

# DEVELOPING A FRAMEWORK OF SUCCESS FOR THE FOODSERVICE INDUSTRY IN MALAYSIA

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## ABSTRACT

Foodservice establishments must place a high priority on understanding the growing markets resulting from rapid urbanization and rising numbers of tourists. This industry has a huge impact on the economy but significantly affected by customers' ever-changing preferences. Managers need to gain and sustain strategic advantage in this highly competitive industry, thus a local customer preference assessment is crucial. This paper presented the dimensions of customer preference in the Malaysian food service industry, tested empirically for unidimensionality, reliability and validity using both exploratory and confirmatory factor analysis. A 30-item questionnaire was designed and distributed to 1000 foodservice customers, yielding a response rate of 64.2%. Factorial analysis confirmed five dimensions of customer preference, and using multiple regression, their order of importance are Halal (permissible in Islam), Price, Quality of Service, Branding and Tangibles. All the five dimensions have positive correlation with customer satisfaction, which in turn correlates highly with customer loyalty. Hence, a framework of success is proposed as the guidelines for practitioners and authorities in enhancing the success of the foodservice industry.

**Keywords:** *Success framework, customer preference, satisfaction, loyalty, foodservice industry*

## 1. INTRODUCTION

In the ever changing market environment, today's foodservice operators must place a high priority on understanding the market in order to retain and sustain strategic advantage in the highly competitive foodservice industry (McQueen, 1989). This industry is considered to be the fastest growth industry in the global market (Gu & Kim, 2002), and it is described by players of the industry as being in the middle of a perfect storm (Haas, 2008). The U.S. foodservice

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industry for instance, being the largest globally, is fast becoming influential and important to the U.S. economy, with its \$580 billion in sales and 12.7 million employees, making it one of the largest private sector employers (NRA, 2010). However, the economic recession restricts spending which affects the foodservice industry in the United States thus foodservice operators have to reduce prices or offer promotional deals in order to enhance business performance (Euromonitor International Report, 2010).

Likewise, the economic recession since 2008 has restricted customers' spending on foodservice in the Asia Pacific countries namely China, Japan, South Korea, the Philippines, Vietnam and Malaysia. The economic conditions will influence customer preference on foodservice (Mohsin, 2005; Choi, *et al.*, 2009). During the economic downturn, a constant challenge for foodservice is to find the right mix of attributes that could assist in the repatronage decision (Mohsin, 2005). Foodservice has to remain competitive by lowering prices or offering promotional deals in order to lure customers. Hence, economic recessions influence customers to opt for cheaper foodservice (Euromonitor International Report, 2010). Tough economic conditions from late 2008 led to a significant increase in the number of foodservice outlets launching promotional activities in 2009. In addition, most of the promotional activities are the introduction of children's menus and 'value for money' menus which are targeted at price conscious foodservice customers (Euromonitor International Report, 2010). Hence, the study of the foodservice industry is important as the literature has indicated its vulnerability to changes in customer preference in relation to economic trends.

In Malaysia, the foodservice industry is expected to continue its positive performance due to the growing sophistication and affluence amongst foodservice customer. Rapid urbanization and change in lifestyles have brought extra changes to local Malaysian customer preferences (Fatimah, *et al.*, 2011). Hong (1985) highlighted the importance of the foodservice industry in Malaysia in relation to the increasing customer and tourist expenditure in this industry. The tourism industry is closely related to the foodservice industry hence further supporting the importance of the foodservice industry to Malaysia's economy.

It is important to note that the foodservice industry is influenced by fast-changing customer preferences (See Kara, *et al.*, 1995; Blum, 1996; Sun & Morrison, 2006; Waldfogel, 2008). While preferences can be regarded as an individual's attitude towards a set of objects, (Lichtenstein & Slovic, 2006), customer preference is about choices among valued options with acceptance indicating a willingness to tolerate the status quo (Fife-Schaw, *et al.*, 2007). Studies of customer preference for foodservice attributes are very limited (but see Park, 2004; Choi *et al.*, 2009) thus further studies are obviously needed. Likewise, changes in customer preference will make existing strategies no longer valid for the operators within the foodservice industry (Blum, 1996). Therefore, these operators must be prepared to identify and meet changing customer preferences resulting from changes in the demographic, technological, societal, legal, cultural or ethical characteristics of the industry.

Furthermore, most studies of customer preference were conducted in developed countries, such as the United States, (e.g. Blum, 1996; Kivela *et al.*, 1999; Schwartz, 1999; Noone, 2008; Kim *et al.*, 2009), and Europe (e.g. Clark & Wood, 1998; Iglesias & Guillen, 2004; Tokuc *et al.*,

2009). There are only a few studies based in the Asia Pacific (Koo *et al.*, 1999; Liu & Chen, 2000; Park, 2004). There are certainly limited studies on the foodservice industry in Malaysia and most of the available literature is from different areas of study (see Shafie & Othman, 2006; Al-Nahdi *et al.*, 2009; Fatimah *et al.*, 2011). Thus, any attempt to generalise the findings of these studies would be pointless as there may be differences in environmental setting that influence customer preference in different ways in different contexts.

Previous research showed that the most important attributes determining whether a customer will return to a foodservice establishment was the quality of service, and the least considered factors were place and ambiance (Namkung *et al.*, 2007; Bojanic *et al.*, 1997). On the contrary, Knutson (2000) contended that price was one of the top-ranked influences with regard to foodservice establishment choices. Literature also showed that price was a concern when customers took their families and the least concern when consuming business meals (Koo *et al.*, 1999). Pedraja & Yague (2001) found that customers searched for information about a foodservice outlet, especially where there were price differences among outlets.

Offering good food and good service is not enough to attract consumers and foodservice outlets should provide meals with good value in a favourable ambience or place (Soriano, 2002). Previous studies showed that attractive décor and atmosphere influenced customer choice of where to dine out. Belman (1996) said that the most important attributes were design and concept of the place and the least important thing was the food. Past work has shown descriptive names improved sales and improved expectations related to the food and the foodservice outlet (Wansink *et al.*, 2001). Kim, H.-b., and Kim, W. G., (2005) found a positive relationship between brand and foodservice establishment performance. Studies had shown inconsistency in terms of the importance of the foodservice attributes which are mainly quality of service, price, tangibles and branding (Koo *et al.*, 1999; Knutson, 2000; Pedraja & Yague, 2001; Wansink, B., *et al.*, 2001; Soriano, 2002; Kim & Kim, 2005; Namkung *et al.*, 2007; Bojanic *et al.*, 2007). Hence, these indicate the significance of the study to be conducted in particular to rank the importance of the attributes.

## 2. RESEARCH BACKGROUND

### 2.1. Customer Preference

In the psychology literature, preferences can be regarded as an individual's attitude towards a set of objects, typically reflected in an explicit decision-making process (Lichtenstein & Slovic 2006). On the other hand, one could interpret the term "preference" to mean evaluative judgement in the sense of liking or disliking an object (e.g., Scherer 2005), which is the most distinctive definition used in psychology. Nevertheless, it does not mean that a preference is inevitably constant over time. Preference can be notably modified by decision-making processes, such as choices (Brehm, 1956; Sharot *et al.*, 2009), even in an unconscious way (see Coppin *et al.*, 2010). Customer preference can be defined as tending to indicate choices among neutral or more valued options with acceptance indicating a willingness to tolerate the status quo or some less desirable option (Fife-Schaw *et al.*, 2007). According to the literature, there

are studies that encompassed customer preference dimensions in the foodservice industry (Kara *et al.*, 1995; Blum, 1996; Tucci & Talaga 1997; Koo *et al.*, 1999; Pedraja & Yague, 2001; Sparks *et al.*, 2003; Edwards, J. S. A., and Meiselman, 2005; Wright *et al.*, 2006; Choi *et al.*, 2009).

## 2.2. Quality of Service

The quality of service was mentioned by various authors such as Bateson & Langeard, 1982; Carman, 1990; Kelley *et al.*, 1993; Gettya & Thompson 1994; Pettijohn *et al.*, 1997; Clark & Wood, 1998; Kivela, *et al.*, 2000; Law *et al.*, 2004; Andaleeb & Conway, 2006; Noone, 2008; Harrington *et al.*, 2010. Parasuraman *et al.*, (1988) define reliability as the "ability to perform the promised service dependably and accurately". Service excellence contributes to customer satisfaction which includes friendly, polite and helpful staff, attentive staff, staff greeting customers and staff being willing to serve (Kivela *et al.*, 2000). In addition, some studies suggested that there is positive correlation between customer satisfaction and loyalty with employee friendliness, quick service, quality of service (Carman, 1990; Bowers *et al.*, 1994; Winsted, 1997; Stank *et al.*, 1999; Harrington *et al.*, 2010), courtesy and menu variety (Bateson & Langeard, 1982; Goodwin & Smith, 1990; Pettijohn *et al.*, 1997; Park 2004; Andaleeb & Conway, 2006; Wu & Liang, 2009).

## 2.3. Branding

Wansink *et al.*, (2005) proposed that the name of a food provides a clue as to what might be expected from the taste of the food. Favourably descriptive menu names can increase sensory perceptions of appearance and taste just as they have been shown to influence food sales, foodservice attitudes, and repurchase intentions. Brand name was found to be an important decision variable for customers and had more impact in choice-making therefore determining the extent of the perceived preference match (Jiang, 2004). Successful brands engage customers at a deeper level, touching a universal emotion (Kotler *et al.*, 2005). In addition, Hartwell & Edwards (2009) cited that customers can relate and become accustomed to the organisation's products, values and overall brand identity. This identity is the key to a powerful branded product. Thus branding provides the consumer with a quality guarantee, a guarantee developed by the customer from past experience and exposure that they themselves impose on the product. Nonetheless, some customers show brand loyalty by not switching to any other brand or sometimes they show multi brand loyalty where they switch to number of selected brands from time to time (Ahmed *et al.*, 2005). Brand loyalty is crucial because repeat business constitutes large sales. Brand loyal customers resist competitors' price cuts and help higher market share, referrals, and competitive advantage. In addition, brand loyal customers are continuous income (Tepecci, 1999).

## 2.4. Price

Various scholars have indicated price as customer preference (for instance Kara *et al.*, 1995; Voss *et al.*, 1998; Reichheld, 1996; Huber, *et al.*, 2001; Park, 2004; Andaleeb & Conway 2006; Herrmann *et al.*, 2007; Palazon, M., & Delgado, 2009). Promotions such as new products for limited time periods were run with the purpose of fuelling sales and increasing the frequency

of visits. Consuegra *et al.*, (2007) indicated that perceived price fairness influences customer satisfaction and loyalty. According to Huber *et al.* (2001) there is a positive association between changes in satisfaction and changes in willingness to pay. Price is an important element for customers when purchasing; it therefore has a large influence on customer satisfaction judgments (Herrmann *et al.*, 2007). Besides, Cater & Cater (2009) suggested that customer satisfaction is negatively affected by price.

## 2.5. Tangibles

The importance of tangible attributes for foodservice establishments were highlighted by various scholars (Cadotte & Turgeon, 1988; Bitner, 1992; Sinha & Nayyar 1995; Ang *et al.*, 1997; Robson, 1999; Kivela, J., *et al.*, 2000; Soriano, 2002; Lockyer, 2003; Jiang, 2004; Wall & Berry, 2007; Davis *et al.*, 2008; Robinson & Wu, 2008; Fatimah *et al.*, 2011). According to Wall & Berry (2007), design of a foodservice establishment is a medium to create attention because it assists to create a distinctive foodservice establishment atmosphere. However, Soriano (2002) suggested that ambience/place can lead to customer satisfaction. In the foodservice industry, spaciousness is important because it influences customer service experience. One of the ten most frequent complaints made by foodservice and hotel customers is spaciousness (Cadotte, & Turgeon, 1988). Spaciousness is related directly to the perceived size of the interior space and also how openness in the space is psychologically perceived by customers (Bhatia, 2003). Besides that, attributes that contributed to the perception of openness are higher ceilings, large openings with a view to the outdoors, unobstructed spaces and others (Scott, 1993).

## 2.6. Halal

The importance of halal food among Muslims were quoted in numerous studies (Hong, 1985; Al-Khatib *et al.*, 1995; Riaz, M. N., 1996; Rice, G., 1999; Henderson, J. C., *et al.*, 2003; Shafie, S., and Othman, 2006; Lee *et al.*, 2006; Anir *et al.*, 2008; Abdul *et al.*, 2009; Al-Nahdi *et al.*, 2009; Zakaria & Abdul-Talib 2010; Fatimah *et al.*, 2011). Muslims take halal food in line with the Quran. *Halal* is a Quranic term which means allowed or lawful. Allah-the Supreme Law Giver permits *Halal* foods and drinks for consumption. Eating *Halal* food is obligatory on every Muslim. "*He only prohibits for you the eating of animals that die of themselves (without human interference), blood, the meat of pigs, and animals dedicated to other than GOD. If one is forced (to eat these), without being malicious or deliberate, he incurs no sin. GOD is Forgiver, Most Merciful.*" [Al- Baqarah: 173].

Muslim foodservice customers are very much concerned about the authenticity of halal food products claimed by food producers (Al-Khatib *et al.*, 1995; Riaz, 1996; Rice, 1999; Henderson *et al.*, 2003; Shafie & Othman, 2006; Anir *et al.*, 2008; Abdul *et al.*, 2009; Zakaria, & Abdul-Talib, 2010). Halal brands, trademarks and logos sometimes hold no reliability or authenticity leading to possible doubts from the customers. Muslims are equally very concerned about food ingredients and the way particular food is being prepared and how it is being packaged (Al-Khatib *et al.*, 1995; Rice 1999; Shafie & Othman, 2006; Zakaria & Abdul-Talib 2010).

## 2.7. Customer Satisfaction and Loyalty

Some studies have indicated that there is a positive relationship between attributes of customer preference and business performance (Soriano, 2002; Verma *et al.*, 1999). Marshall *et al.*, (1999) describe performance measurement as "...the development of indicators and the collection of data to describe, report on and analyse performance". Business performance can be categorised into financial and non financial indicators (Loscocco & Leicht 1993; Srinivasan *et al.*, 1994). Financial performance measures the results of a firm's policies and operations in monetary terms such as return on investment, return on assets, value added, profitability, sales and revenue.

Unfortunately, by the 1980s there was a growing realization that the traditional financial accounting systems were no longer sufficient to manage organizations competing in the modern markets (Johnson & Kaplan, 1987). Several scholars recognized that, whilst traditional systems indicate the performance that results from the activities of the organization, they provide little indication of how that performance is achieved or how it can be improved (Kennerley & Neely, 2003). Non-financial business performance begins to take place after the insufficiency of financial performance indicators to manage organizations competing in the modern markets (Johnson & Kaplan, 1987). Studies of non-financial performance most often cited in the foodservice industry are those focusing on customer satisfaction, customer complaints, service quality, and customer loyalty (see June & Smith., 1987; Reeves & Hoy, F., 1993; Keyt, *et al.*, 1994; Kara *et al.*, 1995; Koo *et al.*, 1999; Verma *et al.*, 1999; Pun *et al.*, 2001; Soriano, 2002; Park, 2004).

Zeithaml (2000) gives an excellent overview of research findings on the relationship between customer satisfaction and organizational performance. Highly satisfied customers will return to buy the product and services which will eventually increase the financial performance of the company. In addition, Wiele *et al.*, (2002) concurred there is a significant correlation between perceived customer satisfaction and sales volume and the margin for service quality and the overall quality perception. The obvious need for satisfying customers is to increase market share, and to acquire repeat and referral business, all which lead to improved profitability (see Barsky & Labagh 1992).

Oliver (1997) defined loyalty as a deeply held commitment to repeat purchases of a preferred product or service consistently in the future, despite situational influence and marketing efforts. Whereas Kendrick (1998) proposed a definition of loyalty which includes the variables of purchase frequency and amount spent per order or visit. Bowen & Chen (2001) in their study of the relationship between customer loyalty and customer satisfaction, indicated that there is a positive correlation between loyal customers and profitability. According to Kumar & Shah (2004), customer loyalty is an important construct for all marketers in defining the means to develop relationships with customers and hence increase business and customer retention. Several studies have determined that high customer satisfaction and service quality result in higher customer loyalty and willingness to recommend the firm to another person (Bolton & Drew, 1991; Boulding *et al.*, 1993; Rust & Oliver, 1994).

### 3. METHODOLOGY

This study attempts to determine the items for the dimension of customer preference in the foodservice industry and incorporate them into a Likert-type instrument, as well as administering the instrument to a sample population consisting of foodservice customers. Churchill & Jr. (1979) describes a sequence of valid and reliable steps for generating and measuring multi-item constructs. The first stage was to identify the important items for the dimension of foodservice customer preference. The process begins by undertaking a literature search to ascertain previous work in the field, and delineating the number of conceptual variables to be investigated. Specifically, this involves in-depth searching of the literature to ascertain items for the dimension of customer preference.

The literature review provided the basis for generating items for inclusion in the draft questionnaire. Stage two involved the development of a draft survey instrument. The draft questionnaire contained 30 items related to different aspects of the dimension of foodservice customer preference, and the items were presented as statements on the questionnaire, with the same rating scale used throughout. The items were measured on seven-point Likert-type scales that vary from 1=strongly disagree to 7=strongly agree, based on previous studies of foodservice establishments (Stevens *et al.*, 1995; Laroche *et al.*, 2005; Cheng *et al.*, 2004; DiPietro *et al.*, 2007; Namkung & Jang, 2008; Qin & Prybutok 2008).

The draft questionnaire was piloted to 100 respondents from different ethnic backgrounds resulting in 53 completed questionnaires returned. The draft questionnaire was subsequently submitted to experts for feedback before being administered on a full-scale survey. The majority of them considered the draft questionnaire to be in line with the relevant issues of the study although some modifications were needed. Thus, only minor changes were made whereby several items were redrafted and reworded, and technical jargon rephrased to ensure clarity and simplicity. The target population of this study was defined as the foodservice customers. Data was collected from customers of various ethnicities in Malaysia.

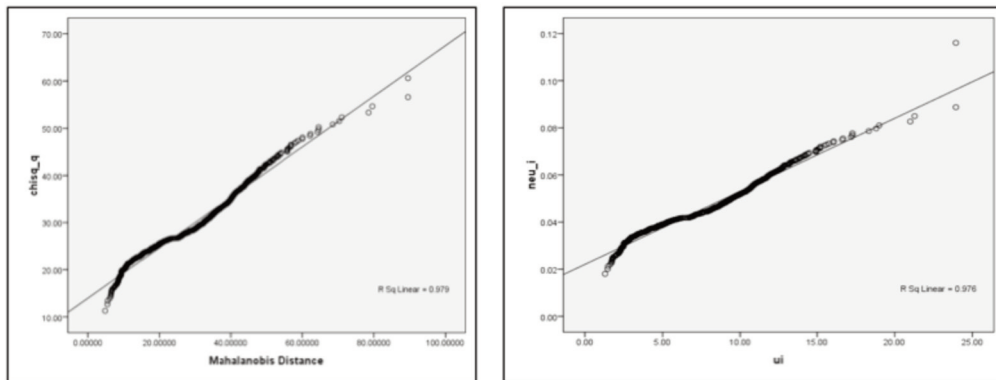
Multistage stratified sampling was used for the study where the customers' occupation, gender, religion and race were used to randomize the data collection. The profile of the respondents based was carefully determined to ensure sampling representativeness. A total of 1000 respondents, representing major ethnic groups, was selected, from whom 642 corrected and completed questionnaires were obtained, yielding a response rate of 64.2%. The number of usable sample size of 1000 with 384 samples per population size of 1,000,000 was in line with the generalized scientific guideline for sample size decisions as proposed by Krejcie & Morgan (1970).

#### 3.1. *Multivariate Test of Normality*

The role played by the assumption of normality which underlies most methods of multivariate analysis is overwhelmingly crucial in this study. The Mahalanobis distances, denoted by  $D^2$  is the index used in checking multivariate normality of the data, and there are two ways of computing  $D^2$ . The first method involves getting  $D^2$  for each subject, and plotting against the

quantiles of the  $\chi^2$  (Chi-Square) distributions (Johnston & Wichern, 1992). Another method involves transforming the sample Mahalanobis distances and plotting them against  $\beta$  (Beta) quantiles. In both methods, a nonlinear pattern indicates departure from multivariate normality. The scatter plots of *chis\_sq* vs. *di\_sq* (Method 1) and *neu\_i* vs. *ui* (Method 2) are shown in Figure I. The fit for both methods is good  $R^2= 0.979$  and  $R^2= 0.976$  respectively, and the plot is almost linear, thus implying the data is multivariate normal.

**Figure 1:** Scatterplots for Multivariate Normality Test



### 3.2. Factor Analysis

Both exploratory and confirmatory factor analyses were used to assess the dimensionality of customer preference. Exploratory factor analysis (EFA) is a useful preliminary technique for scale construction, but a subsequent confirmatory factor analysis (CFA) is necessary to evaluate and refine the resulting scales for unidimensionality (Churchill & Jr., 1979; Qin & Prybutok, 2008). One critical assumption underlying the appropriateness of factor analysis is to ensure that the data matrix has sufficient correlations to justify its application. A first step is the visual examination of the correlations, identifying those that are statistically significant. All correlations are above 0.30 which is considered substantial for factor analysis (Hair *et al.*, 1998). Furthermore, an inspection of the correlation matrix reveals that practically all correlations are significant at  $p < 0.01$ , and this certainly provides an excellent basis for factor analysis.

The next step involves assessing the overall significance of the correlation matrix with Bartlett's test of sphericity, which provides the statistical probability that the correlation matrix has significant correlations among at least some of the variables. The results were significant at  $p < 0.01$ ,  $\chi^2(30, N=642)$ , which further confirmed that the data were suitable for factor analysis. Finally, the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was computed to quantify the degree of intercorrelations among the variables, and the results indicate an index of 0.87, a 'meritorious' sign of adequacy for factor analysis (Kaiser, 1970). As for the adequacy of the sample size, there is a 12-to-1 ratio of observations to variables in this study. According



to Nunnally (1978), the ratio for an adequate sample size should be at least 10:1 which, in this case falls well within the acceptable limits.

In order to gain a better understanding of the factor structure, all the 30 items from the questionnaire were subjected to factor analysis, utilizing the maximum likelihood procedure which was followed by a varimax rotation. The decision to include a variable in a factor was based on factor loadings greater than  $\pm 0.3$  (Hair *et al.*, 1998), and all factors whose eigenvalues were greater than 1.0 were retained in the factor solution (Tabachnick & Fidell 1989). The scree plot was also used to identify the optimum number of factors that can be extracted, and in this study, the first 5 dimensions would qualify. Table I shows the results of the factor analysis in terms of dimensions name and the variables loading on each dimension.

**a. Halal**

This dimension relates to customers who choose to go to outlets that employ Muslim workers as well as being operated by Muslims. In addition, it emphasizes customers paying close attention to the Halal ingredients (Al-Khatib *et al.*, 1995; Rice, 1999; Henderson *et al.*, 2003; Shafie & Othman, 2006; Abdul *et al.*, 2009; Zakaria & Abdul-Talib, 2010).

**b. Price**

Special offer pricing in the form of package menus, price discounts, special prices for the regulars are important to foodservice customers (See Kara *et al.*, 1995; Herrmann *et al.*, 2007; Palazon & Delgado 2009). Likewise it is centred on the customer highlighting the importance of setting different prices for children (Kara *et al.*, 1995).

**c. Quality of service**

This dimension describes foodservice customers considering the importance of employees practicing hygiene at all times besides preparing delicious food, and delivering customer's orders accurately (Fatimah *et al.*, 2011). It also suggests the importance of quick service, knowing the menu items, and cleanliness in food preparation (Heung *et al.*, 2000; Knutson, 2000; Law *et al.*, 2004; Park, 2004; Tokuc *et al.*, 2009).

**Table 1:** Results of Factor Analysis (Factor Loadings)

Items	Component				
	Halal	Price	Quality of Service	Branding	Tangibles
Employing Muslim workers	.840				
Operated by Muslims	.809				
Halal ingredients	.791				
Serving Halal food	.753				
Avoiding non Halal establishments	.738				
No problem with establishments serving alcoholic beverages	.689				
Importance of Halal logo	.309				
Muslim majority location		.716			
Different pricing for children		.579			
Special offer pricing		.429			
Price discounting		.405			
Special pricing for regular customers		.366			
Promotional pricing for new menus		.316			
Low-priced local delicacies		.306			
Charging reasonable price			.672		
Practicing hygiene			.622		
Preparing delicious food			.594		
Delivering customers' orders accurately			.571		
Quick service			.526		
Knowing the menu items			.451		
Clean food preparation			.436		
Commitment to quality of service			.407		
Impressive exterior outlook			.368		
Friendly waiter or waitress				.715	
Establishment with attractive name				.691	
Brand name menu items				.677	
Spacious seating arrangements				.510	
Adequate parking space				.505	
Menu variety				.416	
Attractive interior design					

#### *d. Branding*

It emphasizes foodservice customer seeing the importance of attractive names for a foodservice outlet (Horsky & Swyngedouw, P., 1987; Wansink, B., *et al.*, 2001; Wansink, B., *et al.*, 2005; Robinson & Wu 2008). In addition, this dimension also indicates the importance of menu items having brand names (Zeithaml 1988; Rao & Monroe, 1989; Dodds *et al.*, 1991; Jiang, 2004; Kohli *et al.*, 2005).

#### *e. Tangibles*

This dimension covers the importance of spacious seating arrangements and adequate parking spaces to foodservice customers (See Cadotte & Turgeon 1988; Scott, 1993; Sinha & Nayyar, 1995; Bhatia, 2003). The importance of attractive interior design of a foodservice outlet is considered as related to the foodservice customer under this dimension (See Bellizzi *et al.*, 1983; Bitner, M. J., 1992; Robson, 1999; Raajpoot, 2002; Lockyer, 2003; Wall & Berry, 2007; Ryu & Jang, 2008).

### *3.3. Confirmatory Factor Analysis*

The confirmatory approach to assessing unidimensionality was implemented within the LISREL framework (Joreskog & Sorbom, 1978). A five-dimension measurement model was specified for each construct and the model parameters were estimated using LISREL 8.8 (Scientific Software International, Inc. Copyright 2006). Table II shows the fit indices using Chi-Square test, GFI, AGFI, CFI, NNFI, IFI, and RMSEA.

**Table 2: Unidimensionality Test**

	<b>Fit Indices</b>
Chi-Square ( $\chi^2$ ) p=0.01	1186.97
Degree of freedom ( <i>df</i> ) = 395	
Goodness-of-fit index (GFI)	0.89
Adjusted Goodness-of-fit index (AGFI)	0.87
Comparative Fit Index (CFI)	0.93
Non-normed fit index (NNFI)	0.99
Incremental fit index (IFI)	0.93
Root mean squared error of approximation (RMSEA)	0.056

The first fit measure to be reported is the Chi-Square statistic, and it assesses the magnitude of discrepancy between the sample and fitted covariance matrices (Bentler & Hu, 1999). A good model fit would provide an insignificant result at the  $p > 0.05$  threshold (Barrett, 2007). The degree of freedom serves as a standard by which to judge if  $\chi^2$  is large or small. For this study the  $\chi^2/df$  ratio was 3.00 (Fitzgerald *et al.*, 1997) which is a good fit. Other model fit measures such as GFI, AGFI, CFI, NNFI, IFI were employed to assess the “goodness of fit” of the measurement model (Byrne, 2001). The Goodness-of-Fit statistic (GFI) is generally considered as the most reliable measure of absolute fit in most circumstances (Diamantopoulos *et al.*, 2000). Kline (1989) indicated that a GFI and AGFI value range between 0 and 1 (perfect fit). In this model, the GFI=0.89 and the AGFI=0.87 indicate evidence of unidimensionality for the scales (Schaie *et al.*, 1989; Fitzgerald *et al.*, 1997; Diamantopoulos *et al.*, 2000).

The next set of fit measures in this model consisted of relative fit indices which show ‘...how much better the model fits compared to a baseline model, usually the independence model’ (Joreskog & Sorbom, 1993, p. 125), and this is assessed using the Non-Formed Fit Index (NNFI) and the Comparative Fit Index (CFI). Bentler & Hu (1999) have suggested NNFI value  $\geq 0.95$  as threshold. In the present model, the NNFI value is 0.99, an indication of a good fit. Besides, Bollen (1989) Incremental Fit Index (IFI) value is 0.93 which also indicates a good fit. The next fit measure is Bentler (1990) Comparative Fit Index (CFI), and the value is 0.93, which implies that there is a strong evidence of unidimensionality for the dimensions (Bentler, 1990; Sureshchandar *et al.*, 2001). The next measure to consider is the Root Mean Square Error of Approximation (RMSEA). The RMSEA explains how well the model, with unknown but optimally chosen parameter estimates, would fit the population’s covariance matrix (Byrne 1998). The RMSEA value for the five dimensions of customer preference model was 0.056, evidence of reasonable fit to the data (Browne & Koenig, 1993). Therefore, it was concluded that the five-dimension customer preference model fits reasonably well and represents a close approximation in the population.

### 3.4. Reliability Test

The results from the unidimensionality assessment do not provide a direct assessment of construct reliability. The typical approach for reliability assessment is in terms of the Cronbach  $\alpha$  coefficient (Cronbach, 1951). In this study, two internal consistency estimates of reliability, namely coefficient alpha and split-half coefficient expressed as the Spearman-Brown corrected correlation, were computed for the five dimensions of customer preference constructs. All the values meet the required prerequisite of 0.70 (Cronbach, 1951), thereby demonstrating that all the five dimensions are internally consistent and have satisfactory reliability values in their original form.

### 3.5. Validity Test

Once unidimensionality is established and internal consistency estimates of reliability show satisfactory values, the next step involves assessing the validity of the constructs. Validity is the extent to which the research findings accurately represent what is happening in the situation (Hussey & Hussey, 1997). Face validity is a subjective criterion reflecting the extent to which scale items are meaningful and appear to represent the construct being measured (Anastasi

1988; Robledo, 2001). Content validity focuses on examining the construct against relevant content domains and this is achieved through comprehensive evaluation of the theory underlying the construct. Given that the questionnaire had been appropriately designed through a comprehensive review of relevant literature then fine-tuned based on the suggestions from various experts, both the face and content validity of the instrument were ensured (Bohrnstedt, 1983; Kaplan & Saccuzzo, 1993; Banks, 2005).

Construct validity is concerned with a measure's correspondence with other constructs. Churchill & Jr., (1979) suggests that convergent and discriminate validity should be assessed in investigating construct validity. Convergent validity refers to the degree to which the different approaches to construct measurement are similar to (converge on) other approaches that it theoretically should be similar to (Narver & Slater, 1990). The correlation coefficient values among the five dimensions of customer preference in the foodservice industry range from 0.371 to 0.797, and this indicates a moderate positive relationship between the five dimensions of customer preference, indicating evidence of convergent validity. In addition to that, multicollinearity was not a threat since the correlation value is less than 0.8 (Kline, 1998). The next validity test is discriminant validity, which is determined by verifying whether the dimensions/constructs are differentiated factors or form the same factor (Hitt & Ireland, 1986; Byrne, 1989). A Chi-square difference test was employed to test the scale for discriminant validity. All the tests were statistically significant at the  $p=0.01$  level.

Criterion validity was undertaken to assess the performance of the measure against some criterion. In this research, criterion-related validity was established by correlating the dependent variable which is customer satisfaction with the dimensions of customer preference namely Halal, Quality of service, Price, Tangibles, and Branding. Finding indicates that all the dimensions have a significant positive correlation with customer satisfaction from the range of 0.378 to 0.631 which are greater than 0.35. Hence, criterion-related validity is established for all dimensions of customer preference.

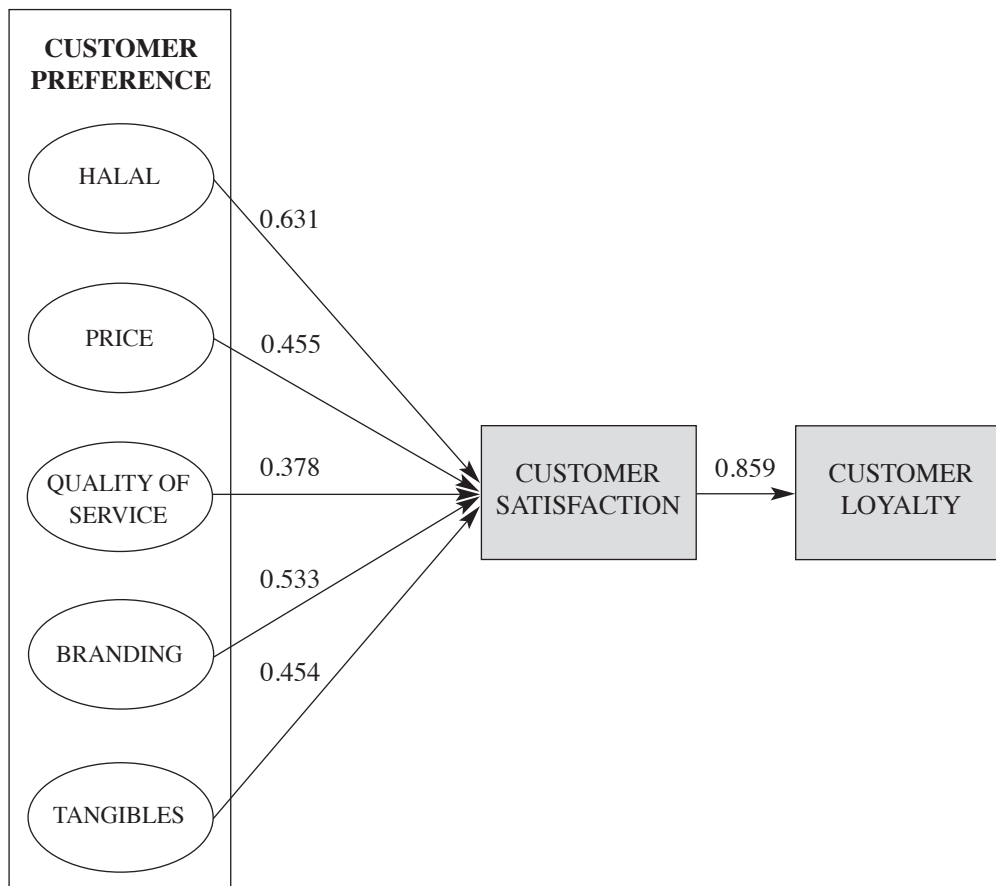
### **3.6. Multiple Regression Analysis**

Multiple regression was used in this study to determine the overall effect of the dimensions of customer preference on customer satisfaction (or how well the five dimensions predicted customer satisfaction), and to assess the relative importance of the individual dimensions. The regression model considered customer satisfaction as a dependent variable and the dimensions of customer preference which are Halal, Price, Quality of service, Branding and Tangibles as independent variables. A multiple regression analysis was subsequently conducted to evaluate how well the five dimensions predicted customer satisfaction. The linear combination of the five dimensions was significantly related to customer satisfaction,  $R^2=0.590$ , adjusted  $R^2=0.587$ ,  $F(5, 636) = 183.037$ ,  $p=0.01$ . The sample multiple correlation coefficient was 0.768, indicating that approximately 59.0% of the variance of customer satisfaction level in the sample can be accounted for by the linear combination of the five dimensions.

As for the relative influence of the individual dimension, the resultant output yielded four dimensions contributing significantly towards explaining the variance in the overall customer satisfaction level except Tangibles. Halal is found to be the most important dimension of customer preference in the foodservice industry, secondly Price, thirdly Quality of service, followed by Branding.

All the five dimensions of customer preference have positive correlation with the customer satisfaction ranging from 0.378 to 0.631 (Figure II), greater than the 0.35 cut off value. In addition, findings confirmed a strong relationship between customer satisfaction and loyalty in the foodservice industry with a correlation coefficient of 0.859 at  $p=0.01$ , and supported by previous research (Bolton & Drew, 1991; Boulding *et al.*, 1993; Rust & Oliver, 1994; Andaleeb & Conway, 2006; Qin & Prybutok, 2008).

**Figure 2:** A Framework of Success for the Foodservice Industry



#### 4. CONCLUSIONS AND RECOMMENDATIONS

The prime contribution of this study is the identification and ranking of dimensions of customer preference subsequently translated into a framework of success for the foodservice industry, particularly relevant in multi-cultural countries with Muslim majorities or minorities. The dimensions are equally crucial for foodservice operators from developed countries with Muslim population to develop strategies in fulfilling the customers' preferences based on the current market landscape. Foodservice operators need to ensure their business success by fulfilling their customer preference that will lead to satisfaction and loyalty. Satisfied and loyal customer will spread the word of mouth that will in turn effect sales and improve profitability of the foodservice establishment. This paper further contributes to the body of knowledge by developing a new 30-item instrument to capture the customer preference dimensions namely Halal, Price, Quality of Service, Branding and Tangibles. The measuring instrument is a valid tool for practitioners to develop relevant strategies that will enhance the foodservice business performance in the light of the highly competitive industry.

The Halal dimension is the most important dimension influencing customer preference compared to other dimensions. Owners and managers of today's foodservice establishments should consider the importance of halal compliance as part of their daily business operations. Foodservice operators should be committed to implementing halal compliant operations so that the market will be confident with the particular business premises which in turn this will create positive perceptions and expectations towards one's business. The findings highlighted that Muslim consumers are more likely to be confident with the *halalness* of the foodservice establishment that carries a trustworthy halal logo. The foodservice operators should register with Islamic bodies or any relevant body to get the halal certification which is essential in exploring the business opportunities in this industry. This is to secure customers' trust and in turn can pave the way for long term relationships through fulfilling customer satisfaction which in turn builds customer loyalty.

This research confirmed that customers are price-conscious when dining out as a family, especially at a time of economic downturn. As such, children's menus can be created based on certain packages associated with today's exciting trends for children. The most important thing is that children's menus should be simple, low price, and small in quantity. Creating a menu package with special price offer is crucial for customer preference, therefore foodservice operators are recommended to keep on developing menu packages. Menu packages can be introduced in conjunction with certain occasions or developed with the combination of existing or new food menus and drinks in order to attract price sensitive customers. Remembering or noticing the regular customers is important to make them further loyal to the particular foodservice establishment. This can be done by giving special prices to the regular customers in order to boost relationships and further create customer loyalty.

Employees are the front-liners of the foodservice establishment. Thus, operators ought to ensure employees are neat, presentable, and are handling food in hygienic ways. It is wise for the foodservice operator to provide employees with uniforms in order to enhance and inculcate hygienic practices among the employees. The use of aprons and hats or caps are an advantage to portray professionalism and seriousness in preserving a hygienic culture among the staff in the eyes of the customers.

Branding strategies can be developed by creating attractive business brand names or attractive signages and branding the menu items. However the business signage must be easy to remember, be focused to target markets and must sound promising. Failure to relate the business signage to the target market will lead to confused market positioning or even wrong market positioning. Branding the menu can be the foundation of differentiating the menu items with different kinds of target customers, meal periods, and competitors.

In addition, the findings highlight that customers are prone to attractive interior design in considering which foodservice establishment to patronize. It is also important to create an exciting environment as part of an attractive interior design when customers patronise the establishment. Today, foodservice operators should consider the importance of attractive interior designs which encompass cleanliness, furniture, lighting, decoration, odours, music and even utensils. A spacious setting enables customers to freely move around in choosing their seats or going to the washroom. This can only be achieved if the design layouts of the kitchen or bar lounge are well proportionate with the eating lounge.

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