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THE RELATIONSHIP BETWEEN SERVICE QUALITY, CUSTOMER SATISFACTION AND CUSTOMER EXTERNAL COMPLAINTS INTENTIONS IN COMMERCIAL PARKING FACILITIES IN KLANG VALLEY, MALAYSIA

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Abstract: Increase of motor vehicles have been the result of more demand in transportation facilitating fast mobility, connectivity and physical transactions worldwide especially Malaysia which has been experiencing rapid economic developments and growth in population. The construction of commercial buildings in tandem with massive developments to support commercial activities in cities like Penang, Kuala Lumpur and Johor Bahru with scarcity of parking space have been well identified and became a major concern. There have also been high competitions among the parking operators which create crucial demand in the provision of superior service to customers to be at par excellence in terms of pricing, quality of service, increases in customer complaints and so forth. Hence, it is timely critical that this study to be conducted since customer satisfaction should be within the important realm of marketing elements in the parking industry. This study examines the relationships between various dimensions of service quality, customer satisfaction and customer external complaint intentions of car park commercial buildings in Klang Valley, Malaysia. The final study framework consists of six (6) dimensions of service quality namely assurance, empathy, tangible, reliability, responsiveness, safety & security as independent variables, customer satisfaction as mediator and external complaint intentions being the proxy of behavioral intention as the dependent variable. Each item was measured using a 7-point Likert scale from 1 = "Strongly disagree" to 7 = "Strongly agree". The study findings were derived from 227 number of respondents, analyzed using SPSS version 21.0 and SmartPLS version 2.0 software. This study found that customer satisfaction has a direct relationship with external complaint intentions. The result also shows that customer satisfaction partially mediates the relationship betweenempathyand customer external complaints.
Keyword: Service quality, assurance, empathy, tangible, reliability, responsiveness, safety & security, customer satisfaction and customer external complaint intentions.

INTRODUCTION

The requirement for better parking services has been the result of increasing demand in the number of motor vehicles to facilitate fast mobility, connectivity and ease physical economic

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transactions worldwide (Litman, 2013; Doulamis, Protopapadakis & Lambrinos, 2013; Qian & Rajagopal, 2013) where Malaysia is unexceptional due to rapid urbanization and population growth. According to Rasagam (2001) Malaysia's urban centers are among the most vehicle-dependent in Asia. Experts suggested that the way to minimize parking problems and congestion is through effective car parking management measures (European Parking Association, 2014; Litman, 2013). Proper management of parking facilities will increase the quality and valued by consumers (European Parking Association, 2014).

Parking is a "service product" that must address the needs of different types of motorists (EPA, 2001).As a service product, common parking service rendered to buildings or landsincludesparking revenue collection, parking management, provide trained and professional staffs, provide customer service, management of traffic, deployment of parking equipment and technology, maintenance of parking facilities and provide safety and security elements within the parking facilities(Cullen, 2012; Horn, 2011; Phillips, 2011). It was suggested that four best practice characteristics usually provide superior service to the property owner and owner's customer are active management personnel, constant ownership program, efficient resource allocation and promise fulfillment excellence (Cullen, 2012). Provide a good parking management is in line with the Malaysian government initiatives to improve the current transportation system through Greater Kuala Lumpur/Klang Valley programs as stated in the National Key Economic Area toward turning Kuala Lumpur/Klang Valley into a high-income and top-20 livable city by 2020 (Official Website of Greater Kuala Lumpur/Klang Valley).

Although many researchers and authors claimed that parking is an important part in economic activities, transportation and quality of life, however, the research on service quality, customer satisfaction and customer external complaint intentionsin the parking industry is still limited. Malaysian public dissatisfy and complaint on how service quality has been demonstrated in parking facilities (The Star Online, 2014; Babulal, 2012). Wu (2011) mentioned that efficient evaluation of a parking facility's performance is important to parking service planning, design and operation. Therefore, scarcity in quantitative evaluation method affects the quality of parking facility planning, design, and operation.

In the parking service industry, the common nature of customer complaints on parking service quality usually is mostly related to security issues, scarcity of parking space, and improper response by the parking attendants, cleanliness and environment issue, etcetera. This research is considered as one of the Malaysia's first studies to observe the phenomenon

on service quality, customer satisfaction and customer external complaint intentions towards parking services in the local context, focusing only in Klang Valley area. Thus, the purpose of this research is to examine the relationship between dimensions of service quality, customer satisfaction and customer external complaint intentions at the car park of commercial buildings. Since there has been a very rare study on service quality in parking services, this research is carried out to examine whether the original dimension of service quality including one additional dimensions namely security and safety in service quality dimensions is relevant to customer satisfaction and customer external complaint intentions for parking services in Malaysian context. This research also attempts to examine if customer satisfaction has mediating effects on the relationship between the dimensions of service quality and external customer complaint intentions.

LITERATURE REVIEW

Customer External Complaint Intentions

Customer complaint intention is defined as a process that emerges when a service experience lies outside a customer's 'acceptance zone' during the service interactions and/or in the evaluation of the value-in-use. It can be expressed in the form of verbal and/or non-verbal communication to another entity and can lead to a behavioural change (Tronvoll, 2007). Customer complaint has mainly been linked to product failure and has been viewed as a static post-purchase activity (Fitzpatrick, Davey & Dai, 2012; Tronvoll, 2011) Liljander & Strandvik (2006). Zeithaml, Berry and Parasuraman (1996) classified customer external complaint intentions as one of five (5) dimensions of customer behavioural intentions which was also then cited by Yoo (2011). Customer complaint intentions are one the important dimension of customer unfavourable behavioural intentions related to low service quality, which will lead to customers' decision whether to remain or cease business with the service provider (Zeithaml et al., 1996).

Service Qualityand Its Dimensions

Service quality has been suggested as a key concept for organizations, since research has shown that it is directly related to customer satisfaction and loyalty (Rajaratnam, Munikrishnan, Sharif & Nair, 2014; Giovanis, Zondiros & Tomaras, 2013). Studies in the service marketing literature emphasized on the importance of the service quality concept as a key factor in predicting customer satisfaction and increasing customer retention rates (Han & Hyun, 2015).Service quality is an antecedent of customer satisfaction, which then mediates the relationship between service quality and behavioral intention (Abd-El-Salam, Shawky &

El-Nahas, 2013). Service quality is an elusive construct that may be difficult to measure as compared to goods quality, which can be measured objectively by measures such as durability and number of defects. It stems from a comparison of customers' expectations or desires from the service provider with their perceptions of the actual service performance (Parasuraman, Ziethaml & Berry, 1988). Service quality is determined by differences between customers' expectations of the service provider's performance and their evaluation of the services received (Parasuraman, Ziethaml & Berry, 1985; 1988; 1991).

Customer Satisfaction

Customer satisfaction is considered as the essence of success (Siddiqi, 2010). Oliver (1997) defined satisfaction as the "customer's fulfilment response," which is an evaluation as well as an emotion-based response to a service. It is an indication of the customer's belief on the probability of a service leading to a positive feeling.Quantitative findings by Munisamy, Chelliah and Mun (2010) on service quality delivery and its impact of customer satisfaction in the banking sector in Malaysia revealed that assurance, empathy, reliability and responsiveness dimension have a relationship but it has no significant effect on customer satisfaction. Only tangibledimension has positive relationship and have significant impact on customer satisfaction. The result the analysis is not in congruent to findings by Kitapci, Akdogan and Dortyol (2014) where they found assurance, empathy, and responsiveness dimension have significant relationships with customer satisfaction but not tangibles and reliability.

Dimension of Service Quality and Customer Satisfaction

Wang, Lee, and Chen (2012); Tu, Lin and Chang (2011); and Kim, LaVetter & Lee (2006) in their study concluded that direct relationship between service quality and customer satisfaction is significant. High performance of service quality could reinforce positive customer satisfaction assessments (Olorunniwo, Hsu & Udo, 2006).While Padma, Rajendran & Lokachari (2010) study was found safety and security components is significant to patient and hospital attendant satisfaction.

Hypothesis H1a-H1f: There is a significant relationship between six (6) dimensions of service quality (assurance, empathy, reliability, responsiveness, security& safety and tangible) and customer satisfaction.

Customer satisfaction and Customer External Complaint Intentions

Hosany and Prayag (2013) and Wu (2013) quoted that customer satisfaction is also an important antecedent of behavioural intentions and actual behaviour which includes customer

external complaints. Service quality has a direct effect on customer satisfaction as a customer with positive perceptions about service quality is likely to report a high level of satisfaction (Estiri, Hosseini, Yazdani & Nejad, 2011; Kim & Damhorst, 2010). Behavioral intention expressed by consumers depend on their levels of satisfaction, which a company shall maintain their existing customers and attract new consumers to achieve better financial performance (Wahyuningsih & Nurdin, 2010). A satisfied customer shall communicate a positive word-of-mouth to other consumers (Kitapci, et al., 2014; Jones, Taylor & Reynolds, 2014; Wu, 2014; Eisingerich, Auh & Merlo, 2014).

Hypothesis H2: There is a significant relationship between the customer satisfaction and customer external complaint intentions.

Interrelationships between service quality, customer satisfaction and customer external complaint intentions

Olorunniwo et al. (2006) in their study found that the direct effect of service quality on behavioural intentions was significant while the indirect effect of service quality on behavioural intentions via mediation of customer satisfaction appears to be a stronger driver for customer behavioural intentions in the service factory. According to Huang, Wu, Chuang and Han (2014) and Gauri (2013), the trigger of complaint behaviour is due to lack of quality and service failures. Therefore, complaint behaviour has its source in service quality drivers.In this study customer satisfaction is defined as the customer's fulfilment response. Generally, past research pointed out that service quality is an antecedent of consumer satisfaction (Zhou, 2005)

Hypothesis H3a to H3f: Customer Satisfaction mediates the relationship between six (6) dimensions of service quality (assurance, empathy, reliability, responsiveness, security & safety and tangible) and external complaint intentions.

Methodology

The purpose of this research is to examine the relationship between dimensions of service quality, customer satisfaction and customer external complaints of the car park customers in the Klang Valley area commercial buildings. It is also intended to examine mediating effects of customer satisfaction towards the relationship between the dimensions of service quality and customer external complaint intentions.

Research Framework

In Figure 1 and Figure 2 present the research framework used in this study. To explicate this framework as illustrated in Figure 1, the study examines the direct effect of service quality

dimension on customer satisfaction (H1a to H1f) and examines the direct relationship between customer satisfaction and customer external complaint intentions (H2).

This study also attempts to examine mediating effects of customer satisfaction on the relationship between service quality dimensions and customer external complaint intention (H3a to H3f).Model of the latent constructs comprised the followings:-

Exogenous: Service quality dimensions (assurance, empathy, reliability, responsiveness, safety &security and tangible).

Endogenous: Customer satisfaction and customer external complaint intentions.

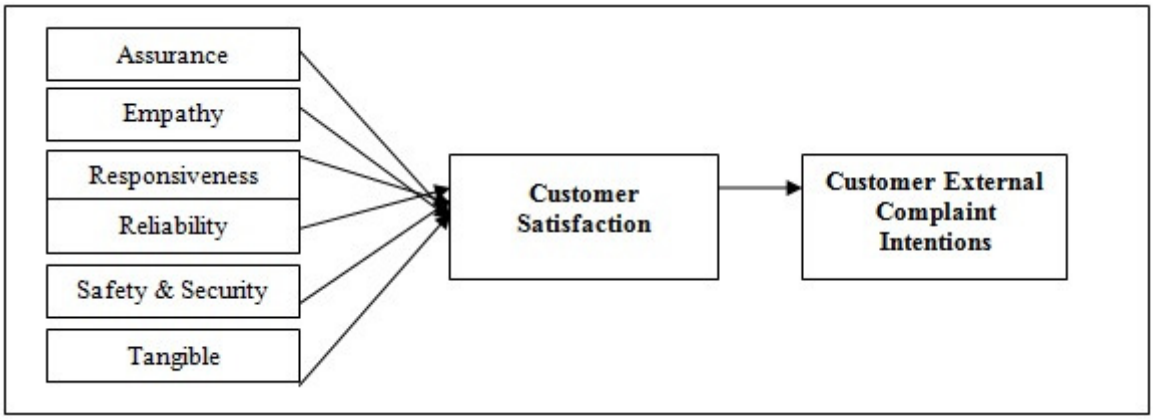

Figure 1: Research Framework

Sampling and Data Collections

A total of 300 questionnaires was distributed to monthly season parking customers at commercial buildings in the Klang Valley areas using convenient sampling. Only 247 questionnaires were returned immediately by the respondents. However, 227 questionnaires with a response rate of 82.33% were used in this study where 20 questionnaires were discarded prior to data cleaning and screening. The data from questionnaires were analysed using SPSS Version 21.0 and SmartPLS version 2.0 software. Each of the items was measured using a 7-point Likert scale from 1 = “Strongly disagree” to 7 = “Strongly agree”. There were five demographic questions included in the instrument.

PLS Data Analyses with Smart PLS and Results

This research only used data from 227 respondents after the elimination of 20 unusable data. Unusable data were detected through normality analysis, such as Mahalanobis analysis and Skewness & Kurtosis. The demographic profile of respondents in this study shows that 40.5% of the respondents were male and the remaining 59.5% were female customers. The age ranges were categorized from 21 years old to above 50 years old which 55% represents

majority respondents between the age of 21 – 30. With regards to education, the majority of the respondents studied at university representing 57.7%, followed by 18.1% of the respondents who studied at college. The statistics showed that 23.8% respondent has used the parking service more than 5 years, followed by 18% respondents used the parking service 3-5 years. Mean and standard deviation analysis were carried out on each variable.

In this research, the 29-items instrument of service quality was first analysed using exploratory factor analysis over the 227 responses from commercial building parking customers. The six dimensions of service quality with each loading exceeding 0.6 factor loadings as showed in Table 1. Culiberg and Rojšek (2010) cited that past research confirming that the number of dimensions varies depending on the type of industry. This study focuses on the explanation of endogenous constructs, Partial Least Square (PLS) analysis, which uses variance-based methods are employed. PLS deals with both formative and reflective constructs, as the latent variable is considered as the weighted sums of their respective indicators used to predict values for latent variables via multiple regressions (Hair, Sarstedt, Pieper & Ringle, 2012; Hair, Sarstedt, Ringle & Mena, 2012).

SmartPLS item scales are comparable whereby data standardization can be ignored, thus original data is used for analysis (Chatelin, Vinzi & Tenenhaus, 2002). Bootstrapping procedure (Chartelin et al., 2002; Chin, 1998b) is used to calculate t-values in order to test whether path coefficients differ significantly from zero. Contrary to the default of 227 samples in SmartPLS, 5000 samples were calculated through the bootstrapping procedure in the attempt to obtain more stable results as Gould and Pitblado (2005) encouraged the usage of bootstrapping procedure since the standard error estimates are dependent upon the number of observations in each replication. Fir purpose of this study, bootstrapping procedure was conducted using 5000 samples.

Internal Consistency Reliability Tests

Figure 2 and Table 1 illustrated that the reflective constructs, are all well above the minimum threshold value of 0.708 outer loadings, whereby factor loadings range from a low of 0.721 to a high of 0.976, an evidence of a strong goodness fit. Customer satisfaction has the highest loading significance within its construct as compared to other latent variables, followed by assurance. The findings also indicated that all eight constructs have the acceptable value of Cronbach's Alpha exceeding 0.8, thus meeting stipulated thresholds (Nunnally & Bernstein, 1994). Composite Reliability value uniformly exceeded 0.708 with tolerance for 0.60 to 0.70

for exploratory research. Assurance has the highest factor loading among all. However, the mediating variable, customer satisfaction has the highest composite reliability value.

Convergent Validity and Discriminant Validity Tests

Fornell, and Larker (1981) introduced the Average Variant Extraction values (AVE) to further assess internal consistency of scales and correlations among all items in the constructs which are adopted in this study. Average Variance Extracted is used to measure the shared or common variance in a Latent Variable (LV), the amount of variance that is captured by the LV in relation to the amount of variance due to its measurement error. In different terms, AVE is a measure of the error-free variance of a set of items.

The equation to calculate the variance extracted is as follows:

Average Variance Extracted (AVE) = {sum of (standardized loadings squared)} / {[sum of (standardized loadings squared)] + (sum of indicator - measurement errors)}

Convergent Validity

Convergent validity refers that the variables within a single factor are highly correlated, evident by factor loadings. Since the sample size is considered small, therefore the loading is relatively high. When the Average Variant Extraction values are well above the minimum required level value of 0.50, therefore, it demonstrates the existence of convergent validity for all the constructs as illustrated in Table 1.

Discriminant Validity Matrix

Discriminant validity refers to the extent to which factors are distinct and uncorrelated. The variables should relate more strongly to their own factor than to another factor. Table 3 illustrated that Discriminant Validity exists between all the constructs based on the cross loadings criterion. To examine discriminant validity, criterion adopted from Fornellet al.(1981) was employed, whereby the square root of Average Variant Extraction (AVE) is compared to its bi-variate correlations with all opposing endogenous constructs (Hulland, 1999; Gregoire & Fisher, 2006). In this research, the AVE is greater than the correlation square between pairs of factors, therefore demonstrated that the constructs are unique from each other. Comparing the inter-correlation matrix in Table 2, customer satisfaction is too highly correlated with other construct factors. Table 3 illustrates the inter-correlations among the variables as tested in the EFA. It further explains that each variable loads onto factors with clean factor structure demonstrating evidence of convergent and discriminant validity with high loadings within factors without cross loadings between factors.

Figure 2: PLS Reflective Model Constructs

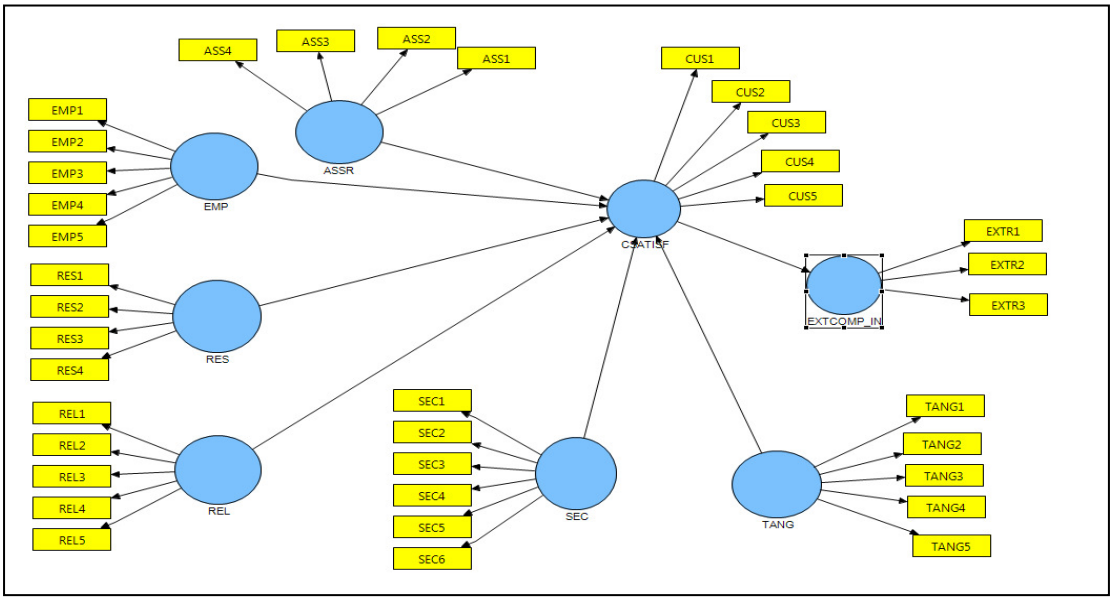

Figure 3: Factor Loading

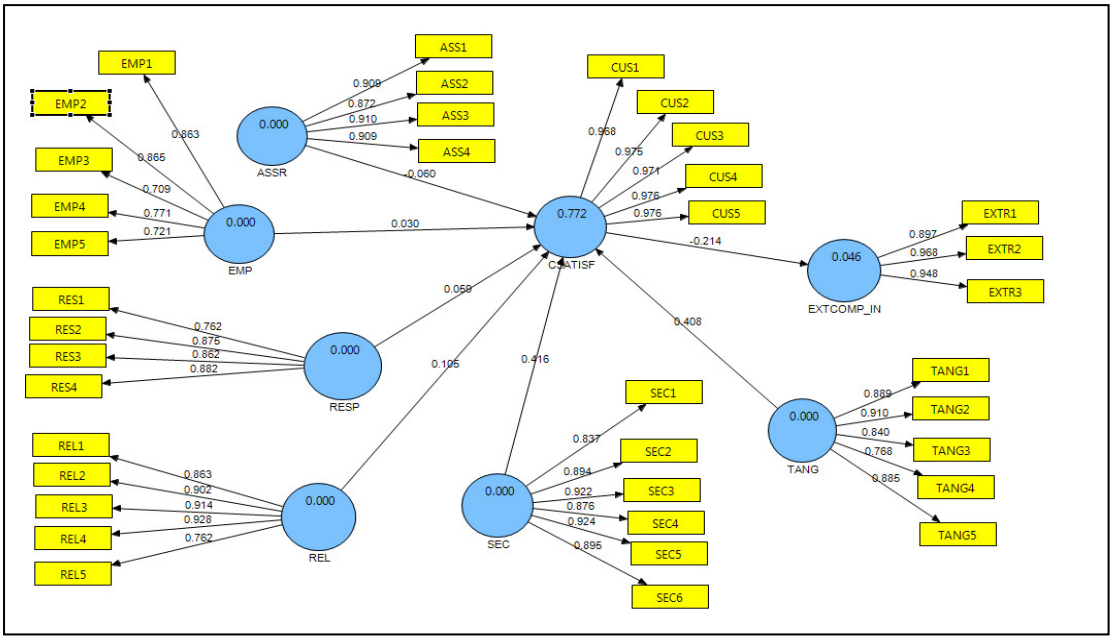

Table 1: Convergent Validity Measure (Communality)

Construct		Loadings	Cronbach Alpha	AVE	CR
ASS	**ASS1**	0.9093	**0.9220**	**0.8103**	**0.9447**
	ASS2	0.8717			
	ASS3	0.9098			
	ASS4	0.9093			
CUS	**CUS1**	0.9678	**0.9861**	**0.9475**	**0.9890**

	CUS2	0.9755			
	CUS3	0.9715			
	CUS4	0.9757			
	CUS5	0.9764			
EMP	**EMP1**	0.8634	**0.8722**	**0.6219**	**0.8909**
	EMP2	0.8645			
	EMP3	0.7085			
	EMP4	0.7712			
	EMP5	0.7209			
EXTR	**EXTR1**	0.8966	**0.9350**	**0.8801**	**0.9565**
	EXTR2	0.9680			
	EXTR3	0.9483			
REL	**REL1**	0.8633	**0.9238**	**0.7675**	**0.9426**
	REL2	0.9022			
	REL3	0.9143			
	REL4	0.9281			
	REL5	0.7620			
RES	**RES1**	0.7616	**0.8772**	**0.7167**	**0.9098**
	RES2	0.8752			
	RES3	0.8620			
	RES4	0.8818			
SEC	**SEC1**	0.8374	**0.9483**	**0.7952**	**0.9588**
	SEC2	0.8940			
	SEC3	0.9220			
	SEC4	0.8758			
	SEC5	0.9238			
	SEC6	0.8946			
TANG	**TANG1**	0.8894	**0.9111**	**0.7394**	**0.9339**
	TANG2	0.9099			
	TANG3	0.8397			
	TANG4	0.7679			
	TANG5	0.8851			

Table2: The Result of Discriminant Validity Analysis

Construct	ASSR	CSATISF	EMP	EXT COMP_INT	REL	RESP	SEC	TANG
ASSR	**0.9002**							
CSATISF	0.4824	**0.9734**						
EMP	0.2909	0.3397	**0.7886**					
EXTCOMP_INT	0.1207	-0.2136	0.3227	**0.9381**				
REL	0.6647	0.6828	0.2441	-0.0596	**0.8760**			
RESP	0.3947	0.5178	0.7420	0.2170	0.3898	**0.8466**		
SEC	0.5695	0.8359	0.3047	-0.1505	0.7101	0.5463	**0.8917**	
TANG	0.5000	0.8357	0.3214	-0.1818	0.7173	0.4719	0.8307	**0.8599**

Note: Diagonals (bold) represent the square root of the AVE while the off-diagonals represent the correlations

Table 3: Cross Loading Report

Variable	ASSR	CSATISF	EMP	EXTCOMP_INT	REL	RESP	SEC	TANG
ASS1	**0.9093**	0.4311	0.1803	0.1102	0.6303	0.2772	0.5230	0.4119
ASS2	**0.8717**	0.3978	0.2077	0.1568	0.6243	0.3274	0.5427	0.4296
ASS3	**0.9098**	0.4646	0.3202	0.0362	0.5755	0.3739	0.4775	0.4930
ASS4	**0.9093**	0.4395	0.3300	0.1405	0.5692	0.4383	0.5139	0.4620
CUS1	0.4810	**0.9678**	0.3292	-0.1941	0.6798	0.4930	0.8174	0.8106
CUS2	0.4421	**0.9755**	0.3466	-0.2053	0.6677	0.5244	0.7951	0.7946
CUS3	0.4837	**0.9715**	0.3299	-0.2081	0.6467	0.5113	0.8131	0.8066
CUS4	0.4470	**0.9757**	0.3301	-0.2231	0.6609	0.5081	0.8108	0.8128
CUS5	0.4935	**0.9764**	0.3180	-0.2087	0.6681	0.4843	0.8314	0.8417
EMP1	0.2396	0.3300	**0.8634**	0.1549	0.2735	0.6593	0.2998	0.2876
EMP2	0.0911	0.2573	**0.8645**	0.3172	0.0903	0.6024	0.1874	0.2098
EMP3	0.2057	0.0153	**0.7085**	0.4398	-0.0303	0.4713	-0.0088	0.1427
EMP4	0.1468	0.0768	**0.7712**	0.3659	-0.0333	0.5309	0.0488	0.1650
EMP5	0.3826	0.2953	**0.7209**	0.2962	0.2792	0.5617	0.3049	0.3058
EXTR1	0.1741	-0.1209	0.2594	**0.8966**	-0.0001	0.1556	-0.0769	-0.1304
EXTR2	0.0948	-0.2588	0.2916	**0.9680**	-0.1006	0.1859	-0.1861	-0.2105
EXTR3	0.1016	-0.1741	0.3577	**0.9483**	-0.0297	0.2689	-0.1230	-0.1437
REL1	0.4874	0.6849	0.3634	-0.1558	**0.8633**	0.3935	0.6346	0.7209
REL2	0.6791	0.5738	0.2007	0.0036	**0.9022**	0.3253	0.6129	0.5958
REL3	0.6306	0.6572	0.1427	-0.0426	**0.9143**	0.3166	0.6892	0.6597
REL4	0.5818	0.6084	0.2078	-0.0468	**0.9281**	0.3563	0.6397	0.6201
REL5	0.5560	0.4031	0.1139	0.0181	**0.7620**	0.3111	0.5078	0.5093
RES1	0.3924	0.2388	0.5876	0.2866	0.2715	**0.7616**	0.3790	0.2396
RES2	0.2843	0.3031	0.6762	0.3280	0.1937	**0.8752**	0.3833	0.3014
RES3	0.1546	0.4089	0.6576	0.2391	0.1730	**0.8620**	0.3866	0.3608
RES4	0.4658	0.6157	0.6205	0.0418	0.5345	**0.8818**	0.5988	0.5482
SEC1	0.6248	0.6436	0.1506	-0.0240	0.6478	0.3996	**0.8374**	0.6112
SEC2	0.5594	0.7354	0.2272	-0.1031	0.6742	0.4492	**0.8940**	0.7039
SEC3	0.5156	0.8292	0.3337	-0.2228	0.6490	0.5388	**0.9220**	0.8122
SEC4	0.3995	0.7559	0.3483	-0.1081	0.5886	0.5080	**0.8758**	0.7928
SEC5	0.4306	0.7694	0.2905	-0.1786	0.6234	0.5199	**0.9238**	0.7778
SEC6	0.5431	0.7211	0.2561	-0.1439	0.6236	0.4928	**0.8946**	0.7250
TANG1	0.4347	0.7537	0.2188	-0.2205	0.6691	0.3882	0.7665	**0.8894**
TANG2	0.4941	0.7851	0.3479	-0.2120	0.6728	0.4386	0.7615	**0.9099**
TANG3	0.5226	0.7191	0.2909	-0.1163	0.6426	0.4191	0.6561	**0.8397**
TANG4	0.2257	0.5763	0.2570	0.0023	0.3529	0.3632	0.5375	**0.7679**
TANG5	0.4347	0.7368	0.2657	-0.1975	0.6968	0.4173	0.8197	**0.8851**

Predictive Relevance

The PLS Blindfolding procedure were run separately and the default report illustrated that the model has adequate Predictive Quality required to highlight the data points in the measurement model of the reflective endogenous. The number of the observations used in the model estimation is divided by any omission distance number from 5 to 10, which shall not result into an integer. According to Hair (2014), 0.75 indicates substantial predictive relevance power, whereas 0.50 indicates moderate predictive relevance power and 0.25 indicates weak predictive relevance power. Our findings illustrated that the R^2indicated the amount of variance in the endogenous variable that is explained by the exogenous variables. The results reported in Table 5 illustrated that 0.772 of customer satisfaction is substantially explained by service quality whereas customer external complaint intention is only 0.046 explained by service quality and customer satisfaction. The Blindfolding procedure is used to generate the cross-validate communality and cross-validated redundancy based on removing some of the data and estimating them as missing value. According to Fornell and Cha (1994), a model is considered having adequate predictive quality if the cross-redundancy values are more than zero.

Table 5: Predictive Quality of the Model

Constructs	R^2	Cross Validated Redundancy	Cross Validated Communality
Customer Satisfaction	0.772	0.724	0.936
Customer External Complaint Intentions	0.046	0.035	0.857

In addition, the resulting F^2(Q-value) which is larger than Zero indicates that the exogenous constructs have predictive relevance for the endogenous under consideration. The following table describes how relevant are the service quality elements to predict customer satisfaction as opposed to service quality elements and customer satisfaction in predicting customer external complaint intention.

Table 6: Predictor Relevance ExplainingThe Endogenous Variables

Predictor Relevance			Included	Excluded	F^2	Effect size
Customer Satisfaction	**R^2**	ASS	0.772	-0.06	**3.6491**	**Large**
		EMP	0.772	0.03	**3.2544**	**Large**
		REL	0.772	0.105	**2.9254**	**Large**
		RESP	0.772	0.059	**3.1272**	**Large**
		SEC	0.772	0.416	**1.5614**	**Large**
		TANG	0.772	0.408	**1.5965**	**Large**
External	**R^2**	ASS	0.046	-0.06	**0.1111**	**Small**
		EMP	0.046	0.03	**0.0168**	**None**

Complaint Intention	REL	0.046	0.105	-0.0618	**N/A**
	RESP	0.046	0.059	-0.0136	**N/A**
	SEC	0.046	0.416	-0.3878	**N/A**
	TANG	0.046	0.408	-0.3795	**N/A**
	CUS	0.046	-0.214	**0.2725**	**Medium**

Table 7: Hypotheses Testing

Hypothesis		**Path Coefficient**	**Standard Error**	**t-value**	**p-value**	**Decision**
H1a	Assr ->Csatisf	-0.0597	0.0523	1.1414	0.254	Not supported
H1b	Emp ->Csatisf	0.0304	0.0543	0.5588	0.576	Not supported
H1c	Rel ->Csatisf	0.1046	0.0556	1.8820	0.060	Not supported
H1d	Resp ->Csatisf	0.0585	0.0590	0.9922	0.321	Not supported
H1e	Sec ->Csatisf	0.4156	0.0751	**5.5362*****	**0.000**	**Supported**
H1f	Tang ->Csatisf	0.4079	0.0656	**6.2169*****	**0.000**	**Supported**
H2	Csatisf ->Extcomp_Int	-0.2136	0.0730	**2.9255***	**0.003**	**Supported**

***: $p < 0.001$; **: $p < 0.01$;*$p < 0.05$

Testing On Customer Satisfaction Mediating Effects

Wang, Lee and Chen (2012) cited that three steps procedure outlined by Baron and Kenny (1986) was adopted to test the tested by using Bootstrapping and PLS algorithm to identify mediating effects of customer satisfaction. However, Preacher and Hayes (2004, 2008) postulated that each mediator shall be tested by running the PLS Bootstrapping. SmartPLS procedure in this study is adopted with several steps. Initial procedure is to test direct effects of the independent variables and the dependent variable by the mediator, with and without the mediator's presence to see the degree of increase or reduction in power of the relationship between the independent variable and dependent variable.

Then, bootstrapping procedure was conducted and default report extracted shall determine the independent variable to mediator Beta value, the path to the dependent variable Beta value, independent variable to mediator path standard error and mediator to dependent variable standard error to determine t-statistics of 1.96 absolute value compliance. Then online SOBEL test for significance of mediation calculation was used to measure the independent variable to mediator Beta and mediator to dependent variable Beta together with their standard errors values. Two tailed probability result indicates whether the 95% confidence level is achieved. Mediation will only takes effect if the t-statistics absolute value is be more than 1.96 after conducting the Bootstrapping procedure. As postulated by Hair et al. 2014, Variance Accounted For (VAF) determines the size of the indirect effect in relation to the total effect, i.e. direct effect + indirect effect. If the VAF value is below 20%, there is no

mediating effect, as opposed to the VAF value of above 20% but less than 80%, it shall indicate the existence of partial mediating effect. VAF value above 80% shall indicate full mediating effect.

In this study, direct effect between the independent variables (assurance, empathy, reliability, responsiveness, safety & security and tangible) and the dependent variable (customer external complaint intention) was initially tested to find whether the significant effect of each path does exist. SOBEL test for significance of statistics mediation resulted in absolute value more than 1.96 absolute value compliance for the independent variables having 2-tailed probability values showed less than 0.05 only apply for all independent variables except for tangible explaining 95% confidence level. Then, indirect effect (independent variable to mediating variable and mediating variable to dependent variable) was individually established. VAF analysis for the relationship between empathy and customer external complaint intention is partially mediated by customer satisfaction carrying 32% VAF value.

Table 8 summarizes the results of the mediating analysis and the proposed decisions:

Table 8: Result of Mediating Analysis

No	Hypothesis	Path Coefficient			VAF
		Indirect Effect	Direct Effect	Total Effect	
H3a	Assurance -->Cust_Satisfaction --> Ext Cust_Complaint	-0.1664***	0.1670	0.0006	N.A.
H3b	Empathy -->Cust_Satisfaction --> Ext Cust_Complaint	**0.1941***	**0.4130*****	**0.6071**	**32%**
					(partial mediation)
H3c	Responsiveness -->Cust_Satisfaction --> Ext Cust_Complaint	-0.2090***	0.3200***	0.1110	N.A.
H3d	Reliability -->Cust_Satisfaction --> Ext Cust_Complaint	-0.2183***	-0.1360	-0.3543	N.A.
H3e	Safety & Security -->Cust_Satisfaction --> Ext Cust_Complaint	-0.2415*	-0.1750	-0.0665	N.A.
H3f	Tangible -->Cust_Satisfaction --> Ext Cust_Complaint	-0.1666	-0.2150	-0.3816	N.A.

Note: N=227; Estimates represent 5,000 bootstrapping testing

***: $p < 0.001$; **: $p < 0.01$; *: $p < 0.05$; *t-Statistics is at the absolute value of >1.96 significance level*

DISCUSSION AND CONCLUSION

The business environment and customer demand have been continuously evolving regardless of unlimited research works in service quality, customer satisfaction and customer external complaints requiring further innovation. Previously, Seth, Deshmukh and Vrat (2005) in their study reviewing 19 service quality models cited that the service quality outcome and measurement are dependent upon factors such as type of service settings, situation, time and customer needs. However, our study is more specific to identify relationships between the six (6) service quality dimensions with customer satisfaction and customer external complaints between the parking customers in commercial building in the Klang Valley, Malaysia. The

original composition of the SERVQUAL dimensions proposed by Parasuraman et al. (1985; 1988) is consistent with Kitapci, et al. (2014) and Kim, LaVetter & Lee (2006), comprising assurance, empathy, reliability, and responsiveness and tangible which is also congruent to Zhou (2005) suggestions that service quality dimensions are much dependent on the service and cultural context.

However, our findings indicated that the only element in the SERVQUAL dimensions is contributed by tangible and this result is not similar with Kitapci, et al. (2014) and Parasuraman et al. (1988). The study also found that safety and security is another important dimension not highlighted by the above researchers. Customers are very sensitive to safety and security issues in addition to the availability of complete parking facilities. As responsible parking operators, it is imperative that the service quality should ensure parking operation provides total security features and should be made clearly visible to customers adhering to the appropriate standards and daily operational practices are in place giving total peace of mind resulting to full satisfaction parallel to Olorunniwo et al. (2006) and Olorunniwo and Hsu (2006). When their requirements fully acknowledge and attended, the potential of external complaints is bound to be less. This research proposes to examine the mediating effects of customer satisfaction to service quality dimensions causing customer external complaint intentions. Based on our research findings, customer satisfaction partially mediates the relationships between empathy to customer external complaint intention. This phenomenon indicates that sensitivity to customer needs does not substantially affect the potential external customer complaint behaviour. In another words, when customers are fully satisfied, then, less or no external complaint is anticipated to be lodged which justifies human errors are more tolerable. This is because the parking operation has less human interactions where technology is plays a dominant role for effective parking management and service deliverables. Also its will towards to organizational goal (Saleh, H et, al). This is in line to a study conducted by Athanassopoulos, Gounaris and Stathakopoulos (2001) states that when customer satisfaction is high, customer will decide to stay with existing service provider and subdue their negative behavioural intention, including customer external complaint intentions. In conclusion, service quality fundamentally contributes to customer satisfaction which explains 77.2% of its variance contrary to the external customer complaint intention which requires more contributing factors.

REFERENCES

[1] Abd-el-salam, E.M., & Shawky, A.Y. (2013). The impact of corporate image and reputation on service quality, customer satisfaction and customer loyalty: testing the mediating role. Case analysis in an international service company. *The Business & Management Review*, 3(2), 177-196.

[2] Athanassopoulos, A., Gounaris, S., & Stathakopoulos, V. (2001). Behavioural responses to customer satisfaction: An empirical study. *European Journal of Marketing,* 35(5/6), 687-707.

[3] Babulal, B. (2012). High rates but poor parking facilities. *News Strait Times online*. Retrieved on 30 October 2014 from http://www2.nst.com.my/streets/central/high-rates-but-poor-parking-facilities-1.73554.

[4] Baron and Kenny, (1996). The Moderator-Mediator Variable Distinction in Social Psychological Research: Conceptual, Strategic, and Statistical Considerations. *Journal of Personality and Social Psychology*, 51 (6), 1173-1182.

[5] Bolton, R.N., & Drew, J.H. (1991). A multistage model of customers' assessments of service quality and value, *Journal Of Consumer Research*, 17, 375-384.

[6] Caruana (2002). Service loyalty: the effects of service quality and mediating role of customer satisfaction. *European Journal of Marketing*, 36(7/8), 811-828.

[7] Chatelin, Y. M., Vinzi, V. E., & Tenenhaus, M. (2002). State-of-art on PLS. *HEC Business School*, Jouy-en-Josas.

[8] Chin, W. W. (1998b) The Partial Least Square Approach to Structural Equation Modeling. *MIS Quarterly*, 22(1), 7-16.

[9] Culiberg, B., & Rojšek, I. (2010). Identifying Service Quality Dimensions As Antecedents To Customer Satisfaction In Retail Banking. *Economic And Business Review*, 12(3), 151–166.

[10] Cullen, C. (2012, June). Best practices in parking management: How to provide superior service to owners and customers. *Parking*, 52(5), 18-20.

[11] Dehghan, A., Zenouzi, B., &Albadvi, A., (2012). An Investigation On The Relationship Between Service Quality And Customer Satisfaction: In The Case Of CCG CO.*International Business Research*, 5(1). 3-9.

[12] Doulamis, N., Protopapadakis, E., &Lambrinos, L. (2013). Improving Service Quality for Parking Lot Users Using Intelligent Parking Reservation Policies. 27th International

Conference on Advanced Information Networking and Applications Workshops Improving, *IEEE Computer Society*, 1392-1397.

[13] Eisingerich, A.B., Auh, S. & Merlo, O. (2014). Acta Non Verba? The Role of Customer Participation and Word of Mouth in the Relationship Between Service Firms' Customer Satisfaction and Sales Performance. *Journal of Service Research*, 17(1), 40-53.

[14] Eng, T.Y., & Niininen, O. (2005). An integrative approach to diagnosing service quality of public parks. *Journal of Services Marketing*, 19(2), 70–80.

[15] Estiri, M., Hosseini, F., Yazdani, H., & Nejad, H.J. (2011). Determinants of customer satisfaction in Islamic banking: evidence from Iran. *International Journal of Islamic and Middle Eastern Finance and Management*, 4(4), 295-307.

[16] European Parking Association (2001). *Parking policy contributes to solving urban traffic problems*. Retrieved on 30 October 2014 from http://www.europeanparking.eu/cms/Media/epa%20policy%20guide.pdf.

[17] European Parking Association (2014). *Key messages from the parking sector*. Retrieved on 30 October 2014 from http://www.europeanparking.eu/cms/Media/EPA_key-messages_2014.pdf.

[18] Fitzpatrick, M., Davey, J., & Dai, L. (2012). Chinese students' complaining behavior: hearing the silence. *Asia Pacific Journal of Marketing and Logistics*, 24(5), 738-754.

[19] Fornell, C., & Larcker, D.F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39–50.

[20] Saleh, H, Wahjono, S.I, Ismail, A.F, Aman, O, Marie, M.K. (2015) Work-life Balance (WLB) Relationship with Employees Satisfaction: An Evidence from Malaysia Higher Education Institution. International Journal of Science Commerce and Humanities, Volume no 3 no 2, March 2015.

[21] Gauri, V. (2013). Redressing Grievances and Complaints Regarding Basic Service Delivery. World Development, 41, 109–119.

[22] Giovanis, A.N., Tomaras, P., & Zondiros, D. (2013). Suppliers Logistics Service Quality Performance and its Effect on Retailers' Behavioral Intentions. Procedia - Social and Behavioral Sciences, 73, 302-309.

[23] Gould, W., & Pitblado, J. (2005*). How large should the bootstrapped samples be relative to the total number of cases in the dataset*? Retrieved on 30 October 2014 from http://www.stata.com/support/faqs/stat/reps.html.

[24] Grégoire, Y., & Fisher, R.J. (2006). The effects of relationship quality on customer retaliation. *Marketing Letters*, 17(1), 31–46.

[25] Hair, J.F., Hult, G.T., Ringle, C.M., & Sarstedt, M. (2014). *A primer on partial least square structural equation model (SEM)*. Sage, California.

[26] Hair, J.F., Sarstedt, M., Ringle, C.M. & Mena, J.A. (2012). An assessment of the use of partial least squares structural equation modeling in marketing research. *J. of the Acad. Mark. Sci.*, 40, 414–433.

[27] Hair, J.F., Sarstedt, M., Pieper, T.M., & Ringle, C.M. (2012). The Use of Partial Least Squares Structural Equation Modeling in Strategic Management Research: A Review of Past Practices and Recommendations for Future Applications. *Long Range Planning*, 45, 320-340.

[28] Han, H., & Hyun, S.S. (2015). Customer retention in the medical tourism industry: Impact of quality, satisfaction, trust, and price reasonableness. *Tourism Management*, 46, 20-29.

[29] Horn, J.V. (2011, October). Operators… solve all your parking problem. *Parking Today*, 16(10), 32-33.

[30] Hosany, S., & Prayag, G. (2013). Patterns of tourists' emotional responses, satisfaction, and intention to recommend. *Journal of Business Research*. 66, 730-737.

[31] Huang, M.C.J., Wu, H.C., Chuang, S.C., & Han, W. (2014). Who gets to decide your complaint intentions? The influence of other companions on reaction to service failures. *International Journal of Hospitality Management*, 37, 180-189.

[32] Hulland, J. (1999). Use of partial least squares (PLS) in strategic management research: a review of four recent studies. *Strategic Management Journal*, 20(2), 195–204.

[33] Jones, M.A, Taylor, V.A., & Reynolds, K.E. (2014). The Effect of Requests for Positive Evaluations on Customer Satisfaction Ratings. *Psychology and Marketing*, 31(3), 161–170.

[34] Kim, H.D., Lavetter, D., & Lee, J.H. (2006). The Influence of Service Quality Factorson Customer Satisfaction and Repurchase Intention in the Korean Professional Basketball League. *International Journal of Applied Sports Sciences*, 18(1), 39-58.

[35] Kitapci, O., Akdogan, C., & Dortyol, İ.T. (2014). The Impact of Service Quality Dimensions on Patient Satisfaction, Repurchase Intentions and Word-of-Mouth Communication in the Public Healthcare Industry. *Procedia - Social and Behavioral Sciences*, 148, 161-169.

[36] Liljander, V., & Strandvik, T. (2006). Emotions in service satisfaction. *International Journal of Service Industry Management*, 8(2), 148-169.

[37] Litman, T., (2013). Parking Management: Strategies, Evaluation and Planning. Transportation Research Board 2007 Annual Meeting, *Victoria Transport Policy Institute*, 1-30. Retrieved on 30 October 2014 from http://www.vtpi.org/park_man.pdf.

[38] Nunnally, J. C., & Bernstein, I. (1994). *Psychometric theory*. New York: McGraw-Hill.

[39] Official Website of Greater Kuala Lumpur / Klang Valley. Retrieved from http://app.kwpkb.gov.my/greaterklkv/.

[40] Oliver, R. (1997). *Satisfaction: A Behavioral Perspective on the Consumer*. McGraw-Hill, New York.

[41] Olorunniwo, F., & Hsu, M. K. (2006).A typology analysis of service quality, customer satisfaction and behavioral intentions in massservices. *Managing Service Quality*, 16(2), 106-123.

[42] Olorunniwo, F., Hsu, M.K., & Udo, G.J. (2006). Service quality, customer satisfaction, and behavioural intentions in the service factory. *Journal of Services Marketing*, 20(1), 59–72.

[43] Padma, P., Rajendran, C., & Lokachari, P.S. (2010). Service quality and its impact on customer satisfaction in Indian hospitals: Perspectives of patients and their attendants. *Benchmarking: An International Journal* 17(6), 807-841.

[44] Parasuraman, A., Ziethaml, V., & Berry, L.L., (1985). A Conceptual Model Of Service Quality Implications For Future Research, *Journal Of Marketing*, 49(4): 41-50.

[45] Parasuraman, A., Zeithaml, V.A. & Berry, L.L., (1988). SERVQUAL: a multiple item scale for measuring consumer perceptions of service quality*, Journal of Retailing*, 64(1), 14–40.

[46] Parasuraman, A., Berry, L.L., & Zeithaml, V.A., (1991). Refinement and reassessment of the SERVQUAL scale.*Journal of Retailing*, 67, 4, 420–450.

[47] Phillips, K. (2011, September). Safety and Security: 7 Steps to increase parking lot safety. *Parking*, 51(7), 42.

[48] Preacher, K.J., & Hayes, A.F. (2004). SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behavior Research Methods, Instruments, & Computers*, 36(4), 717-731.

[49] Preacher, K.J., & Hayes, A.F. (2008).Asymptotic and resampling strategiesfor assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods*, 40(3), 879-891.

[50] Qian, Z., & Rajagopal, R. (2013). Optimal Parking Pricing in General Networks with Provision of Occupancy Information. *Procedia - Social and Behavioral Sciences*, 80, 779 – 805.

[51] Rajaratnam, S.D., Munikrishnan, U.T., Sharif, S.P., & Nair, V. (2014). Service quality and previous experience as a moderator in determining tourists' satisfaction with rural tourism destinations in Malaysia: A partial least squares approach. *Procedia - Social and Behavioral Sciences*, 144, 203-211.

[52] Rasagam, G. (2001). *A Sustainable Transport Strategy for Penang*. Paper presented to the CAP National Seminar 'Changing Directions: Towards Sustainable Transport in Malaysia', 7-10 September 2001, RECSAM, Penang, Malaysia.

[53] Sandhu, H.S., & Bala, N. (2011). Customers' Perception towards Service Quality of Life Insurance Corporation of India: A Factor Analytic Approach. *International Journal of Business and Social Science*, 2(18), 219–231.

[54] Seth, D., & Vrat, P. (2005). Service quality models: a review. *International Journal of Quality & Reliability Management*, 22(9), 913-949.

[55] Siddiqi, K. (2010). Interrelations between service quality attributes, customer satisfaction and customer loyalty in the retail banking sector in Bangladesh. *International Trade & Academic Research Conference (ITARC),* London. Retrieved 29 October 2014, from http:// http://www.ccsenet.org/journal/index.php/ijbm/article/download/9689/6943%20rel=.

[56] The Star Online (2014). *UMMC must resolve its parking rate issue quickly*. Retrieved on 30 October 2014 from http://www.thestar.com.my/Opinion/Letters/2014/01/02/UMMC-must-resolve-its-parking-rate-issue-quickly/.

[57] Tronvoll, B. (2007). Complainer characteristics when exit is closed. *International Journal of Service Industry Management*, 18(1), 25-51.

[58] Tu, Y.T., Lin, S.Y., & Chang, Y.Y. (2011). Relationships among Service Quality, Customer Satisfaction and Customer Loyalty in Chain Restaurant. *Information Management and Business Review*, 3 (5), 273-282.

[59] Wahyuningsih and Nurdin, D., (2010). The Effect Of Customer Satisfaction On Behavioural Intentions, A Study On Consumer Behavior Of Car Insurance Consumers In Melbourne, Australia, *Journal Of Management Business*, 3(1), 1-16.

[60] Wang, M.C., Lee, Y.D., & Chen S.Y. (2012). The Mediating Effect of Quality of Service on the Effectiveness of Employee Training and Customer Satisfaction. *International Research Journal of Finance and Economics*, 90, 146-154.

[61] Wu, H.C. (2014). The effects of customer satisfaction, perceived value, corporate image and service quality on behavioral intentions in gaming establishments. *Asia Pacific Journal of Marketing and Logistics*, 26(4), 540 – 565.

[62] Wu, Y.(2011). Analysis of Present Status and Prediction of Future Demand on Parking in the Central Area of Medium and Small City: Vehicle Parking Investigation and Analysis in Changping. *Published in IEEE, No. 978-1-4244-9171-1*, 57 – 60.

[63] Yoo, H. (2011). *Relationships Among Customers' Perceived Service Quality, Perceived Service Value, Satisfaction And Their Future Behavioral Intentions*. (Master's thesis of Western Illinois University, 2011). UNI Dissertation Publishing, UMI 1497922.

[64] Zhou, L. (2005). A dimension-specific analysis of performance-only measurement of service quality and satisfaction in China's retail banking. *Journal of Services Marketing*, 18(7), 534-546.