Defining University Student's Satisfaction Towards Campus Food Service: A Study at Food Outlet UiTM Cawangan Selangor, Puncak Alam Campus (DINESERV)

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Abstract
Currently, around 234.08 thousand male students and 358.6 thousand female students are enrolled in public higher institutions in Malaysia. To cater to the meal demand for such a high number of students and be a University status, each university is providing Campus Foodservice. As the number of students grows each year, this will influence the expansion of Campus Foodservice. This study explores university students' satisfaction to gain insight into the different foodservice attributes to enable the university management to meet the needs and demands. A survey was conducted with the participation of highly potential respondents targeted among the student population. The questionnaire was developed based on the adaptation of the DINESERV instrument. The results show the four main factors in terms of decision-making for university students to choose the foodservice establishment they prefer. Based on this, the researcher found that (convenience of location) is the main factor in influencing the decision at 42%, followed by (Price) at 34.5%, (High service quality) at 16.5%, and (Ambience) at 6.5%. Therefore, the researcher suggested that location and price are the most significant factors influencing university students' decisions.
Keywords: DINESERV, Satisfaction, Price, Ambience, Quality

Introduction
In every university, the cafeteria plays a very important role as a food supplier that provides food and beverages to students, staff and visitors from outside (Ting & King, 2012). Osman & Islam (2015) stated that food service attributes had become a key component in affecting student life on campus in higher education. All facilities provided in the cafeteria can provide

convenience and comfort to students as users. Among the facilities provided in the cafeteria are dining tables, chairs, fans, lamps, sinks, cutlery equipment, and so on. Cafeteria with complete facilities and comfortable surroundings in which students may feel at home and engage in leisurely discussion and engaging activities with their classmates (Norhati & Nurhafisah, 2013). Higher education institutions in Malaysia have their own campus foodservice operations providing different options; the university assumes that the choices of the food being offered are according to the satisfaction of the ever-demanding generation Y. Therefore, Campus foodservice in Malaysia has a high potential for economic growth and meeting the demands of the ever-increasing sophisticated, trendy students will be a challenge for the university concern. University foodservice expands by adopting new concepts and moving toward the commercial foodservice trend (Ng, 2001).

Providing quality foodservice operations on the Campus is essential to the university as an organisation as the students spend much time on Campus attending classes hence their spending for meals is on Campus Foodservice outlets provided by the university. With the choices of several foodservice outlets in the hands of the students, how do we know that the students are satisfied with the service quality? Due to several factors, such as limited time between classes, the students have no choice but to patronise the Campus Foodservice outlets. This study aims to address these gaps through a questionnaire survey of 250 UiTM Puncak Alam Campus students.

The objective of the study is to

1. To assess the university student's satisfaction with service quality provided by the restaurants in the Campus foodservices by using DINESERV.
2. To identify the service quality dimensions that are considered the most important for University Students when choosing to dine on-campus.
3. To examine the relationship of each DINESERV dimension with Students' Satisfaction.

The study contributes to the body of literature on Service Quality based on the dimension available in DINESERV instrument, which consists of tangible and intangible factors. The measurement gained from this instrument further supported the main objective of the study.

The paper is organised as follows. The following section provides a literature review of the dimension and its use. Then, the research method is described, focusing on data collection and variable measurement. In contrast, the findings section presents the results through descriptive statistics and statistical tests and discusses some qualitative questionnaire responses. The final section includes the conclusions of the study.

Literature Review
Service Quality
According to Kandampully et al (2001), the authors mentioned that no universal interpretation defines service quality as it means to different things to different people at different times and on different occasions. Thus, while the guests are the judges of service quality (Berry & Parasuraman, 1991), Reid & Bojanic (2010) mentioned that service quality is a perception resulting from the attitudes formed by the customers' long-term overall evaluations of the service performance.

As cited in Parasuraman et al (1988), the author defined service quality as the discrepancy between a customer's expectation of service and the customer's perception of the service offered by the organisation. From the previous literature by the researchers, the service quality models are used to measure and analyse the level of customer expectations and satisfaction.

Dineserv

Based on the five dimensions of service quality, which are reliability, assurance, responsiveness, tangibles, and empathy, they adapted the instrument SERVQUAL to the restaurant industry and used lessons learned to develop the LODGSERV Model. Stevens, Knutson & Patton (1995) drafted the DINESERV as an instrument used to measure customer satisfaction in restaurants. As the model showed, the DINESERV interviewed and has five dimensions with the twenty-nine items that were measured in the model.

The Five Dimensions of Service Quality	
Reliability	Ability to perform the promised service dependably and accurately
Assurance	Knowledge and courtesy of employees and their ability to convey trust and confidence
Responsiveness	Willingness to help customers and provide prompt service
Tangible	Physical facilities, equipment, and appearance of personnel
Empathy	Caring, individualized attention
The indicators were developed by A. Parasuraman, Valarie A. Zeithaml, and Leonard L.Berry and originally published in: 'SERVQUAL: A Multiple-Item Scale for Measuring Consumer Perceptions of Service Quality', Journal of Retailing.	

Figure 1: The Five Dimensions of Service Quality *(Modified for DINESERV)*

Customer Satisfaction

In defining customer satisfaction (Vavra, 1997) stated that satisfaction is the leading criterion for determining quality delivered to the customers through the product, service, and accompanying services. This is further noted by (Kandampully et al., 2001) that the most common representation of customer satisfaction is the disconfirmation approach (Ramaswamy, 1996), in which satisfaction is related to the variation between a customer's pre-purchase expectations and their post-purchase perceptions of the actual service performance.

Findings
DINESERV Descriptive Analysis

All data collected were analysed using the mean, standard deviation, variance, skewness and kurtosis scores. The data were normally distributed, with the Skewness and Kurtosis values within the cut-off value of -2 to 2 and 13 to 3, respectively (Gliem & Gliem, 2003; Nunnally & Bernstein, 1994). The descriptive statistics derived from the respondents as shown below:

Table 1
Tangible Dimension

Descriptive Statistics

	N	Mean	Std. Deviation	Variance	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Tang1	170	4.58	.953	.908	-.512	.186	.839	.370
Tang2	170	4.51	.956	.914	.048	.186	.132	.370
Tang3	170	4.42	.934	.872	.000	.186	.476	.370
Tang4	170	4.76	.994	.989	.063	.186	-.144	.370
Tang5	170	4.64	.953	.908	.084	.186	.044	.370
Valid N (listwise)	N170							

Table 1 above shows the overall summary of the descriptive statistical analysis for all levels of Tangible Dimensions. The findings in Table 1 indicated that the mean ratings for each level of the variables in the Readable Menu (M= 4.76, SD=.994), Clean dining areas (M=4.64, SD=.953), Attractive Dining Area (M= 4.58, SD=.953), Clean and Neat Staffs (M=4.51, SD=.956) and décor relates to pricing (M=4.42, SD=.956). For the overall sample, the variable means ranged between 4.42 (décor relates to pricing) to 4.76 (Readable Menu).

Table 2
Reliability Dimension

Descriptive Statistics

	N	Mean	Std. Deviation	Variance	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Reliab1	170	4.52	.943	.890	.231	.186	.391	.370
Reliab2	170	4.37	.935	.874	.119	.186	.112	.370
Reliab3	170	4.44	.972	.945	.126	.186	-.128	.370
Reliab4	170	4.82	1.086	1.180	-.107	.186	.296	.370
Reliab5	170	4.66	1.072	1.149	.309	.186	-.293	.370
Valid N (listwise)	N170							

Table 2 above shows the overall summary of the descriptive statistical analysis for all factors of Reliability Dimension. The findings indicated that the mean ratings for each level of the factor in the Accurate Bill (M= 4.82, SD=1.086), Exact Food (M=4.66, SD=1.072), Serve on-time (M= 4.52, SD=.943), Dependable Staff (M=4.44, SD=.972) and Correct Mistakes (M=4.37, SD=.935). For the overall sample, the variable means ranged between 4.37 (Correct Mistakes) to 4.82 (Accurate Bill).

Table 3
Responsiveness

Descriptive Statistics

	N	Mean	Std. Deviation	Variance	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Respon1	170	4.65	.982	.963	.189	.186	.076	.370
Respon2	170	4.59	.860	.740	.099	.186	.376	.370
Respon3	170	4.48	1.004	1.009	.120	.186	-.476	.370
Respon4	170	4.57	1.108	1.229	-.062	.186	-.555	.370
Respon5	170	4.55	.979	.959	-.095	.186	-.341	.370
Valid N (listwise)	N170							

Table 3 above shows the overall summary of the descriptive statistical analysis for all factors of Responsiveness Dimension. The findings indicated that the mean ratings for each level of the factor in the Quick Service (M=4.59, SD=.860), Repeat Order (M=4.57, SD=1.108), Quick Respond (M=4.55, SD=.979), Assist Other Staff (M=4.65, SD=.982) and Extra Effort (M=4.48, SD=1.004). For the overall sample, the variable means ranged between 4.48 (Extra Effort) to 4.65 (Assist Other Staff).

Table 4
Assurance

Descriptive Statistics

	N	Mean	Std. Deviation	Variance	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Assure1	170	4.65	.932	.869	.184	.186	.316	.370
Assure2	170	4.55	1.027	1.054	.071	.186	-.218	.370
Assure3	170	4.49	1.084	1.174	-.054	.186	.751	.370
Assure4	170	4.41	.958	.917	.252	.186	.367	.370
Assure5	170	4.45	.877	.770	.305	.186	-.123	.370
Valid N (listwise)	N170							

Table 4 above shows the overall summary of the descriptive statistical analysis for all factors of Assurance Dimension. The findings in Table 4 indicated that the mean ratings for each level of the factor in the Competent Staff (M= 4.41 SD=.958), Support from Superior (M=4.45, SD=.877), Feel Safe (M=4.49, SD=1.084), Willing Information (M=4.55, SD=1.027) and Feel Comfortable (M=4.65, SD=.932). For the overall sample, the variable means ranged between 4.41 (Competent Staff) to 4.82 (Feel Comfortable).

Table 5
Empathy

Descriptive Statistics

	N	Mean	Std. Deviation	Variance	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Emp1	170	4.39	.943	.890	.263	.186	1.057	.370
Emp2	170	4.43	.928	.862	.344	.186	.043	.370
Emp3	170	4.46	.898	.806	.082	.186	1.075	.370
Emp4	170	4.51	.944	.890	-.274	.186	.792	.370
Emp5	170	4.46	.943	.889	.146	.186	1.182	.370
Valid N (listwise)	N170							

Table 5 above shows the overall summary of the descriptive statistical analysis for all factors of Empathy Dimension. The findings in Table 5 shows the mean ratings for each level of the factor in the Feel Special (M= 4.39, SD=.943), Anticipate Needs (M=4.43, SD=.928), Reassuring (M=4.46, SD=.898), Check on Customers (M=4.46, SD=.943) and Customers Interest (M=4.51, SD=.944). For the overall sample, the variable means ranged between 4.39 (Feel Special) to 4.51 (Customers Interest).

Table 6
Satisfaction

Descriptive Statistics

	N	Mean	Std. Deviation	Variance	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Sat1	170	4.49	.872	.760	.154	.186	.616	.370
Sat2	170	4.58	.972	.944	.193	.186	.105	.370
Sat3	170	4.56	.936	.875	.200	.186	.229	.370
Sat4	170	4.62	.870	.757	.378	.186	.354	.370
Sat5	170	4.71	.927	.860	.214	.186	-.392	.370
Valid N (listwise)	N170							

Table 6 above summarises the descriptive statistical analysis for all factors of University Students Satisfaction. The findings indicated that the mean ratings for each level of the factor in the Overall Satisfaction (M= 4.71, SD=.927), Diversity of Menu (M=4.62, SD=.870), Convenient Location (M= 4.58, SD=.972), Atmosphere (M=4.56, SD=.936) and Service Exceed Expectations (M=4.49, SD=.872). The variable means for the overall sample ranged between 4.49 (Service Exceed Expectations) and 4.71 (Overall Satisfaction).

Summary
In developing the relationship between the independent and dependent variables, this study discovers the important elements influencing university students' satisfaction with in-campus foodservice. With the result from data analysis, this study showed that all the dimensions have a positive relationship to the university student's satisfaction. All the dimensions apply to each other.

On the other contribution, this study makes a valuable impact on academic research in the service quality area, specifically in the area of in-campus foodservice. This will allow the researcher from a public or private university to build a solid foundation for improving and referencing the related studies. The researcher believes that the development of the theoretical framework is now ready for further research in this field, where researchers can increase their understanding of the university student's satisfaction with on-campus food service and hence, allow the researcher to recommend a sense of continuity to their dimension towards the service quality.

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