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Factors Affecting the Consumer's Decision on Purchasing Power

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Abstract: The purpose of this study is to evaluate the determinants of decision making, purchasing motorcycles from students' perspectives of University Sains Malaysia in Penang. The research model used in this study was adapted from "Model of Buyer Behavior". This study shows three factors (product, price, and place) affected the consumer's decision on buying motorcycles in Penang, Malaysia. The primary data were collected from 415 students of University Sains Malaysia, main campus, and analyzed by using statistical techniques, like Percentage, mean and standard deviation. The result has shown that the mention three factors was significance in students' decision on buying motorcycles. Most respondents have given importance to purchase the cheapest Motorcycles from competitors. The consumers give keen interest in shops distributing only Motorcycles and also respondents have an importance on Personal Relationship with owners/providers.

Keywords: *Consumers' behavior, determinants factors, motorcycles market.*

1. Introduction

Motorcycle has been considered as a temporary transport mode over the world. However, in some developing Asian countries such as in china, Thailand, Malaysia, Taiwan and Vietnam, their Motorcycles are consider the easy way of transport in the daily life of the people. The significant of Motorcycles has still remained in the urban transport systems even for decades in the future. Therefore, there is a great need to study the motorcycles market in the perception of consumer decision making, in order to help policy makers to deal with the problem facing in motorcycles bargaining. This study is focus on university students in Penang Malaysia, to know the students perception about the of motorcycles market. The rapid growth of university student's population in Malaysia over the past two decades has been largely attributable to the government policy of expanding the facilities through public as well as private institutions (Government of Malaysia, 2006). Due expansion of educational facilities, have provided the way to the establishment of 20 public universities and many more private colleges. Pervious statistics showed that the number of students entering local public universities for both of undergraduate and graduate studies rose dramatically from 29,962 in 2001 to 58,304 in 2006- a 95 percent increase within five year period (Ministry of Higher Education, 2007). The increased numbers of university students have also increased in the demand of transport within the university. Every university in Malaysia have own bus transportation service, which serve many students. But during the public holidays these buses are not operating, so many students prefer to have own transport. Penang have 1.15 million registered vehicles compared with singpor's693, 00 vehicles and Hong Kong's 517,000, motorcycles constitute more than half the total vehicle population (Center for Public Policy Studies, 2008).

The important problems facing to different Malaysian's motorcycle manufactures are how to exposure determinants that lead consumer in the decision of buying motorcycle and which marketing mix factors influence on consumer's purchasing. Based on this research finding, Malaysian motorcycle companies can understand their consumer's behavior and issues, and can implement suitable strategies to develop their market. The objective of this is to evaluate the local motorcycle market; needs, desire and demand of the consumers, specific to determine the determinants of decision on buying motorcycles of University students, Penang, Malaysia. This research is focused on University Sains Malaysia students, in Penang main campus. Those motorcycles are considered in this study, which are available in the local market, like Honda, Kawasaki, Suzuki, and Yamaha etc.

2. Literature Review

In Malaysia, as at the end of 2005, approximately 15 million vehicles (motor cars, motorcycles, taxis, buses and freight vehicles) plied Malaysian roads. Currently, the country has an adult population of about 15.1 million. Ninety percent of motor vehicles in Malaysia are privately-owned. As a developing country, the relatively cheaper motorcycle takes the largest share at 7 million (47%), followed closely by passenger cars at 6.5 million (43%) (Department of Statistics Malaysia, 2006). From 2000 to 2005, the number of motorcycles and private passenger cars increased at an average rate of 4.5 percent and 10 percent, respectively. The future outlook is one of explosive growth, assuming no mitigating options are undertaken by the government and a “business as usual” scenario applies. According to Abidin et al. (2004), conservative projections place vehicle growth rates over the next 13 years at eight percent, with total vehicle numbers breaching 48 million by 2020.

Markets environment are different from country to country because of factors such as culture, history and geography, and there are differences between many regions of the world in the way consumers perceive products and brands. Among the many factors which are believed to influence consumers' perceptions of the products in an age of international competition, country of origin effects is one with a growing attention. The research on effects of country of origin has made up the largest number in international buyer behavior (Heslop et al 1998; Verlegh & Steenkamp, 1999). Brand effects have also been found to exist for products in general (Darling & Wood, 1990), for certain product categories (Cordell, 1992; Roth et al 1992) and for specific brands (Chao, 1993; Han & Tersptra, 1988; Phau & Prendergast, 2000). Consumers based their purchasing decisions on information cues; either intrinsic cues (e.g. product design) or extrinsic cues e.g. brand name (Jacoby et al 1977).

Keller (1993) mentioned that consumer brand knowledge determines how consumers think about a brand. Findings from various studies in consumer marketing have shown positive association between brand perceptions and purchase intentions (Laroche & Brisoux, 1989; Cobb-Walgren *et al* 1995); marketing activities and brand perceptions (Dodds *et al* 1991); as well as the relationship between brand images and cultures and between self-perception and brand image (Fournier, 1994). Whether the brand associations imply superiority over other brands, however, depends on the types of brand associations attached to the brand by consumers. Such associations can include price, self-image brand-image congruency, and also cultures of origin (O'Cass & Lim, 2002). It is also mentioned that brands originating from a particular country tend to be perceived as similar. Therefore, consumers' perceptions may not be purely brand-specific but rather country-specific (Erickson *et al* 1992; O'Cass & Lim, 2002; Lin & Chen, 2006).

In the developing countries the variety of imported goods available is consider making competition in the domestic markets becoming more rigorous and providing more choices to consumers. Malaysian-made products begin to face stiffer competition with those imported items in order to capture the spending budget of the Malaysian consumers. Malaysia has experienced tremendous economic success over the last three decades, with spill-over effects for its citizens in terms of increased disposable incomes and leisure time. A corollary of the “good life” is improved transportation. As in all countries worldwide, accessibility and mobility afforded by transportation are driven mainly by the growth in private car ownership. Correspondingly, the share for public transportation has fallen. In industrialized countries, car dependency is so deeply ingrained that, in the U.S. in particular, car ownership rates exceed an average of one car per licensed driver in many urban areas (Stopher, 2004).

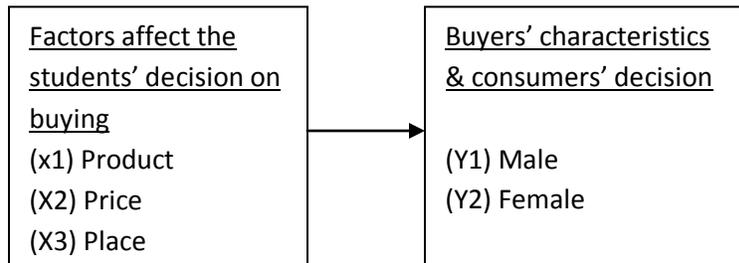
3. Methodology

The methodology show the collection and interpretation of the study instruments, which are divided into three parts

- (a) Conceptual framework: It is classified into independent variables (X) and dependent variable (Y)
- (b) Hypotheses: The three factors (Product, Price, Place,) have significance relationship with Decision making process of purchasing motorcycles.

(c) Data collection: In this part show population, sampling, questionnaire design, instruments, and data collection method.

Applying mainly the theoretical framework of “Model of Buyer Behavior” a number of key implications have elaborated to enable the researchers to develop a set of a conceptual framework that may be expected to explain the factors affecting the consumer’ decision on buying motorcycle of students in USM, Penang, Malaysia. Based on “Model of Buyer Behavior” (Kotler & Armstrong, 2001).



Source: Modified model of buyer behavior (kotler & Armstrong, 2001)

Population and Sample Size

The sample of this study is the student of University Sains Malaysia. Based on the data of IPS Annual Report 2009, there were 7,467 student enrolled in the year of 2009. Random samples of students are selected from the 7,467 university students. Yamane (1973) recommended the formula for random sample as below.

$$n = \frac{N}{1 + Ne^2}$$

Where n is sample

N is population

e^2 is probability error

The sample size can be calculated according to the recommendation as follow.

$$n = \frac{7467}{1 + 7467 \times 0.05^2}$$

With N= 7467, e=5% (95% confidence)

Therefore, the sample size should be at least 400 students.

Questionnaire was designed to obtain the objectives of the study based on conceptual framework. An effort has given to make it more comprehensive to maintain a desirable length with an attempt to make it conceptually clear and concise. To ensure the content validity and reliability of the questionnaire, so it was developed through the following process.

- (a) Prepared the questionnaire based on review of literature, consultation with experts and personal observations.
- (b) Review of academic literature, text and research articles, and indentified the variables that relates to the study
- (c) Pre-test to ensure the respondents understand the questionnaire with International and local students of different school inside the USM.
- (d) The questionnaire was translated into Malay language with the back translation of three Malaysian persons who are knowledgeable in business and fluent in English.

After completing questionnaire a pre-test was conducted to assess the quality, face validity, and content validity of the measurement items in the questionnaire. An attempt was put to make questionnaire simple and understandable to respondents, and at the same time making it a comprehensive tool to collect required information and data. On instruction of experts, the result obtained from pre-test, some items have been

modified and unnecessary items have been deleted. After pretest and modify the questionnaire, four hundred and fifty self administered questionnaire were distributed among USM students, four hundred and twenty questionnaires were received leading to a response rate of 93.33. From the returned questionnaires, five questionnaires were disqualified as the respondents were not completed all the questions in the questionnaire.

Measurement and conducting questionnaire

Questionnaires with 5 point rating scale were used to measure respondent’s evaluation by asking them the level of importance with statements in the questionnaire that have been ranked from (1) least important to (5) most important. Each question consisted of many factors based on literature review, to evaluate the research accurately. The higher the score the more important the variables are as evaluative criteria. Five point scale were used to measure factors in such a way that mean scores could be calculated to show which factors are the most important to affect decision buyers purchasing motorcycle. With 5-points scales, the interval for breaking the range in measuring each variable is calculated by:

$$\frac{5 - 1}{5} = 0.8$$

- It means items with scores fall between the ranges of:
- 4.21–5.00 are considered as the most important level
- 3.41–4.20 are considered as the high important level
- 2.61–3.40 are considered as medium important level
- 1.81–2.60 are considered as the low important level
- 1.00–1.80 are considered as the least important level

Data from questionnaires were processed by SPSS program in terms of frequency, mean, standard deviation, and chi-square.

4. Results and Discussion

The results of the data analyses are presented subsequently the demography of the respondents, consumer behavior and consumer decision process of the respondents, and the description of statistic indicating the important factors that affecting the consumer’s decision on buying motorcycles in USM Penang Malaysia, by gender and age, result of data analysis, hypotheses testing, and interpretation.

Table 1: Respondents of students by gender

Gender	Frequency	Percent (%)
Male	217	52.29
Female	198	47.71
Total	415	100

Table 1 represent that, of the 415 qualified answers, the majority of 207 respondents are male, accounted for 52.29 and the rest 198 are female, accounted for 47.71

Table 2: Respondents of students by age

Age	Frequency	Percent (%)
Under 21	79	19.03
22—25	130	31.32
26 —30	116	27.95
Above 30	90	21.68
Total	415	100.00

Table 2 represents that, the student age between 22-25 years old is the largest, with 130 students, accounted for 31.31% of the total number of student. The next most frequently occurring with 116 student age is 26-30 years old, accounted for 27.95%. Age under 21 year old formed the smallest, with 79 students, accounted for 19.03.

Table 3: Respondents Level of degree

Level	Frequency	Percent (%)
Undergraduate	265	63.85
Master	88	21.20
PhD	62	14.95
Total	415	100

Table 3 represent that, the level of undergraduate is the largest, with 265 students, accounted for 63.85 of the total number of student. The next most is level of master 88 students, accounted for 21% and follow by PhD 62 students, accounted 14.95 is consider the lowest respondent rate.

Table 4: Respondents of level of degree by monthly income

Level of degree	Income							
	below 1000		1001—2000		2001 —3000		Above 3000	
Undergraduate	102	75.56%	97	66.89%	88	67.17%	0	0.0%
Master	33	24.44%	27	18.63%	18	13.75%	10	38.46%
PhD	0	0.0%	21	14.48%	25	19.08%	16	61.54%
Total	135	100%	145	100%	131	100%	26	100%

Table 4 show that the range of student's monthly income in each level degree. Majority of students from undergraduate 102 keep income below 1000, and the lowest number of PhD 16 account income above 3000.

Table 5: Respondents of how to make decision

How to decide	Frequency	Percent (%)
New brand, same old style	97	23.37
Same old brand, new style	129	31.08
New brand, new style	141	33.97
Other	46	11.08
Missing	2	0.48
Total	415	100

Table 5 represents how the students make decision to buy new motorcycle. From total respondent 415 there are 141 students accounted for 33.97% from all students, these student make decision to buy new brand and new style for new motorcycle. Second group buy same old brand and new style with 129 students accounted

for 31.08%. Next group of students buy new brand but same old style with 97 students accounted for 23.37% and the rest are students uncertainly buying.

Table 6: Respondents place to buy motorcycle

Place	Male		Female		Total	
Retail shop	63	29.03%	85	42.92%	148	71.95%
Mega showroom	41	18.89%	29	14.64%	70	33.53%
From their colleagues	73	33.64%	18	9.09%	91	42.73%
Market	31	14.28%	51	25.75%	82	40.03%
Other	9	4.14%	15	7.57%	24	11.71%
Total	217	100	198	100	415	100%

Table 6 represent where the students buy new motorcycle. From total respondent 415 there are 148 students accounted for 71.95% from all students, these student buy motorcycles at retail shop. Second group buy motorcycles from their colleagues with 91 students accounted for 42.73%. Next group of students buy motorcycles from market with 82 students accounted for 40.03%, Mega showroom 70 (33.53%) and the rest are student buy from others place such as exhibition, and event.

Statistic analyzing the important factors affecting the consumer's decision on buying motorcycles in USM, Penang.

Table 7: Respondents opinions on product factors, to the consumer's decision buying motorcycles in Penang Malaysia.

Product factor	Mean	Standard deviation	Impertinent level
Brand	3.65	0.76	High
Design	4.53	0.65	Most
Quality	4.44	0.61	Most
Durability	3.96	0.68	High
Insurance	3.22	0.76	Medium
Several Model	3.86	0.71	High

Note: a). n=415

b). 5-point rating scale, where 1= Least important to 5=Most important

Table 7 shows the respondents' opinions on the importance of product factors to the consumer's decision on buying motorcycles in USM, Penang. There are six different factors effecting the consumer's decision on buying motorcycles in USM, Penang. They are brand, design, quality, durability, warranty, and several models. The mean of the opinion's score for each variable indicates the important level of that variable, which the S.D. indicates the deviation from the central value. The mean score of evaluation for design is 4.53, S.D is 0.65, quality mean=3.96, S.D=0.68. It means that design and quality are considered the most important to the consumer's decision on buying motorcycles in USM, Penang. The three variables, brand, insurance, and several model indicates high level of important in consumer's decision making, while insurance is considered as a medium important level for consumer's decision making on buying motorcycles.

Table 8: Respondents opinions on the importance of price factors to the consumer's decision on buying Motorcycle in Penang, Malaysia

Price factors	Mean	Standard deviation	Important level
Lowest price	4.21	0.68	High
Cash discount	3.75	0.84	High
Quality with competitors	3.91	0.75	High
Value for price paid	3.77	0.96	High

Note: a) n= 415
 b). 5-point rating scale, where 1=Least important to 5=Most important

Table 8 shows the respondents' opinions on the price factors to the consumer's decision on buying Motorcycles in Penang, Malaysia. The mean of the opinion's score for each category indicates the important level of that category, which the S.D indicates the deviation from the central value. It can be seen that of all four variable are considered the high importance to the consumer's decision on buying Motorcycles. They are lowest price (mean= 4.21, S.D=0.68), cash discount (mean=3.75, S.D = 0.8), quality with competitors (mean=3.91, S.D=0.75), and value for price paid (mean=3.77, S.D=0.96). The above result has shown that all four variables are the high importance to the importance of the factors to the consumer's decision on buying Motorcycles.

Table 9: Respondents opinions on the importance of place factors to the consumer's decision on buying motorcycles in Penang, Malaysia.

Place factor	mean	Standard deviation	Important level
Convenient place	3.34	0.76	Medium
Varieties model	3.69	1.02	high
Well know store	3.70	0.72	high
Sales only motorcycle	3.72	0.65	high

Note: a). n=415
 b). 5-point rating scale, where 1=Least important to 5=Most important

Table 9 represents the respondents' opinions on the important of place factor to the consumer's decision on buying motorcycle Penang, Malaysia. The mean of the opinion's score for each variable indicates the important level of that variable of place factors, which the S.D. indicates the deviation from the central value (Mean score). Since the used scale is a point scale, the means between "2.61-3.40" represent the medium level of the importance of the place factors to the consumer's decision on buying motorcycle in Penang, Malaysia.

It can be seen that of all four variables of place factors, only one variable indicates the medium important level to the consumer's decision on buying motorcycles. It is the convenient place only (mean= 3.34, S.D=0.76). The rest three variables are considered the high importance. They are varieties of model (mean=3.69, S.D=1.02), well know store (mean=3.70, S.D=0.72), and sales only motorcycles (mean=3.72, S.D=0.65).

5. Conclusion and Recommendations

This study has observed that many factors affecting consumers' purchasing power. Previous studies have shown so many others factors like Tim, Promotion and so on, but in this study only three factors, Product, Price and Place have evaluated. The result have shown that product factor have significantly affected the decision making process of the consumers. Majority of the students are interested to buy the motorcycle with good design and good quality. Brand and several models have high important level to the consumers. While insurance has medium important level, because many buyers consider high insurance is Burden and willing to buy low paid insurgence motorcycle. So from this study it realized that majorities of buyer give importance to the products and quality. And also suggests that the company owner should decrease the insurance fee to the minimum level. The second factor was the price factor affects the consumers' purchasing power. Lowes price, discount, quality with competitors and value for the price paid have shown high level important. The third factor was place factor, have also shown high level of important for consumers' decision. Only the place has convenient to the buyers has medium important level to the consumers. With the place factor majority of the students have give important to buy motorcycle from their colleague who nearly finished their study program and leaving the university the overall result of this study still give most high important to the price of the product.

Due to the competitive environment of the local market these factor can be highly consider while making decision on product price for the consumers. This study provided some serious implication for companies in Malaysia that are involved in developing the national motorcycles as well as companies that assemble or market imported motorcycles. It provided an insight into the perception of consumer's in Malaysia with regard to the national versus imported motorcycles. More importantly, it would help the marketer of the Malaysian brand to formulate the appropriate strategies to promote their brand of motorcycles. This study have investigated only three factors effecting consumer decision making while there are different other factors also can affect the consumers purchasing power. For the future research, if the respondents are common public rather than university students can also bring different result to the consumers' purchasing power.

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