# Perceptions of Young Adults in Online Shopping Behavior

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**Abstract**

This study delves into the perceptions of young adults regarding online shopping behavior, aiming to uncover key factors influencing their decisions and behaviors in the digital retail landscape. Through a quantitative approach utilizing surveys and statistical analysis, the research explores the nuances of young adults' attitudes and experiences in online shopping. One of the primary findings highlights the significant impact of trends in online shopping and factors influencing online shopping behavior on young adults' perceptions. The study reveals a strong positive correlation between these variables, indicating that evolving trends ($r = .816$, $p < 0.05$) and influential factors ($r = .921$, $p < 0.05$) play a crucial role in shaping how young adults perceive and engage in online shopping activities. Several limitations were acknowledged, as the study's focus on the Penang area limits the generalization of findings to other regions within Malaysia. To address these limitations and further validate the results, future research recommendations include expanding the sample size to encompass a more diverse range of internet users across Malaysia, utilizing qualitative research methods like interviews to gain deeper insights, and incorporating established models such as the Technology Acceptance Model (TAM) to better understand the behavioral influences in online shopping. Overall, this study contributes to the growing body of knowledge on young adults' perceptions of online shopping behavior, emphasizing the need for ongoing research and comprehensive approaches to capture the dynamic nature of digital consumer experiences.

## 1. Introduction

Sivanesan (2017) states that in today's digital era, people are heavily reliant on the internet, which has evolved from a platform for sharing knowledge to an indispensable aspect of daily life. The World Wide Web serves as a vital connection that encompasses various aspects such as commerce, social interaction, and shopping. With the shift in lifestyles from traditional to digital practices, online shopping has gained significant popularity. This activity, also referred to as purchasing and selling goods over the internet, involves buying items directly from sellers without intermediary involvement. Muda et al.'s (2016) suggested that online shopping has gained increased popularity in Malaysia, with a growing number of consumers utilizing this method. The Singapore Communications and Multimedia Commission (MCMC) aims to boost Malaysian online retail sales by 6.1%, amounting to RM22.6 billion. This projection indicates a continuous growth in internet usage, driven by advancements in broadband technology and rising disposable incomes. Moreover, statistics reveal that Generation Y represents 40% of Malaysia's population, making it the largest demographic group in the country and the segment with the highest internet usage.

Monsuwe et al's. (2004) observed a rise in the number of individuals engaging in online shopping, along with an increase in the amount of time spent online. Lennon et al's. (2008) noted that the convenience and time-saving advantages of online shopping have contributed to its growing popularity. The primary factors driving interest in online purchases are convenience, enjoyment, and speed, as identified by these researchers. Additionally, a study highlighted accessibility, affordability, and promotional offers as the key influencing factors for internet shopping. As per Kearney (2015), the internet has become an effective marketing medium, providing platforms for both domestic and international transactions. Retail e-commerce experienced significant growth, reaching close to US$840 billion in 2014, which exceeded the sales of US$695 billion in 2013. Malaysia fell out of the top 30 positions in the Global Retail E-Commerce ranking in 2015.

1.1 Problem Statement

Numerous studies also examine the trend of online shopping among young adults. For instance, Samsudin and Ahmad (2014) noted that the increasing popularity of online shopping among internet users in the past two decades can be attributed to its convenience, advantages, and reduced hassle compared to conventional physical

interactions. Additionally, Kuester (2012) emphasized the importance of studying consumer behavior in light of technology becoming more pervasive and businesses shifting towards online transactions. In the age of information technology, the internet has provided a new avenue for global users to engage in online buying and selling without the need for physical presence. Customers can easily make purchases from their homes with a few clicks, avoiding the need to visit physical stores. Moreover, internet shopping offers a wide range of options, allowing users to compare costs and features to find products that best suit their needs.

Moreover, numerous prior research studies have highlighted the significant influence of consumer behavior and perception on online purchasing platforms. Consequently, these studies have focused on understanding the primary shopping habits of online consumers during their transactions on digital platforms. However, it is evident that earlier research lacked insight into contemporary challenges and the evolving purchasing behavior of modern consumers. Furthermore, there is a need for new research to investigate the impact of current web-based technologies on online shopping, a perspective that has not been adequately addressed in previous studies. According to earlier research, the growth of e-commerce platforms has been unevenly distributed (Akroush & Al-Debei, 2015), underscoring the importance of understanding the e-commerce market's dynamics to ensure the success of online businesses. Critically, prior research also failed to comprehensively elucidate consumers' overall purchasing patterns, highlighting the necessity for thorough investigation to bridge these knowledge gaps.

Numerous research studies have explored the factors that influence the online shopping behavior of young adults. For instance, Jiang, Chen and Wang (2008) and Mukherjee and Nath (2007) emphasized the ongoing development of Malaysian e-commerce, highlighting the importance of understanding the variables that impact consumers' decisions in online shopping. The changing patterns in consumer behavior over the last decade have prompted retailers to delve into the psychology of online shoppers. The absence of face-to-face interactions during transactions poses challenges in interpreting online consumer behavior accurately. Furthermore, Akroush and Al-Debei (2015) noted that internet shopping offers a practical and time-saving alternative to traditional shopping, especially for individuals with busy schedules and long work hours. Customers appreciate the convenience of shopping from home, saving on travel expenses and time, as well as the simplicity of payment methods.

The rise of digital marketing has had a notable impact on how consumers view and act upon purchasing choices. Nowadays, consumers are directing their spending towards buying products and services using mobile devices primarily, seeking greater convenience. This shift has greatly influenced consumers' attitudes towards online shopping over time. However, despite the significant impact of digital marketing, some consumers still prefer not to use online platforms for their shopping requirements (Zainuddin et al., 2023). The outbreak of COVID-19 has led to a sharp increase in e-commerce activity in Malaysia, underscoring the importance of examining the factors that impact consumers' online purchasing behavior (Hasan, Ganggayah, Razak & Jamal, 2023).

Hence, the present study focusing on exploring the factors shaping the online shopping tendencies of young adults aged 18 to 26 in Penang, Malaysia, is intriguing. A survey from 2022 revealed that 52% of online customers aged 18 to 25 had engaged in direct purchases via social media platforms (Chevalier, 2022). This study seeks to delve into the shopping behaviors of young adults during online purchases and to identify potential barriers to these behaviors. While previous research has focused on the determinants of online shopping behavior, this study aims to unearth the specific factors and trends influencing young adults' online shopping habits. This understanding is crucial for meeting the expectations of young adults and enhancing communication with customers.

1.2 Research Objectives

The main objective of this study is to comprehend the key trends and factors that impact the online shopping habits of young adults. To achieve this goal, pertinent information was gathered from the internet and academic journals to fulfill the specific objectives outlined below:

RO1:    To examine the relationship between perception of young adults and trends in online shopping behavior.

RO2:    To investigate the relationship between perception of young adults and factors that influence online shopping behavior.

**2. Literature Review**

2.1 Internet and Online Shopping

According to Lim et al's. (2016), one of the beneficial advancements brought about by the internet is online shopping. The daily increase in the number of internet users is attributable to the internet's ongoing expansion,

which is expected to attract even more users due to its numerous advantages. The majority of Malaysian consumers now have internet access through their smartphones. This surge in internet users has motivated entrepreneurs and marketers to tap into the growing market for mobile broadband, which provides wider access to 3G and 4G LTE network coverage. Furthermore, the internet has the potential to enhance network quality, and the government's collaboration with MCMC aims to reduce costs while expanding network coverage, ultimately leading to an enhanced online experience for consumers. Nowadays, people utilize the internet for both online shopping and knowledge-based activities. According to Global Web Index (2019), over 26 million individuals in Malaysia are internet users, with 80% of consumers aged 16 to 64 engaging in online purchases. In 2018, Malaysians collectively spent upwards of US$6 billion online, with sales of consumer goods surpassing travel-related expenses. However, the average spending per online purchase in Malaysia was $159, significantly lower than the global average of $634. Despite this, Malaysia's online economy heavily relies on travel-related transactions, with internet users spending over US$2.7 billion on travel products in 2018. Overall, Malaysia's e-commerce sector is experiencing rapid growth, as highlighted by Statista (2019). This current scenario is further strengthened on research done by Lissitsa and Kol (2016), the expansion of internet purchasing is expected to attract more individuals, particularly young adults.

2.2 The Trend of Online Shopping

The e-commerce trend in Malaysia is drawing in online shoppers to engage in purchases, with Lazada and Shopee emerging as the country's most prominent e-commerce platforms. In 2019, male users exhibited a greater inclination to make purchases from online retailers compared to female users. Specifically, male users tended to purchase electronics and phone accessories such as speakers, power banks, and earbuds, while female users typically bought items like shoes, bags, and shirts. Furthermore, Malaysians display a preference for purchasing Fast Moving Consumer Goods (FMCG) online, driven by the desire of working adults to buy household essentials like Milo, detergent powder, and diapers. Additionally, working adults are inclined to acquire kitchen and home appliances such as plates, cups, and cooking utensils through internet shopping channels (Vasudevan & Arokiasamy, 2021). As a response to COVID-19, Malaysia's government implemented a Movement Control Order (MCO) on March 18, 2020, which led to a significant decline in retail activities. However, the MCO period witnessed a surge in Malaysian consumers' online shopping habits, driven by the necessity to adapt to restricted movement. Despite a preference for cost-conscious spending, a large portion of Malaysians, particularly those working from home during the MCO, turned to online platforms to fulfill their shopping needs due to limited access to physical stores. Additionally, the government is taking steps to boost internet-based purchasing during the Movement Control Order, including the proposal of a stimulus package aimed at supporting the economy. Similar results were also reported in studies conducted by (Teo, 2002; Liu et al., 2008; Nazir et al., 2012; Manu & Fuad, 2022), highlighting that customers recognize various advantages of online shopping such as time savings, access to products not easily found locally, competitive pricing, and convenience. The ease of use and comfort for customers are contributing to the increasing popularity of online shopping (Iqbal, Hunjra & Rehman, 2012). Furthermore, prior studies indicate that individuals prefer online shopping due to its convenient search and comparison of deals, competitive pricing, extensive product variety, detailed product information, and updates on the latest brand and fashion trends (Sorce et al., 2005; Zhou & Zhang, 2007; Jiang et al., 2013; Jhamb & Gupta, 2016). Teo (2006) highlights that buyers expect benefits such as comprehensive product information, convenience, secure online transactions, and effective vendor communication. Additionally, consumers anticipate prompt product delivery, a reliable supply chain, and favorable return policies when engaging in online shopping (Dawn & Kar, 2011).

2.3 Factors That Influence Online Shopping

Prior studies have indicated that convenience is a primary factor influencing online shopping behavior, given the enduring appeal of online shopping among consumers. Unlike traditional brick-and-mortar stores, where customers must engage in manual searching, often leading to time-consuming efforts and difficulties in finding desired products, online platforms enable users to swiftly search, access information about products, and easily locate items of interest. According to Gilon Miller (2012), online shopping offers customers the convenience of shopping at any time, seven days a week, round the clock. In terms of convenience, online shopping offers numerous benefits, such as time savings, flexibility, and reduced physical exertion. Robinson, Riley, Rettie, and Wilsonz (2007) argue that the primary motivator for online shopping is the convenience of being able to make purchases at any time and having goods delivered directly to one's doorstep. A survey conducted by Webcheck (1999) also supports this claim, highlighting convenience as one of the key advantages of online shopping. In contrast to traditional retail experiences, where comparing products can be challenging, online shoppers can easily compare prices while making purchases. Another advantage of online shopping is the opportunity to

compare prices, as some items sold online come directly from manufacturers or sellers without involving intermediaries, leading to better deals and lower prices for consumers. Additionally, many online stores offer attractive discounts, rebates, and discount coupons. Another study also indicates that factors such as convenience in terms of time, cost-effectiveness, promotions from online retailers, and the simplicity of payment methods are significant influencers of the online shopping habits among engineering students. The research outcomes demonstrate that both males and females show a strong interest in buying items like clothing, electronics, and books online (Vaidehi, 2014).

Additionally, time savings is a significant factor that influences consumers' decisions when shopping online. Singh and Srivastava (2017) noted that online shopping offers a quicker way to acquire desired items, eliminating the need to spend hours waiting in line at the checkout counter. Compared to traditional shopping methods that involve more time-consuming processes such as searching for products, browsing, and navigating through stores, online shopping can save a considerable amount of time for consumers. Furthermore, online purchasing reduces the effort required by consumers. Rohm and Swaminathan (2004) explained that online shopping saves time by eliminating the need to travel to physical stores, a factor that is commonly associated with traditional shopping. However, it's worth noting that some individuals perceive a drawback to online shopping in terms of delivery time, particularly if the shipping process is prolonged.

2.4 Theoretical Background

Drawing from previous research on the theory of planned behavior (TPB), Ajzen (2015) explained that the theory defines consumer behavior by examining the underlying motives or goals behind a consumer's actions. An empirical study carried out in Delhi explored several factors influencing consumer attitudes toward online purchasing. The findings revealed that perceived risk negatively influences customers' attitudes toward online shopping, whereas factors such as perceived usefulness, perceived ease of use, and perceived enjoyment do not have a significant impact (Jain, Goswami, & Bhutani, 2014). A study conducted by James & Akhbar (2014) highlighted significant correlations between three factors - convenience, pricing, and brand - and online shopping behavior. Furthermore, empirical findings showed that consumer perspectives on internet shopping were also impacted by trust and perceived advantages, as demonstrated in the research by Al-debei, Akroush, and Ashouri (2015). According to a survey conducted by Shanthi and Kannaiah (2015), a majority of young individuals aged 20 to 25 exhibited a preference for online shopping compared to older individuals who favored traditional shopping methods. In previous research, Sabel (1993) discussed how the theory of planned behavior (TPB) forms the theoretical basis for this study. TPB is a psychological theory that links an individual's beliefs with their behavior. According to TPB, a person's behavioral intentions and actions are influenced by their attitudes, subjective norms, and perceived behavioral control towards a particular behavior. TPB provides a better understanding of how psychological processes are not always consciously chosen and controlled by an individual. Despite the presence of attitudes and subjective norms as key factors, individuals may not have volitional control over their behaviors if they lack confidence in online shopping platforms.

H1:     There is no significant linear relationship between the trends of online shopping and the
            perception of online shopping behavior.

H2:     There is no significant linear relationship between the factors of online  shopping and the
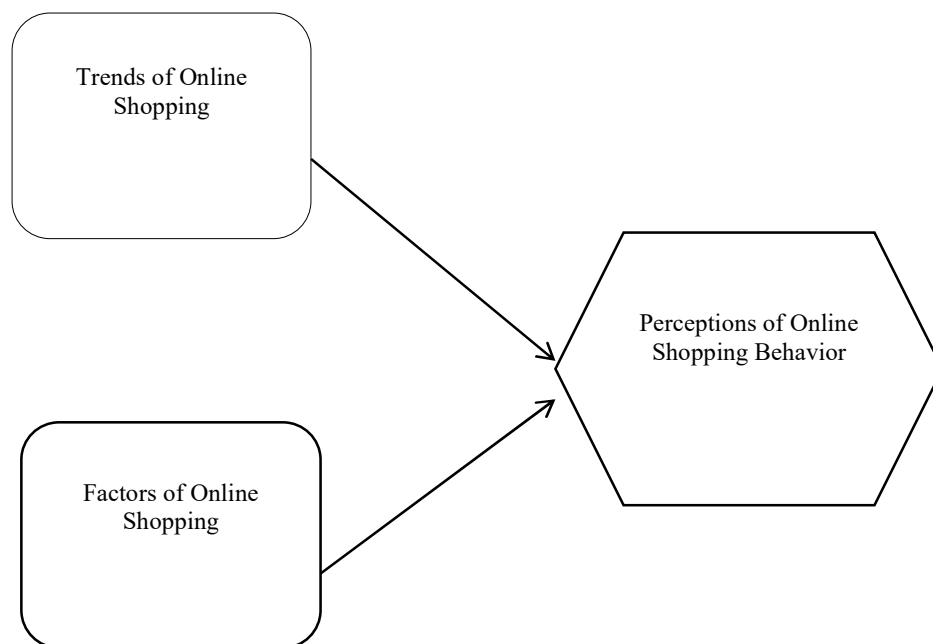            perception of online shopping behavior.

Figure 1: Conceptual Framework between Trends, Factors and Perceptions of Online Shopping Behavior

## 3. Methodology

This study opted for a quantitative research methodology due to its appropriateness for the research objectives. Online surveys were utilized alongside quantitative methods in this investigation. These approaches involve collecting data through surveys or questionnaires, objectively measuring and statistically analyzing it, and presenting the results in numerical formats (Daniel, 2011). The reliability of the research study is enhanced as quantitative research methods often utilize structured research instruments to collect data (Grønmon, 2019). Quantitative research enables researchers to explore the relationship between independent and dependent variables within a population (Sukamolson, 2007). Therefore, this study utilizes the dependent variable (perception of online shopping) and independent variable (trends and factors influencing online shopping behavior), which are crucial components of quantitative approaches.

This study employed a convenience sampling technique. Thomas (2017) noted that convenience sampling is the most commonly used non-probabilistic sampling method, often due to its ease of application. Convenience sampling involves selecting samples that are readily available or accessible, such as those conveniently located near a specific location or accessible via the internet. Respondents were chosen based on this convenient sampling method. Primary data were collected through self-administered questionnaires distributed via surveys. According to Brysbaert (2019), the study included 200 samples to ensure a clear outcome, with data collected through social media platforms such as Facebook, Instagram, and others, where participants completed a questionnaire. Data collection involved distributing survey questionnaires via Google Forms to individuals aged 18 to 26 on online social media platforms including Instagram and Facebook, for data collection. Mahadi (2013) noted that the majority of social media users in Malaysia fall between the ages of 18 and 26, followed by those aged 25 to 34 (29.5%) and 13 to 17 (16.3%). Consequently, this study exclusively targeted young adults aged 18 to 26, as they are frequent users of social media platforms like Facebook, Twitter, and Instagram, highlighting the platforms' significance in their lives (Subramaniam, 2014).

The data obtained from these surveys are subsequently subjected to statistical analysis using SPSS software (version 25.0) to derive meaningful research insights. Data analysis will comprise of descriptive analysis followed by inferential analysis focusing on reliability test and correlation analysis. Saunders et al's (2009) discuss reliability analysis as evaluating how consistently a method of data collection yields results, the likelihood that other researchers will reach the same conclusions or observations, and the transparency of the data analysis process. Internal consistency, a component of reliability, is assessed through Cronbach's Alpha analysis (Saunders et al., 2009). Sekaran and Bougie (2010) suggest that a Cronbach's Alpha value below 0.60 is

considered poor, while a value of 0.60 or higher is deemed acceptable. Furthermore, reliabilities exceeding 0.8 indicate a strong correlation of 80% consistency, signifying robust reliability. Pearson Correlation Analysis as a method to assess the linear relationship strength between two numerical or ranked variables. In this study, the Pearson Correlation coefficient is utilized to evaluate the correlation among each variable. The coefficient ranges from -1 to +1, with +1 indicating a perfect positive correlation and -1 indicating a perfect negative correlation (Saunders et al., 2009).

## 4. Results and Discussion

Table 1. Demographic of Study Samples

| Variables | Frequency (N) | Percentage (%) |
|---|---|---|
| Gender | | |
| Male | 42 | 20.8 |
| Female | 160 | 79.2 |
| Age | | |
| 18-21 years old | 65 | 32.2 |
| 22-26 years old | 137 | 67.8 |
| Education Level | | |
| SPM | 3 | 1.5 |
| Certificate/Diploma | 62 | 30.7 |
| Bachelor Degree | 136 | 67.3 |
| Master Degree | 1 | 0.5 |
| Monthly Income | | |
| Below RM2000 | 56 | 27.7 |
| Below RM4000 | 117 | 57.9 |
| Below RM6000 | 23 | 11.4 |
| Below RM8000 | 2 | 1 |
| Above RM8001 | 4 | 2 |
| Which of the most online shopping provider used? | | |
| Shopee | 99 | 49 |
| Lazada | 75 | 37.1 |
| Taobao | 27 | 13.4 |
| Others | 1 | 0.5 |
| Method of payment via online purchasing? | | |
| Cash on Delivery (COD) | 6 | 3.0 |
| Debit card | 164 | 81.2 |
| Credit card | 5 | 2.5 |
| Online transfer | 27 | 13.3 |

Table 1 above exhibits a total of 202 respondents who have completed the questionnaire. In this study, 20.8 percent (N=42) of males and 79.2 percent (N=160) of females answered the questionnaires. The highest proportion of respondents held a Bachelor's Degree (67.3%, N=136), followed by those with a

Certificate/Diploma at 30.7% (N=62). Only 1.5% (N=3) of respondents had an SPM qualification, and 0.5% (N=1) had other levels of qualification. The findings revealed that the largest percentage of respondents had a monthly income below RM4000 (57.9%, N=117). Following this, 27.7% (N=56) of respondents reported a monthly income below RM2000. The group with a monthly income below RM6,000 comprised 11.4% (N=23) of the respondents. Additionally, 1% (N=2) of respondents had a monthly income below RM8,000 and a small percentage of 2% (N=4) had a monthly income above RM8,0001. According to the findings, the top online shopping platform used by respondents was Shopee (49%, N=99), with Lazada following closely behind (37.1%, N=75). A smaller percentage of respondents also used Taobao (13.4%, N=27), while the usage of other platforms like Grab was minimal at 0.5% (N=1). Results showed the most used method of payment via online purchasing was Debit Card (81.2%, N=164), followed by Online Transfer (13.4%, N=27). Cash on Delivery (COD) is 3% (N=6), meanwhile for Credit Cards is 2.5% (N=5).

4.2 Reliability Analysis

Table 2. Reliability Statistics

| Variables | Cronbach's Alpha | N of Items |
|---|---|---|
| Trends of online shopping | 0.851 | 8 |
| Factors that influenced online shopping behavior | 0.861 | 8 |
| Perception of online shopping among young adults | 0.944 | 8 |

Table 2 above displayed Cronbach's Alpha values ranging from 0.851 to 0.944, indicating that no entries were excluded as they all surpassed Nunnally's (1978) recommended threshold of 0.70. The internal consistency of the variables online shopping trends, factors influencing online shopping behavior, and perception of online shopping among young adults remained strong, indicating that all items performed well. Notably, the perception of online shopping among young adults exhibited the highest reliability. Consequently, all indicators were utilized for data collection purposes.

4.3 Pearson Correlation Analysis

Table 3. Pearson Correlation Statistics

| | | New Perception of young adults toward online shopping behavior |
|---|---|---|
| New Trends of Online Shopping | Pearson Correlation | .816** |
| | Sig. (2-tailed) | .000 |
| | N | 202 |
| New Factors that influenced online shopping behavior | Pearson Correlation | .921** |
| | Sig. (2-tailed) | .000 |
| | N | 202 |

Table 3 above illustrates the Pearson Correlation analysis conducted to examine the relationship between dependent variables, specifically the perception of young adults toward online shopping behavior, and independent variables, including factors influencing online shopping behavior and trends in online shopping. The outcomes from the statistical analysis using SPSS for the first hypothesis (p-value = .000) are lower than the significance level of .01. Consequently, the null hypothesis was rejected. The Pearson Correlation Coefficient value, r = .816, indicates a robust positive correlation between trends in online shopping and the perception of online shopping behavior. This outcome has critical implications as it suggests that there is a clear association between how people shop online and their perceptions regarding online shopping behavior. This information can

be valuable for businesses and marketers looking to understand consumer behavior in the digital marketplace. It also highlights the importance of considering trends in online shopping when studying or strategising about consumer behavior in e-commerce as younger generation tend to buy products online which is trending especially in social media. Furthermore, the Pearson Correlation Coefficient value of r = .921 reflects a robust positive correlation between factors influencing online shopping behavior and the perception of online shopping behavior. A correlation coefficient of .921 is exceptionally high, suggesting a very strong and direct positive linear relationship between the two variables. This means that as factors influencing online shopping behavior increase, so does the perception of online shopping behavior among the respondents, and vice versa.

This finding is critically important as it signifies a deep connection between the factors that drive online shopping behavior and how individuals perceive their own online shopping habits. It underscores the idea that various aspects such as convenience, security, pricing, and user experience significantly impact how people view and engage in online shopping activities. Businesses and marketers can leverage this information to tailor their strategies and offerings to align better with consumer expectations and preferences in the online shopping realm. Understanding the strong positive relationship between these factors can lead to more effective marketing campaigns, improved customer experiences, and ultimately, increased sales and customer satisfaction in the e-commerce landscape.

## 5. Conclusion

In summary, the results indicate that two independent variables, namely trends in online shopping and factors influencing online shopping behavior, significantly impact young adults' perception of online shopping. Regarding the association between independent and dependent variables, it was found that young adults' online purchasing behavior correlates positively with both trends in online shopping and factors affecting their perceptions of online shopping behavior. Furthermore, the descriptive analysis revealed that a higher proportion of women prefer shopping online compared to men. The majority of participants held bachelor's degrees. Shopee emerged as the favored and most frequently used online platform among young adults followed by Lazada. This present finding was in line with the study done by (Vasudevan & Arokiasamy, 2021). Additionally, young adults expressed a preference for using debit cards as their primary payment method when shopping online. Therefore, the present study became evidence that the surge in internet usage and online shopping among young adults has opened up new opportunities for online retailers. Understanding the factors that influence the online shopping behavior of young adults is essential for online retailers to capitalize on this trend. Availability, competitive pricing, attractive promotions, comparison tools, convenience, quality customer service, user-friendly interfaces, enjoyable shopping experiences, detailed product information, flexible return policies, time-saving features, and trustworthiness were identified as the key influencers of online shopping behavior in this study and it concurred the study conducted by (Vaidehi, 2014).

Numerous external factors such as pricing strategies, environmental influences, and others also play a role in shaping the shopping behavior of young adults. As online shopping continues to gain traction year after year, its scope continues to expand. The flexibility offered by online platforms makes it increasingly appealing for consumers to adopt this mode of shopping. Major corporations predominantly utilize online platforms for marketing their products, leveraging their resources for advertising. Conversely, smaller and medium-sized businesses often face challenges transitioning to online platforms due to resource constraints.

Furthermore, as evidenced by the analytical findings mentioned earlier, young adults' perceptions of online shopping have been significantly influenced by the evolution of online commerce and the factors driving this evolution. Several limitations have been identified and documented to ensure that future research maintains a higher standard of quality. Firstly, the sample sizes gathered from respondents may not be representative of all young adults, potentially affecting the generalizability of the findings. Moreover, the researcher's reliance solely on quantitative research methods resulted in a limited sample size of respondents. Another limitation pertains to the exclusive recruitment of participants through social media platforms for survey completion. This restricts the research to a quantitative approach, specifically using questionnaires, without delving into the nuanced insights that a qualitative approach could provide. The next limitation concerns the age distribution of the population, with the researcher initially assuming that there wouldn't be significant differences in online shopping behavior across different age groups. Moreover, a larger sample size might yield different findings by potentially uncovering previously overlooked patterns. The study's focus group consists solely of young adults from the Penang area. While the research indicates that Penang's young adults agree that online shopping trends and factors influence perceptions of online shopping behavior, the perspectives of individuals from other regions or

demographics have not been explored regarding these trends and factors' impact on online shopping perceptions. This geographical restriction to Penang limits comparisons with other regions like Johor or Kuala Lumpur, creating a gap in understanding. To validate the current study's findings, future research should aim for a broader representation of internet users across Malaysia and employ more diverse random sampling techniques. Utilizing models like the Technology Acceptance Model (TAM) or behavioral models could help elucidate the factors influencing online shopping behaviors. Moreover, incorporating qualitative research methods such as interviews can provide deeper insights into young adults' online shopping behavior.

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