

Factors Affecting Online Purchase Behavior of Generation Z and Millennials

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ABSTRACT

This study investigates the variables affecting Malaysian Generation Z and Millennials' online buying habits. Using a theoretical framework, the study looks at important factors such brand orientation, quality orientation, online trust, impulse purchase orientation, and online purchasing experience. Convenience sampling was used to choose a sample from the target demographic as part of a survey-based approach. Multiple linear regression and descriptive statistics were used to analyse the data, guaranteeing adherence to important statistical presumptions including residual normality, independence, and linearity. The findings show that all five characteristics have a considerable impact on online purchasing behaviour, with trust and online purchase experience having the biggest effects. The results highlight how crucial it is to modify e-commerce tactics to suit the tastes of these technologically advanced generations. Businesses may maintain competitiveness in the quickly changing digital marketplace by addressing these aspects and improving customer engagement, loyalty, and satisfaction.

Keywords: Online Purchase Behavior, Generation Z, Millennials, Multiple Linear Regression

INTRODUCTION

In determining the primary factors that influence purchasing behavior based on several variables such as impulse purchase orientation, quality orientation, brand orientation, online trust, and online purchase experience, it is essential to study consumer behavior in-depth. Many brands are looking for breakthroughs on e-commerce platforms. The rise of e-commerce platforms has made the study of consumer behavior more specific, and the role of consumer behavior in promoting the marketing systems of e-commerce platforms has become more comprehensive (Zhang et al., 2022).

There are previous studies that state that e-commerce platforms positively impact the purchasing behavior of consumers. For example, Hoo et al. (2024) highlights the significant influence of these platforms on consumer decision-making. To reach a broader audience, e-commerce platforms integrate marketing strategies that involve aspects such as product offerings, pricing, advertisements, and promotions (Yuan, 2022). The more user-friendly and convenient the platform, the more likely it is to attract users. If consumers perceive advantages in using an e-shopping platform, they are more inclined to shop online (Deloitte, 2023).

Background of Study

Online purchase refers to the act of purchasing goods or services via the internet. Nowadays, almost everything can be bought online, allowing consumers to compare prices and quality of goods between online and offline products. The ability to compare product quality is a significant aspect of customer purchasing behavior. With the advancement of technology and the internet, particularly influenced by the Covid-19 pandemic, online purchasing has rapidly become a popular and trusted shopping channel globally (Li et al., 2024).

The research aims to tackle the issue of inadequate comprehension of the primary determinants that impact the online buying behavior of Generation Z and Millennial consumers. Born between 1981 and 1996 (Millennials) and 1997 and 2012 (Gen Z), these two generations will comprise more than 70 percent of Malaysia's workforce by 2025, constituting a sizable and rapidly expanding segment of the digital marketplace (Deloitte, 2023).

Previous studies have examined various factors, including product attributes, perceived risk, social influence, digital savviness, and social influence, which affect the online buying behavior of Gen Z and Millennials (Chusminah et al., 2020; Mesatania, 2022). For example, Chusminah et al. (2020) found that Millennials in Indonesia making online purchases are influenced by key factors such as convenience, product availability, promotions, refunds, customer attitude, demographics, and online business reputation. Similarly, Mesatania (2022) identified that important variables affecting Gen Z customers' online purchasing behavior on the e-commerce platform Shopee include product quality, customer understanding of the product, product pricing, and store reputation. If this issue remains unresolved, there could be serious repercussions. Businesses failing to cater to the unique online buying preferences of Gen Z and Millennials risk losing market share and revenue as these groups become increasingly dominant in the digital economy. According to McKinsey (2021), Millennials and Gen Z consumers account for over 40 percent of global e-commerce expenditure, underscoring the importance of understanding their purchasing patterns. Without a comprehensive grasp of the factors influencing their online purchases, businesses may struggle to engage, market to, and retain these younger generations, resulting in reduced client loyalty, declining sales, and missed opportunities to capitalize on the growth potential of the Gen Z and Millennial consumer segments.

While online purchasing facilitates access to desired goods, it reduces direct interaction between sellers and buyers (Suherman, 2022). According to Wagatha and Chen (2023), Millennials are defined as individuals born between 1980 and 1997, while Generation Z comprises those born from 1998 to 2012. These two generations represent a substantial segment of online shoppers, often purchasing items such as food, clothing, cosmetics, and home appliances (Li et al., 2022).

Consumer behavior evolves over time, with preferences often influenced by age (Rosenlund & Berg, 2022). Generation Z, being tech-savvy, typically researches suppliers by reading customer reviews or visiting company websites prior to making purchases (Li et al., 2022). Younger Millennials engage in this behavior more frequently than their older counterparts (Boban Melović et al., 2021).

To identify the primary factors influencing purchasing behavior, this study examines several aspects including impulse purchase orientation, quality orientation, brand orientation, online trust, and online purchase experience. The rise of e-commerce platforms has made consumer behavior studies increasingly relevant as they play a crucial role in enhancing marketing strategies within these platforms (Yuan, 2022).

METHODOLOGY

The study employs a survey-based approach targeting Millennials and Generation Z respondents. Data were analysed using multiple linear regression to answer the objective of study.

Research Design

This study follows the theoretical framework established by Isa et al. (2020), which investigates the elements that influence online customer purchase behavior. By exploring these relationships, the framework aids in the identification of methods for improving customer satisfaction and increasing online sales. Theories within this framework can be empirically evaluated in future studies to validate and improve the proposed correlations.

The study employs a non-experimental correlation research approach to investigate the relationships between multiple independent factors and a single dependent variable. Two forms of data analysis are used: descriptive statistics, which analyses demographic frequency distributions, and inferential statistics, which assess the relationships between the variables specified in the research objectives.

Population and Sample

This study focusses on Malaysian Generation Z (years 19–26) and Millennials (ages 27–44), two important categories for understanding contemporary online consumer behavior. Generation Z, often known as digital natives, is intensely involved with technology and social media, which has a huge impact on online purchase patterns. Millennials, as early users of digital technology, play an important role in defining e-commerce trends.

This study uses convenience sampling, a non-probability strategy in which individuals are chosen based on their accessibility or availability (Babbie, 2020). This strategy is appropriate for exploratory research, which seeks to collect preliminary data and form hypotheses rather than make generalisable statements. It enables rapid data collecting, which can feed subsequent, more rigorous studies. Given the difficulties of reaching a diverse demographic in Malaysia, the technique was chosen for its applicability. Respondents, particularly those with free time and a willingness to participate, were chosen after learning about the study's aim and their role in it. The study first defined its population Generation Z and Millennials in Malaysia then selected participants based on their willingness to take part. A questionnaire was used to collect data on demographics, brand orientation, impulse purchase orientation, online trust, quality orientation, online experience orientation, and consumer purchase behavior, with clear objectives outlined to guide the research.

The sample size is calculated using Kline (1998) suggestion of at least ten times the number of survey items. With 33 items in the study, a sample size of 330 respondents is required for robust data analysis to investigate the relationships between independent variables (brand orientation, impulse purchase orientation, online trust, quality orientation, and online experience orientation) and the dependent variable (consumer purchase behavior). The sample size is sufficient enough to provide useful insights while staying controllable within the study's parameters. Statistical analysis will be utilised to analyse the findings and reach conclusions.

Data Collection Method

The study uses an optimal survey design, as described by Scheaffer et al. (2010), to ensure precise estimation with minimal cost. A questionnaire, created using Google Forms, was distributed through various online platforms like WhatsApp, Instagram, and Facebook. Online surveys are cost-effective because they eliminate expenses related to printing, shipping, and manual data entry. The questionnaire included sections on demographic information and specific factors influencing online purchasing behavior, such as impulse purchase orientation, brand orientation, online trust, quality orientation, and online purchase experience.

Research Instrument

This study uses a three-part questionnaire. Part A gathers information about respondents' online buying experiences, with those who lack such experience skipping the remainder of the survey. Part B collects demographic information, whereas Part C focusses on respondents' experiences with online shopping. Part C's independent variables impulse buy orientation, quality orientation, brand orientation, online trust, and online purchasing experience—were modified from (Isa et al., 2020). The dependent variable, online buying behavior, is measured with items from (Bashir et al., 2019). All items in Parts C and D are scored on a 5-point Likert scale, with respondents rating their agreement from 1 (strongly disagree) to 5 (strongly agree).

Pilot Study

This pilot investigation seeks to determine the important elements influencing online shopping behaviour among Generation Z and Millennials. It establishes the framework for a more in-depth study by investigating the factors influencing consumer decisions in these cohorts. According to Teresi et al. (2022), pilot studies determine the feasibility of research methods for larger studies.

Method of Analysis

Descriptive statistics give relevant data summaries and displays, such as tables, graphs, averages, ranges, and correlations (Singh et al., 2023). Part A of the poll asks respondents about their internet buying experience;

those who don't have any will skip the rest. Part B focusses on demographic data, using frequency distributions to analyse and categorise respondents by age group (Generation Z and Millennials). Part C considers impulse purchase orientation, brand orientation, quality orientation, online purchase experience, and online trust. Part D investigates respondents' purchasing behaviour. The frequency distribution is employed throughout these sections to determine the degree of agreement or disagreement with each assertion, providing insights into crucial results.

Multiple linear regression analysis is used to find significant influences on online purchasing behaviour. The regression equation is given below:

$$Y_i = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \varepsilon \quad (1)$$

where

Y_i is the customer purchase behavior

X_1 is the Impulse Purchase Orientation

X_2 is the Brand Orientation

X_3 is the Quality Orientation

X_4 is the Online Purchase Experience

X_5 is the Online Trust

β_i is the coefficient of each independent variable, $i = 1, 2, 3, 4, 5$

ε is the residual

RESULT AND DISCUSSION

The analysis provided sufficient evidence to conclude that all independent variables in the study was significant related to the online purchase behavior of Generation Z and Millennial.

Descriptive Statistics

The demographic analysis of respondents revealed a diverse sample, with a balanced representation across gender, age, education level, and occupation. A significant portion of participants reported frequent online shopping habits, indicating strong engagement with e-commerce platforms.

Multiple Linear Regression Analysis

The model's adequacy was confirmed through various diagnostic tests.

1. Linearity Assumption: According to a matrix scatter plot of linearity, it shows that an upward movement for each independent variables along the straight lines. The assumption was met.
2. Independence Of Error Term: The value of Durbin-Watson was evaluated where the Durbin-Watson value was 1.799 which around 2 indicates there is no autocorrelation.
3. Homoscedasticity: From a scatter plot of homoscedasticity shows that there is no measurable pattern indicates that the residual variance is constant.
4. Multicollinearity: The tolerance and variance inflation factor for each independent variable are more than 0.1 and less than 10 respectively conclude that no multicollinearity exists.
5. Normality Of Residuals: A bell-shaped histogram satisfied the assumption of normality of residuals. Supported by P-P plot of residuals where all the points lie approximately to the straight line. A Kolmogorov-Smirnov test statistics also support the assumptions since p-value of the test is more than 0.200. Thus, residuals are normally distributed.
6. Presence Of Outliers: A mahalanobis distance scatter plot shows that no outlier cases existed.

Model Evaluation

Coefficient of Determination: The R-squared value is 0.541 indicates that 54.1% of the variation in Online Purchase Behavior is explained by the independent variables (Impulse Purchase Orientation, Brand Orientation, Quality Orientation, Online Purchase Experience, and Online Trust). The remaining 45.9% is explained by other factors.

Significance of the Model: The p-value of the ANOVA F-test is <0.001, which is less than 0.05, indicating that the model is statistically significant. This suggests that the relationship between the independent and dependent variables is well-described by the model.

Table 1: Coefficient for each parameter with the significance value

Variable	Unstandardized Coefficients (β)	t	Sig.
Constant	0.440	2.759	0.006
Impulse Purchase Orientation	0.146	3.631	0.000
Brand Orientation	0.120	3.543	0.000
Quality Orientation	0.100	2.796	0.005
Online Purchase Experience	0.420	11.471	0.000
Online Trust	0.122	2.433	0.015

Significance of each parameter: From the t-test of statistics in Table 1, the regression model's coefficients reveals that all the independent variables are statistically significant, as their p-values are less than the significance level ($\alpha=0.05$). Thus, the estimated model is:

$$Y = 0.440 + 0.146X_1 + 0.120X_2 + 0.100X_3 + 0.420X_4 + 0.122X_5$$

where

Y is the customer purchase behavior

X_1 is the Impulse Purchase Orientation

X_2 is the Brand Orientation

X_3 is the Quality Orientation

X_4 is the Online Purchase Experience

X_5 is the Online Trust

DISCUSSIONS

The results align with previous studies: Impulse Purchase Orientation correlates with excessive shopping behavior (Nyrhinen et al., 2024) and online consumers exhibit impulse buying tendencies (Zhang et al., 2022). Brand Orientation was also found significant, supporting the idea that consumers prioritize brand principles in their purchase decisions (Isa et al., 2020). Quality Orientation, which affects purchasing decisions Isa et al. (2020), is further supported by Li et al. (2024), who emphasize the importance of quality in consumer choices.

The study confirmed that Online Purchase Experience influences future shopping behavior (Isa et al., 2020) while Online Trust is significant in guiding purchase decisions, as indicated by (Mofokeng, 2023).

Ultimately, the study highlights the key role of these factors in shaping online purchasing behavior and offers practical insights for online merchants. By focusing on trust, quality, brand orientation, and the overall online shopping experience, businesses can better attract and retain Generation Z and Millennial consumers in the competitive e-commerce market.

Limitations and Future Research Directions

While the study provides valuable insights into online purchasing behaviors, it acknowledges limitations such as a focus on a specific demographic within Malaysia. Future research could expand to include diverse cultural contexts and longitudinal studies to track changes in purchasing behavior over time. Additionally, exploring other factors such as social influence or environmental concerns may further enrich understanding of consumer behavior in the evolving e-commerce landscape.

CONCLUSIONS

The objective of this study is to determine the significant factors that relate to the online purchase behavior of Generation Z and Millennial. Based on the pilot study that has been conducted, all the variables are reliable to be test since the Cronbach's Alpha value are more than 0.6. This research determines the factors affecting online purchase behavior of Generation Z and Millennials using Multiple Linear Regression and the objective of the study was achieved with all necessary assumptions for the method being satisfied. The analysis provided sufficient evidence to conclude that all independent variables in the study were significant related to the online purchase behavior of Generation Z and Millennial. Consequently, the business sector should focus on these five independent variables to enhance their marketing games and sustainable in the market. By identifying the significant factors and fulfil the study's objective, some recommendation can be made for future researcher in this field of study.

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