

Identifying the Dimensions of Customer Preference in the Foodservice Industry

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Abstract. Foodservice industry management must place a high priority on understanding the growing markets. This fast growing industry has a huge influence on the global economy, however it is greatly affected by customers' ever-changing preferences. It is essential for managers to gain and sustain strategic advantage in the highly competitive industry, however to become and remain competitive in this industry requires a local customer preference assessment. This paper presents the dimensions of customer preference in the food service industry, empirically tested 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 (Allowable in Islam), Price, Quality of Service, Branding and Tangibles.

Keywords: customer preference, foodservice industry, dimensions

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 [1]. This industry is considered to be the fastest growth industry in the global market (Gu and Kim, 2002), and it is described by players of the industry as being in the middle of a perfect storm (Haas, 2008). It is important to note that the foodservice industry is influenced by fast-changing customer preferences (See Kara et al., 1995; Blum, 1996; Sun and 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, 2007). Studies of customer preference for foodservice attributes are very limited (see Park, 2004; Choi et al., 2009). Likewise, changes in customer preference will make existing strategies no longer valid for the operators within the foodservice industry (Blum, 1996).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.

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., 2007). 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 and Yague (2001) found that customers searched for information about a foodservice outlet, especially where there were price differences among outlets.

2. Research Background

Customer Preference

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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, De Martino, & Dolan, 2009), even in an unconscious way (see Coppin, Delplanque, Cayeux, Porcherot, & Sander, 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). 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. Past work has shown descriptive names improved sales and improved expectations related to the food and the foodservice establishment (Wansink et al., 2001).

Various scholars have indicated Price as customer preference and 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. However, customer satisfaction and loyalty are two important antecedents of price acceptance. Meanwhile, Iglesias and Guillen (2004), concurred that price can affect customer satisfaction. According to Wall and Berry (2007), design of a foodservice establishment is a medium to create attention because it assists to create a distinctive foodservice establishment atmosphere. The importance of halal food among Muslims was quoted in numerous studies (Hong, 1985; Zakaria and 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. Muslim foodservice customers are very much concerned about the authenticity of halal food products claimed by food producers and Halal brands, trademarks and logos sometimes hold no reliability or authenticity leading to possible doubts from the customers.

3. Methodology

This study attempts to determine the items for the dimension of customer preference in the foodservice industry from the literature and incorporate them into a Likert-type instrument, as well as administering the instrument to a sample population consisting of foodservice customers. The literature review provided the basis for generating items for inclusion in the draft questionnaire. 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. The draft questionnaire was piloted to 100 respondents from different kinds of ethnic background and subsequently submitted to 7 experts for feedback before being administered on a full-scale survey. The target population of this study is defined as the foodservice customers. Multistage sampling was used for the study where the customers' occupation, gender, religion and race were used to randomize the data collection. A total of 1000 respondents, representing major ethnic groups in Malaysia, was selected, from whom 642 corrected and completed questionnaires were obtained, yielding a response rate of 64.2%.

Factor Analysis

Both exploratory and confirmatory factor analyses were used to assess the dimensionality of customer preference. Table 1 shows the results of the factor analysis in terms of dimensions name and the variables loading on each dimension.

Table 1: Results of Factor Analysis (Factor Loadings)

<i>ITEMS</i>	<i>COMPONENT</i>
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	HALAL	PRICE	QUALITY OF SERVICE	BRANDING	TANGIBLES
B17. Employing Muslim workers	.840				
B10. Operated by Muslims	.809				
B04. Halal ingredients	.791				
B28. Serving Halal food	.753				
B02. Avoiding non Halal establishments	.738				
B08. No problem with establishments serving alcoholic beverages	.689				
B07. Importance of Halal logo	.518				
B27. Muslim majority location	.309				
B11. Different pricing for children		.716			
B09. Special offer pricing		.579			
B30. Price discounting		.429			
B22. Special pricing for regular customers		.405			
B06. Promotional pricing for new menus		.366			
B21. Low-priced local delicacies		.316			
B13. Charging reasonable price		.306			
B18. Practicing hygiene			.672		
B12. Preparing delicious food			.622		
B29. Delivering customers' orders accurately			.594		
B26. Quick service			.571		
B05. Knowing the menu items			.526		
B23. Clean food preparation			.451		
B14. Commitment to quality of service			.436		
B19. Impressive exterior outlook			.407		
B24. Friendly waiter or waitress			.368		
B03. Establishment with attractive name				.715	
B20. Brand name menu items				.691	
B15. Spacious seating arrangements					.677
B25. Adequate parking space					.510
B01. Menu variety					.505
B16. Attractive interior design					.416

Halal - This dimension relates to customers who choose to go to outlets that employ Muslim workers as well as being operated by Muslims. It emphasizes customers paying close attention to the Halal ingredients.

Price - Special offer pricing in the form of package menus, price discounts, special prices for the regulars is important to foodservice customers

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

Branding emphasizes foodservice customer seeing the importance of attractive names for a foodservice outlet.

Tangibles cover the importance of spacious seating arrangements and adequate parking spaces to foodservice customers.

Confirmatory Factor Analysis

The confirmatory approach to assessing unidimensionality was implemented within the LISREL framework (Joreskog and Sorbom, 1978). In this study the χ^2/df ratio was 3.00 (Fitzgerald et al., 1997) which is a good fit. The Goodness-of-Fit statistic (GFI) is generally considered as the most reliable measure of absolute fit in most circumstances (Diamantopoulos and Siguaw, 2000). 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 and Siguaw, 2000). The next set of fit measures in this model consisted of relative fit indices, and this is assessed using the Non-Formed Fit Index (NNFI) and the Comparative Fit Index (CFI). In the present model, the NNFI value is 0.99, an indication of a good fit. Besides, Bollen's (1989) Incremental

fit index (IFI) value is 0.93 which also indicates a good fit. The next fit measure is Bentler's (1990) Comparative Fit Index (CFI), a revised form of a NFI which takes into account sample size (Tabachnick and Fidell, 2007). In the present model, the CFI value is 0.93, which implies that there is a strong evidence of unidimensionality for the dimensions (Bentler, 1990; Sureshchandar et al., 2001). The RMSEA value for the five dimensions of customer preference model was 0.056, evidence of reasonable fit to the data (Browne and Cudeck, 1993). Therefore, it was concluded that the five-dimension customer preference model fits reasonably well and represents a close approximation in the population.

Reliability Test

Two internal consistency estimates of reliability, namely coefficient alpha and split-half coefficient expressed as the Spearman-Brown corrected correlation, were computed. 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.

Validity Test

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 (Bohrstedt 1983; Kaplan and Sacuzzo 1993; Banks, 2005). The correlation coefficient values 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). A Chi-square difference test was employed to test the scale for discriminant validity, and all the tests were statistically significant at the $p=0.01$ level. Criterion-related validity was established by correlating the dependent variable which is customer satisfaction with the dimensions of customer preference. 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 (Green et al., 2000) hence, criterion-related validity is established for all dimensions of customer preference.

Multiple Regression Analysis

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.

4. Conclusions

The prime contribution of this study is the identification and ranking of dimensions of customer preference in the foodservice industry. The dimensions are crucial for foodservice operators to develop strategies in fulfilling the customers' preferences based on the current market landscape. 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. The Halal dimension relates to customers preference for foodservice establishments that employ Muslim workers as well as being operated by Muslims. In addition, it emphasizes customer paying close attention to the Halal ingredients if customers believe the foodservice establishment serves Halal food.

This dimension also emphasizes the importance of the halal logo and location of the foodservice establishment.

However, findings suggest that it is important to note the influence of other dimensions such as Price, which encompasses setting prices for children, as well as offer special pricing in menu packages, discounts, special prices for the regulars, promotional prices for new menus, preparing local delicacies, and reasonable price. Furthermore, Quality of Service is another dimension that influences customer preference which is centered on employee's hygiene practices, delicious food, the importance of delivering customers' orders accurately, quick service, menu knowledge, cleanliness of food preparation, commitment to quality of service, and friendly waiters or waitresses. Likewise Branding highlights foodservice customers considering attractive names of foodservice establishments, as well as menu items that must have brand names. The last dimension is Tangibles which relates to the importance of spacious seating arrangements, adequate parking spaces, a wide variety of menu items, and the importance of attractive interior design in a foodservice establishment.

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