Determinants of Purchase Intention in Cafeterias: Intervening Effects of Customer Satisfaction and Gender

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Abstract

Customers at university's cafeterias are captive market which will ensure sustainable returns if proper marketing plans are unstilled. However, of late, several cafeterias failed to attain the health standards imposed by the health ministry during surprise checks, which caused the closure of these cafeterias. This shows that students at universities increasingly demand higher quality food, hygienic preparation, delicious taste, healthier food choices, better physical eating conditions and superior customer service. It is, therefore, inevitable from cafeterias to provide excellent service to increase purchase intention. Thus, the main purpose of this study is to examine factors contributing to purchase intention in UUM's cafeterias. From the literature, three exogenous variables (service delivery, image and perceived value) and one mediator variable (student satisfaction) are identified as determinants of purchase intention. A cross-sectional survey method was conducted on 250 undergraduates of UUM. The responses collected were 203 completed questionnaires representing 81.2% percent response rate. The measurement of variables consists of 22 items questions adapted from past studies using seven-point Likert scale. The collected data were rigorously screened and analyzed using Structural Equation Modeling (SEM) through AMOS. The findings of confirmatory factor analysis of measurement models indicate adequate goodness of fit after a few items were eliminated through modification indices verifications. Goodness of fit indices for the generated structural model shows adequate fit for generalization of results. The result has established two direct significant relationships: service delivery and student satisfaction; and perceived value and student satisfaction. Regrettably, no variable is found to be significant determinants of purchase intention. Similarly, none of the mediating effect hypothesis is supported. Subsequently, gender (female) moderates the relationship between perceived value and student satisfaction. The findings are discussed in the perspective of students' satisfaction and intention to purchase food items at UUM's cafeterias.

Keywords: service delivery; image; perceived value; student satisfaction; purchase intention.

1. Introduction

With students increasingly demanding higher quality food preparation and taste, healthier food choices, better physical eating conditions, superior customer service, and more value for their money, sustaining business has become one of the biggest issues in the food service industry (Sloan, 2002; Tillotson, 2003). In Universiti Utara Malaysia (UUM), there are 25 cafeterias competing to attract 25,000 students to dine at their cafeterias. With same targeted customers, these cafeterias need to improve their food and service quality in order to be patroned by the students. The decision to purchase is depending on the students as their main captive target market. The cafeteria also needs to be concerned to student complaints in order to offer student satisfaction. The main complaints from students are about food hygiene, clean eating place, cafeteria ambience, food varieties, food

quality and fast service. Based on these variables, it is important for cafeteria to define the factors that could affect purchase intention.

Thus, the objective of this study is to examine the factors that determine the purchase intention of the students in selecting cafeterias. This paper is structured as follows. First, we review the marketing literature on the factors of purchase intention: service delivery, image, perceived value and student satisfaction as mediator. Next, we present the research framework, methods, measures and findings. Finally, the results were discussed in terms of its contribution to the upgrading of cafeterias services and recommendations for future research.

2. LITERATURE REVIEW

Purchase intention can be defined as a willingness to purchase same product or services in future, based on value that consumer perceived (Hellier, Geursen, Carr, & Rickard, 2003).Previous studied reported perceived value and image as a predictor of customer satisfaction and purchase intention (Liao, 2014; Pitts & Woodside, 1984; Ryu, Han, & Kim, 2008; Ryu, Lee, & Kim, 2012). However, recent literature pointed out that services quality also has a significant effect on purchase intention (Liao, 2014; Ryu et al., 2012). Meanwhile, many scholars empirically supported the influence of perceived service quality on satisfaction (Cronin Jr & Taylor, 1992; Ting, 2004).

2.1 DIRECT ANTECEDENTS OF PURCHASE INTENTIONS

From the previous literature the antecedent namely service delivery, perceived value, image and satisfaction have direct linkage to purchase intention. The following table is

	Variable	Past studies
1	Service delivery- Purchase intention	(Kleijnen, De Ruyter, & Wetzels, 2007; Kuo, Wu, & Deng, 2009; Shao, Baker, & Wagner, 2004)
2	Image – Purchase intention	(Ryu et al., 2008)
3	Perceived value-Purchase intention	(Bigdeli & Bigdeli, 2014; Liao, 2014; Ryu et al., 2008)
4	Student satisfaction- Purchase intention	(Baker & Crompton, 2000; Fang et al., 2014; Huang, Weiler, & Assaker, 2014)
5		

2.2 SATISFACTION AS MEDIATOR

Satisfaction often plays a mediating role between customer perceptions of service quality and the creation of behavioural intentions (Cronin et al., 2000; Cronin & Taylor, 1992). Furthermore, the notion of a mediating relationship presumes the existence of a third variable between the independent and dependent variable (Chumpitaz and Paparoidamis, 2004). Previous research has tested customer satisfaction as mediator. For example in banking context, customer satisfaction fully mediate the relationship of service quality and financial performance (Hawari & Ward 2006) and research in small scale outdoor event (Tzetzis et al., 2013). Customer satisfaction partially mediates the relationship of sport event quality and word of mouth. However, in terms of customer satisfaction in the relationship between service delivery, image and perceived value towards behaviour intention is still unclear (Giritlioglu, Jones, & Avcikurt, 2014; Lee, Jin, & Lee, 2014) . Fundamentally, in term of student satisfaction context there is a need to clarify whether satisfaction is capable of mediating the relationship

between service delivery, image and perceived value towards behaviour intention. This forms the basis of the mediating hypothesis, as follows: Student satisfaction mediates the relationship between service delivery, image and perceived value and student purchase intention.

2.3 GENDER AS MODERATOR

The growing body of research, it shown that gender as an indirect effect (moderator effect) between variable exists well in studies (Liebana-Cabanillas, Sanchez-Fernandez, & Munoz-Leiva, 2014; Shao et al., 2004). According to (Bryman & Cramer, 1994), pointed that a moderated relationship occurred when a relationship is found to hold some categories of a sample but not others. Besides that, previous research also explains that the behavioral difference in purchase orientation between users according to their gender (Cyr & Bonanni, 2005; Davis, Lang, & San Diego, 2014; Wynn, 2009). The role of gender originally as moderator has been analysis by (Cherny, 1996). However this present study attempt to explore the role of gender in consumer behavior including the construct of perceived value, image, and service delivery and student satisfaction.

3. METHODOLOGY

This study employs the quantitative **research design** to elucidate the data from UUM undergraduate students. The research framework consists of three exogenous variables (service delivery, image and perceived value) and two endogenous latent variables (student satisfaction and purchase intention) (Figure 1). Customer satisfaction serves as the mediating variable and gender is tested for moderating effects.
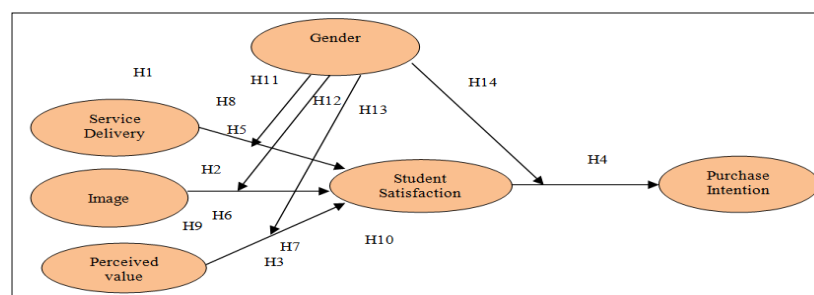

Figure 1: Research Framework

A total population of 450 marketing students were identified through the UUM portal. From the list, a **sample** size of 250 was selected based on rule of thumb table (Sekaran, 2006). The sample was stratified using year of study, whereby the first year consists of 40 students, second year 170 students and final year 40 students. The questionnaires were distributed to the respondents via their classes: principle of marketing student-40 students; marketing management 170 student; seminar of marketing- 40 students, using systematic random sampling method. A response rate of about 81.2% was collected back corresponding to 203 responses. The 203 dataset were coded, input and saved into SPSS.

Each variable is measured using previously developed a 22 items **instrument** as follows: service delivery measure was adopted from two sources (Zeithaml, 1988 & Arasli et al., 2005 consisting of five items measured by seven-point interval scale from totally disagree to totally agree. Perceived value was adopted from Zeithaml (1988) with four items. Image was adopted from Kotler and Fox (1955) consisting of five items. Student satisfaction was adopted from Patterson and Spreng (1997) comprising of five items. Purchase intention was adopted from (Shao et al., 2004) with four items. There are also six demographic questions included in the instrument which use ordinal and nominal scale such as gender, age, mode of study, nationality, education level and ethnicity. The confirmatory factor analysis for all latent constructs shows adequate convergent validity with factor loadings of above 0.70 (Table 1).

Table 1: Final Confirmatory Factor Analysis Results of Construct Variables

Exogenous/ Endogenous variables	Code	Attribute	Factor loading
Exogenous variables Service Delivery	SD 1 SD2 SD3 SD4 SD5	The UUM's cafeterias provide its services at the time it promise to do The UUM's cafeterias insists on error free transactions Staff in the UUM's cafeterias do not have the knowledge to answer students' questions The UUM's cafeterias disregard the individual requests of the students Staff of the UUM's cafeterias are able to handle student complaints directly and immediately	.734 .729 .219 .131 .814
Exogenous variables Image	IM1 IM2 IM3 IM4 IM5	There have variety of menu in UUM 's cafeterias Cleanliness of the UUM's cafeteria were in good condition The UUM's cafeterias have good interior and décor design The staff of UUM's cafeteria looking at professional Appearance The UUM's cafeterias at good location	.814 .904 .783 .746 .675
Exogenous variables Perceived Value	PV1 PV2 PV3 PV4	The UUM's cafeterias offers good value for the prices It is good to dine at UUM's cafeterias as compared to other store outside Food quality in UUM's cafeterias were good Waiting time for the meal at UUM's cafeterias were good	.859 .873 .918 .821
Endogenous variables Student Satisfaction	SS1 SS2 SS3 SS4	I was pleased to dine at UUM's cafeterias The overall feeling I got from the UUM's cafeterias were satisfied The overall feeling I got from the UUM's cafeterias put me in a good mood I really enjoyed myself at the UUM's cafeterias	.928 .934 .915 .931
Endogenous variables Purchase Intention	PI1 PI2 PI3 PI4	I would like to come back to the UUM's cafeterias in the future I would recommend the UUM' cafeterias to my friends or others I would more frequently visit the UUM's cafeterias I would be willing to pay a higher price for the food of the cafeteria	.920 .944 .865 .845

This study utilizes SPSS and the structural equation modeling **data analysis** using AMOS. Mediating analysis uses revised model technique and moderating analysis uses multi group analysis (MGA) method (Hair et al., 2010).

4. FINDINGS

During the process of data screening for outliers, thre are no dataset deleted due to Mahalanobis (D2) values less than the χ2 value (χ^2=48.27; n=22, p<.001) and remained 203 dataset to be analyzed. We also conducted univariate normality computations using z-scores of skewness statistics as well as kurtosis z-score. The generated structural model achieves model fit (ratio=1.2.129; p-value=.001; GFI=.952; rmsea=.075). Hence, the standardized regression weights of the generated model could be generalized to the population. The direct effects shows two direct significant relationships: H1: service delivery and student satisfaction (β=.810, CR=2.718, p-value=.007); and H3: perceived value and student satisfaction (β=.630, CR=3. 281, p-value= .001). Other direct relationships were not supported (Table 2).

Table 2: Direct effect result (Generated Model)

Hypothesis	From	To	Estimate	S.E	C.R.	P- value	Hypothesis support
H1	Service Delivery	Student Satisfaction	.810	.396	2.718	.007	Yes
H2	image	Student Satisfaction	-.366	.391	-.939	.348	No
H3	Perceived value	Student Satisfaction	.630	.205	3.281	.001	Yes
H4	Student Satisfaction	Purchase intention	.498	.577	.873	.383	No
H5	Service delivery	Purchase intention	-.302	.842	-.483	.629	No
H6	Image	Purchase intention	.177	.466	.356	.722	No
H7	Perceived value	Purchase intention	.554	.496	1.204	.229	No

The mediating effect of customer satisfaction do not show any mediating support since no significant beta direct effects were registered (Table 3). MGA shows that gender (female) moderates the relationship between perceived value and student satisfaction.

Table 3: Indirect effect of variables interaction

H	Exogenous		Mediated		Endogenous	direct Effects Estimate-No link	direct Effects Estimate-link	Mediating Hypothesis
H8	Service Delivery	→	Student Satisfaction	→	Purchase Intention	**SD→SS= .827 (S)*** **SS→PI= .230(NS)**	**.810(S)*** **.498(NS)**	Non mediator
H9	Image	→	Student Satisfaction	→	Purchase Intention	**IM →SS= - .40(NS)** **SS→PI= .326(NS)**	**-.396(NS)** **.498(NS)**	Non mediator
H10	Perceived Value	→	Student Satisfaction	→	Purchase Intention	**PV→SS= .718(S)**** **SS→PI= 1.193(S)****	**.630(S)**** **.554(NS)**	Non mediator

5. DISCUSSION AND CONCLUSION

This study attempts to examine the causal relationships between four antecedents of purchase intention in the UUM cafeterias. The generated fit model accomplishes and supports two direct effects. Firstly, service delivery is a significant positive antecedent of student satisfaction. This finding is supported previous studies by (Baker & Crompton, 2000; Petrick, 2004). In particular good services delivery make student satisfied positively. Secondly, perceived value has a positive and direct impact on customer satisfaction. Previous study that have shown similar finding (Teas & Agarwal, 2000). Those customers who perceived that they obtain benefits more than the costs when doing transactions with UUM cafeterias would undoubtedly be more satisfied. It is therefore very important to give value to their customers in their offers. Thirdly, image of the cafeteria has no direct impact on student satisfaction and purchase intention. This finding is the same with previous literature (Bloemer & De Ruyter, 1998). Additionally, customer satisfaction has no direct impact on purchase intention. Past studies have supported this finding (Shin et.al 2013). In the food industry perspective, it is mandatory for the cafeteria to make sure the

cafeteria's customers are satisfied but not necessarily will repeat purchase or recommend to other people. Finally, perceived value is found to have no significant direct impact on purchase intention. This finding has found similar support from past study (Li & Green, 2011). This new finding for this study indicates that service delivery offered by UUM cafeteria's should be given priority since it can directly affect the student satisfaction.

However, this study found no significant indirect paths effects or mediating paths. All indirect paths are not mediated by customer satisfaction probably due to the insignificant direct relationship between customer satisfaction and purchase intention. Our findings provide needed empirical support for conceptual arguments made by (Bloemer & De Ruyter, 1998). For example, the relationship between perceived value and purchase intention of cafeteria's customer will be very much improved if the other factor like trust and involvement has been taken into consideration by cafeteria operators.

Finally, female gender moderates the relationship between perceived value and student satisfaction. In food industries where most purchaser are female student, or where females make up a large segment of the customer base, operator of UUM cafeteria's should be more sensitive to the value and cleanliness of food, delicious taste, healthy food and ambience of the cafeterias and prompt service delivery to their customers.

This empirical quantitative study concludes by revealing two direct significant linkages service delivery and perceived value to student satisfaction; customer satisfaction fails to mediate the proposed relationships and gender moderates between perceived value and customer satisfaction.

6. LIMITATION AND SUGGESTION FOR FUTURE RESEARCH

The limitation of this study is that it is specific to one university only and limited to marketing program students only. Future research could widened the scope to include other universities or comparison could be made between public and private universities. Future research should also investigate other intangible variables of service (e.g. the interior design, design of service facilities, signage and quality of food) which might also affect customer's service quality inference and purchase intention.

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