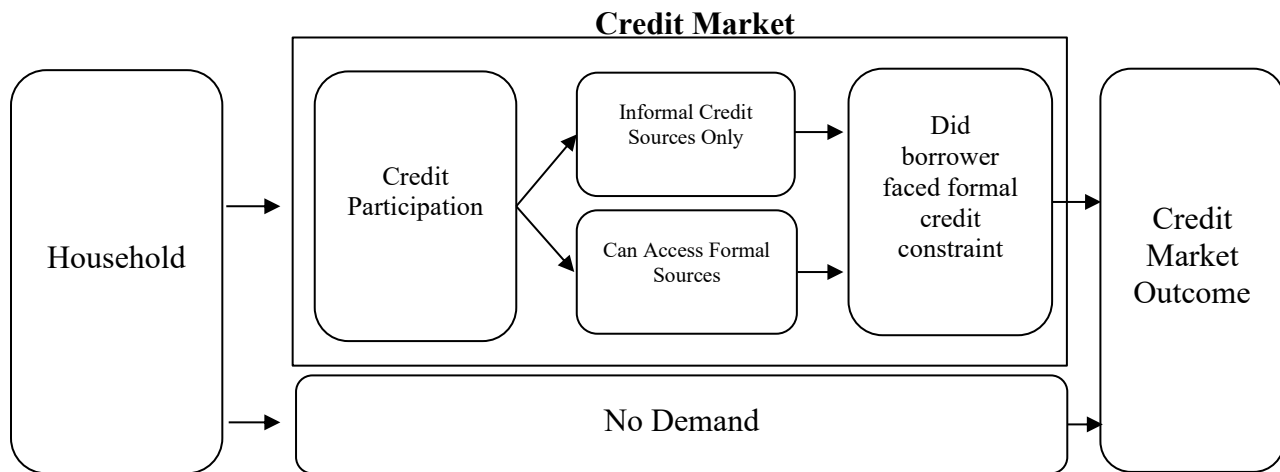


Figure 1.0: Household's Three-stage Credit Decision Process

The first stage examines credit participation, whether the households decide to demand credit. Those with no demand exit the credit market, while those who choose to borrow proceed to the next stage. In the second stage, borrowing households determine their source of credit, which may come from formal credit sources or informal credit sources. Given that this study focuses on low-income households, it focuses on the

decision between formal and informal credit channels. The third stage evaluates credit constraints within the formal credit market. Borrowers who experience rejection or are unable to secure loans from formal institutions are classified as credit-constrained, while those who have not experienced loan request rejection are considered credit-unconstrained. Notably, even after experiencing credit rationing, some households may still access formal credit sources through persistence or alternative arrangements.

This framework links household characteristics and borrowing decisions to the credit market outcome, providing a structured approach for analyzing how socio-economic factors shape credit access and constraints among low-income urban households.

Research Design and Strategy

This section consists of the approach used in this research to answer the research questions. This study employed descriptive, survey & cross-sectional research design aimed to understand the determinants of credit decision among households.

This study is descriptive, for it summarizes the socio-economic and demographic characteristics of the Sampaloc low-income households. The data collected will summarize the different credit decisions by households, particularly their credit participation and credit constraints. Through this, the researcher seeks to determine what motivates a household to demand a loan and their subsequent difficulties in obtaining said loan. The results can help formulate future policy proposals to enhance financial inclusion in the country. The strategy implemented by the researcher is an interviewer-administered survey, which is the primary tool for data collection. The information will first be whether or not they borrowed money within the last 12 months (binary values), what their credit sources were from the last 12 months, and whether their loan request was rejected by a formal credit provider (binary values), to evaluate their credit participation and credit constraints. The researcher also used cross-sectional analysis in this study. Wang & Cheng (2020), cross-sectional analysis is an observational studies that assess data from a population at a single point in time. Moreover, cross-sectional studies do not follow individuals over time, and are usually inexpensive and easy to conduct Wang & Cheng, 2020). The researcher chose this type of research design to measure their credit participation and credit constraints without influencing households' credit market decisions.

Research Participants

In this study, the target population is the urban households from the Sampaloc District, Manila. Specifically, the household heads, who are current residents of Barangay 571, and who are also earning PHP 24,060 or less as their monthly income. The researcher chose this district of Manila to identify the credit market decision among low-income urban households, in particular, the credit participation in the credit market, credit access, and credit constraints faced in formal credit providers among low-income households according to their socio-economic characteristics. As prior literature stated,

lower-income households are more likely to demand credit while at the same time more likely to face borrowing difficulties in the formal credit sector.

Sampling Design

This study will utilize the simple sampling method for gathering data. First, the study utilizes the simple sampling method within the targeted district to gather respondents, which involves randomization in sample selection, where it also gives every member of the population an equal chance of being selected. In the context of this study, the respondents will be households randomly selected in each district. To find the sufficient number needed from the population to form its sample, the researcher used the Slovin Formula along with the Finite Population Correction. This formula determines the minimum number from the large population needed for the study to ensure a sample size that is representative of the households in the district. From the computation, the research will need at least 209 samples from the total population in order to have meaningful and reliable data for the research.

Measurement and Instrumentation

The main tool used for this study for data collection will be via survey questionnaires. After approval and subsequent testing, it can only be used for data collection to ensure its reliability. The content of the survey questionnaires will be designed for the research purpose, which is to identify the credit participation and credit constraints of the low-income households in the credit market.

The survey questionnaire collects qualitative and quantitative data from the research respondents, with a focus on the statement of the problem that aims to find how the factors influence households' credit market decisions. These characteristics consist of the households' income per month, employment status, and assets owned. The measure of credit participation will be determined by whether they demanded a loan in the last 12 months, asked who their credit providers were, then whether they experienced credit rationing by formal sources. The researcher adapted the questionnaire from the BSP 2021 consumer financial survey. Correspondingly, the findings of this paper can be used to formulate policy on improving the financial inclusion program.

Data Analysis

To analyze the determinants of credit behavior among low-income households, this study employs the binary probit model. The Probit model is utilized when the outcome variables are binary; thus is used to examine credit participation (Equation 1), credit access (Equation 2), and credit constraints (Equation 3). The outcome variable for credit participation equals 1 if the household successfully obtained credit and 0 otherwise. The outcome variable for credit access takes the value of 1 if the borrower has sourced their loan from formal credit providers, 0 if the borrower has only sourced their loan from informal credit providers. For credit constraints, the dependent variable equals 1 if the household is considered credit-constrained (i.e., loan request is rejected from formal sources) and 0 if the household is credit-unconstrained (i.e., loan request is accepted or

the household does not need credit from formal lenders). Accordingly, the model is written below:

Equation 1

$$Cd_i = \beta_0 + \beta_1 (Inc)_i + \beta_2 (Fe)_i + \beta_3 (Ter)_i + \beta_4 (Hs)_i + \beta_5 (Cr)_i + \varepsilon_i$$

Equation 2

$$Cc_i = \beta_0 + \beta_1 (Inc)_i + \beta_2 (Fe)_i + \beta_3 (Ter)_i + \beta_4 (Hs)_i + \beta_5 (Cr)_i + \varepsilon_i$$

Equation 3

$$Cco_i = \beta_0 + \beta_1 (Inc)_i + \beta_2 (Fe)_i + \beta_3 (Ter)_i + \beta_4 (Hs)_i + \beta_5 (Cr)_i + \varepsilon_i$$

Prior literature suggests that households' socio-economic are significant independent variable to predict households' credit decisions. Therefore, this study includes households' income per month, employment status, financial literacy, & assets ownership.

Where

Cd is credit activity within the last 12 months

Cc is access to Formal Sources

Cco is Constraints from Formal Credit Source

Inc is Monthly Income (in Thousands)

Fe is employment status (0=unemployed, 1=Part time only, 2=Full-time only, & 3=Full time and Part-time)

Ter is educational background (0=Less than Tertiary Level & 1=Tertiary or Higher)

Hs is Home ownership

Cr is Vehicle ownership

RESULTS

Table 3.0: Gender & Marital Status

Feature of the Household	Number	Percentage
Gender		
Male	121	56%
Female	95	44%
Total	216	

Marital Status		
Single	83	38%
Married	102	47%
Separated	13	6%
Widowed	18	8%
Total	216	

Table 4.0: Age & Number of Dependents

Socio-Economic Profile	Number	Percentage
Age		
18-25	33	15%
26-35	45	21%
36-45	66	31%
46-55	48	22%
56 & Above	24	11%
Total	216	

Number of Dependents		
0	53	25%
1-2	76	35%
3-5	70	32%

6 and above	17	8%
Total	216	

Table 5.0: Monthly Income & Employment Status

Socio-economic Profile	Count	Percentage
Monthly Income		
Less than PHP 5,001	20	9%
PHP 5,001 - 10,000	47	22%
PHP 10,001 - 15,000	55	25%
PHP 15,001 - 20,000	55	25%
PHP 20,001 - 24,060	39	18%
Total	216	
Employment Status		
Full-time	160	74%
Part-time & Unemployed	56	26%
Total	216	

Table 6.0: Educational Attainment & Assets Owned

Socio-economic Profile	Count	Percentage
Educational Attainment		
Tertiary or Higher	105	49%

Less than Tertiary level	111	51%
Total	216	
Asset Owned		
None	89	41%
Vehicle	47	22%
House	49	23%
Both (House & Vehicle)	31	14%
Total	216	

Table 7.0: Credit Decisions

Household Categories	Count	Percentage
Credit Participation		
Borrower	137	63%
Non-Borrower	79	37%
Total	216	
Credit Access		
w/ access to Formal Sources	107	78%
w/o access to Formal Sources	30	22%
Total	137	
Credit Constraints		

Rejected by Formal Sources	36	27%
Not rejected by Formal Sources	97	73%
Total	133	

Table 8.0: Probit Estimates

Explanatory Variables	Model 1	Model 2	Model 3
Intercept	-0.19480 (0.4229)	-0.38465 (0.2766)	0.56520 (0.12194)
Inc (in Thousands)	0.03544 (0.0328)**	0.05626 (0.0181)**	-0.06052 (0.00951)***
Fe (1=Fully employed)	-0.28352 (0.2140)	-0.06917 (0.8224)	0.03072 (0.91845)
Ter (1=Tertiary or Higher)	0.06433 (0.7300)	0.66204 (0.0174)**	-0.31248 (0.22695)
Hs (1=yes)	0.24505 (0.1942)	0.26649 (0.3242)	-0.07689 (0.76115)
Cr (1=yes)	0.37280 (0.0534)*	0.05772 (0.8311)	-0.27317 (0.28112)

Notes: Significant at 10% (*), 5% (**), and 1% (***)

DISCUSSION

Table 3.0 below shows the distribution of gender among the household heads. The data set of 216 respondents shows that 121 (56%) of the household heads, who constitute the majority of the sample collected, are male, while the female household heads only 95 (44%) of the sample collected. This suggests that men are more likely to be the primary decision-makers or representatives of the household in this dataset.

In terms of marital status (Table 3.0), the data reveal that a majority of respondents, 102 (49%), are married, while 83 (38%) are single, 13 (6%) are separated, and 18 (8%) are widowed. This distribution indicates that most of the household heads live in stable family structures, which may influence the dynamics of household decision-making and

financial responsibilities. The proportion of single and widowed respondents also highlights the diversity of household compositions within the sample.

Table 4.0 below shows the age of the survey participants. The distribution shows that the largest group of household heads falls within the 36–45 age range, with 66 (31%) respondents, followed by those aged 46–55 at 48 (22%). Younger respondents aged 26–35 comprise 45 (21%), while those aged 18–25 account for 33 (15%). Meanwhile, respondents aged 56 and above accounted for 24 (11%) of the sample. This indicates that the majority of decision-makers are in their middle adulthood, a life stage typically characterized by financial stability, active employment, and significant family responsibilities.

The household number of dependents, 76 (35%) of respondents reported having 1–2 dependents, making it the most common household size. This is followed by 3–5 dependents at 70 (32%), while 53 (25%) of survey respondents have no dependents, and finally 17 (8%) have six or more. These data suggest that a significant portion of households support multiple family members, which could influence their financial needs, spending priorities, and reliance on formal or informal credit sources.

The table 5.0 shows the socio-economic characteristics of respondents from the chosen Sampaloc District, Manila. The two largest income groups of the survey respondents each account for 55 (25%) earning between PHP 10,001 to PHP 15,000, and PHP 15,001 to PHP 20,000, followed by 47 (22%) earning between PHP 5,001 to PHP 10,000. Moreover, 39 (18%) of the respondents fall within the PHP 20,001 to PHP 24,060 bracket, while the smallest group of 20 (9%) earns less than PHP 5,001 per month. When it comes to employment status, most respondents at 160 (74%) have a full-time job, while 56 (26%) respondents are part-time workers or are unemployed. This suggests that a considerable portion of the respondents maintain stable employment.

For educational attainment (Table 6.0), 111 (51%) of the respondents have less than a tertiary level of education, while 105 (49%) have attained tertiary education or higher. This reflects a relatively balanced distribution between respondents with higher education and those with only basic or secondary education. With regards to asset ownership, 89 (41%) reported not owning a vehicle or a house, while 47 (22%) respondents own a vehicle, 49 (23%) respondents own at least a house, and 31 (14%) respondents possess both a house and a vehicle. This suggests that a significant portion of respondents have limited asset accumulation, consistent with their low-income classification.

Table 7.0 shows the credit participation, credit access, and credit constraints. For credit decisions, the majority of the respondents, which accounts for 137 (63%), are identified as borrowers, which means that they have borrowed or currently have outstanding loans within the past 12 months. 79 (37%) respondents are non-borrowers, showing that they have not participated in any form of borrowing during the same period. This distribution reveals that most low-income households in the sample actively engage in borrowing activities, reflecting their reliance on credit to meet financial needs. When it comes to credit access, among the 137 identified borrowers, 107 (78%) respondents

reported having borrowed from formal credit sources such as banks, cooperatives, and microfinance institutions etc., while 30 (22%) respondents claimed to lack access to formal credit sources. This suggests that while a majority can access formal credit sources, a notable portion still depends solely on informal credit sources. Lastly, for credit constraints, among those who attempted to obtain credit from formal sources, which comprises 133 respondents, 36 (27%) respondents reported having faced rejection by formal financial institutions, while 97 (73%) respondents were not rejected. The presence of rejections indicates that, despite some level of access, formal financial institutions continue to impose credit constraints that may limit the borrowing capacity of low-income households, but it should be noted that households that faced credit rationing by a formal source can still rely on other formal sources to fulfill their credit demand.

The estimate of the binary probit models for credit decision is done as follows. The five independent variables (Inc, Fe, Ter, Cr & Hs) are regressed against each of the three dependent variables (credit participation, credit access, and credit constraints). The estimates reveal at least one or two of the chosen determinants that are significant for the Credit Participation (Equation 1), credit access (Equation 2), and credit constraints (Equation 3).

The level of monthly income does influence the likelihood of a household borrowing money, in contrast to the findings by Pinitjitsamut & Suwanprasert (2022) and Tang & Guo (2017). The results show that monthly income has a significant and positive influence when it comes to credit participation. This may be due to the target population focusing on lower-income households, but a report by TransUnion (2023) highlights the negative stigma of borrowing, which may be a significant factor dissuading low-income earners from borrowing money. Monthly income also has a significant explanatory power for both Model 2 and Model 3, with a p-value at 5% and 1% significance, respectively. This indicates that as households increase their monthly income, the probability of being able to access formal credit sources also increases, while the probability of being rejected by formal credit sources decreases. This result coincides with the findings by prior literature, with the increase of income, it helps reduce the difficulties in borrowing (Bathan & Gordoncillo, 2017; Lin et al., 2019; Tang & Guo, 2017). This implies their greater ability to repay loans, thus assuring credit providers their return on investment (Tang & Guo, 2017).

Interestingly, the type of employment of the household head does not affect their choices when it comes to borrowing money, access to formal credit sources, and constraints when borrowing from formal sources. As seen from the result of the probit estimates (Table 8.0), the coefficient's p-value is shown to be statistically insignificant. This could mean that other variables play a significant role in credit participation, and formal credit sources perceive fully employed individuals as having lower significance when providing credit.

For financial literacy, if the household heads' education level is associated with increasing the likelihood of accessing loans from formal credit providers, with the p-value at 5% significance (0.0174). This result supports the findings of Lin et al. (2019), Tang & Guo (2017), and Asiamah et al. (2021), which indicate that better-educated borrowers

have fewer difficulties borrowing. This may be partly explained by Asiamah et al. (2021), claiming that highly educated households tend to have more stable income, making them more attractive to formal lenders. Moreover, Akpan et al. (2013) explain that a greater level of education will expose them to the environment of innovations and better management techniques, thus they are more productive. However, financial literacy has no explanatory power when it comes to credit participation and credit constraints, with their respective coefficient not statistically significant.

Assets (collateral), particularly car ownership, are found to be significant variables when predicting credit participation, with a p-value (0.0534) at 10%. This result is similar to that of Tang & Guo (2017), of a positive relation between asset and credit participation. However, house ownership is an insignificant variable when predicting credit participation, while house and car ownership are found to be insignificant variables when predicting credit access and credit constraints. This result contrasts prior literature (Mansour et al., 2024; Pang, Kuang, & Gong, 2015; Bathan & Gordoncillo, 2017; Tang & Guo, 2017), which suggests assets play a significant role in credit decisions, but their findings show inconsistent correlation when it comes to asset ownership and credit decisions.

Conclusions

According to the Bangko Sentral ng Pilipinas (2022), over half of the Filipino adults perceived borrowing from formal credit sources as difficult, citing that among formal credit sources, banks were the hardest to apply for a loan (65%), followed by credit card companies (56%), online lenders (48%), then cooperatives/NSSLAs (47%) and financing/lending companies (44%). The perceived least difficult to borrow from are from MF NGOs (39%) and pawnshops (35%). This is dire, especially when it comes to low-income households, who are synonymous with lacking required documents & valid IDs, low and unstable income, lack of collateral, and finding application processes to be lengthy and complex. Hence, many low-income households are deterred from approaching formal financial institutions and instead resort to informal credit sources, such as borrowing from family, friends, or local moneylenders, which offer more lenient terms, minimal documentation, and faster access to funds. This reliance on informal credit reflects both the exclusionary nature of formal financial systems and the persistent barriers to financial inclusion among the poor. Consequently, the lack of access to formal credit not only limits their ability to invest in productive activities but can also perpetuate their financial vulnerability and dependence on costly or unsustainable borrowing channels.

The study was conducted in Barangay 571, Manila, with 216 urban household participants, to identify and determine how many variables influence a household's credit participation, credit access, and credit constraints. In the next section, the researcher will present the findings in the descriptive statistics: Majority of the household heads are male (56%); The majority of respondents were married (47%), followed by single individuals (38%), with smaller proportions who were widowed (8%) or separated (6%); Differences in educational attainment were apparent, with only 49% of the participants having tertiary or higher education; Most respondents owned neither a house nor a vehicle (41%), while

(23%) owned a house only, (22%) owned a vehicle only, and (14%) owned both a house and a vehicle.

Furthermore, the binary probit regression analysis was conducted in this study, which serves as the statistical tool that delved into the relationship between the households' various socio-economic factors and their corresponding credit decisions. Employing this method, the study provides an in-depth analysis of a binary outcome variable using probit regression, allowing for an understanding of the factors shaping household credit decisions.

The binary probit regression analysis the relationship of credit decision (credit participation, credit access & credit constraints) with the individual independent variable: Inc represents the household's monthly income (in thousands), Fe indicates whether the household head is fully employed, Ter indicates whether the household head has attained tertiary or higher education, while Hs and Cr specify whether the household owns a house or a car, respectively. The estimates concluded that Inc & Cr are significant predictors for credit participation, Inc & Ter for credit access, and Inc for credit constraints. Therefore, this suggests that for the low-income households, monthly income emerges as a critical determinant for all three models, vehicle ownership is a significant factor for credit participation, while having college level of education or higher is a determinant for credit access. Furthermore, the Inc variable for Model 1 has a coefficient sign (+), contradicting prior literature findings (-).

Conversely, the study finds that Fe (full employment), Ter (College Education or higher), and Cr (vehicle ownership) & Hs (house ownership) did show statistically significant evidence of influencing credit decision in some or all three models among the low-income households population within Barangay 571, Sampaloc. This means that within the scope of the study and its chosen variables, there is no evidence to support that the aforementioned variables have an impact on household credit decisions.

It should be noted that the absence of statistical significance of some of the variables does not mean the lack of importance of these variables. External factors that are not covered in the study might give these variables more significance for credit decisions. Therefore, this paper suggests that the lack of evidence is due to its parameters, rather than a definitive statement regarding the overall significance of the variables. This statement acknowledges the complexity of the decision-making of households when it comes to their credit decisions.

Recommendations

The study recommends that the government and relevant financial regulatory bodies, such as the Bangko Sentral ng Pilipinas (BSP) and Department of Finance (DOF), should strengthen financial inclusion policies through tackling the barriers that prevent low-income households from accessing formal credit. Firstly, having a district-level Financial Inclusion Program, where Policymakers should design community-based lending schemes targeting low-income urban districts like Sampaloc. These can include credit guarantee mechanisms of microcredit initiatives supported by local government

units to reduce the risk faced by formal lenders. Simplify credit requirements for low-income borrowers, such as relaxing collateral requirements or adopting character-based lending. This would help alleviate credit rationing while ensuring that borrowers remain within the formal regulatory framework. Lastly, Financial Literacy Integration involves embedding financial literacy modules into community livelihood programs, focusing on credit management, budgeting, and responsible borrowing.

The researcher suggests that formal credit sources, such as banks, microfinance institutions, cooperatives, and digital lenders, etc., The World Bank suggested (2026) that credit providers can help in the push of financial inclusion through integrating other forms of data, namely, telecommunications data, mobile money transaction history, and social media data, to substitute for traditional requirements, thereby enabling unsecure loan worth less than sometimes as low as \$0.50 which can increase in value in the future as borrower establishes their credit history. These can bridge the formal credit supply to the demand and drive away the need for informal credit while remaining within formal regulatory boundaries.

The study suggests the incorporation of credit access into urban planning, such as including financial access indicators, such as the number of accessible physical lending institutions, when assessing community development performance. Train local barangay officials to act as community-based financial facilitators who can guide residents toward legitimate lending sources and discourage engagement with informal predatory lenders. Lastly, improving the digital infrastructure can help address this by including digital infrastructure such as internet hotspots, connectivity in public markets, and barangay halls, as part of community infrastructure planning. For example, push for connectivity, especially in underserved or remote communities, so that digital financial services such as mobile banking and digital payments can reach low-income households.

The low-income borrowers must also play an active role in improving their financial participation. Households should participate in available financial literacy programs that teach credit comparison, what is available and reliable credit sources (e.g., online lenders), how to prioritize repayment, and financial recordkeeping. They should also maintain basic documentation such as income proof, barangay clearance, or co-borrower records, in order to improve creditworthiness when engaging with formal lenders. Finally, borrowers should establish credit histories with formal lenders to transition away from high-interest informal loans over time.

NGOs working in community finance, livelihood support, and social enterprise should leverage the study's findings to design more inclusive credit interventions. NGOs could act as a bridge between borrowers and formal lenders by facilitating financial literacy programs, where they help borrowers complete application forms, understand loan terms, and comply with documentation requirements. Moreover, NGOs can help form an alternative credit assessment approach that overcomes documentation constraints. Additionally, NGOs can collect data on the ground with regard to borrower needs, repayment behavior, and informal loan dynamics; such data can help inform product design and policy.

The researcher suggests deepening the empirical understanding of the motivation for credit demand and behavioral dynamics among low-income households. This can be done through expanding the credit demand section to not only measure whether households borrowed or not, but also when they needed to borrow but were unable to, and for what purpose. This provides insight into whether the potential credit demand was met and how persistent a borrower would be in seeking credit if the purpose of borrowing were consumption smoothing, productive investment, etc. Secondly, future research could include post-rejection behaviors. Specifically, the likelihood of reapplying to formal lenders, turning to informal ones, or outright not borrowing anymore. This could be modeled using multinomial logit regression that captures decision-switching between credit sources. Moreover, variables such as loan purpose, size, and frequency can help differentiate necessity-driven borrowing from opportunity-driven borrowing. Lastly, expanding future data collection to include other Manila districts or nearby cities to better assess credit behavior and financial exclusion patterns could create more reliable estimates.

Compliance with Ethical Standards

This study mainly used data collected from the Sampaloc residences, which required participants to volunteer and disclose personal information. Considering this, the researcher ensured the ethical use of the data, including confidentiality, transparency, and informed consent from every participant. The Data Privacy Act of 2012 aims to protect individuals' personal information in both the government and private sectors, and this law was strictly upheld throughout the research process.

With regards to the Data Privacy Act, the researcher sent consent letters to the respondents and a clear explanation, informing the respondents about the relevance of the study, what types of information would be needed from them, along with how the data collected would be handled with safety as a top priority. The letter sought their approval to participate in this study's data collection process and guaranteed that participants' privacy and anonymity would be maintained throughout the process. In the scenario where the participant did not want to take part in the study, the participant was able to exercise their right to refuse. Similarly, those willing to take part were encouraged to answer the questions truthfully in order to form reliable results. The data collected here was solely used for academic purposes and not for any other purposes. The data was disposed of properly after the research had been conducted, and the collected information no longer serves its purpose.

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