

Factors Affecting Chinese Undergraduate Students Studying in Bangkok's Willingness to Purchase Smart Phones in Thailand

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Abstract

This research aimed to study the relationships between the marketing mix 4p factor: product, price, place, promotion, and customer perceived value on customer Willingness to Purchase in Chinese Undergraduate Students Studying in Bangkok's Willingness to Purchase Smart Phones in Thailand. The respondents are from all universities in Bangkok. The questionnaires were distributed to respondents via online platforms. Therefore, the population is unknown. Stratified random sampling was used. However, 419 respondents participated in the online survey and 400 respondents were completed. There were three types of analyses utilized in this research. First, descriptive analysis was used to examine the characteristics of the samples. Second, a reliability test was run to ensure that the questions are reliable and consistent. Third, the hypotheses were tested by multiple-linear regression to investigate the effect of the marketing mix factor and perceived value on Willingness to Purchase. Findings of this research indicate that product, price, place, and customer perceived value are statistically significant predictors of customer

Willingness to Purchase. Critical and practical recommendations for Smart Phones marketers are suggested for their competitiveness in the Smart Phones market.

Keywords: Chinese undergraduate students, willingness to purchase, smartphones

Introduction

Nowadays, Thailand has become one of Southeast Asia's international education hubs. According to Thailand's Office of the Higher Education Commission (OHEC), the number of Chinese students choosing Thailand for their tertiary education has been rising in recent years. In 2009, Thai universities hosted 5,364 Chinese students and the number has tripled to 14,423 in 2020. Moreover, between 2018 and 2022, 7,231 Chinese students graduated from Thailand's higher education institutes. In Asia, Thailand, Japan and Singapore are counted among the top choices for Chinese students. In 2020, Chinese students enrolled in Thai universities accounted for 51.3 percent of the foreign student population, a 3 percent increase from 2019 (fulcrum.sg, 2022). Additionally, Due to the situation of COVID-19 pandemic in which online pedagogy is required, the demand for purchasing smartphones has increased. Additionally, Due to the situation of COVID-19 pandemic in which online pedagogy is required, the demand for purchasing smartphones has increased.

Furthermore, Bowen, Kyle & Mathew, 2012 has found that the number of higher education students aged between 18 to 25 using smartphones to support their academic activities including to express their personality has grown rapidly (Kates et al, 2018). Hossain and Ahmed's (2016) suggest that the average change of new

smartphones in the developing country students ranges between 6 months to 1 year, and only a few over 3 years.

The aforementioned facts thus unquestionably strongly suggest the increment of the smartphone market in Thailand. One of the most important facets of marketing is customer willingness to purchase which can help the business units to improve profitability, find the right market for their products, better understand their customers, use them as a leading indicator of future demand for their products, and assess how their marketing actions will impact those future sales.

When considered in the context of willingness to purchase, varying significantly from customer to customer. This variance is often caused by differences in the customer population, typically classified as either extrinsic or intrinsic. In this research, we would study the marketing mix, composed of product, price, place, and promotion, as an extrinsic factor; perceive value as an intrinsic factor. As the number of Chinese students studying at Thai University has significantly increased as the largest portion of overseas students and the increment of the smartphone market in Thailand, the researchers thus study the information about consumer behavior upon using smartphones.

Literature and Hypotheses

1. Willingness To Purchase

Kotler and Armstrong (2007) and Chinomona, Okoumba, and Poee (2013) stated that willingness to purchase is the intention of consumers to purchase certain goods or services in the future or take certain actions, and sometimes it depends on individual purchase ability, external and internal factors influencing consumers' desire to buy such as brand, price, quality, supplement, and impulse (Leo et al., 2005;

Blackwell et al, 2001). Phau et al. (2009) used the construct of willingness to purchase as a surrogate of purchase intention and further reinforced willingness to purchase as an indicator of actual behavior. Willingness to purchase in the relationship between attitude and behavior is influenced by the level of effort needed to exercise the behavior (Bagozzi et al. 1990) and it is more effective than behavioral measure in capturing a consumer's mind (Day 1969). Willingness to purchase is highly correlated to actual behavior (Zeithaml et al. 1996) and this relationship has been empirically tested in ICT product and service businesses (e.g., e-commerce, green product) (Ramayah et al. 2002). Hence, a consumer's willingness to purchase a specific product is a good predictor of the actual purchase of the product.

Willingness to pay (WTP) may be measured by examining differences in compensation for occupations associated with higher risks, or, more commonly, by contingent-valuation studies. Additionally, individual preferences are not fixed; they change over time and are dependent upon circumstances. Thus, the results of a WTP survey are influenced by the composition of the group and may not mirror that of society. Birch et al. (2018) suggested that myriad factors such as environmental consciousness, egoistic motivations, and ethical identity are associated with consumers' inclination to purchase, as well as with the increased frequency of purchasing. According to previous studies, purchase intentions or WTP may be understood as the penultimate step to actual purchase (Fleseriu et al., 2020).

Furthermore, The study conducted by Lim et al. (2014) suggests that consumers who perceive a positive value with regard to organic food are more willing to purchase organic food, in which health was the primary perceived benefit. The same thing was also obtained from research conducted by Zhao (2018), which shown that Perceived consumers' effectiveness, occupation, and income level had a

significant effect on the willingness to pay for carbon-labeled products. Sweeney et.al (1997) study shows that the functional service quality both directly and indirectly influences willingness to pay. According to Zhang et.al (2018) research result, Consumers' willingness to pay a premium price was positively affected by family income, familiarity, differential cognition, safety awareness, nutritional health, packaging, label trust, and online shopping experience.

2. Marketing mix

The marketing mix is the set of marketing tools a firm utilizes to pursue its marketing objectives in the target market (Borden, 1984). McCarthy (1964) refined the “marketing mix”, often referred to as the “4Ps”, as a means of translating marketing planning into practice (Bennett, 1997). A marketing mix is merely a conceptual framework that identifies the principal decision making managers make in configuring their offerings to suit consumers' needs. (Palmer, 2004).

The 4 Ps are used by companies to identify some key factors for their business, including what consumers want from them, how their product or service meets or fails to meet those needs, how their product or service is perceived in the world, how they stand out from their competitors, and how they interact with their customers. The main reasons the marketing mix is a powerful concept are it makes marketing seem easy to handle, allows the separation of marketing from other activities of the firm, and the delegation of marketing tasks to specialists; and The components of the marketing mix can change a firm's competitive position (Grönroos, 1994). They are often designed to influence consumer decision-making and lead to profitable exchanges. Each element of the marketing mix can affect consumers in many ways (Peter & Donnelly, 2007).

Möller (2006) presents an up-to-date picture of the current standing in the debate around the Mix as a marketing paradigm and predominant marketing management tool by reviewing academic views from five marketing management sub-disciplines (consumer marketing, relationship marketing, services marketing, retail marketing, and industrial marketing) and emerging marketing (E-Commerce). The concept of 4Ps has been criticized as being a production-oriented definition of marketing, and not customer-oriented (Popovic, 2006). Lauterborn (1990) claims that each of these variables should also be seen from a consumer's perspective.

Today, however, the marketing mix most commonly remains based on the 4 P's. Despite its limitations and perhaps because of its simplicity, the use of this framework remains strong and many marketing textbooks have been organized around it (Kent & Brown, 2006).

1. Product

Kotler and Armstrong (2006) define a product as anything that can be offered to a market for attention, acquisition, use, or consumption that might satisfy a want or need. They further define a consumer product as the product bought by the final consumer for personal consumption. Product is about quality, design, features, brand name, and sizes. A product is any good or service that fulfills consumer needs or desires. The type of product impacts its perceived value, which allows companies to price it profitably. It also affects other aspects such as product placement and advertisements.

Many attributes of a company's products, including brand name, quality, newness, and complexity, can affect consumer behavior. However, it is also concerned with what the product means to the consumer. (Borden, 1984). The physical appearance of the product, packaging, and labeling information can also

influence whether consumers notice a product in-store, examine it, and purchase it. One of the key tasks of marketers is to differentiate their products from those of their competitors and create consumer perceptions that the product is worth purchasing (Peter & Donnelly, 2007).

According to Lee and Johnson (2017), Consumers' willingness to buy (WTB) is affected by form (appearance, or how it looks) and functional (features, or what it looks like) design. Their study finds that customers' willingness to buy new store brands differs between different product groups. Sethuraman and Cole (1999) prove that characteristics of the product group have an influence on the willingness to pay.

2. Price

The price of products and services often influences whether consumers will purchase them at all and, if so, which competitive offering is selected. Stores such as TESCO, which are perceived to charge the lowest prices, attract many consumers based on this fact alone. For some offerings, higher prices may not deter purchase because consumers believe that the products or services are of higher quality or are more prestigious. However, many of today's value-conscious consumers may buy products more on the basis of price than other attributes (Peter & Donnelly, 2007)

Marc Berger (1998) explained that the results of WTP studies generally reflect the fact that wealthy individuals are usually willing to pay more than economically disadvantaged individuals, a fundamental issue associated with income/wealth distribution. Maxwell (2002) studied Rule-based price fairness and its effect on willingness to purchase and concluded that not just the price tag itself but how that price has been determined affects consumers' perceptions of fairness and willingness to purchase. Research conducted by Kucher et al. proposes that In

Ukraine, the study of consumers' willingness to pay a price premium for ecological goods of various types was initiated and conducted by scientists from the Sumy Scientific School confirmed that a significant proportion of respondents remain highly willing to purchase ecological goods, even at a higher price, provided the price rise does not exceed the limits allowed by consumers, taking into account their income level. Chao and Schor (1998) study proves that High-status consumers are willing to pay premium prices for goods that are perceived to convey status and prestige. The same thing was also obtained from research conducted by Kung et.al (2021), which shown those who were men, had higher educational attainment, had a higher monthly disposable income, or held a management position were more willing to purchase pork at a premium price. According to Grunert (2006), several empirical studies have shown that price information is important for the consumer decision-making process, and these consumers are very price-conscious.

3. Place (or Distribution)

Kotler and Armstrong (2006), define place or distribution as a set of interdependent organizations involved in the process of making a product available for use or consumption by consumers. The dimensions of place are channels, coverage, assortment, location, inventory, and transport (Borden, 1984). The place also involves choosing the place where products are to be made available for sale. Distribution channels such as outsourcing or company transport fleets are decided upon after a cost-benefit analysis. Small details such as shelf space committed to the product by department stores are also included. The primary motive of managing trade channels is to ensure that the product is readily available to the customer at the right time and place.

According to Sethuraman and Cole (1999), with regard to purchase frequency, the literature reports a higher willingness to pay for national brands if customers buy less frequently in the category). Veloutsou et al. (2004) study suggested that a small category purchase frequency constrains the success of store brands.

4. Promotion

Promotion is defined as sales promotion, advertising, personal selling, public relations, and direct marketing (Borden, 1984). It also involves decisions related to advertising, direct marketing, public relations, advertising budgets, etc. The primary aim of promotion is to spread awareness about the product and services offered by a company. It helps in persuading consumers to choose a particular product over others in the market. Advertising, sales promotions, personal selling, and publicity can influence what consumers think about products, what emotions they experience in purchasing and using them, and what behaviors they perform, including shopping in particular stores and purchasing specific brands.

According to Shi, Ka-Man, and Gerald (2005), promotions such as price discounts and buy one get one free are effective promotional tools for encouraging consumers to buy more. The same thing was also obtained from research conducted by Kung et.al (2021), which showed promotional marketing, monthly disposable income, and social value were the main positive factors in increased willingness to pay.

Thus, the researcher has formed a hypothesis:

H1: Products have a significant positive impact on willingness to purchase smartphones

H2: Price has a significant positive impact on willingness to purchase smartphones

H3: Place has a significant positive impact on willingness to purchase smartphones

H4: Promotion has a significant positive impact on willingness to purchase smartphones

3. Customer Perceived Value

In marketing terminology, perceived value is the customers' evaluation of the merits of a product or service, and its ability to meet their needs and expectations, especially in comparison with its peers. Perceived value is a customer's perception of a product or service's merit or desirability to them, especially in comparison to a competitor's product. Marketing professionals try to influence consumers' perceived value of a product by describing the attributes that make it superior to the competition. Holbrook (1994, 1999) suggests that perceived value is accepted as a strategic imperative tool for marketers. Consumer value is a fundamental issue to be addressed in every marketing activity According to Veloutsou et al. (2004). Perceived quality and the importance of different attributes have an impact on the willingness to buy store brands (Veloutsou et al., 2004). The study of Wee et al. (1995) also reveals that High-Status consumers wish to be considered as belonging to a higher social class

Thus, the researcher has formed a hypothesis:

H2: Customer Perceived Value has a significant positive impact on willingness to purchase smartphones

Research Methodology

The study of Factors Affecting Chinese Undergraduate Students Studying in Bangkok's Willingness to Purchase Smart Phones in Thailand is quantitative research.

Population and Sample

This study focused on Chinese Undergraduate Students Studying in Bangkok's Willingness to Purchase Smart Phones in Thailand. The research is a survey research design that uses online questionnaires to collect data from respondents via online platforms.

Research Instruments

For undertaking the consumer survey, the questionnaire has been prepared covering several aspects of Smart Phones Purchasing behavior, including the willingness to pay. The questionnaire comprises three types of analyses utilized in this research. First, descriptive analysis was used to examine the characteristics of the samples. Second, a reliability test was run to ensure that the questions are reliable and consistent. Third, the hypotheses were tested by multiple-linear regression to investigate the effect of the marketing mix and customer perceived value on customer Willingness to Purchase.

For measurement, a self-constructed 5-point Likert scale ranging from 1 as strongly disagree to 5 as strongly agree has been used for recording the consumer responses on marketing mix factor, perceived value and, Willingness to Purchase based on the literature review.

The reliability of the survey questions was conducted utilizing the Cronbach's Alpha test for 30 students. Each reliability value was higher than the acceptable value of 0.6 (Epstein, 2012). The reliability of the Product, Price, Place,

Promotion, perceived value, and Willingness to purchase was 0.911, 0.759, 0.871, 0.794, 0.915, and 0.619 respectively. The results of reliability proved that all questions are reliable to be used.

Data Collection Process

The research adopted a sampling method by distributing the questionnaires to Chinese students who are studying in Thai universities from 1st May– to 30th June 2021. The respondents are from all universities in Bangkok. The questionnaires were distributed to respondents via online platforms that are Facebook and the Line application. Therefore, the population is unknown. Stratified random sampling was used to initially select 400. However, 419 respondents participated in the online survey and 400 respondents were completed. This sample size is considered adequate for an unknown (Ahmad & Halim, 2017). The respondents were voluntarily asked to fill in and clearly explained by the undisguised researcher and the meaningless or irrelevant data was least anticipated.

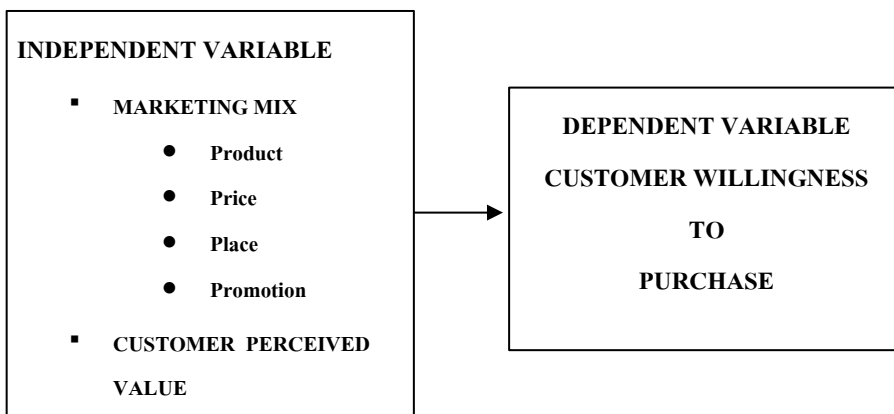
Data Analysis

There were three types of analyses utilized in this research. First, descriptive analysis was used to examine the characteristics of the samples. Second, a reliability test was run to ensure that the questions are reliable and consistent. Third, the hypotheses were tested by multiple-linear regression to investigate the effect of the marketing mix factor and perceived value on Willingness to Purchase. The Statistical Package for the Social Sciences (SPSS) program version 17.0 was used to calculate the significance level for each different type of variable.

Conceptual Framework

Figure 1

Research conceptual model



Research Results

As aforementioned, The responses from the sample show that most of the respondents are male, totaling 241 persons, or 60.25 percent, while there are 159 female respondents, or 39.75 percent. Moreover, most are of the age below 20 years, specifically 209 people, or approximately 52.25percent. Finally, most respondents, 124 people or 31.0 percent, have an average monthly income above 40,000 Baht.

Table 1*Description of Respondents*

Variable	Metric	Frequency	Percentage
Gender	Male	241	60.25%
	Female	159	39.75%
Total		400	100%
Age	< 20	209	52.25%
	21-30	169	42.25%
	31 >	22	5.50%
Total		400	100%
Monthly Income	<20,000	1	0.25%
	20,001-40,000	110	27.5%
	40,001 >	289	72.25%
Total		400	100%

Hypothesis Testing

To answer the research hypotheses, the effect of marketing mix: product, price, place and promotion and customer perceive value on customer Willingness to Purchase was examined by multiple linear regression method. For this current research, the variance inflation factor (VIF) was also run to examine multicollinearity among independent variables. Result showed that the VIF value of each independent variable was less than 2 as noted in Table 3 which is much less than the upper boundary of the acceptable range at five (Martz, 2013). The adjusted r square was 0.41. Hence, 41 percent of variance in Willingness to Purchase is explained by product, price, place and promotion and customer perceived value ($p < 0.001$).

Table 2

Summary of Hypotheses Testing (N=400)

Variable	B	SE B	Beta (β)	Sig. Value	VIF
product	0.261	0.078	0.254	0.000	1.853
price	0.113	0.074	0.246	0.000	1.773
place	0.277	0.050	0.221	0.000	1.241
promotion	0.092	0.024	0.088	0.191	1.899
customer perceived value	0.215	0.043	0.266	0.000	1.756

Note: Dependent Variable: Purchase Intention, $R^2=0.419$, Adjusted $R^2 = 0.41$

According to the results, three hypotheses, except hypothesis 2, were supported by the multiple linear regression model as shown in Table 3.

Table 3

Hypothesis Testing Results

H(a)	Statement	Results
H1	Products have a significant positive impact on willingness to purchase smart phones	Supported
H2	Price has a significant positive impact on willingness to purchase smart phones	Supported
H3	Place has a significant positive impact on willingness to purchase smart phones	Supported
H4	Promotion has a significant positive impact on willingness to purchase smart phones	Rejected
H5	Customer Perceived Value has a significant positive impact on willingness to purchase smart phones	Supported

As shown in Table 2, The final results presented that 4 out of 5 hypotheses were supported, which hypotheses 1, 2, 3 and 5 have the p-value of 0.000, 0.000, and 0.000 respectively. Hypothesis 4, have the p-value of 0.191. Therefore, promotion rejected the hypothesis proposing a positive relationship with customer

Willingness to Purchase. This can be implied that product have no impact on customer Willingness to Purchase. Also, the standardized coefficient (β) for hypotheses 1, 2, 3 and 5 were 0.254, 0.246, 0.221 and 0.266 respectively. Thus, they were supported. This can be directly implied that product, price, place and customer perceive value have an impact on customer Willingness to Purchase.

Discussion

Based on this research finding, the results can be discussed as follows: The aim of the research was to examine relationships between marketing mix: product, price, place and promotion and customer perceive value on customer Willingness to Purchase.

Regarding the first hypothesis, findings of the study revealed that there is a positive effect of product on customer Willingness to Purchase. Thus, this finding supported the hypothesis one. As Peter and Donnally, (2007) suggest that one of the key tasks of marketers is to differentiate their products from those of their competitors and create consumer perceptions that the product is worth purchasing. This finding is also consistent with previous studies. For example, Lee and Johnson (2017) conducted the research about consumers' willingness to buy (WTB) is affected by form (appearance, or how it looks) and functional (features, or what it looks like) design. Their study finds that customers' willingness to buy new store brands differs between different product groups.

The second hypothesis was supported by the findings of the current research. This findings showed that price is a factor affecting customer Willingness to Purchase. This finding is consistent with previous several existing studies. Maxwell (2002) studied about Rule-based price fairness and its effect on willingness to

purchase ,concluded that not just the price tag itself but how that price has been determined affects consumers' perceptions of fairness and willingness to purchase. Furthermore, Chao and Schor (1998) study prove that High status consumers are willing to pay premium prices for goods that are perceived to convey status and prestige.

The third hypothesis was supported by the findings of the research. This findings showed that place is a factor affecting customer Willingness to Purchase. This finding is consistent with supporting several existing research. For example, Sethuraman and Cole, (1999) conducted the research regard to purchase frequency, the literature reports higher willingness to pay for national brands if customers buy less frequently in the category). Veloutsou et al. (2004) Study suggested that a small category purchase frequency constrains the success of store brands.

As for the forth hypothesis, there was no significant effect of promotion affecting customer Willingness to Purchase. This finding is inconsistent with previous studies. Several studies as the study of Shi, Ka-Man and Gerald (2005), Promotions such as price discounts and buy one get one free are effective promotional tools for encouraging consumers to buy more. The same thing was also obtain from research conducted by Kung et.al (2021), Which shown promotional marketing, monthly disposable income, and social value were the main positive factors in increased willingness to pay. However, all of these studies examined promotion in the context of customer who live in their own country. According to this research, the context that the customer or our respondents is different in term of the possibility to get the language promotion in their own language, the understand of communicating idea in medias etc. The result of the current study implies that even

customer or our respondents if did not get the proper form of promotion but they still willing to purchase , if other preferences factors are high enough.

Lastly, the fifth hypothesis was also supported by the findings of the research. The relationship between perceive value on customer Willingness to Purchase was positively associated. The several studies' findings revealed similar results. For example, Veloutsou et al. (2004) research prove that perceived quality and the importance of different attributes have an impact on the willingness to buy store brands. Wee et al. (1995) also reveal that High Status consumers wish to be considered as belonging to a higher social class

Recommendations

The research will help the management to develop a Smart Phones marketing strategy for Chinese Undergraduate Students Studying in Bangkok's in Thailand by recognizing the priority of importance of product, price, place in marketing and customer perceive value more than promotion. They should launch marketing programs to create customer perceive value. Based on the study results the should pay attention to customers' culture , nationality by keep searching for a new strategy to enhance higher level of customer Willingness to Purchase to gain competitive advantages from customer repurchase intention.

Future research may examine the relationship between aspects of 4P's marketing mix in-depth: price, place, and promotion. Furthermore, the scope of the research should be expanded to the whole country in order to develop broader about their prospective markets and set different kinds of marketing strategies.

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