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EXAMINATION ON DETERMINANTS OF CUSTOMER  
SATISFACTION IN STUDENT FOOD SERVICES

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## ABSTRACT

Customer satisfaction plays a pivotal role in success of every business organization whether it is meant for a product or a service. The increasing numbers of higher education students on university campuses ensured the expansion of demand for food service availability and quality on campus. This research conducted to examine impact of service quality, food quality, price, ambience and sustainability practices on customer satisfaction in student's food services. This study also will analyze the mediating effect of perceived value between service quality, food quality, price, ambience, sustainability practices and customer satisfaction. Questionnaires had distributed to 310 respondents which are students who experienced dine at sustainability cafeterias in UTM Skudai. Finding of this study shows that service quality, food quality and sustainability practices positively impact customer satisfaction. Finding also indicated that food quality, ambience, sustainability practices positively impact on perceived value. In addition, results indicated that perceived value mediate relationship between service quality, food quality, and ambience and sustainability practices with customer's satisfaction as independent variable. Practical implication of this study can be utilized by food service to improve customer satisfaction efficiently.

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ACSI	American Customer Satisfaction Index
B2C	Business to Customer
CSI	Customer Satisfaction Index
ECSI	European Customer Satisfaction Index
EDT	Expectancy Disconfirmation Theory
EFA	Exploratory Factor Analysis
PCA	Principle Component Analysis
SPSS	Statistical Package for the Social Sciences

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## CHAPTER 1

### INTRODUCTION

#### 1.1 Introduction

This chapter begins with a discussion on the background of the study which describes the underlying issues related to customer satisfaction in student food services. It then defines the problem statement of this study by highlighting the issues that triggered a need to conduct this study. The chapter also identifies several research questions and objectives that are intended to be achieved from executing this study. It ends with a brief elaboration on the scope of study and possible significance for the both practitioner and academic.

#### 1.2 Background of study

Customer satisfaction plays a decisive role in success of every business organization whether it is meant for a product or a service. Every business needs not only to retain its current customers but also to significantly expand customer's base (Saad Andaleeb & Conway, 2006). In restaurant industry, customer satisfaction is often used to predict the likelihood of customers returning to a restaurant. Some studies have shown that customer satisfaction is important to food service managers because it leads to repeat patronage, brand loyalty and new customers through word-of-mouth promotion. The satisfaction will not only strengthen customer loyalty but also improve the dining facility's status and produce greater profits (Ryu, Lee, & Gon Kim, 2012).

The United Nations Educational, Scientific and Cultural Organization(UNESCO) stated that Malaysia is among the top favorite education destinations in the world for

local and international students citing quality of life, education, cost of living and cultural diversity among the reasons behind Malaysia's attractive reputation (Kong & Mohd Jamil, 2014). Malaysia Universities can provide affordable high-quality education but at the same time they also have to pay attention on service provide to the students which include food service in university. Food service defines as businesses, institutions, and companies responsible for any meal prepared outside the home (Liang & Zhang, 2009). This industry includes restaurants, school, university, hospital cafeterias and many other formats. Cafeteria is the main form for student foodservice in colleges or universities all over the world and students nowadays are more sophisticated or prefer a higher variety of types of food (Kong & Mohd Jamil, 2014).

The increasing numbers of higher education students on university campuses ensured the expansion of demand for food service availability and quality on campus (Liang & Zhang, 2009). Not only number of university students keep increasing, students also come from different races and also come from different countries. Nowadays, student foodservice unquestionably becomes big market today not only they competing within local and private food service operators but also fast foods and vending machines (Liang & Ziang, 2009). With that, today's students are no longer tolerating poor quality of food served by university dining but expecting more than good food quality and nutritional value of the food they consume (Chang, Ling, Suki, & Tam, 2014). Therefore, it is important for university food service operators to fully recognize the wants of students and meet their needs to keep up their satisfaction and valuable campus dining experiences.

### 1.3 Problem statement

Cafeteria is one of the main forms in University because it is a centre for food service especially for students (Martin Cosuegra *et al*, 2007). Good service from cafeteria will represent that University have good food service. The major issues of university food service are aspects of student satisfaction. In UTM, there also a lot of cafeterias provided for students and every day UTM students will dine and buy their meal at those cafeterias.

When determinants of customer satisfaction been debated, factors such as service quality, product quality and price will be mentioned. Based on previous study on dining services by (Ashton, Scott, Solnet, & Breakey, 2010), it stated that service quality, food quality and price positively impact customer satisfaction. In other study by (Lin, 2003) which examined customer satisfaction in e-business, study found that convenience, price and service quality are main determinants of customer satisfaction. Thus, determinants of customer satisfaction from variety of industries such as hotel, e-commerce and hospitality are well-addressed. However, in student food service industry, determinants of customer satisfaction are still questionable and inconclusive. Based on previous research studied on determinants of customer satisfaction in student food services by (Chang *et al.*, 2014; Kim, 2009; Kong & Mohd Jamil, 2014; Liang & Zhang, 2009), there are number of determinants that were believed could impact customer satisfaction which include service quality, food quality, price, ambience, convenience and value. Unfortunately, customer perceived value in determine customer satisfaction in student food service is less emphasized. Only few researchers (Chang *et al*, 2014; Kong, 2014) did mentioned about value, but it still not been addressed well even though value is really crucial and important in determine customer satisfaction.

This study also identified relationship between service quality, food quality, price and ambience on value. Based on previous study by (Lin, 2003) which study on online business, results shows that service quality, price and convenience positively influence customer perceived value. On the other hand, study by (Ryu *et al.*, 2012)

indicates that physical environment, food quality and service quality significantly impact customer customer perceived value in full-service restaurant. Moreover, according to (Muturi, Wadawi, & Owino, 2014), they found that service quality and price have positively affect customer perceived value of mobile phone customers. Despite the role of perceived value really well addressed in variety of sectors such as hotel, tourism, e-commerce and technology sector, customer perceived value in student food service is still weak to be emphasized. Previous researches on determinants of customer satisfaction in students' food service emphasized model that it have direct relationship. Previous researches show that there are direct relationship between determinants and customer satisfaction without any mediator. However, based on American customer satisfaction index (Fornell, Johnson, Anderson, Cha, & Bryant, 1996) and European customer satisfaction index (Kristensen, Martensen, & Gronholdt, 2000), it shows that perceived value act as mediator between the determinants and customer satisfaction. Therefore it is possible and relevant to include perceived value as mediator in relationship between service quality, food quality, price and ambience with customer satisfaction since value can be perceived from all determinants. Thus it means that all determinants can effect customer satisfaction so this research had examined this relationship.

Based on previous papers, perceived value and satisfaction are two different things but both have close relationship. Customers will only buy and obtain satisfaction from the company that they perceive offers the highest customer perceived value to meet their demand. Study by (Milfelner, Snoj, & Korda, 2011) stated that perceived value directly impact guest satisfaction in hotel industry. Besides that, refer to (Al-Jabaly & Khraim, 2014), results found that customer perceived value effect customer satisfaction in airline travelers in Jordan. In student food services, relationship between customer perceived value and customer satisfaction is still doubtful since it is scarce to get reference. In fact, customer perceived value in student food services should be defined more deeply because another important element that usually been overlooked by previous researchers in student food services is sustainability value. In student food services environment, most of cafeterias encourage sustainability

practice in their operation which customers will involve in the service process such as take their own meal and bring own container. Then once they finish eating, they will put all materials into the available bin which divide into categories such as food waste, non food waste and trash. This kind of sustainability practices let student to gained experience value during their dining time. So this research examined whether this experience value could affect student satisfaction.

Besides that, number of previous studies in different sectors indicated customer perceived value as mediator in their model. Study by (Al-Jabaly & Khraim, 2014) found that customer perceived value is mediator between perceived price and customer satisfaction in Airline Travelers. In addition, according to (Lin, 2003), result show that customer perceived value mediates between convenience, service quality and price with customer satisfaction in e-business perspective. Moreover, (Milfelner et al., 2011) indicated that customer perceived value mediate relationship between image, service quality and customer satisfaction in hotel services. Therefore, it is important for this research to consider perceived value issues in order to identify whether perceived value has a mediator role on the relationship between service quality, food quality, price and ambience with customer satisfaction. Moreover, there are lack number of studies explored the concept and role of perceived value as mediator in student food service institution. Therefore, this study is required to identify the mediating effect of perceived value on the relationship between service quality, food quality, price and ambience with customer satisfaction.



#### **1.4 Research questions**

According to the problem statement mentioned above, this study specifically focuses on the determinants of customer satisfaction in student food service. Therefore, in addressing the underlying issues related to this study, the following questions were raised:

1. What are the determinants of customer satisfaction for student food service?
2. What are the impacts of service quality, food quality, price, and ambience and sustainability practices on customer satisfaction?
3. What are the impacts of service quality, food quality, price, ambience and sustainability practices on perceived value?
4. What is the effect of perceived value on customer satisfaction?
5. Does customer perceived value mediate the relationship between service quality, food quality, price, ambience, sustainability practices and customer satisfaction?

#### **1.5 Research Objectives**

This study highlighted several research objectives related to determinants of customer satisfaction in university food service. This discovered the objective as follows:

1. To identify determinants of customer satisfaction for university food service.
2. To determine the impact of service quality, food quality, price, ambience and sustainability practices on customer satisfaction.
3. To examine the impact of service quality, food quality, price, ambience and sustainability practices on perceived value.
4. To examine effect of perceived value on customer satisfaction.
5. To analyze the mediating effect of perceived value between service quality, food quality, price, ambience, sustainability practices and customer satisfaction.

## 1.6 Research Scope

This research emphasized on determinants of customer satisfaction in student food service. Based on previous research studied on customer satisfaction, there are number of determinants were believed to have huge impact on customer satisfaction which include service quality, food quality, price, ambience, risk and convenience and value. For this research which emphasize on customer satisfaction toward food service in university, researcher had include only 5 determinants which have really strong impact on customer satisfaction and really suitable with university cafeteria situation which are service quality, food quality, ambience and price and value.

Besides that, this research also stressed on important of perceived value on customer satisfaction. There are several forms of value. These forms of value can be categorized as functional, social, emotional, epistemic, and experience (Ashton et al., 2010). For this research, researcher focused on experience value based on consumption experience by customer. Experience value is the total outcome to the customer from the combination of environment, goods, and services purchased (Lewis, 2000). This experience is the core of the hospitality sector because intangible experience plays an important role in this business. Thus, for this research, researcher looked into the experience value gained by students reflect from the determinants in customer satisfaction which are service quality, food quality, ambience and price. By the way, researcher also identified how the sustainability practices in UTM cafeteria effect experience value of the students.

Moreover, since this research also emphasized on experience value reflect from sustainability practices, thus only selected cafeteria had been chosen. There are two types of cafeterias in university. First type of cafeteria is cafeterias that pursue full service which customer not much participate in service process. However this type of cafeteria is rarely exist in university even in UTM. Second type of cafeteria is cafeterias that pursue self service and sustainability practices in operation which are the most common operation in university include in UTM. So for this research, cafeteria that been chosen was cafeterias that pursue self service and sustainability

practices in operation which customers will involve or participate in certain process during their dining time

Besides that for the respondents, this research examined UTM Students satisfaction toward student food service. Respondents consist of local students and also international students. Since cafeterias that been chosen were cafeterias that pursue self service operation, therefore respondents for this research were students that have dining experience in those selected cafeterias since researcher also analyzed on students satisfaction in term of their involvement in sustainability practices..

### **1.7 Research Significant**

This study can be constitutes for two point of view. First party is academic literature while second party is UTM food service. For academic literature, this research had extended previous literature regards to the determinants of customer satisfaction in business operation. There are numbers of papers discussing about determinants of customer satisfaction but in term of customer satisfaction in student food service, it is quite rare to be address. So this research had extended literature regarding to determinants of customer satisfaction in student food service thus it contributed to future scholars to extent this kind of research.

Besides that, this research also gives new model in determining customer satisfaction in student food services. . Based on previous researches related with determinants of customer satisfaction in student food service, the frameworks have direct relationship between determinants and customer satisfaction. However for this research, variable which is customer perceived value acted as mediator between all four determinants and customer satisfaction. Moreover, this research also enriched current model by incorporating experience value to determine customer satisfaction in food service. Since perceived value come in variety of forms, this research emphasized more on one of forms of value which is experience value.

Experience values are reflecting from involvement of customers with sustainability practices during their dining time.

For food service in UTM, this research had exposed to them what are determinants of customer satisfaction in food service thus they can find ways to improve their service and operation so it will meet student's expectation. Besides that, this research gives view to food service institution about perceived value which acts as mediator in the model. Perceived value is crucial because it is outcome service quality, food quality, price and ambience. By the way, perceived value is also important as determinants of customer satisfaction. Furthermore, this research also emphasized on sustainability value in cafeteria thus can be used by food service to improve in term of sustainability activity.

## **1.8 Student's Food Service in UTM**

Foodservice defines as businesses, institutions, and companies responsible for any meal prepared outside the home (Liang & Zhang, 2009). Nowadays, student foodservice unquestionably becomes big market today including in UTM. Good service provided by food service institution in UTM will reflect on overall satisfaction of students during their study time at UTM.

### **1.8.1 Cafeterias in UTM**

Refer to UTM's Office and Asset Development, there 101 rental lots in UTM which consist of 8 arcades, 8 single cafeterias and 9 kiosks. Moreover from 8 arcades, it consists of 67 units of cafeterias. In UTM, there are two types of cafeterias. First type of cafeteria is cafeterias that pursue full service which customer not much participate in service process. However this type of cafeteria is rarely exist in university even in UTM. Second type of cafeteria is cafeterias that pursue self service and sustainability practices in operation which are the most common operation in university include in UTM.

### **1.8.2 Sustainability practices in Student's Food Service in UTM**

In this study, researcher had stressed on student satisfaction during dining time at cafeteria that pursue sustainability practices. Sustainability is referred to at a societal level with the idea of developing sustainable ways of living result in smaller pollution and more ecology, and ultimately reduce the environmental impact (Bruns-Smith, Choy, Chong, & Verma, 2015). In UTM cafeterias, one of the famous sustainability practices is student have to take their meal by themselves and once they finished they have to separate the excess food from the plates put all the materials include plates or plastic at the cleaning station. At cleaning station, it divides into 3 containers which are non-food waste, food waste and trash. Moreover, students also been advised to bring their own food container, use biodegradable utensils and take healthy foods. This kind of sustainability practices pursue by UTM Cafeterias is in line with the UTM cafeterias policy which are clean, healthy and environmental friendly.

### **1.9 Operational Definition**

#### **Service Quality**

Service quality defined as the extent to which a service meets customer's needs or expectations (Mohammad & Alhamadani, 2011). Service is assumed to be quality when it consistently conforms to customer expectations. In this study, service quality refers to service provide by student food services to students in UTM.

#### **Food Quality**

Food quality is the quality characteristics of food that is acceptable to consumers (Liang & Zhang, 2009). Food is the most important part of the overall restaurant. According to (Chang et al., 2014), food quality is an absolute requirement to fulfill the customer's needs and expectation in the restaurant. In this study, food quality refers to quality of food that provide by UTM food services which include taste, healthy, freshness and appeal.

**Price**

Price as the amount of money a needs to sacrifice to gain something have aspirations for with price contributing to perceived value and influencing consumer decision making (Pedraja Iglesias & Jesus Yagüe Guillén, 2004). In this study, price refers to amount of money that UTM spend during their dining time at UTM cafeterias.

**Ambience**

Ambience or popularly known as operating physical environment is one of the crucial attributes in retaining customer to dine at the cafeterias (Namkung & Jang, 2008). In this study, it refers to physical environment in UTM cafeterias which include lighting, aroma, temperature and background sound.

**Sustainability Practices**

Sustainability practices are sustainable development practice to reducing negative environmental impact. In UTM, their food services institutions adhere to cafeteria policies of sustainability which are healthy, clean and environmental friendly. In this study, sustainability practices include separate food from plate at cleaning station and bring own container.

**Perceived Value**

Customer Perceived value is consumers overall assessment of the utility of product based on perception of what received and what is given (Ariff, Fen, & Ismail, 2012). Customer value is the basis for all marketing decisions. In this study, customer perceived value refer to overall dining experience in UTM cafeterias that has sustainability practices. Perceived value in this study refers to experience value that reflects from sustainability practices in UTM Cafeterias.

**Customer Satisfaction**

When a consumer or customer is pleased with either the product or services it is termed satisfaction (Al-Tit, 2015). Satisfaction can also be a person's feelings that results from comparing a product's perceived performance or outcome with their

expectations (Jalil, Fikry, & Zainuddin, 2016). In this study, Customer satisfaction refers to student satisfaction toward food services in UTM.

### **1.10 Summary**

This chapter was about the introduction of the study, the researcher started with the background of this study. Besides, the researcher briefly explained why this research is important, problem statements, scope of study, research questions, research objectives and contribution of this study. This chapter was an overview of the study. Then, in next chapter it will discussed the literature review related to this study.