

Analyzing Consumer Confidence Across Income Groups in the Philippines: Evidence from Consumer Expectations Survey

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ABSTRACT

This study examines consumer confidence in the Philippines, focusing on the relationships between key confidence indices and disparities across income groups using ten years of data from the Consumer Expectations Survey (CES), a quarterly survey conducted by the central bank to assess the confidence levels of Filipino households regarding their family's financial situation and the overall economic condition. Results show strongly positive and statistically significant correlations between all confidence indices and highly statistically significant differences in confidence regarding family financial situation and family income across income groups. However, differences in confidence about the economic condition were not statistically significant. These findings underscore the importance of considering socio-economic status in formulating economic policies that address consumer expectations.

Keywords: Consumer Confidence, Economic Condition, Family Situation, Family Income, Income Groups.

INTRODUCTION

Consumer confidence is widely recognized as a vital indicator of economic health, reflecting the collective sentiment of individuals regarding their personal financial situations and the overall economic outlook. This degree of optimism or pessimism significantly influences actual consumer behavior, making it a key factor for policymakers in assessing economic trends [20, 24, 25]. Globally, consumer confidence is regularly monitored through surveys to provide insights into the public's economic perceptions [11, 14].

In the Philippines, socio-economic confidence of Filipino households, measured through the Consumer Expectations Survey (CES) administered by the country's central bank, consistently demonstrates influence on the broader economic environment and family financial well-being [13]. While relationships between family and economic conditions were established from the survey, examining the strength and significance of the relationships between consumer confidence indices and exploring the consistency of differences among low-, middle-, and high-income households could confirm the effectiveness of using the survey-based subjective expectations in formulating economic policies.

Therefore, this study aims to statistically analyze the dynamics of consumer confidence indices and consumer sentiments across Filipino households, categorized based on income levels. By addressing these points, the study contributes to the existing literature on expectations by providing insights for targeted and socio-economically driven policy interventions.

LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

Consumer confidence refers to the degree of optimism or pessimism that individuals have regarding their financial situation and the economic condition. It describes how the collective consumer sentiments can be translated to the overall status of a country [17, 18, 22]. Several countries, like Australia, Canada, Columbia, Czech Republic, Finland, France, Indonesia, Israel, Italy, Japan, Netherlands, Poland, South Korea, Switzerland, Taiwan, Thailand, Turkey, United Kingdom, and the United States of America, conduct consumer confidence surveys to aid policymakers in assessing economic outlook, predict market trends, and guide policy decisions by analyzing consumer expectations [11]. Similar to the Philippines, socio-economic confidence of Filipino consumers is measured through the CES administered by the Bangko Sentral ng Pilipinas, the country's central bank [11, 13].

Previous studies consistently link consumer confidence to the broader economic condition. High confidence typically aligns with economic growth, low unemployment rate, and stable commodity prices [24]. Moreover, the financial situation of families contributes to how individuals feel about their well-being, specifically in terms of employment status, income sources, financial obligations [25], and the ability to manage unexpected expenses [15]. Family income, both current and expected, influences confidence and spending behaviors [1], whereas expectations about wealth accumulation can improve or worsen consumer sentiments.

Drawing from the existing research, the initial observations on confidence indices in the Philippines, as disaggregated by income groups, are presented in Figure 1. High-income households consistently reported the highest sentiments across all indices, indicating a sustained higher level of optimism or lower level of pessimism compared to middle- and low-income households. Conversely, the low-income group consistently registered the lowest confidence indices. The middle-income group is positioned between the two extremes, maintaining a relatively stable gap with both the high- and low-income brackets. The differences in confidence levels based on income brackets are a compelling observation, highlighting that "consumer confidence" is not a unitary construct but rather consists of diverse views, as influenced by an individual's current family and economic condition.

High-income households may possess greater financial comfort and resilience against economic disruptions, leading to a more favorable outlook on their family and economic condition [27]. The consistently higher Family financial Situation and Family Income indices for this group strongly support this interpretation. In contrast, low-income households often experience financial uncertainties and have limited opportunities to improve well-being [12, 16], which plausibly drives their consistently lower confidence levels across all indices.

Expanding upon the initial observations, the perceptions of income groups exhibit noticeable direction throughout the covered periods. Although they have differing levels of perceptions, they seem to share similar and indicative factors influencing both personal financial circumstances and economic situation. For instance, employment and income were collectively viewed to contribute in their optimism and pessimism. Positive expectations regarding job creation and higher income generations drove optimism, as observed for years 2015 to 2017 [2, 3, 4, 19, 28]. Meanwhile, concerns about high unemployment rate and declining income were observed to weaken consumer sentiments especially during 2020 to 2022 when the COVID-19 pandemic continued to negatively affect the economy [7, 8, 9, 21].



Figure 1: Consumer Confidence Indices in the Philippines

Likewise, prices and household expenses affect the confidence of consumers, regardless of income groups. An increase in commodity prices became a common reason for pessimism in 2021 to 2023. The increase in household expenses relatively became the resulting effect, further resulting to unfavorable views [8, 9, 10, 23]. In addition, significant events concerning the government influence consumer sentiments across several years. In 2016, confidence had improved due to effective government policies, a new administration, less corruption, anti-drug campaign, and improved government services [3]. However, by 2023, the perceived effectiveness of government policies specifically regarding inflation management, public transportation, and financial assistance, became a reason for weaker confidence [10, 26]. External and out of control shocks impacted consumer confidence. Unfavorable weather condition caused by typhoons were a reason for weakened outlook in 2018 and 2022. The COVID-19 pandemic, which led to community restrictions, also influenced confidence in 2021 [5, 6, 7, 8, 9].

Combining the initial observations, it is reasonable to deduce that the divergences, yet similar perception trends across income groups, likely reflect the real-world socio-economic conditions. These initial observations facilitate an initial inquiry and allow for further

exploration of the relationships between the three confidence components, and the differences among perceptions of income groups. Moreover, the initial observations facilitate the need to confirm whether they exhibit statistical significance and to determine their consistency, ensuring they are not mere chance occurrences.

- *H1: Significant relationships exist between consumer confidence on economic condition (H1a), family financial situation (H1b), and family income (H1c).*
- *H2: Significant differences exist among consumer confidence levels of low-income (H2a), middle-income (H2b), and high-income (H2c) households.*

METHODS

This study employed a quantitative research approach using the results of the CES, covering years 2015 to 2024. They are publicly available from the BSP's official website, and no personal and confidential data were accessed. The CES is a quarterly survey of about 5,000 randomly selected households nationwide. It adopts the sampling design of the Labor Force Survey of the Philippine Statistics Authority (PSA), where samples were drawn from the PSA Master Sample for household surveys, which is considered a representative sample of households nationwide. The respondent households were selected using a stratified multi-stage probability sampling scheme [11, 13].

The survey covers the three confidence indices, namely (1) Economic Condition, measured based on the perception of respondents of the economy, (2) Family Financial Situation, measured based on the respondents' level of household income, savings, debts, investments, and assets, and (3) Family Income, measured based on the respondents' primary income and receipts from other sources received by all family members. A positive index indicates the households' favorable views and a negative index indicates the opposite [11]. This study utilized the resulting data of these indices to determine their relationships using Pearson product-moment correlation analyses.

Moreover, the survey categorized the respondents based on monthly family income levels, which were estimated using the income of the respondent, spouse, and other family members in a household. Low-income group represents the households with monthly family income of less than 10,000 pesos, middle-income group represents those between 10,000 and 29,999 pesos, and high-income group represents those more than 30,000 pesos [11]. From the covered periods, mean distribution of respondents for low-income was 1,918 (35.10%), middle-income was 2,200 (40.25%), and high-income was 1,347 (24.65%), totaling an average of 5,464 respondents with 97.17 percent response rate. The study utilized their resulting responses to identify existing income-specific perception differences using one-way analyses of variance (ANOVA).

Relationships between Consumer Confidence Indices

As presented in Table 1, the strength and direction of the linear relationships between consumer confidence indices were examined by performing Pearson correlation analyses. The mean confidence indices for Economic Condition ($M = -13.136$, $SD = 20.325$), Family Financial Situation ($M = -11.392$, $SD = 13.021$) and Family Income ($M = -4.379$, $SD = 12.261$) were all negative, indicating that the more respondents held unfavorable views than favorable.

Table 1: Descriptive Statistics and Correlation for Consumer Confidence Indices

Confidence Index	<i>M</i>	<i>SD</i>	1	2	3
Economic Condition	-13.136	20.325	-		
Family Financial Situation	-11.392	13.021	.749***	-	
Family Income	-4.379	12.261	.657***	.963***	-

*** $p < .001$

Meanwhile, all correlational relationships were strongly positive and highly statistically significant, implying that consumer sentiments are not independent but rather are closely related. The observed correlation between Economic Condition and both Family Financial Situation, $r(37) = .749$, $p < .001$, and Family Income $r(37) = .657$, $p < .001$, indicates that consumers' views on the broader national economy are substantially linked to how they feel about their family's circumstances and income. This implies that macroeconomic perceptions are largely influenced by individual financial realities. When people perceive the national economy is thriving, they tend to be more optimistic about their finances and income; while personal financial struggles can distort their view of the economic condition. Additionally, the observed correlation between Family Financial Situation and Family Income, $r(37) = .963$, $p < .001$, shows that for most consumers, their perception of their overall financial situation is mainly driven by their income level, stressing the importance of earning funds in shaping a household's sense of financial well-being.

Differences among Consumer Confidence of Income Groups

Following the results of correlation analyses, the differences in consumer confidence indices across income groups were investigated by conducting one-way ANOVA, as presented in Table 2. Prior to that, a Shapiro-Wilk test was undertaken, whereas indices for economic condition, $W(117) = .990$, $p = .509$, family financial situation, $W(117) = .982$, $p = .123$, and family income, $W(117) = .979$, $p = .058$, confirmed the assumption of normality. Moreover, independence of observations was established given the adaptation of data from a reputable source. When results showed statistically significant differences, a post-hoc test using Tukey's Honestly Significant Difference (HSD) was then conducted to determine which specific groups caused the resulting differences. The conduct of ANOVA revealed the following results:

Table 2: One-Way Analyses of Variance in Consumer Confidence Indices by Income Group

Confidence Index	Low-Income		Middle-Income		High-Income		<i>F</i> (2,114)	η^2
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Economic Condition	-18.241	20.653	-12.638	22.577	-8.159	24.098	1.968	.033
Family Financial Situation	-25.849	11.272	-5.069	16.751	12.913	20.100	54.237***	.490
Family Income	-15.221	10.117	.436	15.312	13.815	18.650	36.092***	.388
Overall Confidence	-19.777	13.347	-5.751	17.568	6.187	20.027	22.257***	.281

*** $p < .001$

Economic Condition. For all income groups, the mean confidence indices were negative, indicating that the percentage of households with unfavorable views on the general economic condition of the country is relatively higher. Notably, higher income groups tend to have less negative mean confidence indices. High-income households ($M = -18.241$, $SD = 20.653$) have

the least unfavorable views, followed by middle-income ($M = -12.638$, $SD = 22.577$), and then low-income households ($M = -8.159$, $SD = 24.098$), which express the most pessimism about the country's economic condition.

Moreover, the observed differences in confidence indices across income groups were not statistically significant with a very small effect size, $F(2, 114) = 1.968$, $p = .144$, $\eta^2 = .033$. This means that despite the observed differences in the mean confidence indices, they are not large enough to conclude varied perceptions.

Family Financial Situation. The mean confidence indices across income groups revealed noticeable differences. Low-income households have the highest level of unfavorable views ($M = -25.849$, $SD = 11.272$), middle-income were slightly unfavorable ($M = -5.069$, $SD = 16.751$), while high-income have a greater percentage of households with favorable views ($M = 12.913$, $SD = 20.100$) regarding their family's financial situation.

The observed differences were highly statistically significant with large effect size, $F(2, 114) = 54.237$, $p < .001$, $\eta^2 = .490$, indicating that perceived family financial situation, as characterized by the levels of household income, savings, outstanding debts, investments, and assets, hugely vary per income group. The Tukey HSD determined that perception of low-income group is significantly different with middle-income ($Q = 7.889$, $p < .001$) and high-income ($Q = 7.889$, $p < .001$), and middle-income group is significantly different high-income ($Q = 6.827$, $p < .001$).

Family Income. All income groups showed divergence as to how they perceive fund inflows from various sources, like salary, transfers, and pensions, among others. Consistently, low-income households showed unfavorable views ($M = -15.221$, $SD = 10.117$) on their family income, while middle-income has slightly obtained positive perceptions ($M = .436$, $SD = 15.312$), and high-income had similar favorable views ($M = 13.815$, $SD = 18.650$) in terms of wealth accumulation. Similar with Family Financial Situation, the observed differences were highly statistically significant with large effect size $F(2, 114) = 36.092$, $p < .001$, $\eta^2 = .388$. This evidently show that the average perception of family income is significantly different across the income groups. Using Tukey's HSD, the observed significant differences exist between low-income and both middle-income ($Q = 6.472$, $p < .001$) and high-income ($Q=12.003$, $p < .001$), and between middle-income and high-income ($Q=5.531$, $p < .001$).

Overall Confidence. The composite index reflects the differences observed from the three confidence indices. The mean indices for low-income ($M = -19.777$, $SD = 13.347$) and middle-income groups ($M = -5.751$, $SD = 17.568$) were pessimistic, and high-income group ($M = 6.187$, $SD = 20.027$) was optimistic. Also, it can be observed that variability in overall confidence increases with income.

In terms of differences among the income groups, the analysis of variance was observed to be highly statistically significant with large effect size, $F(2, 114) = 22.257$, $p < .001$, $\eta^2 = .281$. The Tukey HSD identified that the resulting differences exist across all income groups, whereas low-income households were significantly different with middle-income ($Q = 5.092$, $p = .001$) and high-income ($Q = 9.425$, $p < .001$), and middle-income households with high-income ($Q = 4.334$, $p = .007$).

CONCLUSIONS

The mean consumer confidence indices indicated a tendency toward more favorable views alongside increasing level of variability as income levels rise. Furthermore, the observed strongly positive and highly statistically significant correlational relationships between consumer confidence indices, validated their coherence and imply effective measurement of overall consumer sentiments. The strong co-movement indicates that shifts in consumer confidence tend to occur in a consistent direction, reinforcing the reliability of using these indices to understand the general mood and expectations of consumers regarding family and economic condition. In addition, highly statistically significant perception differences were observed to exist across income groups, particularly for Family Financial Situation and Family Income. It can be concluded that socioeconomic status influence subjective understanding of an individual's financial well-being. Also, financial situation and income were not perceived uniformly as different income brackets hold fundamentally different perspectives on stability, security, and opportunity related to their finances. In contrast, observed perception differences for Economic Condition was not statistically significant, suggesting that income levels have less bearing on how individuals view the overall economic climate.

IMPLICATIONS

The findings of this study have important implications for policymakers and future research. For policymakers, the observed highly significant differences in how income groups perceive their family's financial situation and income underscore the need for targeted and socio-economically driven policies. They should consider perception disparities when designing programs aimed at stimulating the economy and providing social support. Policies focused on improving income levels and financial stability, particularly for low- and middle-income households, could be more effective in boosting consumer confidence. Understanding the specific concerns related to family financial circumstances, such as employment, income sufficiency, and household spending, is imperative for developing effective interventions.

For future research, the study confirms the significant relationships between consumer confidence indices, reinforcing their coherence and validity as measures of consumer sentiment. It also provides empirical evidence for the considerable impact of income level on perceptions of family financial situation and income. Future research could delve deeper into the specific factors within each income group that drive these perceptions. Additionally, exploring the causal relationships between changes in financial situation and income, which relatively changes consumer confidence, using longitudinal approach could provide further insights. The non-significant difference in the perception of the economic condition across income groups warrants further investigation to identify the reasons why income level had less influence. Comparing these findings with other countries having different socio-economic structures could also provide valuable comparative insights.

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