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Consumer Buying Decisions on Japanese Automobiles in Malaysia: An Empirical Study

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Abstract: The automobile plays a significant role in the daily life of a Malaysian and this has spurred automotive companies to look for an edge wherever they can find it in order to keep up with the competitive pressures of satisfying consumers. More often than not, factors such as branding and price of the automobiles would be the dominant factors that affect the buying decisions of consumers when it comes to buying a Japanese car in Malaysia. However, this proposition requires further substantiation alongside other variables such as ergonomic features, innovation and recreation awareness. Hence, this study aims to determine the relationship between those variables and consumer decision-making with regard to the purchase of Japanese automobiles. To facilitate this objective, researchers collected a total of 150 usable survey responses and analysed them using reliability, correlations and multiple regression analyses. It was found that 23.9% of variance in consumer decision-making was significantly explained by brand name, ergonomic features and innovation. Price and recreational consciousness was found to insignificantly affect Malaysian consumer decision-making in buying Japanese automobiles. This finding was perhaps due to consumers being price cautious during times of uncertainty and rising cost of living.

Key words: Japanese automobile, consumers, decision-making, survey, dominant factors, ergonomic

INTRODUCTION

The automobile industry started, since the early 1890's and its demands have been constantly increasing even up to now. Fine *et al.* (1996) dictates that a vehicle is a complex product which is a major purchase for most customers. This suggestion is based on its competitive market competition among manufacturers. However, in the perspectives of the end-users, the automobile is undoubtedly the most revolutionary creation in the history of transportation.

For an automobile industry, the manufacturing process of an automobile or car is the deciding factor for the entire design, supply chain and development process (Modi *et al.*, 2006). This industry is believed to be capable of manufacturing 60 million cars in 1 year which is enough to bring a significantly positive impact to the global market (Papatheodorou and Harris, 2007). This significant impact in turn provides working opportunities for millions of people. In the past decades, Asia has been progressing as a worldwide automobile base and is becoming the underlying purchaser and provider of vehicles (Nag *et al.*,

2007). Asia is slowly being known for its potential growth in the automobile industry (Chu, 1997). Tan (2007) reported that Nissan and Honda topped the list in terms of consumer fulfilment because of their noteworthy performances in service, quality, initiation, friendliness and other service-related aspects. Based on the aforementioned evidence, it is important for researchers to identify the underlying factors that influence the decisions of customers in buying Japanese-branded cars within Malaysia.

Thus, the aim of this study is to study the factors that affect the customer demands on Japanese automobiles. In this study, it is somehow expected that the branding and price of the automobiles will be the underlying factors that affect the buying decisions of consumers when it comes to buying a Japanese car in Malaysia. This proposition however will be verified using survey data and statistical analyses such as reliability, correlations and multiple linear regression analysis. It also investigates the contribution of other factors that potentially affect consumer buying decisions such as ergonomic features, recreational consciousness and innovation.

Literature review: Malaysia has been a leading automobile manufacturer in ASEAN for many years with over 33% of its sales being accounted for through the volume of automobiles produced (Anonymous, 2010). The automobile significantly influences the daily-living activities of many Malaysians. This has spurred automotive companies to look for an edge wherever they can find it in order to keep up with the competitive pressures of satisfying consumers (Lee and Govindan, 2014).

In Malaysia, Toyota has been the sales leader among the other multinational car manufacturers for 20 consecutive years and is one of the major competitors of the nation's carmakers, namely Perodua as well as Proton. Other Japanese-branded automobile manufacturers such as Nissan and Honda have upheld the subsequent ranks in the overseas automobile manufacturing category. These Japanese-branded automobile manufacturers are able to dominate a considerable amount of market share in the automobile industry of Malaysia even though the current major dominance for car sales in Malaysia is led by Malaysia's major automobile manufacturers.

Mahidin and Kanageswary (2004) suggested that the automotive policy of Malaysia defends the importance of the local car industry by implementing taxes for importation on overseas automobiles which raises the retail prices in the market. A rule was also established by the local content policy where a specific number of local parts need to be sourced by all automobile producers and assembled into their automobile units (Rosli, 2006).

Having said that Japanese-branded automobile producers are still the highest contenders in terms of automobile preference in Malaysia. Haque *et al.* (2007) stated that various consumers would possess dissimilar mindsets in decision-making. Therefore, a survey research is needed in order to identify the underlying factors that influence consumer's decision-making on Japanese automobiles.

The decision-making of customers refers to a rational orientation characterising the customer's method of selections (Sproles and Kendall, 1986). It is examined by certain traits which include brand consciousness, price consciousness, quality consciousness, recreation consciousness and innovation consciousness (Leng and Botelho, 2010).

According to Keller (1993), the customer's knowledge on brands might decide how he/she thinks of a particular brand. They might make a decision to purchase a product by looking into the branding. For price consciousness, there are some consumers who would be willing to pay more in terms of price though some of them would still not do so (Monroe, 1990). Moreover, there are some

consumers who even prefer considering comfort features or ergonomics features in their product selections. Consumers will always remain demanding in their ever increasing selection of products (Ahlstrom and Westbrook, 1999). In addition, customised producers of new and innovative products tend to take note of consumer's buying behaviours (Duray, 2002). Hence, it is essential to understand the effects of these characteristics on the decisions made by customers with regard to the purchase of Japanese automobiles.

Hypothesis development

Brand name: Reinforcing a respectable brand name is a well-known way of achieving a company's goal (Arslan and Altuna, 2010) especially in the race for obtaining the best competitive advantage against other firms. Brand name reflects on the incremental value of an automobile just by its name alone (Baltas and Saridakis, 2009). Automobile producers appear to believe that it can help stop contenders from stealing market share. Thus, the effects of brand name on the decision of customers in buying Japanese cars are investigated. The hypothesis can be proposed as:

 H₁: there is a significant correlation between brand name and consumer's decision-making process in buying Japanese cars

Price: This aspect is examined to determine its effect on the decisions of customers when choosing a product or making comparisons (Smith and Carsky, 1996). Numerous consumers would rather be charged for their product at a low price, though some believe that higher priced goods do have a certain level of superior quality (Etgar and Malhotra, 1981). The local car is priced relatively lesser than the Japanese-branded automobile price though numerous local buyers would yet opt for Japanese branded cars. Therefore, the influences of price on the decision of customers in buying Japanese-branded automobiles are investigated. The hypothesis is proposed

 H₂: there is a significant correlation between price and consumer's decision-making process in buying Japanese cars

Ergonomic features: There many types of car ergonomics features in a car. These features can include the seats, safety belts, braking system and overall design of the car. The safety features have become very important and most automobile industries have invested in ergonomic features in their products. However, some buyers may not

be willing to pay more to obtain those ergonomic features as they might feel that they are not necessary. Thus, the effects of ergonomic features on the decision of customers in buying Japanese-branded automobiles are investigated. The hypothesis can be developed:

 H₃: there is a significant correlation between ergonomic features and consumer's decision-making process in buying Japanese cars

Recreation consciousness: According to Chan and Botelho (2010) recreation consciousness or known as hedonistic shopping can be considered as a pleasurable and fun activity for consumers. Consumers may tend to buy a particular product due to a certain uniqueness in it and the individualism characteristic that they inculcate in their daily life. In some countries, it is plausible that some consumers consider buying cars as a source of fulfilling their recreation consciousness. Some people who have a high degree of individualism may choose products based on their own interests and hobbies. The study by Kwan et al. (2004) showed that recreation consciousness affects consumer buying decision. Boonlertvanich (2009) concurred that consumer decision-making was positively related recreation consciousness. Thus, the effects of recreation consciousness on the decision of customers in buying Japanese-branded automobiles are investigated. The hypothesis can hence be proposed as:

 H₄: there is a significant correlation between recreation consciousness and consumer's decision-making process in buying Japanese cars

Innovation: Innovation can be defined as any new product or features which are equivocal and have perceived risks in the new product introduction stage (Sheth and Ram, 1987). Venkatraman and Price (1990) stated that an innovative buyer would often seek for new and different features in products. Wu (2011) exclaimed that car manufacturers would often be guided reassessing promotion policies, since consumers are starting to value innovation. Wu (2011) further suggested that the US automobile producers should emphasise on innovative improvements by perhaps enhancing the attractiveness of their automobiles. Hence, it is important for researchers to examine the effects of innovation on the decision of customers in buying Japanese-branded automobiles. Therefore, the hypothesis can be suggested as:

 H₅: there is a significant correlation between innovation and consumer's decision-making process in buying Japanese cars

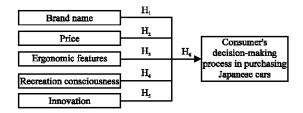


Fig. 1: Hypothetical framework of the study

The hypothetical framework of this study can be found in Fig. 1. A total of 6 hypotheses were proposed for this study with the last hypothesis being the effects of the collection of factors proposed in the previous paragraphs on the decisions made by customers in buying Japanese-branded cars. The collective hypothesis can be proposed as such:

 H₆: the effects of brand name, price, ergonomic features, recreation consciousness and innovation on consumer's decision-making process in buying Japanese cars are significant

MATERIALS AND METHODS

In this study, the researcher used a survey questionnaire and collected back 200 responses from respondents who currently own Japanese automobiles. However, only a total of 150 sets were error-free and usable for analysis. The collection rate was 75% which is an acceptable response rate. The questionnaire was administered personally. The questionnaire adopted a 5 point Likert scale. A total of 32 questionnaire items were used in the questionnaire which comprised of three sections.

RESULTS AND DISCUSSION

The Cronbach's alpha reliability analysis was used to inspect the internal consistency and reliability of the data. According to Hair *et al.* (1998), the usual acceptance value of the alpha would be 0.7. The alpha values for this study were found to be >0.7 which signifies that the internal consistency and reliability of the data is satisfactory.

Correlation is defined as the measure a linear relationship between two random variables (Stockburger, 1996). Table 1 showed that there were significant and positive correlations among brand name, ergonomic features, recreation consciousness, innovation and consumer decision-making.

Table 1: Correlation analysis

| | Brand | | Ergonomic | Recreation | |
|---|---------|--------|-----------|---------------|------------|
| Variables | name | Price | features | consciousness | Innovation |
| Decision- making- person correlation | 0.425** | -0.006 | 0.281** | 0.264** | 0.338** |

^{**}Correlation is significant at the 0.01 level (2-tailed)

Table 2: Regression analysis-model summary

| Table 2: regression analysis model sammay | | | | | | | |
|---|--------|----------------|-------------------------|-------|--|--|--|
| Model | R | \mathbb{R}^2 | Adjusted R ² | Sig. | | | |
| 1 | 0.515ª | 0.265 | 0.239 | 0.007 | | | |

^aDependent variable: consumer decision

Table 3: Regression analysis

| | Unstandardized coefficients (B) SE | | Standardized coefficients (β) t-values | | Sig. |
|---------------|------------------------------------|-------|--|--------|-------|
| Models | | | | | |
| Constant | 0.701 | 0.669 | | 1.048 | 0.297 |
| Brand name | 0.509 | 0.127 | 0.315 | 4.011 | 0.000 |
| Price | -0.228 | 0.093 | -0.204 | -2.459 | 0.055 |
| Ergonomic | 0.213 | 0.092 | 0.205 | 2.317 | 0.022 |
| features | | | | | |
| Recreation | 0.070 | 0.108 | 0.060 | 0.650 | 0.517 |
| consciousness | | | | | |
| Innovation | 0.182 | 0.097 | 0.167 | 1.889 | 0.041 |

All the hypotheses were supported except the second hypothesis (H₂) where price was found to be not significantly correlated with consumer decision-making in buying Japanese automobiles. This finding may be because some consumers generally believe that the quality of products increase with price and vice versa. Such consumers would often be prepared in spending more money to buy products with perceivably higher quality than cheaper products, making the prices of these products inelastic (Bolton, 1989).

Table 2 justified that brand name, ergonomic features and innovation were capable of significantly explaining about 23.9% of the variance in the decision-making of consumers.

The overall regression model is also found to be significant with a p-value of <0.01 (p = 0.007). Based on the coefficients in Table 3, a new regression equation for this study is formed:

For every unit of increase in brand name, the consumer decision would increase by 0.509. This applies for the other variables such as ergonomic features and innovation. In this composite analysis, it was found that price and recreation consciousness did not significantly affect consumer's buying decisions on Japanese automobiles. Since, Malaysia's national automobiles are

somehow priced lower than the other imported vehicles, it would be logical for a consumer to make a decision leaning towards national automobiles rather than imported cars. Therefore, when tested alongside other variables such as brand name, ergonomic features and innovation, the price factor might not significantly influence Malaysian consumers in deciding to purchase Japanese automobile.

Besides that, it would be reasonable to assume that consumers with a high degree of recreation consciousness consumers would be classified as a more high-end income earner. In recent times, Malaysians have been holding back on car purchases due to the volatility of the economy and rising cost of living (Leong, 2006). Hence, perhaps there would be fewer Malaysians who would invest in recreational consciousness (compared to other variables such as ergonomic features, innovation and brand name) in their decision to purchase Japanese automobiles.

CONCLUSION

As a conclusion, it was found that brand name, ergonomic features and innovation would significantly affect consumer's decision-making process on buying Japanese automobiles. Consumers would often seek for branded, comfortable and innovative automobiles before making the final decision when buying a Japanese automobile. However, price is negatively and insignificantly correlated with such a decision-making. In addition, when compositely tested alongside the rest of the variables, consumer's decision-making on buying Japanese automobiles was found to be not significantly affected by recreation consciousness.

Future studies can consider a larger sample size with more respondents from the high income group. This would improve the generality of this study. In addition, future studies could consider the survey of consumers from different countries in order to compare their buying decisions and preferences with Malaysian consumers.

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REFERENCES

- Ahlstrom, P. and R. Westbrook, 1999. Implications of mass customization for operations management: An exploratory survey. Int. J. Oper. Prod. Manage., 19: 262-274.
- Anonymous, 2010. Malaysia's automotive industry. Malaysian Industrial Development Authority, Kuala Lumpur, Malaysia.
- Arslan, F.M. and O.K. Altuna, 2010. The effect of brand extensions on product brand image. J. Product Brand Manage., 19: 170-180.
- Baltas, G. and C. Saridakis, 2009. Brand-name effects, segment differences and product characteristics: An integrated model of the car market. J. Prod. Brand Manage., 18: 143-151.
- Bolton, R.N., 1989. The relationship between market characteristics and promotional price elasticities. Marketing Sci., 8: 153-169.
- Boonlertvanich, K., 2009. Consumer buying and decision making behavior of a digital camera in Thailand. RU Int. J., 3: 57-66.
- Chu, W., 1997. Globalization of the Korean Automobile Industry. Seoul National University, Seoul, Korea,.
- Duray, R., 2002. Mass customization origins: Mass or custom manufacturing?. Intl. J. Oper. Prod. Manage., 22: 314-328.
- Etgar, M. and N.K. Malhotra, 1981. Determinants of price dependency: Personal and perceptual factors. J. Consum. Res., 8: 217-222.
- Fine, C.H., J.C. Lafrance and D. Hillebrand, 1996. Meeting the challange: U.S. industry faces the 21st Century. Office of Technology Policy U.S., Washington, USA.
- Hair, Jr. J.F., R.L. Tatham, R.E. Anderson and W.C. Black, 1998. Multivariate Data Analysis. 5th Edn., Prentice Hall International, Englewood Cliffs, NJ., USA., ISBN-13: 978-0138948580, pp. 169-215.
- Haque, A., A. Khatibi, A. Raquib and S.A. Mahmud, 2007. Consumer perception and its choice mobile telecom service provider in Malaysia. J. Intl. Bus. Econ., 7: 84-84.
- Keller, K.L., 1993. Conceptualizing, measuring and managing customer-based brand equity. J. Market., 57: 1-22.
- Kwan, C.Y., K.W. Yeung and K.F. Au, 2004. Decision making behavior towards casual wear buying: A study of young consumers in Mainland China. J. Manage. World Bus. Res., 1: 1-10.

- Lee, T.W. and S. Govindan, 2014. Emerging issues in car purchasing decision. Acad. Res. Intl., 5: 169-179.
- Leng, C.Y. and D. Botelho, 2010. How does national culture impact on consumers decision-making styles? A cross cultural study in Brazil, the United States and Japan. BAR-Brazilian Administration Rev., 7: 260-275.
- Leo, C., R. Bennett and C.E. Hartel, 2005. Cross-cultural differences in consumer decision-making styles. Cross Cult. Manage. Int. J., 12: 32-62.
- Leong, H.Y., 2016. Malaysian consumers hold back on big-ticket items such as cars. Star Media Group Berhad, Petaling Jaya, Malaysia. http://www.thestar. com.my/business/business-news/2016/04/18/malay sian-consumers-hold-back-on-big-ticket-items-such-as-cars/.
- Mahidin, M.U. and R. Kanageswary, 2004. The development of the automobile industry and the road ahead Putrajaya. Pejabat Pengarah Tanah dan Galian Wilayah Persekutuan, Kuala Lumpur, Malaysia.
- Modi, C., R. Zein, L. Kramer, S. Saudale and M. Banavadikar et al., 2006. Comparison of Asian and North American automobile manufacturing practices. Master Thesis, University of Houston, Houston, Texas, USA.
- Monroe, K.B., 1990. Pricing: Making Profitable Decisions. 2nd Edn., McGraw-Hill, New York, ISBN-13: 9780070427822, Pages: 502.
- Nag, B., S. Banerjee and R. Chatterjee, 2007. Changing features of the automobile industry in Asia: Comparison of production, trade and market structure in selected countries. Asia Pac. Res. Train. Network Trade Working Pap. Ser., 37: 1-47.
- Papatheodorou, Y. and M. Harris, 2007. The Automotive Industry: Economic Impact and Location Issues. Penton Publishing Company, New York, USA.,.
- Rosli, M., 2006. The automobile industry and performance of Malaysian auto production. J. Econ. Cooperation, 27: 89-114.
- Sheth, J.N. and S. Ram, 1987. Bringing Innovation to Market: How to Break Corporate and Customer Barriers. John Wiley & Sons, New Jersey, USA., ISBN:9780471849773, Pages: 247.
- Smith, M.F. and M.L. Carsky, 1996. Grocery shopping behavior a comparison of involved and uninvolved consumers. J. Retail. Consum. Serv., 3: 73-80.
- Sproles, G.B. and E.L. Kendall, 1986. A methodology for profiling consumer's decision-making styles. J. Consumer Affairs, 20: 267-279.

- Stockburger, D.W., 1996. Introductory Statistics: Concepts, Models and Applications. Atomic Dog Publishing, Ohio, USA.,.
- Tan, P., 2007. Malaysia customer satisfaction index study.
 Driven Communications Sdn Bhd., Petaling Jaya,
 Malaysia. http://paultan.org/2007/08/01/2007-malaysia-customer-satisfaction-index-study/.
- Venkatraman, M.P. and L.L. Price, 1990. Differentiating between cognitive and sensory innovativeness. J. Bus. Res., 20: 293-315.
- Wu, G., 2011. Country image, informational influence, collectivism/individualism and brand loyalty: Exploring the automobile purchase patterns of Chinese Americans. J. Consum. Market., 28: 169-177.