



The influence of 4P marketing on housewives' spending patterns in Malaysia

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Abstract

The main focus of this study is to examine the demographic and psychological factors which influenced the spending patterns of housewives in Malaysia with special emphasis on the role of the 4P (*product, price, promotion, place*) marketing. Based on the factors, a total of 31 problem statements related to the attitude and the buying decision of housewives were designed. The findings showed that the price factor played an important part in influencing housewives' spending attitude compared to the factors. By contrast, the location factor (place) was the least important factor in determining the housewives' spending decision. The study also proved that housewives in Malaysia spent their money according to the household needs. Such attitudinal and decision-making pattern of the housewives means that the government's regulation of consumer prices should work towards controlling inflation in Malaysia.

Keywords: 4P marketing, consumer prices, household needs, housewives' spending patterns, inflation, price regulation

Introduction

Marketing comprises one of the efforts taken by the producer in introducing and promoting goods or services in the market. The marketing activity is conducted based on the marketing concept which consists of three factors. The first factor is the planning channel and the company activity should focus on the consumers and the market. Secondly, sales volume should be an imperative aspect in achieving the company objectives to maximise the profit. Thirdly, the entire marketing activities should be streamlined according to the organisation.

Kotler (2001) stated that marketing is related to the target market i.e consumers in providing a potential transactional process which satisfies the customers' needs and demands. The success of a marketing process is considered the hallmark of a company's success. Dickinson (1974), Levy (1976) and Stanton (2001) defined marketing as an overall system which describes a business activity comprising the planning, determining prices, promoting and distributing products and services, in order to satisfy existing customer and potential consumer needs. Based on the definition above, it can be assumed that marketing is an activity which combines strategic methods in the effort to satisfy customer needs and demands through a transactional process.

Marketing is a vital activity in a company in order to create a positive and acceptable perception towards the product from the customer. This positive perception not only provides satisfaction to the consumer, but it also ensures profit to the company and guarantees product sustainability in the market (Norimah, Nurhanie, Fatimah Salwa, 2013a & Norimah, Yahya, Fidlizan, Nurhanie, 2013b).

An effective marketing activity comprises 4 marketing strategies which are also known as the 4P marketing mix. This marketing mix is a set of marketing elements which are controlled and strategic. It enables the firm to combine each element in order to obtain the required information in the target market and also allows the firm to influence demand towards a particular product. The 4P marketing mix refers to the products in the market, the prices of goods, the promotion involved and the location (place) of buying. Product refers to the goods or services in the market which would satisfy the customer needs. The price of goods refers to a sum of money needed to acquire the goods. As for promotion, this involves the action of publicising the benefits or advantages of the products sold by the company. Lastly, place refers to aspects of distribution, location and methods for the customers to acquire the products.

As such, a study on the influence of marketing (4P) towards housewives' spending patterns and inflationary levels in Malaysia had been conducted on 100 respondents in Johore. The main objective of this study was to examine the spending pattern and attitude of the housewives as consumers as well as the marketing factors which influenced the housewives' spending pattern.

Previous studies

This section will describe in detail previous studies conducted by researchers such as Nurizan, Jaiyah and Jariah (1985), Munusamy & Hoo (2008), Owomoyela et al. (2013), Lin et al. (2012), Jiang (2009), Marieke and Geert (2011), Pamella (2012) and Tai and Tam (1997). The results of previous studies were examined to enable the process of assisting and facilitating the researcher's own analysis process.

Munusamy and Hoo (2008) had looked at the relationship between the Marketing Mix Strategy and Customer Motivation at TESCO supermarkets in Malaysia. This research had utilised the quantitative approach and had been conducted at TESCO supermarkets in Puchong, Klang and Mutiara Damansara in the Klang Valley. A simple regression analysis had been conducted to assess the relationship between 4P and customer motivation. The study results indicate that only the price strategy had a positive effect on customer motivation, while the promotion strategy showed a clear negative effect on customer motivation. The product and place strategy did not influence customer motivation. This shows that customers are spending mainly due to the lower price strategy.

Owomoyela et al. (2013) in their study examined the effect of the marketing mix strategy on customer loyalty at a Nigerian PLC beer plant. A closed survey had been conducted on 60 respondents comprising 6 managers and 10 dealers and 34 customers from different areas in Ibadan. By using correlation coefficient test and multiple regression analysis, the research results showed that the marketing mix elements had a major effect on customer loyalty.

A study on the attitude and expectations of customers towards the marketing strategy for a fun park in Taiwan had been conducted by Lin et al (2012). The sample consisted of 1170 respondents who had utilised the facilities offered by the Janfusun World Group in Central Taiwan. The study was analysed using the descriptive statistical test, factor analysis, the Pearson correlation coefficient test, t-test and variance analysis (ANOVA) to determine whether there were significant differences in terms of marketing strategy and customer behaviour. The study results showed that there were four situations: firstly, customer behaviour and marketing strategy perception had a moderate relationship with the price significance in the marketing mix. Secondly, regarding the marketing mix perception, price significance had a high positive relationship compared to the significance of location. Thirdly, in terms of demographical variables, gender had a major effect on customer choice compared to safety measures, traffic facilities and price rate. Lastly, age and residence factors had a clear effect on customer choice. This study consistency with the study by Lynne, Sun, Joyce & Dawn (2008)

Jiang (2009) had used the latest census data collected from 140 areas in the U.S to ascertain the sociodemographical, environment and the marketing mix variable effects on household art expenditure. A stepwise regression analysis had been utilised in this study to identify the main determinants of household art expenditure and the direction impact. The study results showed that a set of sociodemographical, environment and marketing mix variables could be used to explain a significant part of the variation in

household art expenditure. Furthermore, the variables also influenced different household art expenditures.

Tai and Tam (1997) in their study looked at the difference of lifestyles between female consumers in Hong Kong, Taiwan and China. The study had been conducted on 3 groups of female consumers regarding 9 different categories which are a) female perception and roles, b) family orientation, c) household hygiene, d) brand awareness, e) price awareness, f) self-confidence, g) enthusiasm to work, h) health awareness and i) environmental awareness. The study results showed that female consumers in China were more inclined towards imported goods, without considering the quality or value while female consumers in Hong Kong were more sensitive towards quality and value compared to female consumers in Taiwan who were more sensitive towards the price factor.

Methodology

This section will focus on the methodology or the research method to be used in the study. The research methodology can be defined as a process of how a particular phenomenon can be examined and revealed in a systematic and transparent manner in order to identify the results and obtain required judgement (Ahmad Mahdzan Ayob, 2005). In this study, the researcher had used primary data in the form of the sample survey method. The sample survey method is a survey conducted on a section of the population under scrutiny (Mohd Fauzi, 2011). One of the collection methods used was the distribution of questionnaires. A questionnaire consists of questions printed in an orderly manner for the purpose of obtaining information related to the study conducted. The questionnaires would be answered by the respondents either face to face or by replying via post. For sampling purposes, 100 respondents had been selected randomly. Each respondent was required to complete the questionnaire set and the data was analysed using the SPSS software version 21.0

Model construction and specifications

The model construction was based on the model most appropriate with the hypothesis made earlier in the study. In this study, the multiple regression model was utilised. The linear equation model contained more than 2 dependent variables. In general form, this could be written as;

$$Y_i = f(X_i);$$

To detailed,

$$Y_i = f\{X_1, X_2, X_3, X_4, X_5, X_6, X_7, X_8, X_9, X_{10}, X_{11}, X_{12}, X_{13}, X_{14}, X_{15}, X_{16}, X_{17}, X_{18}, X_{19}, X_{20}, X_{21}, X_{22}, X_{23}, X_{24}, X_{25}, X_{26}, X_{27}, X_{28}, X_{29}, X_{30}, X_{31}\}$$

Whereby Y_i would be the dependent variable, which is the wife's allocation and X_i comprised 31 independent variables in this study.

Whereby, Y_i = wife's allocation, X_1 = loves to shop, X_2 = shops according to budget, X_3 = shops according to more than one can afford, X_4 = prioritises products for personal need, X_5 = makes a list before shopping, X_6 = lives on debts, X_7 = does not mind running out of savings, X_8 = would still buy even though prices are high, X_9 = understands the term 'inflation', X_{10} = understands that spending influences inflation, X_{11} = plans monthly budget, X_{12} = follows monthly budget, X_{13} = prioritises household needs, X_{14} = shops a lot during sales, X_{15} = loves shopping in supermarkets, X_{16} = membeli barang berjenama, X_{17} = prefers promotional items, X_{18} = would still buy at high prices, X_{19} = would not buy at high prices, X_{20} = influenced by cheap sales ads, X_{21} = shops at the usual place, X_{22} = buys in bulk, X_{23} = buys cheap priced items, X_{24} = shops once a week, X_{25} = uses credit card, X_{26} = understands consumer education, X_{27} = shops at clean and tidy stores, X_{28} = buys local products, X_{29} = buys on instalment plan, X_{30} = shops at nearby

stores only and X_{31} = uses public services. Based on the functions above, a multiple regression model was constructed, with its linear equation created as such;

$$Y_i = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_i X_i + \mu_i$$

whereby,

- β_0 = constant
- β_i = coefficient for independent variable for $I = 1, 2, 3, \dots, 31$
- μ_i = random variable

The 4P marketing mix

31 variables were utilised in this study. Each variable would be classified according to the 4P marketing mix category such as product, price, promotion and place of purchase. The classification table for the variables can be seen below.

Table 1. Instruments conducted for 4P questionnaire

PRODUCT	PLACE	PRICE	PROMOTION
Emphasises on the need for goods for personal use	Prefers to shop at the supermarkets	Loves to shop	Shops a lot during sales
Prioritises the needs of the household	Shops at the usual place	Shops according to budget	Prefers promotional items
Buys branded goods	Shops in clean and tidy shops	Shops according to more than one can afford	Influenced by cheap sale ads
Buys locally-made goods	Shops at nearby shops only	Lives on debts	
Buys on an instalment plan		Buys in bulk	
		Does not mind running out of savings	
		Would still buy even though prices are high	
		Would buy at high prices	
		Would not buy at high prices	
		Would make a list before shopping	
		Understands the meaning of 'inflation'	
		Understands that spending has an effect on inflation	
		Plans monthly budget	
		Follows monthly budget	
		Buys cheap priced goods	
		Shops once a week	
		Uses credit card	
		Understands consumer education	
		Uses public services	

Results and discussions

The data was analysed using “Statistical Package for the Social Science for Windows’ (SPSS for Windows) version 20. Multiple regression statistics was utilised to ascertain the influence of a variable against another variable. The multiple regression analysis involved the use of more than one independent

variable to predict a dependent variable. The relationship between variables in the regression equation was attributed as a causal relationship.

Table 2. Data analysis and discussion

Independent Variables (Instruments)	Coefisyen
Allocation for wife	1099.289 (1170.645)
Dummy variable (husband's role in providing allocation to the wife)	-
Loves to shop	96.753 (96.190)
Shops according to budget	-302.341** (148.819)
Shops according to more than one can afford	-
Emphasise on the need for goods for personal use	-85.237 (86.010)
Would make a list before shopping	270.415** (121.388)
Lives on debts	-
Does not mind running out of savings	95.754 (139.595)
Would still buy even though prices are high	-254.125** (31.190)
Understands the meaning of inflation	-
Understands that spending has an effect on inflation	-
Plans monthly budget	-
Follows monthly budget	-189.017 (135.791)
Prioritise the needs of the household	-
Shops a lot during sales	169.549* (94.837)
Prefer to shop at the supermarkets	-
Buying branded goods	-
Prefers promotional items	75.316 (107.339)
Would buy at high prices	81.934 (121.208)
Would not buy at high prices	-107.74 (86.041)
Influenced by cheap sales ads	85.216 (102.687)
shops at the usual place	-
Buys in bulk	157.267 (104.636)

Independent Variables (Instruments)	Coefisyen
	122.705
Buys cheap priced items	(150.879)
Shops once a week	-115.24 (108.201)
Uses credit card	256.432** (101.458)
Understands consumer education	336.356*** (108.149)
Shops at clean and tidy shops	-
Buys locally made goods	-187.003 (122.107)
Buys on an instalment plan	-101.848 (82.974)
Shops at nearby stores only	-86.573 (95.411)
Uses public service	-265.697*** (83.914)
R ²	0.365
Durbin-Watson	1.885
F ratio	4.866
Min Tolerance	0.439
Max VIF	2.277
Min Eigenvalue	0.005
Max CI	62.296

Note: Asterisks *, ** and *** show significance at 1%, 5% and 10% levels.

The Multiple Regression results

Based on the Coefficients section, the linear regression model could be formed using the following equation:

The estimation modelling;

$$Y = 1099.289 + 96.753 X_1 - 302.341 X_2 - 85.237 X_3 + 270.415 X_4 + 95.754 X_5 - 254.125 X_6 + 189.017 X_7 + 169.549 X_8 + 75.316 X_9 + 81.934 X_{10} - 107.740 X_{11} + 85.216 X_{12} + 157.267 X_{13} + 122.705 X_{14} - 155.240 X_{15} + 256.432 X_{16} + 366.356 X_{17} - 187.003 X_{18} - 101.848 X_{19} - 86.573 X_{20} - 265.697 X_{21} + \mu_i$$

Based on the analysis above, the regression coefficient for variable 'loves to shop' X_1 was 96.753, showing that this variable had a positive influence on allocation for the wife: as the ratio for shopping increased, so did the allocation for the wife's shopping needs. The regression coefficient for variable 'budget' X_2 which was -302.341 indicated that the variable 'shops according to budget' had a negative influence on the size of the wife's allocation: as the ratio for shopping increased, the ratio for shopping according to the budget decreased.

The regression coefficient for the variable 'emphasise on the need for personal use goods' X_3 was -85.237 which indicated that this variable had a negative influence on the wife's allocation; as the ratio for the need for personal use goods increased, the wife's allocation decreased. On the other hand, the regression coefficient for the variable 'would make a list before shopping' X_4 at 270.415 showed that this variable had a positive influence on the wife's allocation

As for the regression coefficient for the variable 'does not mind running out of savings' X_5 at 95.754, this indicated that this variable had a positive influence on the wife's allocation. The ratio for this

increased in line with the wife's allocation. On the other hand, the regression coefficient for the variable 'Would still buy even though prices are high' X_6 at -254.125 showed that this variable had a negative influence on the wife's allocation; the ratio for this increased while the wife's allocation decreased.

The regression coefficient for the variable 'follows monthly budget' X_7 at -189.017 showed that this variable had a negative effect on the wife's allocation. The ratio for this increased while the wife's allocation decreased. On the other hand, the regression coefficient for the variable 'Shops a lot during sales' X_8 at 169.549 indicated that this variable had a positive effect on the wife's allocation; the ratio for this variable increased in line with the money allocated to the wife.

As for the regression coefficient for the variable 'prefers promotional items' X_9 at 75.316, this indicated that this variable had a positive influence on the wife's allocation. The ratio for this increased in line with the wife's allocation. Additionally, the regression coefficient for the variable 'Would buy at high prices' X_{10} at 81.934 showed that this variable had a positive on the wife's allocation; the ratio for this also increased in line with the sum of money allocated to the wife.

The regression coefficient for the variable 'would not buy at high prices' X_{11} at -107.740 showed that this variable had a negative effect on the wife's allocation. The ratio for this increased while the wife's allocation decreased. On the other hand, the regression coefficient for the variable 'influenced by cheap sales ads' X_{12} at 85.216 indicated that this variable had a positive effect on the wife's allocation; the ratio for this variable increased in line with the money allocated to the wife. Similarly, the regression coefficient for the variable 'influenced by cheap sales ad' X_{12} at 85.216 indicated that the variable had a positive influence on the wife's allocation.

Regarding the regression coefficient for the variable 'buys in bulk' X_{13} , the value of 157.267 showed that this variable had a positive influence on the wife's allocation; the ratio for this variable increased in line with the money allocated to the wife. Conversely, the regression coefficient for the variable 'buys cheap-priced items' X_{14} with the value of 122.705 indicated that this variable also had a positive effect on the wife's allocation; the ratio for buying cheap items increased in line with the sum of money allocated to the wife.

The regression coefficient for the variable 'shops once a week' X_{15} at -115.240 showed that this variable had a negative influence on the financial allocation for the wife; the ratio for this variable increased while the allocation decreased. As for the regression coefficient for the variable 'uses credit card' X_{16} , valued at 256.432, this informs us that the variable for using credit card had a positive influence on the wife's financial allocation; the ratio for this variable increased in line with the sum of money provided for the wife.

As for the regression coefficient for the variable 'understands consumer education' X_{17} , with its value of 336.356, this indicates that the variable for understanding consumer knowledge had a positive influence on the wife's financial allocation; the ratio for this variable increased in line with the sum of money allocated to the wife. The regression coefficient for the variable 'buys locally made goods' X_{18} , valued at -187.003, showed that this variable had a negative influence on the wife's financial allocation; the ratio for this variable increased while the sum of money for the wife's allocation decreased.

The regression coefficient for the variable 'buys on an instalment plan' X_{29} with its value of -101.848 showed that this variable had a negative influence on the wife's financial allocation; the ratio for this variable increased while the wife's allocation decreased. The next regression coefficient is for the variable 'shops at nearby stores' X_{20} with its value of -86.573, thus indicating that this variable had a negative effect on the wife's financial allocation. The ratio for this variable increased while the wife's financial allocation decreased.

As for the regression coefficient for the variable 'uses public service' X_{21} , with its value of -265.697, this showed that the variable had a negative influence on the wife's financial allocation. The ratio for this variable increased while the financial allocation to the wife decreased.

ANOVA Simultaneous Hypothesis Test (F Test)

The ANOVA test was used to test the model's acceptability in the perspective of statistics. To acquire a good regression model, the significant value for F should be less than 0.05. The study results showed that the F value was significant at 0.00, $0.00 < 0.05$ at 4.866. Generally, all the independent variables had a significant effect on the wife's allocation.

R² coefficient of determination

The summary model table shows the strength of the relationship between the model and dependent variables. R, which is the multiple correlation coefficient, can be used to describe the relationship between what was observed and the predicted model value for the dependent variables. The high R value, at 0.604, indicated that there existed a strong relationship. As for *R Square*, described as the coefficient of determination, this can be explained as the squared value for the multiple correlation correlation. Based on the above table, the value of *R squared* or R^2 was 0.365. This value described the influence of independent variables on the wife's allocation, at 36.5%, and the remaining 63.5% was attributed to the influence of other variables not included in the model.

The consistency of the regression model can be explained using the R^2 value; the higher the value, the better the model. A value closer to 1 indicated a better regression model. The R^2 value should have the following characteristics: 1) constant positive value, 2) maximum R^2 value of 1. An R^2 value of 1 can be considered as having the perfect fit. This means that the whole variation in the Y variable could be explained by the regression model. On the other hand, if the R^2 is equal to 0, then there is no linear relationship between X and Y. The Durbin-Watson test is utilised to ensure whether the error occurs randomly. The test results revealed the DW value as 1.902, which is between 1.5–2.5. This indicated that there was no random error occurrence.

Multi-collinearity Diagnostic Test

The regression test assumes that all independent variables do not share a linear relationship with each other. If a relationship exists between the dependent variables, then there will be a relationship problem with the independent variables. The colinearity test is utilised in order to find out if there is a strong correlation between the independent variables in the building of the model. *Tolerance* is the percentage of variance for certain independent variable which cannot be explained by other variables. When the tolerance value is close to 0, this indicates that there is high multicollinearity and the standard deviation for regression coefficient will raise or increase. The Tolerance value showed that there was no independent variable with a value less than 0.10, which meant that there was no correlation between independent variables with values exceeding 95%. Variance Increase Factor (VIF) was utilised to identify multicollinearity, if $VIF > 10$ then multicollinearity exists. From the above table, VIF for all variables was smaller than 3; thus it can be concluded multicollinearity exists among the independent variables in the regression model. In this study, the lowest VIF model was 1.240.

The Colinearity Diagnostic Test confirmed a serious problem in the model. Based on Table 1: A few eigenvalues close to 0 indicated that the independent variables had a high correlation with each other and any small difference in the data value would create a huge difference in the estimated coefficient. *Condition indices* (CI) were calculated as the ratio of the square root of the largest eigenvalue to the next eigenvalue. If CI is bigger than 15, there would be problems of colinearity; if it is bigger than 30, then the data is considered problematic.

Conclusion

The main focus of this study was to conduct a sampling analysis and a survey on housewives' retail spending pattern in Malaysia. The study results indicated that the price factor played a role in influencing housewives' shopping behaviour in Malaysia. Furthermore, the study results proved that Malaysian housewives shopped according to their household needs. As such, the government should play its role in regulating and setting the prices for the retailers. Lastly, seminars on financial education would also be helpful in assisting housewives to spend according to their budgets and needs.

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