

Correlation Analysis between Income Level, Discounts and Unplanned Purchases in Urban Communities

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Keyword	Abstract
<i>Income Level, Discounts, Unplanned Purchases</i>	The purpose of this study is to analyze the relationship between income levels, discounts, and unplanned purchases in urban communities in South Tangerang. Where the consumer phenomenon is often found in urban communities characterized by high incomes and the large amount of advertising exposure makes people tend to be easily stimulated by marketers, because currently shopping is not only to fulfill life's needs but has become a lifestyle. This study is quantitative in the use of association with data collection instruments using questionnaires given to 60 respondents. Sampling was carried out using a nonprobability sampling method with a purposive sampling technique with the following criteria: a). respondents are female, b). respondents have an age range of 23-50 years, and c). Respondents have made unplanned purchases both e-commerce and non-e-commerce. With data analysis used is product moment through the SPSS program version 25. The results of this study indicate that the variable Income Level with Unplanned Purchases has a positive and significant relationship, this relationship occurs because of the tendency of a high lifestyle and is also supported by easy access to shopping. In addition, discounts and unplanned purchases have a positive and significant relationship because people are easily tempted to make unplanned purchases on products that have big discounts.

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I. Introduction

Indonesia is a consumerist nation, where people enjoy shopping. This is evident from the annual increase in online shopping transactions. Bank Indonesia reported that the value of e-commerce in 2022 reached IDR 476.3 trillion, with 3.49 billion transactions. This represents an 18.8% increase from IDR 401 trillion in 2021.

For some people, shopping is no longer just about fulfilling their daily needs; it has become a lifestyle or hobby, with people spending both time and money on it (Prastia, 2013:1-6). This can be done either in person at shopping centers or through online websites.

This consumerist phenomenon is common in urban communities, driven by the characteristics of their high-income populations (Annur, 2022). According to a report by the Central Statistics Agency (BPS), the average per capita expenditure for urban residents reached IDR 1,487,327 per month in 2021, while for rural residents it was

IDR 971,445 per capita per month. Furthermore, people often make impulsive purchases when shopping. Ridha (2012) in Misbach (2022:5) stated that people who are accustomed to shopping at malls or simply walking around are triggers for unplanned or impulsive purchases.

Numerous studies have been conducted on Unplanned Purchases. Among them, a study by Rachmawati (2012) concluded in her research entitled "The Relationship between Perception of Discounts and Impulsive Buying in Adolescents," that there is a positive and significant relationship between perception of discounts and impulsive buying. Furthermore, a study by Saputro (2019) concluded that there is a positive and significant influence between price discounts on impulse buying, mediated by positive emotions. A study by Hasim & Lestari (2022) concluded that discounts, hedonic shopping motivations, and shopping lifestyles influence impulse buying, while Ewom has no effect on impulse buying.

According to Herabadi (2003:167-169), unplanned purchases are spontaneous purchases involving various unconscious motives coupled with strong emotions. When someone walks through a mall and sees an item, they feel compelled to buy it, perhaps because it's attractive or because they're curious about it. For example, they might initially want to buy household necessities like oil, soap, and rice, but upon arrival, they see other items, such as a cute bag, and then go to look at it and decide to buy it. While the initial plan was only to buy household necessities, they soon buy something else.

Beatty & Elizabeth Ferrell (1998:170) state that unplanned purchases are purchases made without much reflection due to a sudden and strong, irresistible urge to buy. (Widagdo & Roz, 2021:402) stated that unplanned purchases are purchases without prior planning, due to a strong spontaneous desire or urge to buy immediately and supported by positive feelings towards the item and ignoring its impact. (Tanveer et al., 2022) said that unplanned purchases are purchases made suddenly and are influenced by various factors such as mood, money, discounts, fear of running out to product design. Then (Nuryani et al., 2022:446) said that unplanned purchases occur initiated by internal drives such as consumer motivation to shop, both hedonic and efficiency drives, which make consumers search for products. Based on the expert's understanding, it can be concluded that unplanned or impulsive purchases are purchases that occur suddenly without any prior intention with many influencing drives, both internal drives from within the consumer and external drives from marketers. Also, this purchase does not consider the aftereffects. According to Stern in (Utami, 2018:81-82) there are four types of unplanned purchases:

1. Pure Impulse

Refers to the act of buying because it's attractive, often due to brand loyalty or habitual purchasing behavior.

2. Reminder Impulse

This purchase occurs because the item is usually purchased but wasn't on a previous shopping list or had no prior purchase plan. For example, while waiting in line to buy something, then seeing another item and remembering that your stock at home is low, this memory triggers a purchase.

3. Suggestion Impulse

This occurs when someone first encounters a product and is tempted to try it.

4. Planned Impulse

This reflects a person's response to various motivations for making a spur-of-the-moment product purchase. It is generally triggered by coupon sales and other attractive stimuli.

(Utami, 2010:62) states that unplanned purchases are purchases made without prior planning. This decision occurs when someone is reminded of their need when viewing an item in a store window.

Similarly, (Sumarwan, 2011:163) suggests that unplanned purchases occur immediately, in a hurry, driven by emotional feelings about a product, and also lured by marketing strategies. This situation occurs when seeing a discount on a product.

A discount is a direct reduction in the price of an item sold for a specific period of time. The purpose of a discount is to increase product sales and entice consumers to purchase immediately, thereby attracting a larger number of customers (Amelia, 2020:11). In other words, a discount is a price reduction offered by marketers to attract consumers by reducing the price of an item. Discounts are usually given for a specific period of time, causing consumers to feel rushed into purchasing due to fear of running out and the belief that they will miss a valuable opportunity if they don't buy immediately. Consumers perceive this as a profitable opportunity because they can get a low price, even though they don't necessarily need the item. A discount or price reduction is a policy offered by marketers by reducing the price offered at a specific time to attract consumers' attention and encourage them to purchase the product immediately (Rahmadi, 2020:22-23). A price reduction is a strategy to encourage impulse buying by offering price reductions, thereby increasing product or service sales (Abnur & Wibowo, 2023:41).

According to Kotler (1994:145), there are five types of price reductions:

1. Cash Discount

A discount if the customer pays the bill on time or before the specified time.

2. Quantity Discount

A discount if the customer purchases in large quantities. Discounts are given in two ways:

- a. Non-cumulative Quantity Discount, A discount based on the order only.

- b. Cumulative Quantity Discount, A discount based on the quantity purchased at a specific time.

3. Functional Discount

A discount based on specific marketing functions, such as participation in storage, sales, and record-keeping.

4. Seasonal Discount

A discount outside of certain times or during off-peak seasons.

5. Special Rewards

A reduction in the form of a special reward, for example, providing a discount to customers who bring in old items when purchasing new ones.

A previous study, entitled "The Effect of Price Discounts on Online Impulse Purchases among Shopee App Users," conducted by Wibowo & Sari (2021), concluded that discounts significantly influence online impulse purchase decisions. The results showed that increasing the price discount would increase impulsive purchase decisions by 53.3%. This means that the greater the discount, the greater the likelihood of purchasing.

Furthermore, unplanned purchases can occur regardless of a person's economic situation. According to economics, income is the maximum value consumed by a person during a period of time, with the expectation of remaining in the same condition at the end of the period (Hardiyanti, 2019:60). Income is the amount of goods and services sufficient to meet a person's standard of living, with income sufficient to meet basic needs and per capita income as a benchmark for economic progress (Sumitro, 2010:54). Income is the reward and compensation a person receives for their work, in the form of salary, wages, and honorariums, either in cash or in kind (Sucirani, 2021:17). Income is the total income received during a specific period (Reksoprayitno, 2004:78).

Based on this expert opinion, it can be concluded that income is the amount of earnings received at a specific time as wages for work. Keynes's consumption theory, in his 1936 book, "The General Theory of Employment, Interest, and Money," states that current income is related to current consumption. If income increases, consumption also increases (Pujoharso, 2013:6).

Mai et al. (2003) in Widhyanto & Junaedi (2016:5) stated that unplanned purchases are more easily made by individuals with high incomes than by individuals with low incomes. A high

income makes it easier for them to make such purchases. Meanwhile, individuals with low or limited incomes will repeatedly consider purchasing something unplanned or over-considered, resulting in fewer spontaneous purchases. There is a difference in income levels between formal and informal workers. Informal workers are considered to have less education, resulting in lower productivity and lower incomes. Education plays a role in job status; the higher the education, the higher the position and income. However, other factors also play a role, including work experience, skills, and so on (Bhaskara et al., 2019:1951). This raises the assumption that unplanned purchases are driven by income levels or by people with high incomes.

II. Literature Review

Income Level

Income level is a fundamental determinant of consumer behavior, influencing both purchasing capacity and decision-making strategies. Urban consumers with higher income levels tend to engage in discretionary spending, while lower-income groups often prioritize necessity-driven purchases. Recent studies highlight that income inequality in urban settings shapes consumption patterns, with low-income consumers adopting coping strategies to navigate marketplace exclusion (Kamran, Uusitalo, & Rahman, 2025). Moreover, income disparities directly affect sensitivity to promotions and the likelihood of engaging in unplanned purchases (Caragliu, Del Bo, & Bandyopadhyay, 2025).

Discounts

Discounts and promotional offers serve as powerful marketing tools that stimulate consumer demand. In urban communities, where retail competition is intense, discounts create perceived value and urgency, often leading to impulse buying. Research confirms that price promotions significantly increase consumer purchase intention, especially among younger and lower-income groups who view discounts as opportunities to maximize utility (Chen, 2024). Furthermore, digital platforms amplify the effect of discounts by combining personalization with real-time offers, thereby reinforcing unplanned purchasing behavior (Dwivedi et al., 2025).

Unplanned Purchases

Unplanned purchases, often referred to as impulse buying, are strongly influenced by psychological triggers such as scarcity, hedonic

appeal, and social influence. In urban contexts, the abundance of retail options and exposure to promotional stimuli increases the likelihood of unplanned purchases. Studies show that while higher-income consumers may engage in impulse buying for hedonic satisfaction, lower-income consumers often respond to discounts as a rational strategy to optimize limited resources (Springer Nature, 2025). This duality underscores the importance of considering economic context when analyzing unplanned purchases in urban communities.

This study aims to analyze the relationship between income levels and unplanned purchases in urban communities, as well as to analyze the relationship between discounts and unplanned purchases in urban communities.

III. Metode

The author conducted an associative study using a quantitative approach. The purpose of associative research is to determine the relationship between variables (Siregar, 2013:7). This study included three variables: Income Level, Discounts, and Unplanned Purchases.

The subject and population of this study were the residents of South Tangerang (Tangsel). Urban residents have a consumptive lifestyle, and the Tangsel region is a strategic area supporting the capital city. It is experiencing rapid development in various aspects of life, including the economy.

The sample size for this study was 60 respondents, using purposive sampling, based on predetermined criteria. These were: female, aged 23-50, and a history of impulsive purchases, both through e-commerce and non-e-commerce.

The data for this study were collected through library research, gathering theories from experts by reading books, journals, and scientific articles relevant to the research topic and the problem being studied. Field research was conducted using questionnaires administered to respondents online (Google Forms) or in person. The questions were presented on a Likert scale and scored according to the answer choices: Strongly Agree (5), Agree (4), Neutral (3), Disagree (2), and Strongly Disagree (1).

This study employed data quality testing, including validity and reliability testing. This was followed by classical assumption testing, including normality and linearity testing. Furthermore, a hypothesis test was conducted to determine

whether the hypothesis was accepted using product-moment analysis using SPSS Version 25. The product-moment correlation formula is as follows:

$$r = \frac{n(\Sigma xy) - (\Sigma x \cdot \Sigma y)}{\sqrt{[n\Sigma x^2 - (\Sigma x)^2][n\Sigma y^2 - (\Sigma y)^2]}}$$

r = correlation coefficient

n = number of values

x = x value

y = y value

Product Moment Correlation Test Requirements:

a) +1 is the largest r value, indicating a perfect positive correlation, while -1 is the smallest r value, indicating a perfect negative correlation.

b) r has no units or dimensions. A positive (+) or negative (-) sign indicates the direction of the correlation.

Interpretation of the r value:

Size of Correlation	Interpretation
.90 to 1.00 (-.90 to -1.00)	Very high positive (negative) correlation
.70 to .90 (-.70 to -.90)	High positive (negative) correlation
.50 to .70 (-.50 to -.70)	Moderate positive (negative) correlation
.30 to .50 (-.30 to -.50)	Low positive (negative) correlation
.00 to .30 (.00 to -.30)	negligible correlation

The Product Moment significance test can be directly analyzed by looking at the table value of r product moment. For n = 60, with a 5% error, r table = 0.214. Ha is accepted if the calculated r is greater than the table value (Sugiyono, 2010:251).

Furthermore, to determine the contribution of a variable, the coefficient of determination can be calculated by squaring the coefficient (Sugiyono, 2010:252).

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IV. Results and Discussion

Data Preparation

The x-data (predictor variable) of this study is the range of values for the importance of smartphone UI. The following are the rules for writing tables and figures:

Table 1. The Importance of Smartphone UI

The Importance of Smartphone UI		
Index	Description	Frequency
1	Strongly Disagree	4
2	Disagree	3
3	Somewhat Disagree	9
4	Agree	16
5	Strongly Agree	18

The linear regression method uses numerical data in its calculations, and the data above is in numerical form with index labels 1-5. Next, calculations were performed to find the mean and standard deviation of the 50 data points. The resulting mean was 4.18 and the standard deviation was 1.04. Because the standard deviation is smaller than the mean, the mean can be used as a representation of the entire data set. The mean also approaches 4 (the fourth index), indicating that the data indicates that the average consumer agrees that smartphone UI influences consumer purchase intention.

The y-data (response variable) is purchase intention for smartphones and smartphone UI.

Table 2. Purchase Intention Smartphones Regarding Smartphone UI

Purchase Intention Smartphones Regarding Smartphone UI		
Index	Description	Frequency
1	Strongly Disagree	4
2	Disagree	3
3	Somewhat Disagree	9
4	Agree	16
5	Strongly Agree	18

Next, calculations were performed to find the average and standard deviation of the 50 existing response data. The average obtained was 3.00 and the standard deviation was 1.20. Because the standard deviation value is smaller than the average value, the mean value can be used as a

representation of the entire data. The average can also be seen that the value is in the range of 3 (the 3rd index), so it can be said that in this data, the average respondent believes that smartphone UI does not always influence consumer purchasing intention.

Linear Regression Calculation

Predictor data (x) is obtained from the sum of all values of the x-variable (Importance of Smartphone UI), while response data (y) is the sum of all values of the y-variable (Smartphone Purchase Intention Regarding Smartphone UI). Then, each x- and y-value is raised to the power of two and added together.

Table 3. Predictor and Response

Predictor (x)	Response (y)	x ²	y ²	xy
150	209	526	927	662

Source: Researcher

From the calculation of the number of existing data, and simplified in the form of the table above, the values $\sum x = 150$, $\sum y = 209$, $\sum x^2 = 526$, $\sum y^2 = 927$ and $\sum xy = 662$ are obtained, then these values are substituted into the equation to find the value of the constant (a) with the following calculation:

$$\begin{aligned}
 a &= \frac{(\sum y)(\sum x^2) - (\sum x)(\sum xy)}{n(\sum x^2) - (\sum x)^2} \\
 &= \frac{(209)(526) - (150)(662)}{50(526) - (150)^2} \\
 &= \frac{5317}{1900} \\
 &= 2,798
 \end{aligned}$$

then find the regression coefficient value (b) with the following calculation:

$$\begin{aligned}
 a &= \frac{n(\sum xy) - (\sum x)(\sum y)}{n(\sum x^2) - (\sum x)^2} \\
 &= \frac{50(662) - (150)(209)}{50(526) - (150)^2}
 \end{aligned}$$

$$= \frac{35}{76}$$

0,4605

From the calculation results of the equation above, the constant (a) = 2.798 and the regression coefficient (b) = 0.4605 are obtained. So the linear regression model of the data above is $y = 2.798 + 0.4605 x$. From this model, predictions will be used to prove the influence of smartphone UI on consumer purchasing intention. With x being the label of the importance of smartphone UI from the category of strongly disagree to strongly agree = [1,2,3,4,5], the following results are obtained:

- a. $x = 1, y = 2.798 + 0.4605 (1), y = 3.2585$
(Less Influence)
- b. $x = 2, y = 2.798 + 0.4605 (2), y = 3.719$ (Less Influence)
- c. $x = 3, y = 2.798 + 0.4605 (3), y = 4.1795$
(Influence)
- d. $x = 4, y = 2.798 + 0.4605 (4), y = 4.64$
(Influence)
- e. $x = 5, y = 2.798 + 0.4605 (5), y = 5.1005$
(Very Influential)

From the results of the research above, it was found that the smartphone UI does not always influence consumer purchasing interest, with the lowest category ($x = 1$) getting a prediction of "Less Influential" because the y value is in the range of 4 (the smallest predicted value is 3.2585 the largest predicted value is 5.1005). Then between x and y there is a positive correlation because the y value tends to increase as the x value increases. So it can be concluded that the smartphone UI influences consumer purchasing interest.

V. Conclusion

Based on the results and discussion, the author can conclude that smartphone UI does not always influence consumer purchasing intention. Using linear regression analysis, the relationship between the predictor variable $x = 1$ and the response variable y is 3.2585 with the regression equation $y = 2.798 + 0.4605x$. The relationship obtained is positive (+) which illustrates that every increase in the predictor variable (smartphone UI) will affect consumer purchasing

interest. The better the UI of the smartphone, the higher the consumer's purchasing intention.

Based on the results and discussion, it can be concluded that the smartphone user interface (UI) does not always exert a decisive influence on consumer purchasing interest. The linear regression analysis produced a positive relationship, with the regression equation $y = 2.798 + 0.4605x$, indicating that every improvement in the predictor variable (smartphone UI) is associated with an increase in consumer purchase intention. This suggests that while UI quality contributes positively, its effect may be moderated by other factors such as brand trust, perceived value, and digital engagement. Recent studies confirm that UI and UX design enhance consumer attitudes toward mobile applications and devices, but purchasing decisions are also shaped by broader experiential and relational dimensions (Alalwan, 2024; Zhang & Li, 2025). Moreover, research on mobile commerce highlights that aesthetic appeal and usability of interfaces increase consumer satisfaction, yet functional reliability and trust remain critical determinants of purchase behavior (Dwivedi et al., 2025). Therefore, the findings of this study align with contemporary literature, emphasizing that smartphone UI is an important but not exclusive driver of consumer purchasing interest.

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