

Factor Influencing Consumer Choice between Modern and Traditional Retailers in Malaysia

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Abstract—Wet markets and traditional grocery shops are holding on to customers in rural areas and small towns, but they are losing ground in larger towns and cities. The retail landscape in Malaysia is transforming from a traditional to a modern retail formats. The objective of this study is to show the advantages of both the modern and traditional retailers which are available to the Malaysian consumers and to investigate what determines the consumers' shopping preferences for their retail format. A structured questionnaire was constructed to gather shopping preferences from 650 respondents in Selangor. Descriptive analysis, factor analysis, binary logit model were used to analyze the data. The results show that socio-demographic variables such as age, education, accompany, and family size as well as packaging, store environment, and price of products have influence on retail format choice.

Index Terms—Consumer's shopping preference, modern market, traditional market, and retail format choice.

I. INTRODUCTION

The phenomenon of modern retail market has emerged throughout Asia, South America, Eastern Europe, and the Middle East, especially where food retailing is dominated by traditional format family run food stores. There is a trend in the expansion of modern grocery retailing as hypermarkets and supermarkets. They are becoming increasingly popular by providing more convenience, a wider variety of products ranging from packaged and processed to fresh food products that consumers find at a wet markets [1]. While independent shops and mom-and-pop stores still dominate much of the region modern retail formats and chain stores are making inroads in urban areas of most Asian countries [2].

Malaysia's wholesale and retail sector is a major contributor to the Gross National Income (GNI), by contributing about RM57 billion to it in 2009 and providing almost 500,000 jobs in the country. Retail sector is a key driver of domestic consumption, which in turn leads to economic growth. Given the importance of retail as a driver of domestic consumption, and the need to reverse the decline of the sector, the government has designated it as a National Key Economic Area (NKEA). The governmental policy has led large foreign players, such as Tesco, Giant and Carrefour, alongside home-grown leaders like Mydin, Tunas Manja, Econsave and TF Value Mart. In the Malaysian capital, Kuala Lumpur, where urbanization has reached 100%, shop houses are especially losing out to shopping complexes and

hypermarkets [3].

The food retail sector is made up of wet markets, dry markets, night markets, sundry/provision shops, convenience stores, discount stores, specialty stores, supermarkets, department stores, and hypermarkets [4]. With the emergence and rapid development of modern retailers, farmer's market was introduced by Federal Agricultural Marketing Authority (FAMA). This was based on the idea of creating a marketing outlet for farmers and producers to directly sell their produce to consumers. The farmer's market which has its own identity through a mobile and carnival-like concept was launched in 1985. The farmer's market has become a 'meeting ground for producers and consumers' and it has become the main marketing institution in the country. Some examples of Farmer's Market establishments are Pasar Tani Mega, Pasar Tani Desaraya, Pasar Tani Borong, Pasar Tani Kekal and Pasar Tani Bunga. The main idea behind establishing the Farmer's Market was to produce more responsive farmers as well as accelerating the socioeconomic development process of the farming community, in line with the National Agriculture Policy (NAP).

Wet markets and traditional grocery shops are holding on to customers in rural areas and small towns, but they are losing ground in larger towns and cities. The retail landscape has been transforming from traditional to modern retail formats leading to an increasing dominance over small shops. Modern retailing is highly accepted by Malaysian consumers as the main channel to purchase basic household necessities [5]. Supermarkets and hypermarkets are becoming increasingly sophisticated with the introduction of in-store bakeries, food service areas, and a range of ready to eat meals and improvements to fresh food areas. The modern retail food sector is seen as a threat to family run stores [6]. Modern stores include supermarkets, hypermarkets and department stores with supermarkets having around 43% share of the retail food market [7]. Many of them are foreign-owned with major players being Giant, Carrefour, and AEON. Since the large format retail sub-sector was liberalized in 1995, the numbers have risen to 121 hypermarkets, 113 superstores and 113 department stores owned by foreign and local companies. The retail sector is led by large chains of hypermarkets and supermarkets, such as Giant, with about 120 outlets nationwide [8]. Among main grocery formats, hypermarkets and superstores brought sales about US\$ 2,522.1 million for a total sale out of 3,460.3 million. It plays an important role in grocery retail sales contributing 72.9 % to the total sales.

From the rise and emergence of retail markets, a large number of studies were conducted to determine the factors which influence consumer's shopping behavior for retail format choice. Food distribution/retailing channels differ across regions of the world. Consumer shopping habits and

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lifestyles all influence how the food retail sector is configured in different countries [9]. Consumer behavior is shaped considerably by personal, situational, psychological, and social pressure. Geography also influences consumer shopping preference, indicating the reasons behind the presence of grocery and general retail of modern outlets being clustered in big cities and towns in Peninsular Malaysia, including those in Kuala Lumpur, Penang and Johor Baru [10]. Even for purchasing fresh products such as fruit and vegetables which are the main sales in wet markets, Malaysian urban consumers have shifted from traditional wet markets to supermarkets [11]. Large food retail stores are generally located in the major cities or urban centers and larger towns in Malaysia where the majority of the middle to high income consumers reside [12]. The growing middle class is demanding premium food items such as confectionaries and functional foods and even though the traditional grocery outlets, wet markets, and vegetable vendors remain the most popular grocery channels, modern retail is gaining ground, and Malaysia is now at the forefront of many retailers' expansion plans [13].

In order to see the bigger picture of consumers' retail format choice between modern and traditional retailers, it is necessary to show consumer's shopping preference for both modern or traditional retailers in Malaysia, and to find from which type of retail format consumers prefer to buy their daily groceries such as fresh food products. It is also important to investigate factors influencing consumer's retail format choice of modern and traditional retailers for purchasing fresh food product. Since retails in Malaysia have a mix of traditional and modern markets, clarifying the influential factors of consumer's shopping preferences for retail format choice can help both retail formats to attract more customers.

II. METHODOLOGY

In this study, 650 consumer respondents were interviewed by using a structured questionnaire to collect information related to their shopping preferences. With the advent of a greater number of hypermarkets in some areas, namely Selangor, the casualty seems to be the shopping complexes and not the traditional shop houses [3]. Therefore, surveys were conducted in Selangor, where most of consumers have the possibility of shopping at both traditional and modern markets. Systematic random sampling was applied to collect information while standing in front of night markets, supermarkets and hypermarkets as they represent various types of traditional and modern markets. Every five shopper was randomly selected as a possible respondent. The questionnaire contained respondent's socio-demographic characteristics in the first section and shopping preferences for fresh food products including vegetables, fruit, seafood, chicken, beef and etc. in the second section.

Descriptive analysis was conducted to show the respondent's socio-demographic variables, followed by an analysis of two stage process. Firstly, factor analysis was applied using principle component method. Latent factors were identified by varimax method. In order to determine the influential factors on retail format choice, factor loadings

extracted from factor analysis were utilized in binary logit model together with demographic profile of the respondents.

In logit model, Y represents the retailer consumer preference to shop at either traditional or modern markets which has two categories of 'prefer to shop at traditional market' coded as one and 'prefer to shop at modern market' coded as two. The variables X_i represent the demographic variables including gender, age, education, being accompanied by children while shopping, and family size. It also includes the dimensions of shopping preference as factor loading score. Consumers were interviewed through a structured questionnaire concerning their shopping preference between traditional and modern markets in the following variables. The Likert scale of 1 to 7 is used to indicate whether the respondents agree or disagree with the statement related to their shopping preference. In logit model, factor loading scores extracted in factor analysis are used to reflect on the shopping preference.

The equation of this logit model is shown as follows:

$$\text{Logit}(Y) = \text{natural log}(\text{odds}) = \ln(\pi/1-\pi) = \alpha + \beta x$$

where

Y is the place consumers prefer to shop; either at traditional or modern markets,

X_1 is the consumer's gender; 1=male, 2=female,

X_2 is the consumer's age; 1=above 35 years old, 2=below 35 years old,

X_3 is the consumer's education; 1=below diploma, 2=above diploma,

X_4 is a dummy variable for being accompanied by children while shopping; 1=shopping without a child in tow, 2=with a child in tow,

X_5 is the number of family members, and

X_6 is the dimensions of shopping preference in factor loading scores.

III. RESULT AND DISCUSSION

A. Demographic Profile of the Respondents

Table I shows the socio-demographic profile of the respondents. The result shows that the percentage for gender was almost equally divided in this study, with male respondents having (49.1 percent) and female respondents having (50.9 percent) of the total number. The Malaysian population consists mainly of Malay, Chinese and Indian races which are reflected by the majority of the respondents being Malays (49.0 percent), followed by Chinese (30.8 percent) and Indians (20.2 percent). The majority of respondents were married (65.8 percent), and also more than half of the respondents were aged below 35 years (58.5 percent). Most of the respondents had studied above the diploma level (57.7 percent). Regarding the family size the majority were in the above 4 (69.8 percent) category. Almost a fifth of the respondents' had monthly earnings of below RM1, 000 (20.3 percent), and almost half of them earned above RM3, 000 (47.4 percent).

B. Dimension of Shopping Preference

Factor analysis was applied to uncover the latent factors underlying consumers shopping preference towards

purchasing fresh food products. There were 42 questions based on a seven point Likert scale, which the respondents answered about their shopping behavior and preferences in traditional and modern markets. The result of the factor analysis shows that out of 42 statements, only 12 were related to consumer shopping preference which influenced them to purchase fresh food products from which type of market. Kaiser-Meyer-Olkin (KMO) test of sampling adequacy and Barlett's test of Sphericity were primarily performed on all the statements to confirm the appropriateness of applying factor analysis. The result of KMO test was the value of 0.755 as shown in Table II. It shows that the sampling adequacy is adequate. The factor analysis appropriately processed the 12 statements.

TABLE I: DEMOGRAPHIC PROFILE OF THE RESPONDENTS (N=650)

Characteristic	Percentage	Characteristic	Percentage
Gender		Education level	
Male	49.1	Below diploma	42.3
Female	50.9	Above diploma	57.7
Race		Family size	
Malay	49.0	Below 4	39.2
Chinese	30.8	Above 4	69.8
Indian	20.2	Income	
Marital status		Below RM1000	20.3
Single	34.2	RM1,000-RM3,000	32.3
Married	65.8	Above RM3,000	47.4
Age			
Below 35	58.5		

TABLE II: KAISER-MEYER-OLKIN AND BARTLETT'S TEST

Kaise-Meyer-Olkin Measure of Sampling Adequacy		0.755
Bartlett's Test of Sphericity	Approx. Chi-Square	2.32E+03
	df	66
	Significance	0.000

The factor loading from the principal component of factor analysis was conducted after the varimax rotation of 12 statements for shopping behavior and preference. In order to obtain the rotated factor matrix, items only with factor loading of 0.6 and above were considered as valid items. The factor loading for six factors was from 0.620 to 0.840. The Cronbach's Alpha was applied to test the reliability of 12 variables. The internal reliability consistency was tested by the Cronbach's Alpha score. Four latent factors were uncovered which have sufficient internal reliability consistency as shown in Table III. The four latent factors which account for about 65.105 percent of the total variance are summarized as follows in Table IV

1) Quality

This factor consists of four sub-variables with a total variance of 19.414 percent; prefer to buy fresh food products with label of origin (0.788), followed by like to shop more quality fresh food products (0.690), like to buy fresh food products directly from farm (0.663), like to buy fresh food products from a place I can make sure chicken and meat are properly slaughtered (0.645). The result shows that the consumers are more likely to purchase higher quality fresh food products which are fresh, safe and processed in a way they can trust to consume.

2) Packaging

This factor has four sub-variables with a total variance of 16.681 percent; prefer to buy packaged fresh food products (0.791), followed by prefer to buy packed products rather than self-packing by weight measurement (0.701), like to buy vegetables and fruit which are already washed, cut and ready to eat (0.695). The results indicate consumer preference for purchasing fresh food products is associated with packaging of the products.

TABLE III: RELIABILITY TEST

	Cronbach's Alpha score	Number of items
F1: Quality	0.642	4
F2: Packaging	0.741	3
F3: Store environment	0.716	2
F4: Product price	0.652	3

Source: Survey, 2012

TABLE IV: RESULT OF FACTOR ANALYSIS

Items	Factor Loading			
	F1	F2	F3	F4
Quality				
• I prefer to buy fresh food products with label of origin.	0.788			
• I like to shop more quality fresh food products.	0.690			
• I like to buy fresh food products directly from a farm.	0.663			
• I like to buy fresh food products from a place I can make sure chicken and meat are properly slaughtered.	0.645			
Variance (percent of explained)	19.414			
Packaging				
• I prefer to buy packed fresh food products.		0.791		
• I prefer to buy packed products rather than self-packing by measurement.		0.701		
• I like to buy vegetable and fruit which are already washed, cut and ready to eat.		0.695		
Variance (percent of explained)	16.681			
Store environment				
• Traditional market do not provide any or a minimum of parking area. It hard for me to go there.			0.751	
• I like to show at a place where it is not hot and dirty.			0.678	
Variance (percent of explained)	14.642			
Product price				
• I like to buy fresh food products at a place which has fixed price.				0.840
• Packaged fresh food products are more expensive than self-packed products.				0.753
• I prefer to buy fresh products in large quantity with an affordable price.				0.620
Variance (percent of explained)	14.371			
Total variance is 65.105.				

Source: Survey, 2012

3) Store environment

This factor has four sub-variables with a total variance of 14.642 percent; traditional markets do not provide any or a minimum of parking area. It is hard for me to go there (0.751) and like to shop at a place where it is not hot and dirty (0.678). The result shows that consumers prefer more comfortable

and welcoming store environments which provide convenience to them when they want to purchase fresh food products.

4) Product price

This factor has four sub-variables with a total variance of four sub-variables and has a total variance of 14.371 percent; like to buy fresh food products at a place with fixed prices (0.840), followed by packaged fresh food products are more expensive than self-packed products (0.753) and prefer to buy fresh products in large quantity with an affordable price (0.620). The result underlined that consumers make choices which are linked to product prices in terms of affordability and price fairness whether they purchase fresh food products or not.

C. Determinants of Shopping Preference

When consumers purchase fresh food products such as fruit, vegetables, meat, fish, and so on, they have a retail format choice between traditional and modern markets. In structured questionnaire survey, the respondents were asked where they purchased fresh food products on a regular basis. Almost half of the respondents (45%) prefer to buy fresh food products at traditional markets and 55% of the respondents prefer to buy at modern market as shown in Fig. 1.

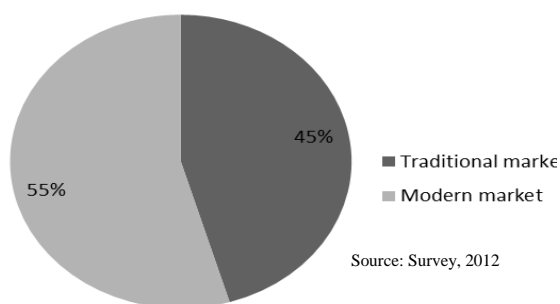


Fig. 1. Preferred venue to purchase fresh food products.

The logit model was applied to predict the extent to which determinants influenced the relationship between retail format choice of a binary response variable, demographic profile and dimension of shopping preference. As shown in Table V, regression coefficients for 7 variables are statistically significant including 3 variables from the factor analysis. Among all variables, respondent's family size and dimension of shopping preference (F4: products price) have negative signs, whereas age, education, accompanied by a child while shopping, and 2 factor loading scores based on the factor analysis had positive signs, which regression coefficient for dimension of shopping preference (F2: packaging, and F3: store environment). Thus, the socio-demographic factors and three of factor loading scores are relevant to determine the consumers' retail format choice for fresh food products.

Taking into account only the statistically significant coefficients, age, education, accompanies by a child while shopping and family sizes were the socio-demographic characteristics. Except family size, the rest have a positive sign and significant with the consumers' retail format choice. The results show that out of 7 variables, the respondents' age

had the largest influence on the retail format choice. Younger respondents below 35 years old are 1.633 times more likely to purchase fresh food products in modern markets such as hypermarkets and supermarkets. Similarly the likelihood of purchasing fresh food products in modern markets as a retail format choice will increase 1.511 times more with respondents who have a higher education level or at least a diploma than those with a lower education level. The respondents with family size above four are 0.823 times less likely to purchase fresh food products in modern markets.

Furthermore, the three factors of packaging, store environment and product price were extracted from the factor analysis and considered as retail format choice between modern and traditional markets. Packaging and store environment are important determinants with positive signs for consumer retail format choice to purchase fresh food products in modern markets. In turn product price was statistically significant with a negative sign. Respondents are 0.794 times less likely to purchase fresh food products in modern markets with product prices which are not affordable or negotiable and only large quantities are available for sale.

TABLE V: ESTIMATED LOGIT MODEL FOR CONSUMERS' SHOPPING PREFERENCE BETWEEN TRADITIONAL AND MODERN MARKETS

	B	SE B	Wald	d.f	Sign	Exp(B)	
Constant	-1.433	0.570	6.33	1	0.012	**	0.239
Gender	0.075	0.169	0.198	1	0.656		1.078
Age	0.491	0.178	7.559	1	0.006	***	1.633
Education	0.413	0.174	5.597	1	0.018	**	1.511
Accompany (child)	0.018	0.009	3.562	1	0.059	*	1.018
Family size	-0.195	0.054	13.141	1	0.000	***	0.823
F1: Quality	0.091	0.085	1.169	1	0.280		1.096
F2: Packaging	0.145	0.084	2.945	1	0.086	*	1.156
F3: Store environment	0.345	0.085	16.652	1	0.000	***	1.412
F4: Product price	-0.231	0.085	7.327	1	0.007	***	0.794

Source: Survey, 2012

IV. CONCLUSION

The purpose of this study was to illustrate consumers' retail format choice between traditional and modern markets, and also to find out what determines consumers' shopping preferences for retail format choice towards purchasing fresh food products. The result of this study has shown that respondents are equally divided in numbers according to their preferences to buy fresh food products at traditional or modern markets. Consumers' retail format choice is determined by age, education, accompany (child), family size, and dimension of shopping preferences such as packaging of fresh food products, store environment and product price. Similarly the importance of these factors was found to play a significant role in consumer purchase decisions for food [14]. Also it could affect consumer's response and shoppers'

behaviors [15]. Both findings have shown the relationship between shopping preference, packaging and store environment. Since the retail sector in Malaysia has coexisted alongside both traditional and modern markets, clarifying influential determinants of consumer shopping preference for retail format choice can contribute to both retail formats thus helping them to attract more customers.

With the number of supermarkets and hypermarkets on the rise in Malaysia, residents of urban as well as suburban or rural areas will soon have full access to shop at both traditional and modern markets. In order to keep the retail sector thriving in both types of markets, this study has tried to figure out the retail format choice to purchase fresh food products among Malaysian consumers. Therefore, it is crucial for food retailers in both markets to understand consumer preferences towards retail format choice and factors influencing their choice towards purchasing fresh food products. While the results have shown that many challenges still exist in product price setting in modern markets based on consumer preferences, traditional markets such as night markets, wet markets, small-scale grocery shops are required to improve store environment on several fronts through such means as providing a giving clean experience, securing more parking spots to create greater convenience for their customers and providing services to suit shoppers accompanied by children. This would encourage those shopping at traditional markets more satisfied with their overall experience.

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