Dual Shopping Mall Intercept Surveys as a Research Method to Investigate Malaysian Consumers Store Choice Preferences

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Abstract

Two parallel shopping mall intercept surveys were utilised to investigate the importance of the variables influencing respondents' choice of preferred retail outlet for the purchase of fresh meat and fresh fruit and vegetables. As the questionnaire for both products was too large for a shopping mall intercept survey, an alternative method of data collection was utilised for the study. To ensure that each shopper had an equal chance of being sampled, the researcher and two enumerators occupied positions at different entrances of both modern and traditional retail outlets interviewing every 7th person that passed them. The results demonstrate that there were no significant differences between the data sets, thereby enabling the researcher to compare the variables impacting on the decision to purchase fresh meat and fresh produce.

Keywords: shopping mall intercept survey, research method, store choice

Introduction

With strong economic growth, greater urbanisation, an increase in the level of personal disposable income and changes in lifestyle, the way in which Malaysian consumers purchase their food is changing. Today, more Malaysians are eating away from home, there is a greater demand for convenience and a greater range of food is available in retail stores (Radam et al. 2006). Shamsudin and Selamat (2005) report that more consumers are shopping at modern retail outlets because food products offered in these stores are perceived to be of higher quality. Arshad et al. (2006) reveal that consumers who reside in urban areas have more purchasing power, are more health conscious and are more demanding of quality. Besides food safety (Salleh et al. 2003) and halal (Shafie and Othman 2006; Othman et al. 2009), other product attributes such as freshness (Bonne and Verbeke 2006), price (Brunton 2009), label/brand (Sepulveda et al. 2008) and organic (Yiridoe et al. 2005) have been shown to influence consumers perceptions of food quality. Some of these attributes are best found in modern retail outlets (supermarkets and hypermarkets), whereas other attributes can be best obtained from traditional retail outlets (wet markets, farmers markets, night markets and wholesale markets). Although there is a growing expectation that more shoppers will purchase a greater proportion of the fresh food that they consume from modern retail outlets, some consumers still prefer to purchase their fresh food from traditional markets because of the superior service (Goldman et al. 2002; Sinha and Banarjee 2004).

As very little research has been undertaken to explore the food shopping behaviour of Malaysian consumers, this research project sought to gain a greater understanding of Malaysian consumer's perceptions and experiences in purchasing fresh/chilled meat and fresh fruit and vegetables from either a modern retail outlet or a traditional market in the Klang Valley. However, in undertaking the research, a number of methodological issues emerged which form the primary focus of this paper.

Research methodology

According to Malhotra et al. (2008), the objectives of designing a survey are: (1) to translate the information needed for the research into a set of questions that respondents are able and willing to answer; (2) to attract the interest of the respondents which then will motivate them to complete the survey and (3) to minimise response error.

One of the principal objectives of this study was to explore whether the criteria influencing the choice of retail store differed between fresh/chilled meat and fresh fruit and vegetables. Ordinarily, this would require the same respondents to be interviewed, but in so doing, it would also dramatically increase the length of the survey instrument, thereby leading to greater non completion rates. Furthermore, given the repetitious nature of many of the questions, response errors were expected to escalate.

To overcome this constraint, the survey instrument for this research consisted of two questionnaires which discussed consumer's perceptions and experiences of food quality in purchasing fresh meat and fresh fruit and vegetables. Both questionnaires were divided into four sections (Table 1).

Table 1: Structure of questionnaires

Fresh/chilled meat questionnaire		Fresh fruit and vegetables questionnaire	
Section 1	Store choice behaviour and quality	Section 1	Store choice behaviour and quality
Section 2a	The purchase of fresh/chilled chicken	Section 2a	The purchase of fresh potatoes
2b	The purchase of fresh/chilled beef	2b	The purchase of fresh spinach
		2c	The purchase of fresh apples
Section 3	Dissatisfaction and food safety issues	Section 3	Dissatisfaction and food safety issues
Section 4	Socio-demographic factors	Section 4	Socio-demographic factors

Both questionnaires discussed similar themes under the same section; Section One, Three and Four. However, the main difference between the two questionnaires was found in Section Two, which examined the purchase of different food products: chicken and beef; or potatoes, spinach and apples.

In order to reduce sampling error, the researcher, with the help of two research assistants, positioned themselves at different exits in either a modern retail outlet or a traditional wet market for a period of one week from 10 am to 8 pm daily. During the interview period, each enumerator approached every 7th person with either a meat survey or a fresh produce survey, but not both. In all, the total number of respondents interviewed in each survey was 260 respondents for the fresh meat survey and 284 respondents for the fresh fruit and vegetables survey. To determine if it was possible to make a comparison between the two independent data sets, a non-parametric test was performed. The Mann-Whitney test was unable to identify any difference between the samples with regard to gender, age, marital status, education level, income or ethnicity of the respondents (Table 2).

As much of the literature reports that socio-demographic variables such as age, gender, level of income and educational background may affect consumers' decision to purchase fresh food, the lack of any significant difference between the data sets enabled them to be combined and analysed as one. However, while socio-demographic characteristics allow the researcher to describe who purchased a particular product (Brown and Turley 1997), they are unable to identify why the respondents purchased the product (Malhotra et al. 2008).

Table 2: Non-parametric tests for respondents' socio-demographic characteristics

Gender	Fresh/chilled meat survey		Fresh fruit and vegetable survey		Sig (2-tailed)
	n	%	n	%	
Male	37	14.2	58	20.4	0.058
Female	223	85.8	226	79.6	
N	**260**	**100.0**	**284**	**100.0**	
Age					
18-25 years old	32	12.3	40	14.1	0.616
26-34 years old	146	56.2	144	50.7	
35-44 years old	47	18.1	51	18.0	
45-54 years old	20	7.7	37	13.0	
55-64 years old	12	4.6	12	4.2	
65 and above	3	1.2	0	0.0	
N	**260**	**100.0**	**284**	**100.0**	
Marital status					
Single	49	18.8	72	25.4	0.093
Married	205	78.8	205	72.2	
Divorced/widowed	4	1.5	7	2.5	
Others	2	0.8	0	0.0	
N	**260**	**100.0**	**284**	**100.0**	
Education level					
Primary school	1	0.4	3	1.1	0.087
Secondary school	41	15.8	70	24.6	
Diploma	61	23.5	70	24.6	
First degree/professional certificate	103	39.6	84	29.6	
Postgraduate	54	20.8	57	20.1	
N	**260**	**100.0**	**284**	**100.0**	
Income					
Less than RM1,500	35	13.5	25	8.8	0.473
RM1,501-RM3,000	50	19.2	75	26.4	
RM3,001-RM4,500	61	23.5	70	24.6	
RM4,501-RM6,000	44	16.9	49	17.3	
RM6,001-RM7,500	27	10.4	25	8.8	
RM7,501-RM9,000	12	4.6	23	8.1	
RM9,001 and above	31	11.9	17	6.0	
N	**260**	**100.0**	**284**	**100.0**	
Ethnicity					
Malay	243	93.5	256	90.1	0.167
Chinese	7	2.7	12	4.2	
Indian	2	0.8	6	2.1	
Others	8	3.1	10	3.5	
N	**260**	**100.0**	**284**	**100.0**	

This information was obtained using a combination of both closed and open-ended questions. Open-ended questions or unstructured questions enabled respondents to freely convey their views with regards to the topic of interest. Unstructured questions greatly assisted the researcher in obtaining a greater understanding of the topic, while also ensuring that no major variables were excluded from the fixed response question sets. Please note: the questionnaires and the items to be included were developed after four focus group discussions.

For the structured questions, a variety of alternative measures were utilised including multiple choice, dichotomous and scale questions. With regard to the use of scales, there is considerable discussion about the appropriate use of either an odd or even-numbered scale.

Coelho and Esteves (2007) argued that an even-numbered scale is the preferred choice of response alternatives in research associated with consumer attitudes and preferences. Respondents were perceived to have at least a slightly positive or slightly negative response rather than a neutral response. Si and Cullen (1998) confirmed that different cultural groups respond in a different way to surveys using explicit midpoint responses. With an odd-numbered scale, Coelho and Esteves (2007) demonstrated that the middle-point was often used by respondents who preferred to reduce the response effort, which not unexpectedly, impacted adversely on the quality of the data. Mitchell (1999) revealed that Asian respondents preferred to use the middle of the scale when responding to surveys. Bishop (1987) suggested that in order to prevent respondents from choosing the middle-point, an even numbered scale should be employed. In light of these research findings, a six-point scale was considered the most appropriate for this survey.

In this study, the Klang Valley was chosen as the research area for a number of reasons: (1) geographically, the Klang Valley lies between Selangor state and the Federal Territory which includes large cities like Kuala Lumpur (the national capital of Malaysia), Putrajaya, Shah Alam and Klang; (2) the availability of both modern retail outlets and traditional markets; and (3) it is a region which holds a good mixture of potential respondents with different levels of education, income distribution and ethnicity, which were anticipated to have some impact on the purchase and consumption of both fresh/chilled meat and fresh fruit and vegetables.

Expatriates who were residing in the Klang Valley were excluded from the survey. The motive to exclude expatriates was to meet the objective of the research which was to understand the perceptions and experiences of Malaysian consumers when purchasing fresh food from a retail store. Individuals who were not residing within the Klang Valley region such as those who just happened to be at the research location during that period, but were from states other than Selangor and the Federal Territory, were also excluded from the survey in order to conform to the geographic boundaries of the study.

A decision was also made to exclude domestic helpers who take care of the children, cook and clean the house. Khalid (2009) estimates that around 300,000 Indonesians work as domestic helpers in Malaysia. Although the number of domestic helpers is large, these individuals are best excluded from the survey because they do not represent the Malaysian population as a whole.

The sampling technique used to select respondents in this study was based on probability sampling. This choice was made based on a number of considerations. As mentioned by Kumar (2008), when extensive geographic areas need to be covered with minimum travelling costs, multi-stage area sampling is most appropriate. By referring to the sampling frame, constraints and limitations, the researcher decided to select the respondents using a three-stage area sample. The first stage involved a cluster sampling technique, which related to the area of the study: the Klang Valley region. Aiken and Leigh (1975) mentioned that the Klang Valley region includes Rawang, which is in the northern part of the state of Selangor, and Kajang, which is in the southern part of Selangor. In a more recent study, Bunnell et al. (2002) mentioned that the Klang Valley region has been extending southwards in conjunction with the development of the Kuala Lumpur International Airport (KLIA) around Sepang, which is about 60 km from Kuala Lumpur. Seven principal cities were selected randomly for this survey: Kuala Lumpur, Shah Alam, Petaling Jaya, Ampang, Kajang, Putrajaya and Puchong.

In the second stage, the researcher made a list of modern retail outlets and traditional markets available in the cities that had been selected. The list of supermarkets, hypermarkets and grocery stores/mini-markets were drawn from the Malaysia Yellow Pages, while the list of traditional markets operating in the Klang Valley were obtained from the website of the Federal Agricultural Marketing Authority (FAMA). In order to select the retail outlets for this

study, the researcher had to consider two factors: (1) the time allocated for data collection (12 weeks); and (2) the period for the researcher and two research assistants to be stationed at a retail outlet (10 am to 8 pm for a period of one week). Subsequently, the researcher decided to spend six weeks at six selected modern retail outlets and another six weeks at six selected traditional retail outlets. These retail outlets were selected randomly.

The third step involved the selection of the respondents. The researcher and two research assistants were stationed at different entrances of the retail outlet. This was to ensure that most of the shoppers which visited the retail outlet at that particular time had some chance of being selected to participate in this study. To ensure randomness, shoppers passing by the station were counted and every 7th person was intercepted. Selecting respondents through systematic sampling prevented the respondents from being selected based on the personal judgement of the researcher. The data collection process was conducted at the same period of time every day at each retail outlet in order to standardise the results and to reduce sampling error. Nevertheless, the researcher was aware that some people who may be working at night could be excluded from the study.

A number of factors were considered in determining the sample size for this study: (1) depending on the type of statistical analysis to be performed, an appropriate sample size was required to facilitate the analyses. There are two general recommendations in determining the minimum sample size for factor analysis, which are the absolute number of cases (*N*) and the subject-to-variable ratio. Comrey and Lee (1992) [cited in Field 2009] came up with the Rule of 500, which classified 100 as poor, 200 as fair, 300 as good, 500 as very good and 1000 or more as excellent. Hair et al. (1998) recommended that the number of participants should be in the ratio of 20:1 in relation to the number of variables. As recommended by Field (2009), a sample of 300 or more will probably provide a stable factor solution. However, Field (2009) added that it was important to ensure that enough variables are included in the research to adequately measure all of the factors; (2) as the personal interviewing of potential respondents was undertaken by the researcher with the help of only two research assistants, with a limited budget and time constraints, a large sample size was impractical. Having considered these factors, it was determined that a sample of between 500 to 600 respondents would be appropriate, with 250 to 300 respondents for each survey.

The sample size for this study was small as compared to most other studies. When performing data analysis, a small sample size may decrease the power of the statistical tests applied. A larger sample is anticipated to produce a more generalised result and any significant differences between the groups are more likely to be identified if the sample size is larger (Sampling n.d.). However, according to Deming (1990), the size of sample is not the sole criteria for accuracy. Deming (1990) added that other criteria such as the procedure for stratification, the choice of sampling unit, and the formulas prescribed for the estimations are more important than sample size. Furthermore, Mulholland and Cachon (2004) and Boushey (2008) mentioned that an increase in sample size would increase power and reduce the risk of a false-negative conclusion (Type II error) given that an increase in sample size increases the chance of the researcher detecting differences in the data.

The fieldwork was carried out from December 2008 until February 2009. Two postgraduate students were appointed and trained as research assistants in order to assist the researcher in the data collection process. Both students were briefed thoroughly by the researcher to ensure that they really understood all questions and statements in the survey forms. They were also trained how to approach potential respondents.

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