

25-28 May 2006
Honolulu, Hawaii

**THE EFFECT OF INTERNAL MEASURES OF SERVICE QUALITY
ON BUSINESS PERFORMANCE: A CASE OF HOTEL INDUSTRY IN
MALAYSIA**

Suhaiza Zailani, Saari Hj Din & Nabsiah Abd Wahid

School Of Management

Universiti Sains Malaysia

11800, Penang

Malaysia

Tel: 604 6577888 ext 3952

Fax: 604 6577448

ABSTRACT

Hotel industry and tourism sector is to be seen as symbiotic interrelated. They have played a significant role in transformation of business activities that share the bulk of today's economy. Service quality is a key factor for success in any service industry. Many studies and researches on service quality have been conducted however, only few on internal factor such as from management perspectives. This study is focused on how internal service quality can affect the performance with the objective to investigate the effect of internal measures of service quality on business performance in Malaysian hotel industry and also to validate the model INTQUAL developed from Caruana and Pitt (1997). Data were gathered from 61 hospitality providers in Penang state. The study findings supported the hypotheses that there is positive relationship between internal service quality in the hotel and their business performance. It also validate Caruana and Pitt (1997) INTQUAL model in Malaysian perspective. The study open opportunity for the hotel management to plan and test all aspects of their operation activities through internal service quality management check list.

Key words: *Internal measures, Service Quality, Hotel Industry, Malaysia*

THE EFFECT OF INTERNAL MEASURES OF SERVICE QUALITY ON BUSINESS PERFORMANCE: A CASE OF HOTEL INDUSTRY IN MALAYSIA

ABSTRACT

Hotel industry and tourism sector is to be seen as symbiotic interrelated. They have played a significant role in transformation of business activities that share the bulk of today's economy. Service quality is a key factor for success in any service industry. Many studies and researches on service quality have been conducted however, only few on internal factor such as from management perspectives. This study is focused on how internal service quality can affect the performance with the objective to investigate the effect of internal measures of service quality on business performance in Malaysian hotel industry and also to validate the model INTQUAL developed from Caruana and Pitt (1997). Data were gathered from 61 hospitality providers in Penang state. The study findings supported the hypotheses that there is positive relationship between internal service quality in the hotel and their business performance. It also validate Caruana and Pitt (1997) INTQUAL model in Malaysian perspective. The study open opportunity for the hotel management to plan and test all aspects of their operation activities through internal service quality management check list.

Key words: *Internal measures, Service Quality, Hotel Industry, Malaysia*

Introduction

The service sector has played a significant role in many developed countries. Economies of developing countries such as in Asian have shown an increase in importance of the service sector in their economies. The percentage share of the service sector in GDP ranges from 21% up to 84%. The service industry's success can be seen as one of the key components of growth in Asian economies. However in the pursuit for service growth and success much depend on the service performance of the industry. Service performance comes from the quality of the services. Performance of service industry is very much different to evaluate as compared to manufacturing industry. Hotels are in the hospitality services industry and the product delivered are intangible and the level of quality expected are very much based on the perceived level of expectations of the specific customers. In Malaysia, hotel businesses are to cater for business people, leisure travellers and tourists, however, there is trend nowadays for the industry to expand further to cater for expatriate and longer stay customers.

To ensure the success and business performance of the service industry, many studies and researches on service quality have been conducted (Fisk *et al.*, 1994). According to Fisk *et al.* (1994) the majority of the studies focus on the external factors such as customer perceived service quality and marketing. However in today's circumstances with limited resources, organizations are faced with disproportionately more objectives, challenges and opportunities. Therefore it would be fair to assume that organizations need to prioritize and concentrate on relatively more important issues. Issues such as effect of service quality to an organization from management perspectives are equally important as to service quality from

customers' perspectives (Reynoso & Moores, 1995). There is a need to look into the organization itself in relation to service quality and service industry business performance. For that reason this research will look into the hotel industry in Penang as a sample for service quality performance. However, Hemdi *et al.* (2003) has cited in his research that although many studies on hotels have been conducted using Malaysian subjects (for instance, Nasurdin, 2001; Nasurdin & Ramayah, 2003; Hemdi & Nasurdin, 2003), their studies however are more focused from turnover intentions to citizenship behaviours. This paper is therefore explores the importance of the service industry in relation to tourism and the hotel industry in Malaysia. The hotel and tourism industry is interrelated, in which the hotel is an important supportive sub-sector of tourism.

Problem Statement

Paraskevas (2001) have identified substantial studies that were focused on the outcome of the service i.e., the customer's perspective. The primary reason for seeking service quality improvement is the inference that the increase of customer satisfaction can contribute significantly to business performance (Barnes & Cumby, 1995; Berry *et al.*, 1985). Therefore understanding the business performance in relation with quality service is important. However they could be another alternative that important in ensuring service quality from management perspective instead of customer perspective. Service quality measurement model, focus on the internal action on service quality will be great challenge for the management in the quest for quality service. In the case of Penang's hotel industry understanding internal action on service quality is a vital fundamental in ensuring customer satisfaction that contributed to better hotel business performance. In his study on service operation, Gronroos (1990) stated that every service operation comprises internal service functions which support one another and argue that, if poor internal service exists, the final service to customer will be damaged.

In order to maintain competitiveness and growth of service industries particularly the hotel business, this study emphasizes and focuses on the internal measures of service quality. Since there is no literature review to cover issues on internal service quality in Malaysia, this study is undertaken with the objective of investigating the internal quality service in the Malaysia hotel industry. The aim of this study is to look at the effect of internal measures of service quality on business performance in Malaysian hotel industry. Internal measure scale (INTQUAL) studied in UK's largest service firms by Caruana and Pitt in 1997 has showed that the instrument reliability exceeds the suggested cut-off point of 0.7 (Nunnally, 1978). The research questions for this study are "what is the relationship between service quality as an internal measure and business performance and are the measurements used by Caruana's study for the internal measure can be applied in Malaysian hotel industry?" Therefore the research is to examine the degree of applicability of INTQUAL as internal measure of service quality and it relation to the hotel performance. The main objectives of the study are as follows:-

1. To study the relationship between internal measure of service quality and business performance in the hotel industry in Malaysia by using internal measure of service quality.
2. To identify applicability of the measurements used by Caruana's study for the internal measure of service quality in Penang's hotel industry.

Literature Review

Quality concept can be viewed in various perspectives in order to fully appreciate the role it plays in the many parts of business organization. In manufacturing, quality is defined

simply as product conformation to specifications. In services, evaluating the level of quality is much more elusive. Quality specifications for services come from multiple simultaneous sources, including the company and the individual customers (Richard *et al.*, 2003). According to Parasuraman *et al.*, (1985), services are differ in terms of how they are produced, consumed, and evaluated. Services characteristics encompass the intangible; it involves the concept of inseparability, heterogeneity of the variation inconsistency from one service transaction top the next, and the finally the perish ability character. In general, service quality is more difficult to evaluate for services than for goods. First, service quality is based on consumer perceptions of the outcome of the service. For example, most teenagers will readily see that evaluating the quality of medical or legal care is more difficult than evaluating the quality of a set of cellular phones. Secondly, is how the service was performed. The fact that thousands of individuals can attend a concert and leave with varying levels of service quality evaluations indicates that service quality is based on individual perceptions. Thirdly, service quality perceptions result from a comparison of what was expected to what was received. If we are asking movie-goers how many were disappointed with a movie they watched. Often this disappointment occurs because they were lead to have high expectations.

Customer satisfaction drives by service performance and it's resulted from the quality of the services. Berry and Parasuraman (1991) have summarized that the product for marketing quality services is the service performance. It is actually the performance is what customers buy. Therefore service quality is something each customer expects and something they value when they purchase a service. In the case of a hotel as hospitality providers the customer satisfaction is a result of service performance. Since the product delivered is intangible and the levels of quality expected are varies and very much based on the perceived level of expectations of the specific customers. In the study by Yahya (2001) in higher Malaysian educational institution, Bashah (2003) in banking and Bungsu (2004) in automobile industry showed that there are differences between customers' perceptions and expectations and its level of differences varies among industries. Siddik (1996) have identify gaps in hotel service quality delivery and the study prove that there is no different on overall customer perception and overall perception of the hotelier. However King (1997) ascertains in airline industry customer has higher expectation compare to their perception. Their highest expectation is on reliability and no significant different were found between customer profile and their expectation and perception factors.

Service Quality Measurement

Service quality measure was perhaps firstly introduced by Lewis and Booms (1983) as a measure of how well the service level delivered matches the customer's expectations. The focus of service quality measurement has principally been based on asking customers their expectations and their perceptions of the service they receive from different organizations (Fisk *et al.*, 1994). Gronroos (1984) stated that the expected service and perceived service gap is determined by two dimensions: first, "technical" quality or what is received by the customer and second, "functional" quality or the process of how the service is delivered. He found functional quality as the most critical of all aspects. Functional quality is concerned with the psychological interaction which occurs during the exchange transaction.

Parasuraman, Zeithaml, and Berry (1985) recognized the idea that service quality is a function of the expectation-performance gap and conducted a broad-based exploratory study. They conducted studies in several industry sectors to develop and refine service quality measurement. Qualitative research by Parasuraman, Zeithaml and Berry (1985) enabled them to construct a service quality model consisting of five gaps. Further empirical works (Parasuraman, Zeithaml & Berry, 1988) resulted in a 22 item instrument, called

SERVQUAL, to measure customer perceptions of service quality. SERVQUAL is a multiple-item instrument to quantify customers' global assessment of a company's service quality. This model is also commonly known as the GAPS model. Zeithaml; Parasuraman; and Berry (1990) had asked more than 1,900 customers across five different service companies to allocate 100 points among the five service quality dimension, they rated the relative importance as follows: reliability 32%; responsiveness 22%; assurance 19%; empathy 16%; and tangibles 11%. The customers feedback consistently rated reliability being seen as most important and tangibles least important. Parasuraman *et al.*(1991) found in their focus group that, regardless of the type of service, customers used basically similar criteria in evaluating service quality.

The Role of Service Quality from a Management Perspective

It is fairly correct that service quality studies focus have been emphasized on the customer side. However, given the constraints that many organizations are facing today it would be equally important to prioritize and concentrate on internal issues that are relatively more important to the organization's operation. On the other hand management also need to know what actions it needs to undertake to ensure that it delivers quality services. Besides customers consistently reporting that service reliability is the most important among the five dimensions when judging a company's service and service quality, this area seems to be where many service companies fail especially on reliability (Richard; Kathryn & Madaleine, 2003). Therefore management must always ensure that the service quality delivered should be able to match customer expectations. Among the first popular writers that have brought about management of expectations was Tom Peters, who talked of "under promising, and over delivering" (Peters, 1988). Managing customer's desires and adequate services may look quite practical, but it should also to be borne in mind that customer expectations are learned partly from experience, and that the very act of over delivering will increase expectations for the next encounter (Caruana & Pitt, 1997). In the long run perhaps for better and straightforward management practice, organizations just deliver exactly what they promise, every time.

Berry and Parasuraman (1991) in their research emphasized that management of expectations should be taken seriously. Their research revealed that numerous customer complaints about lower service quality were because they have been over promising the service expectations. According to Hart *et al.* (1990) management should use their utmost efforts to meet and exceed customer expectation by excelling in service delivery and by being great at service recovery. On the marketing side, Naumann and Shannon (1992) suggest management to focus on new efforts and paradigm shift on working more closely with customers to clarify their expectations. Marketers are now required to be innovative and develop new ways of helping their organizations meet and exceed customer expectations. Caruana and Pitt (1997) have established a checklist and benchmark results that enable managers to assess their organizations' service quality without the need for external customer surveys. The internal service quality measures called INTQUAL was applied by Caruana and Pitt (1997) in their survey of service quality of the largest service firms in the UK. They then developed INTQUAL as an internal service quality measure for service organizations as an alternative to SERVQUAL that emphasizes more from customer's point of view.

INTQUAL

Service quality is widely studied using various adaptations of the SERVQUAL instruments as reported in previous literatures (Parasuraman *et al.* 1988, 1990, 1991). INTQUAL model developed by Caruana and Pitt (1997) involved developing an internal

measure of service quality. This measure is an adoption of SERVQUAL model. It used Berry and Parasuraman (1991) service quality measures on management of expectation and service reliability as an adopted model for internal measure for service quality.

Management of Expectation

Management of expectation is a pivotal role because their expectations are the true standards for judging service quality. This aspect is the strongest interactive service that governs the measurement of service quality. In the gaps model Berry and Parasuraman (1991) and Zeithaml, Berry and Parasuraman (1993) argued that expectations can be conceptualized to occur at two levels, namely, the desired, and the adequate. In between these levels there is a gap that has been termed a "zone of tolerance", which reflects the degree of heterogeneity individual customers is willing to accept. Berry and Parasuraman (1991) reported that they have conducted 16 customer group interviews in six service sectors including hotels and advice that management in service organizations should perform a number of tasks:

1. Management must depict to customers a realistic picture of the service. They identify explicit service promises (in terms of advertising, personal selling, contracts, and other communications) together with implicit service promises (in terms of tangibles and price) as two antecedents to expected service.
2. Management must place a premium on service reliability. Berry and Parasuraman (1991) define service reliability as "performing the service dependably and accurately". Parasuraman *et al.* (1993) when replying to issues raised by Brown *et al.* (1993) relating to discriminant validity issues of SERVQUAL, unequivocally state that "nowhere have they ever stated that perception or expectations are unrelated constructs".
3. Management must communicate effectively with customers. Effective communications is the basis of long-term relationships. Gronroos (1991) emphasized the importance of long-term relationship management to the market-oriented service firm.
4. Management needs to ensure that employees excel during service delivery. Only experienced employees can excel in service delivery. Reichheld (1993) underlines the importance of employee retention, which he holds is the key to customer loyalty.
5. Management must ensure that systems are in place that exploits the recovery situation in total capability. With all the goodwill in the world no system is perfect and things will occasionally go wrong. In this situation it is important to have good recovery systems in place. A good recovery can turn angry frustrated customers into loyal ones (Hart *et al.*, 1990).

Service Quality and Business Performance

Service quality as perceived by customers has made a major impact on a number of measures for corporate success in most firms (Buzzel & Gale 1987). Capon *et al.* (1990) have reported in their Meta analysis on 20 studies have found a positive relationship between quality and business performance. In other studies (Berry & Parasuraman, 1991; Edvardsson & Gustavsson, 1990) they have identified the two key components of service quality, namely, the management of customer expectations and service reliability, which also contribute to business performance. The hotel industry is one of the surveys done and reported by Parasuraman *et al.* (1991). Study on the customer perspective shows that the underlying reason for seeking service quality improvement is the inference that the increase of customer satisfaction can contribute significantly to performance (Barnes & Cumby, 1995; Berry *et al.*, 1985). Another study found the link between service quality and profitability through activities for customer retention (Reichheld & Sasser, 1990).

Among cost and benefit cited by Lewis *et al.* (1994) in relation to business performance derived from successful service quality were satisfied and retained customers and employees; opportunities for cross-selling; the attraction of new customers; development of customer relationships; increased sales and market shares; enhanced corporate image; reduced costs and increased profit margins and business performance. The service quality measures above suggest that the gap between perceived service and expectation has given rise not only to the construct of service quality but also to that of satisfaction. According to Caruana and Pitt (1997) like service quality, satisfaction has also been linked to performance. The distinction between satisfaction and quality that is often made is that satisfaction is transaction specific while quality is an overall evaluation of long-term attitude to the service product offering (Bolton & Drew 1991; Boulding *et al.*, 1993; Cronin & Taylor, 1994; Oliver, 1981; Parasuraman *et al.*, 1988). In the literature presented here, consumer satisfaction researchers tend to see customer satisfaction leading to service quality while service quality researchers often conceptualize the opposite relationship. Teas (1993) suggest that these conflicting perspectives could be the result of the overall perception of most service quality researchers in contrast to the transaction-specific focus of most consumer satisfaction researchers.

According to Caruana and Pitt (1997) the acid test for quality programmes is the degree to which achieved quality translates to increased profits. However, with this regard according to Teas (1993) is still being increasingly questioned by cost-cutting executives of the 1990s. Further examination in a large scale conducted by the Swedish firms, Anderson *et al.* (1994) confirm that firms which actually achieve high customer satisfaction also enjoy superior economic returns. They find that an annual one-point increase in customer satisfaction results in a net present value that represents a cumulative increase of 11.5 per cent over five years for the typical firm in Sweden. Again, Rust *et al.* (1994), who document the marketing literature relating customer satisfaction and service quality to performance, conclude that a link between quality and financial return exists.

Framework

According to Berry and Parasuraman (1991) organizations which are internally able to provide infrastructure to exceed customer's expectations will encourage service quality in place and establish customer franchise towards better business performance. Capon *et al.* (1990) has found from the Meta analysis of 20 studies that there is a positive relationship between quality and business performance. In other studies (Berry & Parasuraman, 1991; Edvardsson & Gustavsson, 1990) had identified the two key components of service quality, namely, management of customer expectations and service reliability, which also contribute to business performance. The relationship of the internal service quality construct with the hotel business performance is shown in figure 1. INTQUAL is an attempt to establish the operational method for the internal service quality measurement.

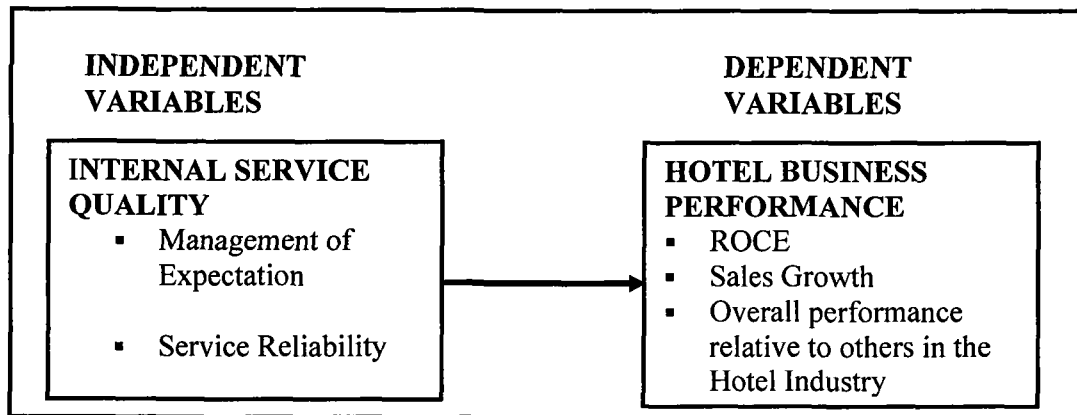


Figure 1 : Relationship Between Internal Service Quality (INTQUAL) and Hotel Business Performance

Methodology

The population of this study comprises of the entire hospitality providers in the Penang state. The population frame is the updated list of accommodation types (refer to table 1) prepared by DCT Consultancy Sdn. Bhd. (DCT). DCT has been carrying out annual surveys on hospitality providers for the Penang State Government since year 2000. The list is updated every quarter via field surveys and through verification with the Penang International Hoteliers' Association (PIHA), Hoteliers' Association (PHA) and National Property Information Centre (NAPIC) databases. As at the end of March 2004, a total of 155 hotels / service apartments / hostels / motels / guest houses were in operation in the State, with a total of 13,507 rooms available.

Table 1 Accommodation Facilities in Penang State (2003 & 2004)

Type of Accommodation	Beach	City	TOTAL			
	No. of Hotels	No. of Rooms	No. of Hotels	No. of Rooms	No. of Hotels	No. of Rooms
	As at Mar 2004	As at Mar 2004	As at Mar 2004	As at Mar 2004	As at Mar 2004	As at Mar 2004
5-star Hotels	2	950	5	1,804	7	2,754
4-star Hotels	8	2,690	6	1,953	14	4,643
3-star Hotels	3	502	7	1,143	10	1,645
2 star Hotels	0	0	3	343	3	343
1-star Hotels	1	50	4	249	5	299
Non-Star Rated Hotels	0	0	3	558	3	558
Budget Hotels	3	43	89	2,120	92	2,163
Service Apartments/ Hostels/Motels/ Guest House	10	406	11	696	21	1,102
TOTAL	27	4,641	128	8,866	155	13,507

Source : DCT

This study has used population as sample of the study. Basically from the total population of 155 hospitality providers, only were 130 targeted. The remaining 25 hospitality providers however, were omitted due to incomplete addresses. The final sample drawn from the population frame is 130. Hospitality providers' organization is used as the unit of analysis due to the aim of the study, which is to verify the establishment of internal measures that affect hotel business performance. Data collection was conducted based on mail and personally administered questionnaire. The respondents for this study were targeted to be the Director, Managing Director, Manager or at least Senior Executive of human resources, as they would have the knowledge and experience regarding service quality implementation in the organization. The questionnaire was developed based on the examples from previous literature (Caruana & Pitt, 1997; Siddik, 1996; Berry & Pasaruman, 1991). A 5-points Likert scale was used to measure the level of perception of the respondent towards the internal perception on service quality and business performance.

Variables and Measurements

Management of expectations is measured by twenty constructs which seek to elicit whether management in the hotel organizations have performed the following of tasks:- Management must depict to customers a realistic picture of the service; Management must place a premium on service reliability; Management must communicate effectively with customers; Management needs to ensure that employees excel during service delivery; and Management must ensure that systems are in place that exploit the recovery situation in total capability. Service reliability is measured by eighteen constructs, which cover whether management in the hotel organizations ensure that they perform the service dependably and accurately namely service leadership 'Do it right first time culture' or 'Zero Defects'; thorough testing procedures; and an infrastructure for error free service. On business performance there are three items. Two items sought to measure ROCE and sales growth of the respondent's hotel in the last five years, relative to other hotels in the industry; while the third item asked respondents for their impression of their hotel's overall performance in the last five years, relative to others in their industry. ROCE is to measure of company earning related to the invested capital for the business operation. According to Helfert (2000) ROCE is one of the key measures in current business practice. Further he elaborated that this measure focuses on operating profit and operating assets relating to performance issues.

Analysis And Results

The sample data was obtained from 61 hospitality providers from Penang state, which constituted 46.9% of the response rate. The respondent who replied the questionnaire encompass executive 63.9%, Manager/ General Manager 34.4% and Director/ Managing Director/ CEO 1.6%. Majority of respondents' length of service are above six years with the total percentage account for 77% of the total respondent. Therefore it obviously benefited the whole study objective to get a realistic picture of business performance for the past five years. Among the respondents' organization, there was 4.9% is One star rating, 4.9% is Two star rating, 14.8% is Three star rating, 21.8% is Four star rating, 11.5% is Five star rating and 42.2% is non-star rated.

The higher percentage on non-rated star was due to the grouping method whereby all total other accommodation types that do not have rating fall in one consolidated group. However on the other hand the total for all group of star-rated hotel classification is 57.8% as compared to non-rated hotel. Data collected on accommodation type indicates that 55% are in category hotel other than budget. This data justified with the percentage based on star rating group. In term of location, 77% are in the city area, 21.3% are near the beach and only one

hotel is near the airport which is Hotel Seri Malaysia, Bayan Baru. Given Penang state as the second progressive country in Malaysia after Selangor, the higher percentage hotel in the city is expected. As the major business activities in Penang involve multi-national companies from manufacturing industry and service sector like tourism, finance, insurances etc, the demand for hotel in the city for business activities such as conference, meeting is expected. The percentage for beach hotel is relatively low compare to city mainly due to limited land for beach hotel development.

Number of employee indicates that there was quite a balance percentage for above 50 and below 50 employees in Penang's hotel industry. This result again justified with the percentage of non-rated and star-rated hotel. Period of operation within 11 to 15 years and 16 to 20 years are among the higher percentage account for 52.4% and 19.7% respectively, as compared to those below ten years. This is not surprising because Penang hotel history was quite long such as E&O hotel back for the past 120 years. Statistic on Malaysian owned hotel is 98%, the higher percentage were also account for hotel category not belong to an international chain and not managed by an international group. These could imply that Penang experience in the hotel industry have established enough local expertise and manpower. From the table 4.2 number of room indicated that below 50 rooms account for 32.6% and above 201 rooms account for 30.5%. These figures quite reasonable as the major respondents are from budget hotel and star-rated hotel. In the last five years 36% respondent reported the average occupancy rate ranges from 56% to 65%, 42.7% respondent reported rate ranges from 66% to 75% and 6.5% respondent reported above 85%. Those data indicated that there is an increase in hotel occupancy rate compared to the report of previous study by DCT (Penang Hotel Survey Report, 2003).

Factor analysis

Factor analysis were run on two independents variables, they are management of expectations and service reliability. The 20 items measuring management of expectation were subjected to principal components factor analysis with varimax rotation method (table 2). The KMO measure of sampling adequacy was at .82 ($p < .001$) and Barlett test of sphericity indicated the proportion of variance explained significance of overall correlations within the correlation matrix. Out of twenty items, only seventeen of them were retained based on the factor loadings greater than .50 and cross loading of less than .35 criteria. Two factors had eigenvalues greater than one and explained a total variance of 54.17%. Original one dimensional independent variable was increased to two dimensions. Subsequently, they were labelled as Training Programmes, Customer Expectations. Factor loading for each item and their corresponding cross loadings to the other factors are presented in Table 2.

Table 2 Rotated Factors and Factor Loadings of Management of Expectation

Item	Description	Factor	
		1	2
B1-2	Promote our services to the customer with utmost responsibility on information validity	.27	.65
B1-4	Service contract with scopes and responsibilities clause at our utmost ability and capability to be delivered	.65	.41
B1-5	Services charges were comprehensively defined and listed	.08	.63
B1-7	In recruiting, organization attempts to ensure that they believe in the value of error-free service	.74	.07
B1-8	Employee empowerment	.81	.18

B1-9	Employees' awareness of their roles in error-free service towards organization's economic success	.76	.20
B1-10	Important of communication in service delivering	.58	.15
B1-11	Regular inter-departmental communication will ensure error-free service to end users	.77	.04
B1-12	Show appreciation and rewarding employees for the constructive suggestions	.63	.16
B1-13	Training programmes focus on how to provide service that is free from errors	.83	.31
B1-14	Customers' expectation of service are a measure against which this organization evaluates its performance	.21	.80
B1-15	This organization has a good idea about what its customers expect	.25	.64
B1-16	Regular contact with customer will enhance our understanding of customer expectation	.23	.78
B1-17	Ensure company representatives easily accessible to customer	.25	.71
B1-18	Suggestion and entertain inquiries with courtesy	.14	.71
B1-19	Systems are in place that exploits the recovery situation to the full	.70	.43
B1-20	Show customers how much this organization cares for and values its customers	.74	.28
Eigenvalue		8.16	2.66
Percentage of Variance (%)		40.85	13.3
KMO Measure of Sampling Adequacy		.824	

Note : F1 = Training Programmes, F2 = Customer Expectations, Item column : Items are coded according to the questionnaire references.

The second independent variable, service reliability comprises eighteen items. All eighteen items were subjected to varimax rotated principal components factor analysis. Under service reliability two factors emerged with eigenvalues greater than one. It also reduced the eighteen items measure to a fifteen items measure due to cross loadings of more than .35. Factor one consists of twelve items which was then renamed as Cross-training and factor two consists of three items which was then renamed as Ethical services. These factors explained 56.50% of the total variance. Each factor explained 47.86% and 8.64% of the variance respectively. Table 4 tabulated the factor loadings and cross factor loadings with other factors of the items extracted from the rotated component matrix. The KMO measure of sampling adequacy was at .87 ($p < .001$) and Barlett test of sphericity indicated the proportion of variance explained was highly significant within the correlation matrix.

Table 3 Rotated Factors and Factor Loadings of Service Reliability

Item	Description	Factor	
		1	2
B2-1	In this organization performing the services ethically is our main concerns	.26	.78
B2-2	In this organization performing the service accurately is one of this organization	.26	.77

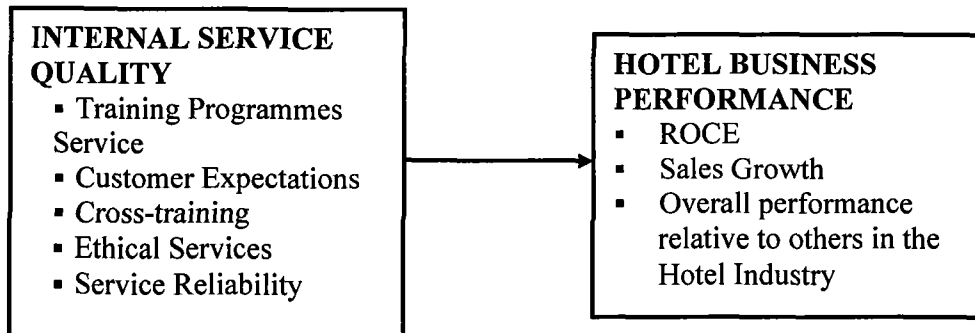
B2-4	Zero services errors is a worthwhile goal to strive for	.05	.74
B2-6	Spend sums of money on operation infrastructure to ensure the services can be performed right the first time	.71	.37
B2-7	Employees in this organization appreciate fully the importance of performing the service correctly at the promise time	.66	.07
B2-8	There are teams from various functional areas to ensure the service is free from errors	.67	.31
B2-9	Growing employees' awareness of their roles in granting customer satisfaction is a continuing effort	.69	.29
B2-10	Pre-launch service product testing is important to ensure proper taught and consideration is in place	.70	.30
B2-11	Post-launch service product testing is equally important to ensure continuing improvement	.79	.34
B2-12	The process in delivering services are properly designed, scrutinized and documented in operation manual blueprint	.78	.35
B2-14	Communications within this organization stress the importance of delivering service	.67	.31
B2-15	Suggestion boxes are made available to all levels of employee	.60	.05
B2-16	Employees in this organization are trained to constantly search for ways to delight customers by delivering a little more	.75	.30
B2-17	Employees in this organization are cross-training to ensure all level of management and staff understands all service tasks and functions	.79	.08
B2-18	Employees are trained to be clear on their career paths through quality and excellence job performance	.59	.15
Eigenvalue		8.61	1.55
Percentage of Variance (%)		47.86	8.64
KMO Measure of Sampling Adequacy		.869	

Note : F1 = cross-training, F2 = ethical services, Item column : Items are coded according to the questionnaire references.

Modified Theoretical Framework and Hypothesis

After factor analysis, some of elements were eliminated due to high cross loading among major factors. As a consequence, the study has to modify the Figure 1 Theoretical Framework to reflect these changes. This was depicted in Figure 2. We have to re-postulate all hypotheses that were developed earlier. Below is new set of hypotheses:

- H₁ : The level of internal service quality of hotels is related positively to their level of business performance.
- H_{1a} : There is a positive relationship between training programmes and the business performance of the hotel.
- H_{1b} : There is a positive relationship between customer expectations and the business performance of the hotel.
- H_{1c} : There is a positive relationship between Cross-training and the business performance of the hotel.
- H_{1d} : There is a positive relationship between ethical services in hotel organization and the business performance of the hotel.



Inter-correlations among the Study Variables

The descriptive analysis was done on the independent variables and dependent variables. They all tapped on a 5-point likert scale with ranges from 1- “strongly disagree” to 5 – “strongly agree”. The highest mean score for independent variables is 4.39 for Ethical Services followed by Customer Expectation, Internal Quality, Training Programmes and Cross-training respectively. All independent variables have mean above 3.00. Their standard deviations range from 0.42 to 0.57. The trend almost the same for dependent variables whereby all mean are above 3.00 and standard deviations range from 0.62 to 0.51. The intercorrelations and Cronbach’s coefficients alpha of all four factors that were derived from factor analysis. Pearson product-moment correlation was applied to investigate the intercorrelation among all study variables to be used in the hypothesis testing. There is only one item each for ROCE, sales growth and overall performance, thus reliability analysis can’t proceed for these three factors and Cronbach’s coefficients alpha is not applicable for those factors.

Table 4 shows that all factors are well kept above 0.8., this greatly indicates that all items for each factor are reliable and their internal consistency is high except item 4 (0.72). The high scores items for internal consistency test mostly were due to the replication from Caruana’s (1997) study and with combination from the actions checklist from Berry and Parasuraman (1991) study on management of expectations and service reliability. In reliability analysis, all Cronbach’s Coefficients Alpha values greater than .70 (Sakaran, 2003) considered good. Overall Alpha for internal service quality for the entire scale is 0.84, which is comfortably exceed the suggested cut-off point 0.7. From bivariate correlation analysis, all dependent variables and independent variables for business performance were significantly intercorrelated at either $p < .01$ or $p < .05$ except for Ethical Service, independent variables. Their intercorrelations ranged from .24 to .91. All had positive Pearson’s correlation coefficient. However, overall performance was insignificantly intercorrelated with all dependent variables, except for customer satisfaction which is significantly intercorrelated at $p < .01$.

Independent variables all had positive Pearson’s correlation coefficient. For sales growth, it was significantly intercorrelated with four dependent variables except for training programmes and cross-training. Their intercorrelations ranged from .15 to .55. However ROCE was significant intercorrelated with four out of five dependent variables. It was insignificant intercorrelated with ethical service dependent variables. All dependent variables for internal quality service showed significant intercorrelation coefficient. Their intercorrelations range from .59 to .96. Another interesting point to note was that all independent and dependent variables were positively correlated to each other; none of them has negative Pearson’s correlation coefficient.

Table 4 Descriptive Statistics, Cronbach's Coefficients Alpha, and Zero-order Correlations of All Study Variables

Item	Factor	1	2	3	4	5	6	7	8	9
1	Training Programme	<u>.91</u>								
2	Customer Expectation	.50**	<u>.85</u>							
3	Cross-Training	.94**	.54**	<u>.92</u>						
4	Ethical Service	.41**	.53**	.48**	<u>.72</u>					
5	Internal Quality	.95**	.69**	.96**	.59**	<u>.84</u>				
6	Roce	.36**	.34**	.37**	.12	.39**	NA			
7	Sales Growth	.15	.42**	.19	.26*	.25*	.55**	NA		
8	Overall Performance	.17	.38**	.17	.25	.24	.56**	.82**	NA	
9	Business Performance	.25*	.44**	.27*	.24	.33**	.79**	.91**	.91**	<u>.84</u>
	Mean	3.71	4.08	3.65	4.39	3.84	3.18	3.54	3.57	3.43
	Standard Deviation	.57	.42	.55	.51	.46	.53	.62	.59	.51
	No Of Items	10	7	12	3	4	1	1	1	1

Note : N=61; **p < 0.01 (2-tailed). *p < 0.05 (2-tailed); the underlined diagonal entries are the Cronbach's coefficients Alpha; NA = not applicable

Hypothesis Testing

Model 1: Internal Service Quality and Business Performance

Hypothesis 1 suggested that the level of internal service quality of hotels positively related to their level of business performance. INTQUAL was entered and regressed with business performance dimension.

Table 5: First Regression Result – Internal Service Quality and Business Performance

Model	R-square	Adjusted R Square	Durbin-Watson	F	Sig.
1	0.111	.096	2.288	7.369	0.009**
Variables			Beta		Sig.
Internal Service Quality			.333		.009**

Dependent Variable: Business Performance

Note: N = 61; *p < .05, **p < .01, ***p < .001.

The result showed that the model is good ($F=7.369$, $p < .01$) (refer Table 5). The Durbin-Watson value was close to two (2.288). This result indicated that there was no auto-correlation problem of errors terms. However R -square = 0.111 is quite low, it indicate that only 11.1% variance in Business Performance can be explained by the internal service quality variable. Lower R^2 is due to the fact that in any operation business performance not only influences by service quality, but also other variables such as external factor in the economic environment they operates (Helfert, 2000). It was noted that Internal Service Quality was significant and positively related to business performance ($\beta=.333$, $p < .01$). Thus, we can conclude that the level of internal service quality of hotels positively related to their level of business performance and therefore the hypothesis 1 is well supported.

Model 2: Internal Service Quality Dimensions and Business Performance

Model 2 suggested that all dimensions of internal service quality (INTQUAL) i.e training programmes, customer expectation, and cross-training and ethical service were positively related to hotel's business performances. Therefore 4 sub-hypotheses were framed for this hypothesis 1. In the same way INTQUAL dimensions were entered and regressed with business performance dimension. The model is good ($F=3.397$, $p < .05$). The Durbin-Watson value was close to two (2.43). This result indicated that there was no auto-correlation problem of errors terms. However R -square = 0.195 shows a slight increase compare to main hypotheses, it indicate that 19.5% variance in Business Performance can be explained by the four variables in internal service quality. From the coefficient table of this integrated model, Customer Expectation is significant ($\beta = .412$, $p < .01$). However Training Programmes, Cross-training and Ethical Service are insignificant. In addition Training Programmes have negative $\beta = -.005$. This implies that for every increment of Training Programmes, business performance declines by 0.005. The summary of regression output is presented in Table 6.

Table 6 : Second Regression Result – Internal Service Quality Dimension and Business Performance

Model	R-square	Adjusted R Square	Durbin-Watson	F	Sig.
1	0.195	0.138	2.43	3.397	0.015*
Variables			Beta	Sig.	
Training Programmes			-.005	.990	
Customer Expectations			0.412	.010**	
Cross-training			0.055	.886	
Ethical Service			0.000	1.000	

Dependent Variable: Business Performance

Note: N = 61; * $p < .05$, ** $p < .01$, *** $p < .001$.

Summary of Results

In conclusion, twenty items in management of expectation and eighteen items in service reliability pool to form internal scale for quality measurement have been reduced to seventeen items and fifteen items respectively in factor analysis. The seventeen items extracted two factors namely Training programmes and Customer expectations, explaining 56.50% of the variance. The factor explained 47.86 and 8.64% of the variance respectively. The second fifteen items extracted two factors namely Cross-training and Ethical service,

explaining 54.17% of the variance. The factor explained 40.85 and 13.3% of the variance respectively. Cronbach's Coefficients Alpha scale for dependent variable Business performance is 0.79. Pearson's correlation coefficient for internal consistency of the scale between dependent and independent variables are summarized in table 9. Obviously dependent variables Business Performance appears significantly correlated with all dependents, except Ethical Service. The same that most consistent in the internal scale is ROCE with all independents variable except Internal Quality. Overall Company Performance found to be most insignificant correlate with all the independent variable except with Customer Expectation and Ethical Service. In summary the regression analysis that tested on all hypotheses only two were found supported. First hypotheses, H_1 : was found significant positively related between the level of internal service quality of hotels and the hotel business performance (refer table 7).

Table 7 : Summary of Results

Item	Hypotheses	Result
1	H_1 : The level of internal service quality of hotels is related positively to their level of business performance.	Supported
2.	H_{1a} : There is a positive relationship between training programmes and the business performance of the hotel.	Not supported
3.	H_{1b} : There is a positive relationship between customer expectations and the business performance of the hotel.	Supported
4.	H_{1c} : There is a positive relationship between Cross-training and the business performance of the hotel.	Not supported
5.	H_{1d} : There is a positive relationship between ethical services in hotel organization and the business performance of the hotel.	Not supported

Discussion and Conclusion

The study was an attempt to statistically identify whether the level of internal quality of a hotel is positively related to their business performance. Adaptation of INTQUAL model developed by Caruana and Pitt (1997) for internal service quality measurement was sought as an underlying model to establish the construct of the study in Malaysian perspectives particularly in the hotel industry. Study by Caruana and Pitt (1997) in large UK service firms found that the original items were reduced to half in factor analysis. However in this study the original items were only reduced to about 7%. The result implied that studies on specific industry minimized the probability factors cross loading due to different interdependent characteristics of the respondents perception against the measured concepts. It also meant that the factors found were significant in this study, might not be applicable in the industry other than hotel.

Generally scale items with low *mean* scores of less than 3.50 indicate activities that need to be targeted for specific actions by the hotel management. For Training Programmes the item generally indicates that management in the Penang's hotel appeared to have accepted the need to ensure a quality service. This was particularly reflected in higher *mean* for "important of communication in service delivery" and "Show customers how much this organization cares". This acceptance is starting to be in "employee empowerment" and is being incorporated in "training programmes". It is however, as yet not all prevalent and given less priority "during recruitment" and "show appreciation and rewarding employee".

For Customer Expectation dimensions, four items of the total seven items score *mean* more than 4.00. This indicates that management of the hotel has well thought and accepts on

the needs that concerned customer expectations. The attentions were given on “regular contact with customer”, follow by item “ensure company representative accessible” and “entertain inquiries with courtesy”. It is, however, as yet not all pervasive and is not being sufficiently monitored on “the need for employees to be clear on their career path”. On the other hand management has provided necessary effort on “growing employees’ awareness of their roles”. However cross-training scale score was relatively better than training programmes dimensions.

Ethical Service dimensions prevail as the most concern of the management resulted all the three items have *mean* above 4.00. This indicates that management in the Penang’s hotel appears to have accepted the need to ensure ethical service. The scale provides a benchmark against which hotel organization can compare the scores of their own organization and those of their division. It is important for the hotel’s management to use the checklist and highlight which activities require improvement and these can be monitored over time to see if the changes made are having the desired effects. In summary this study found that training programmes was the highest score scale in factor analysis contrary to Caruana and Pitt (1997) findings. The latter study found two factors they were customer expectations and customer cares.

Service Quality Relationship with Business Performance

The main hypothesis was supported and concluded that the respondents’ perception of hotel business performance over the last five years does seem to be linked to the service quality performance of respondents’ hotel. The result concurred with Berry and Parasuraman (1991) findings that the product for marketing quality services is the service performance. It is actually the performance is what customers buy. In the case of a hotel the customer satisfaction is a result of the service performance. However there is only one sub-hypothesis was supported out of four sub-hypothesis. The result supports for H_{1b} which hold that there is a positive relationship between customer expectations and the business performance of the hotel. Customer expectations here are measured on how well hotel organizations evaluate its services based on the actual customer expectations. Generally, hotel industry is relatively better in their understanding of their customer expectations compare to other service industry. Siddik (1996) have identified gaps in hotel service quality delivery and the study proved that there was no difference on overall customer perceptions and overall perceptions of the hotelier.

Berry and Parasuraman (1991) in their research emphasized that management of expectations should be taken seriously. Their research revealed that numerous customer complaints about lower service quality were due to the fact they have been over promising the service expectations. Therefore, satisfied customer established customer franchise and this subsequently lead to business performance. In order to satisfy customers, management needs to know how to evaluate their services and set a standard of services that match customer expectations. According to Reichheld (1993) loyal customers will result in revenue growth and declining costs (as the need constantly to attract new customers’ declines) and therefore higher profits. Hart *et al.* (1990) advised that management should use their utmost efforts to meet and exceed customer expectation by excelling in service delivery and by being great at service recovery. On the marketing side, Naumann and Shannon (1992) suggested that the management to focus on new efforts and paradigm shift on working more closely with customers to clarify their expectations. Marketers are now required to be innovative and develop new ways of helping their organizations meet and exceed customer expectations.

Limitation and Future Research

The study findings have several limitations and constraints in the operational of the research. Therefore the study must be evaluated in the light of certain limitations. These include the possible presence of non-response bias associated with postal questionnaire and the use of self reported performance measures. Generalizations of findings to other population must be done with caution as the survey population only consisted of the hospitality providers in Penang State. The questionnaires were all positive worded items adapted from the action checklist from Berry and Parasuraman (1991) and Caruana and Pitt (1997) study on INTQUAL. The positively worded statement in questionnaires may lead to yes-saying. Churchill (1979) claims that to include both negatively and positively worded items are good research practice. With the short time frame for the study such an approach consequently will take more time to read items and tend to make comprehension errors (Wason & Johnson-Laird, 1972). However according to Babakus and Boller (1992) positively and negatively worded items in SERVQUAL tended to result in two separate "method factor" and subsequently Parasuraman *et al.*(1991) have reword all their negative worded items positively.

As to the knowledge of the researcher many studies on service quality have been carried out on the customer side. However in the Malaysian context, INTQUAL is relatively new in the field of research for service quality. In the context of Penangs' hospitality providers it is fairly right to say that this research is the first attempt to measure service quality using INTQUAL. Future research would possibly consider the potential moderator in the relationship between service quality and business performance. Service quality improvement could increase customer satisfaction and belief to be significantly contributed to performance (Barnes & Cumby, 1995; Berry *et al.* 1985). Therefore it is proposed for future research to incorporate customer satisfaction as intervening variables in predicting INTQUAL relationship with business performance. Those considerations worth looking at as in this study R^2 value is quiet low even though the model is good. Caruana and Pitt (1997) suggested that the future research should also study other internal constructs such as entrepreneurial orientation, managerial ethics, organizational commitment, market orientation and excellence.

REFERENCES

- Bashah, S. (2002). *Service quality in local banks: A Study on Bancassurance customers*. Unpublished MBA Thesis, School of Management, Universiti Sains Malaysia, Penang.
- Boulding, W.; Kalra, A.; Staelin, R. and Zeithaml, V. (1993), A Dynamic Process Model of Service Quality: From Expectations to Behavioural Intention. *Journal of Marketing Research*, 30(February):7-27.
- Brown, Tom J.; Churchill, Gilbert A. and Peter, Paul J. (1993) Improving the Measurement of Service Quality. *Journal of Retailing*, Vol. 69 (Spring) pp. 92-98.
- Bungsu, N.N. (2004). *Quality of services and its relationship with customer loyalty : Perceptions of Audit Clients*. Unpublished MBA Thesis, School of Management, Universiti Sains Malaysia, Penang.
- Carman, James M. (1990), Consumer Perception of Service Quality: An Assessment of the SERVQUAL Dimension. *Journal of Retailing*, Vol. 66(Spring) pp. 33-55.
- Caruana, A (1995), Proposition and a model: Do excellent market oriented firms who deliver quality service perform better? *Management Research News*. Parrington Vol.18, Iss.1,2 pp9 - 24

- Caruana, A and Pitt, L (1997), INTQUAL – an internal measure of service quality and the link between service quality and business performance. *European Journal of Marketing* Vol. 31 No.8, pp. 604-616
- Christopher, L. ; Jochen, W.;Hean,T.K. and Xiongwen, L (2005), *Services Marketing In Asia*. 2nd Ed. Prentice Hall 2005
- Churchill, G.A. Jr (1979), “ A paradigm for developing better measures of marketing construct”. *Journal of Marketing Research*, Vol. XVI pp.64-73
- Cronin, Joseph J. and Taylor, Stephen A. (1992). Measuring Service Quality: A Re-examination and Extension. *Journal of Marketing*, 56(July)pp.55-68.
- Finn, D.W. and Lamb, C.W. (1991). An Evaluation of the SERVQUAL scales in a Retail Setting. *Journal of Retailing*, Vol.67 pp.420-450.
- Haksever, C.; Render, R.; Russel, R. and Murdick, G. (2000). *Service Management and Operations*. Prentice Hall, Upper Saddle River, NJ.
- Hemdi, M. A.; Nasurdin, A. M and Ramayah,T. (2003). Motivational Preferences of Hotel Employees: Implications for Managers *Proceeding of the Fifth Asian Academy of Management Conference 2003*, Pahang: Malaysia.
- King,A.S. (1997), *An assessment of customers' perception of a commercial airline's service quality using the SERVQUAL model*. Unpublished MBA Thesis, School of Management, Universiti Sains Malaysia, Penang.
- Lewis, R.C. and Boom, B.H. (1983), Emerging Perspective in Service Marketing. *American Marketing Association* , Chicago, IL, pp. 99-107
- Parasuraman A.; Zeithaml, V.A. and Berry, L.L.(1988), “SERVQUAL” a Multiple-scale for Measuring Consumer Perceptions of Service Quality”. *Journal of Retailing*, Vol. 64, Spring pp. 12-40.
- Parasuraman A.; Berry, L.L. and Zeithaml, V.A. (1993), More Improving Service Quality Measurement. *Journal of Retailing*, Vol. 69, Spring pp. 140-147.
- Paraskevas, A. (2001), “Internal Service Encounters in Hotels: An empirical study. *International Journal of Contemporary Hospitality Management*, Vol 13 No. 6 pp. 285-292
- Ramayah,T.; Leen, Y.A; Siron, R. (2003). Service quality of a foreign bank: Myth and reality *Asian Pacific Business Environment: Innovative responses to Regional Events Conference 2003*, Kuala Lumpur: Malaysia.
- Reynoso, J and Moores, B; 1995. Towards the measurement of internal service quality. *International Journal of Service Industry Management*. Vol. 6 No.3 pp. 64-83.
- Siddik, M.Z. (1996), *Delivering quality services of hotel industry in Penang*. Unpublished MBA Thesis, School of Management, Universiti Sains Malaysia, Penang.
- Sureshchandar, G.S.; Rajendran, C. and Kamalanabhan, T.J. (2001). Customer Perceptions of service Quality ; A Critique. *Total Quality Management*, 12(1),pp. 111-124.
- Zairi, M. (2000). Managing Customer Dissatisfaction through Effective Complaints Management Systems. *The TQM Magazine*, 12(5), pp. 331-335.