

# Quality of Service Practices within Business Market: An Automotive Industry Experience

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**Abstract** - In today's business market, products alone cannot assure vendors' success due to the trend of the market where buyers perceived products and services are equally important. To face this current development, vendors are forced to offer added values to their products. Excellent quality of service is one of the options available because it can lead to the buyer's satisfaction, and ultimately, loyalty. To date, little is known about the quality of service practices in the Malaysian Automotive Industry. Therefore, the case study was conducted to understand the practices better. It was investigated in the language of the actors in the industry specifically the buyers. In-depth interviews were conducted to explore the quality of service practices which were felt to be crucial to this study. A hermeneutics analysis method was employed in analyzing the data. Results from the case studies indicated that quality of service practices has played significant roles in the Malaysian Automotive Industry. In addition, the practices are consistent with the four main principles in a buyer-vendor relationship within the automotive industry. This is in line with the current market trend.

**Keywords** – Quality of service practices, Hermeneutics analysis, Malaysian Automotive Industry

## 1. Introduction

Quality of service or service quality management has had a long and fascinating history, where

many renowned scholars [1];[2];[3];[4];[5] have contributed to its progress. Consequently, many models were developed sequentially, providing a continuous updating and learning from earlier model and observation due to a strong impact of quality of service over firm's business performance, costs, customer satisfaction and loyalty, profitability, different service setting type, situation, time, and interest of study [6];[7]. It was also reported that a generic instrument for measuring quality of service such as SERVQUAL [3] has been widely applied and valued by academics and practicing managers [7];[8];[9];[10]. Nevertheless, the applicability of such instrument in all settings is debatable [11];[12];[13];[14]. A possible explanation for this phenomenon is that the SERVQUAL items unable significantly measure quality of service within various industries [15];[16];[17];[18];[19]. Thus, to overcome these problems it was suggested to use industry-specific measures of quality of service [13];[15];[17];[20];[21];[22]. Hence, it is necessary to embark a study how quality of service can be understood in the automotive industry. This paper concentrates on the results of the case study within Malaysian automotive industry. The in-depth interviews were conducted with the automotive buyers. Hence, a rigorous quality of service could be derived from the case study.

## 2. Literature Review

### 2.1 Quality of Service

Quality of service is an aspect of service

marketing. It started to grow in the late 1970s in several parts of the world especially in Northern Europe [23], and has increased greatly during the 1980s [24]. The reasons that make quality of service stands out because it provides service added and an opportunity to manufacturing firms to differentiate their goods from the competitors [23], and it is a critical factor for the success of an organization [25];[26].

Quality of service is an evaluation process, where the consumer compares his expectations with the service he perceives he has received [1], comparison of consumer expectations with actual service performance [2]; conformance to customer specifications; it is the customer's definition of quality, not management's, that counts [27]; a customer's subjective interpretation of his or her experience [24], and an evaluation of specific attributes, and this judgment is cognitive [28]. On the other hand, the outcome of the evaluation or comparison made by the consumer is called perceived quality of service as [3] assert that perceived quality of service is the consumer's judgment about an entity's overall excellence or superiority. It is a form of attitude related to but not equivalent to satisfaction, and results from a comparison of expectations with perceptions of performance. The attitude contains cognitive (What one thinks?), affective (How one feels?), and behavioral intention (What one plans to do?) component [29]. In short, the quality of service is a means of evaluation on quality-related attributes based on customer judgment.

## 2.2 Quality of Service Models

### 2.2.1 Technical and Functional Quality Model

It is one of the early models of service quality proposed [1]. Basically, the model discusses the four aspects that influence quality of service. They are Technical Quality (the product of service), Functional Quality (service delivery process), Image (company's service reputation), and other factors that might influence consumers' expectations (marketing activities of a company). Gronroos argues that a firm must ensure that the service is delivered, and the process of delivering it meets the expectations of consumers. Moreover, in certain circumstances the company's service image mediates the functions of technical and functional quality. In other words, a positive company's service image can produce consumers'

tolerance towards their negative experiences with the company. However, image deterioration will set in when consumers are being disappointed several times. Other factors that may influence consumers' perceived quality through their expectations are traditional marketing activities, traditions, ideology, and word-of-mouth. Figure 1 illustrates the model.

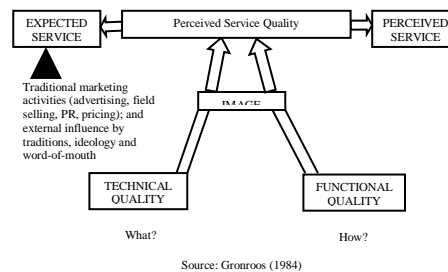
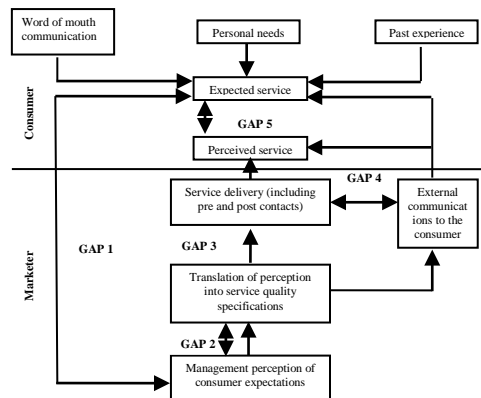


Figure 1  
Technical and Functional Quality Model

### 2.2.2 GAP Model

GAP Model as shown in Figure 2 contains five gaps leading to the mismatch of expected and actual performance of services [2]. The study revealed: 1) the inability to meet a customer's expectation is due to the existence of five gaps. They are, (i) Gap 1: fail to understand and interpret a customer's expected service correctly. (ii) Gap 2: shortcomings on the part of service providers, which result in disparity between expected service and actual service specification. (iii) Gap 3: fail to deliver according to the pre-specified standard or guideline, and (iv) Gap 4: over promises via external communication do not reflect the actual service; 2) the perceived quality of service is shown at Gap 5. It depends on the size and direction of the gap. The closer the gap, the higher the chances of firms meeting their customers' expectations. To achieve this, the firms must manage the magnitude and direction of Gap 1 to Gap 4; 3) the authors found ten quality of service determinants namely reliability, responsiveness, competence, access, courtesy, communication, credibility, security, understanding/knowing, and tangibles, which may influence the expectations of consumers prior to service delivery. The ten determinants were grouped into three categories: search category (easiest to evaluate: tangibles and credibility); experience category (more difficult to evaluate: access, courtesy, reliability, responsiveness, understanding/knowing the customer, and communication); and credence category (hardest

to evaluate: competence and security). The experience category which contains the majority of the determinants indicates that consumers typically hinge on their or other people's experience when evaluating service quality. Thus, it is important for service providers to ensure positive experience to all service users. Later, the ten determinants were revised and reduced to five which included tangibles, reliability, responsiveness, assurance, and empathy [3]; and 4) there are three situations with regard to perceived service quality. (1)  $ES > PS$ , when expected service is higher than perceived service it will lead to totally unacceptable quality. (2)  $ES = PS$ , when expected service equals perceived service it will lead to satisfactory quality. (3)  $ES < PS$ , when expected service is lower than perceived service it will lead to more than satisfactory and ultimately towards ideal quality.



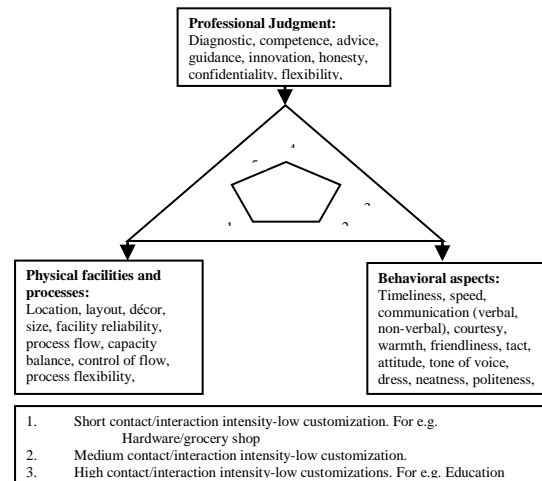
Source: Parasuraman, Zeithaml, and Berry (1985)

Figure 2  
GAP Model

### 2.2.3 Haywood-Farmer's Quality of Service Model

Based on previous literatures, [30] proposes a quality of service model with three attributes consisting of physical facilities, process and procedures; people's behavior and conviviality; and professional judgment as shown in Figure 3. The segregation of quality of service into three segments is important in order to manage the complexity of quality management in the service sector due to the intricacy of service characteristics, which are intangible in nature. The focus of the model is how service organization can achieve "high quality" or meet customer preferences and expectations consistently. To achieve this, it requires an appropriate combination of the three quality of service attributes. Each attribute consists of several

factors. Furthermore, the combination is partly determined by customer contact, labor intensity, and service customization. However, the model was developed with no rigorous investigation conducted.



Source: Haywood-Farmer (1988)

Figure 3  
Haywood-Farmer's Quality of Service

### 2.2.4 Value-Based Model of Service Quality

As an effort to resolve the issue of incorrect conceptualization of expectation (E) in the SERVQUAL P-E perceived quality measurement, [31] introduced a new concept of "expectation". The expectation is represented by an ideal standard which is based on the "value" or "the result of the evaluator's mental matching process between the conceptual content (norm) and the perceived content (object)". The degree of fulfillment and non-fulfillment of the object with the norm signifies a positive and a negative value respectively. Hence, the established standard (i.e. norm) is supposed to be used to an evaluate object or a service encounter. Consequently, this makes up a customer's value upon services received. In other words, an individual is comparing the expectation (ideal standard) with perception (experience outcome). This is illustrated in the Value-Based Model of Service Quality as shown in Figure 4. In addition, this model investigates the relationship between negative confirmation and satisfaction. The major contributions of this model are: 1) it provides a new insight on the "expectation" dimension in disconfirmation paradigm from the service desired attributes to value, 2) the ideal standard is evolved due to a customer's experience (developed by learning), and 3) negative disconfirmation between an ideal standard and the experience outcome is the major

determinant of customer satisfaction. In a nutshell, this model stresses the importance of knowing about how the quality of service evaluation takes place and the critical components of a service encounter to the evaluation outcome.

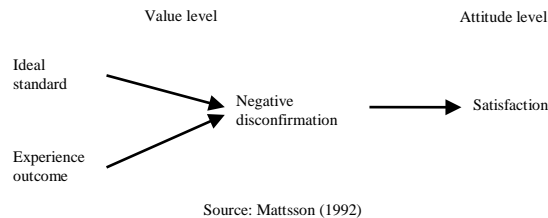


Figure 4  
Value-Based Model of Service Quality

### 2.2.5 P-C-P Attributes Model

Based on the criticism against the past quality of service models especially the extensive use of SERVQUAL in services marketing studies although many authors claim that SERVQUAL is not the best tool to measure the quality of service since it holds some weaknesses such as the inaccuracy in the conceptual and operational definitions of the expectations (E) to measure the quality of service and measurement validity [5];[31];[32], and believe that it is high time to have an alternative model for SERVQUAL so that the researchers and business community will be using a valid and reliable tool to measure the quality of service, thus it has called Philip and [33];[34] to propose and test the new quality of service model called P-C-P Attributes Model as illustrated in Figure 5.

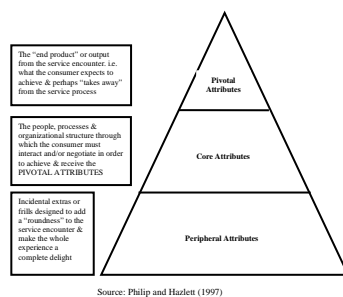
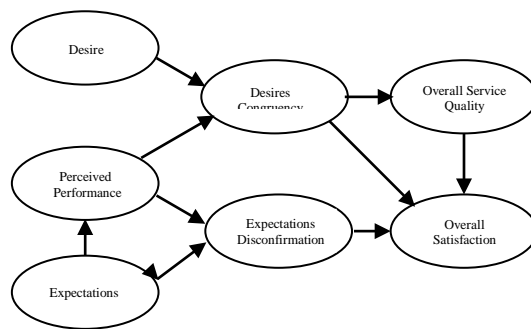


Figure 5  
P-C-P Attributes Model

### 2.2.6 Perceived Service Quality and Satisfaction Model

The study on the quality of service has been extended from the issue of developing and validating measurement to the examination of the quality of service outcomes. In this regard, [35]

claim that although most of the studies on the quality of service argue that the perceived quality of service and customer satisfaction are two different constructs, but the understanding on their relationship is still limited. Hence, they made an attempt to investigate the relationship by empirically testing Oliver's (1993) Model of Service Quality and Services Satisfaction, and then a new model of quality of service and satisfaction was proposed. This new model is known as the Model of Perceived Service Quality and Satisfaction which is illustrated in Figure 6. This model suggests: 1) there is no relation between disconfirmation of expectations and perceived quality of service, 2) desires congruency does influence satisfaction, 3) the expectations do influence quality of service through perceived performance, not from direct effect of disconfirmation of expectations, and 4) there is no relation between desires and perceived performance. In addition, this model has outlined several implications from the study: 1) desires congruency is an important antecedent of customer satisfaction, hence it provides the evidence that predictive expectations are not the only antecedent of customer satisfaction as reported in service quality literature; and 2) managers cannot simply lower down the expectation in order to create favorable customer satisfaction because it may cause lower perceived performance that will lead to lower level of satisfaction. In other words, managing expectations down can result in lower, not higher satisfaction. What managers should do is to improve the perceived performance instead of lowering down the expectation (as advocated by many consultants and authors) because the current study reveals that customer satisfaction is positively influenced by the expectation via perceived performance in which this relationship has been ignored before. Finally, it seems problematic in managing expectation with regard to customer satisfaction. Thus, it was concluded that desires are more straightforward and intuitive and they claim that they are the key determinant to customer satisfaction and quality of service.



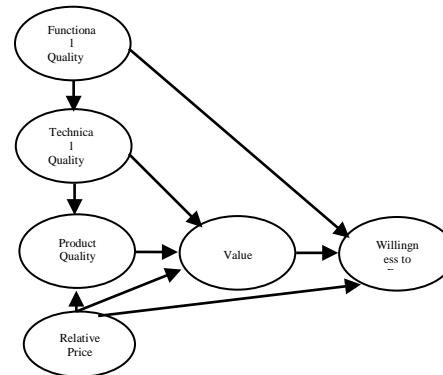
Source: Spreng and Mackoy (1996)

Figure 6  
Perceived Service Quality and Satisfaction Model

### 2.2.7 Retail Service Quality and Perceived Value Model

The effort to deepen our understanding about the quality of service outcomes has been continued by [36]. The authors conducted a study to investigate the influence of quality of service (functional and technical dimension) to the customer's value (value for money) and willingness to purchase as a comparison with product quality and price. They tested two theoretical models (named as Model 1 and Model 2) that demonstrate the relationship of the six constructs and found the second model was superior than the first after the former underwent the modification indices during the exploratory stage of the analysis. Model 2 or Retail Service Quality and Perceived Value Model have revealed several interesting findings: 1) the functional quality of service has a direct and an indirect influence on a customer's willingness to purchase and it has a greater effect on the consumers' willingness to purchase than does the product quality or technical service quality. This means managers cannot solely focus on the product quality but should also emphasize the importance of the quality of service in order to maintain business; 2) a customer's value is the most important construct in relation to a customer's willingness to purchase because it is the most influential construct that influences the latter; 3) there is no direct influence of price on the product quality and willingness to purchase; and 4) the technical quality of service (an employee's product knowledge) has a greater impact on the customer's value followed by product quality, hence it indirectly influences a customer's willingness to purchase. This indicates that managers must ensure they employ the right employees who have adequate knowledge and skill to convince customers about the products sold. At the same time, they must also provide

proper training, induction, and motivation to the employees. Figure 7 shows the model.



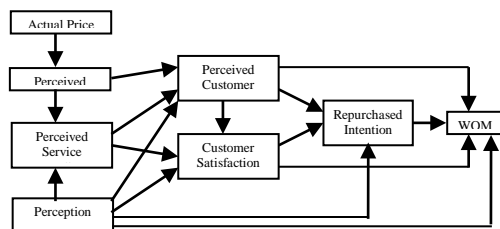
Source: Sweeney, Soutar, and Johnson (1997)

Figure 7  
Retail Service Quality and Perceived Value

### 2.2.8 Service Quality, Customer Value, and Customer Satisfaction Model

In another study, [37] assessed the role of customer value (value for money) within the existing quality of service and customer satisfaction framework by focusing on customers' post-purchase decision-making process in luxury lodging industry. The author also examined the relationship of customer value with other constructs namely price, perception of performance, repurchased intention, and recommended intention. Consequently, he proposed a model called Service Quality, Customer Value, and Customer Satisfaction Model as shown in Figure 8. The findings of the study reveal: 1) customer value is determined by the quality of service directly and the performance perception directly and indirectly via quality of service. Price negatively influences customer value via perceived price. It is an immediate antecedent to customer satisfaction and repurchased intention. It also influences repurchased and recommended intention directly and indirectly via repurchased intention and customer satisfaction; 2) quality of service is influenced directly by performance perception and it is not influenced by price, and it influences customer value and customer satisfaction; and 3) customer satisfaction is influenced by the quality of service and customer value directly and performance perception indirectly via quality of service because performance perception has no direct relation with customer satisfaction, and it influences repurchased and recommended intention; 4) performance perception influences

repurchased and recommended intention directly and indirectly via quality of service, customer value, and customer satisfaction; and 5) repurchased intention affects recommended intention directly. Notably, customer value has played a very significant role in influencing the customer post-purchase behavior such as customer satisfaction, repurchased and recommended intention. This indicates that a luxury lodging industry such as a luxury hotel should seriously consider customer value in its offering apart from the quality of service and customer satisfaction. In addition, the management must also think about other variables such as the effect of price and customer perception on customer value, quality of service, customer satisfaction, and repurchased and recommended intention in order to maximize the impact on customer post-purchase behavior.



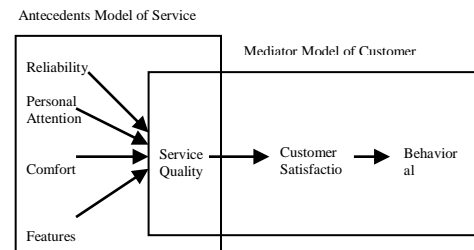
Source: Oh (1999)

Figure 8  
Service Quality, Customer Value, and Customer Satisfaction Model

### 2.2.9 Antecedents and Mediator Model

In another study, [25] investigated the conceptual issues related to quality of service antecedents and mediators as well as measurement issues as an effort to provide a better understanding on the issues concerned. The study reveals: 1) the factors relevant to quality of service (i.e. reliability, personal attention, comfort, and features) are better conceived as antecedents rather than the component quality of service; 2) customer satisfaction strongly mediates the effect of quality of service on behavioral intentions; 3) quality of service and customer satisfaction are two different constructs, although they are highly correlated; 4) “comfort” factor is the most important factor whereby feeling safe and comfortable with the service provider is critical for the quality of service evaluation in this study context; 5) perception (i.e. performance-only or SERVPERF) and measured disconfirmation (a direct mental estimation of perception compared to expectation or the respondents consider the differences mentally rather than having the researcher

calculate the differences arithmetically for them) are superior than computed disconfirmation (i.e. different scores or a mathematical calculation of perception-minus-expectation); and 6) cross-sectional measurement design is preferable in the quality of service study than longitudinal design. To illustrate the investigated issues clearly, the authors have developed a model called Antecedents and Mediator Model as shown in Figure 9.



Source: Dabholkar, Shepherd, and Thorpe (2000)

Figure 9  
Antecedents and Mediator Model

### 3. Issues

The preceding discussion reveals the quality of service models for the past four decades. This shows that quality of service practice has been getting great attention from researchers and practitioners [38] and the focus of the studies were developing and refining an instrument for examining it [39]. However, it has not been getting enough attention from researchers for the business market [9];[10];[40];[41];[42];[43];[44];[45], even though, the concern of the quality of service in the business market has been highlighted by [46]. Eventually, because of only a few models and theories of quality of service in the business market were proposed and discussed, the solidity of foundation to understand the issues is probably unknown. This is, perhaps, the reason why researchers disagree with each other with regard to the quality of service practices in the business market. The twelve studies done by [9] on various industries (i.e. engineering, industrial manufacturing, industrial gases etc) reveal that there is neither a clear consensus on which practices are applicable to a business-to-business context nor whether both parties in a relationship agree on which quality of service practices are important.

Furthermore, there are several characteristics of the business market which are different from a

consumer market that one needs to understand [42]. Firstly, the purchasing decision involves multiple decision makers at different organizational hierarchies [46];[47]. Secondly, the quality is decided by an individual or individuals who have the authority to purchase, and either to continue or discontinue the customer relationship [48]. Thirdly, the exchange is relational in the business market. Finally, the perceived quality of service is the fulfilment of organizational needs. Due to these four characteristics as well as the behavioral aspects of the multiple buyers and vendors, the study on the quality of service in the business market is not an easy task. Therefore, less research has been done on the quality of service within the business market. Hence, the researchers found this as a gap that needs to be addressed.

#### 4. Methodology

This study was conducted qualitatively since the main objective is to explore the quality of service practices in the business market. It fulfills the aim of the study, where the findings are to deepen understanding on the phenomenon (i.e. quality of service practices within a manufacturing setting) due to the complexity of the business market. Furthermore, the study on quality of service is related to human behavior or “humanistic quality” which “involved subjective response of people to objects and is therefore a highly relativistic phenomenon that differs between judges” [3], and the researchers need to immerse themselves in the study of quality of service because it involves a subjective interpretation of the human experience [24]. Therefore, to understand the issues better would require a qualitative method because it cannot be captured by rules of cause and effect as in a quantitative method. The researchers have engaged the multiple-case design in the study because the research design is often considered more compelling, and the overall study is therefore regarded as being more robust (Herriott and Firestone, 1983 as quoted in [49]).

##### 4.1 Sampling Strategy

This study utilizes stratified purposeful sampling. It means the sample has been identified prior to the study commencement. In other words, this study uses non-probability sampling instead of probability sampling. Although, there are various sampling strategies, however, stratified purposeful

sampling has been chosen because: First, as mentioned earlier the main interest of this study is to explore the experience of automotive buyers in relation to quality of service practices. The experience of the buyers is the central source to the understanding of the understudied phenomenon. Second, it facilitates the selection of different sub-groups for investigation such as new and old vendor (to cater relational relationship aspect of buyer-vendor relationship), as well as the departments in the buyer’s company that have a direct interaction with the vendor.

##### 4.2 Unit of Analysis

This study observes the quality of service practices in the context of the Malaysian automotive industry which comprises buyer companies such as motorcycle manufacturer, passenger and commercial vehicle assembler, and motorcycle engine manufacturer as well as vendor companies such as pattern graphic/stickers vendor, name plate vendor, motorcycle engine cover painting vendor, plastic and metal components vendor, wire harness vendor, and plastic parts vendor. The unit of analyses of this study is the vendor of the automotive companies. In addition, the units of observation for this study are the employees from various buyers’ departments that have a direct interaction with the vendor. Table 1 shows the details of the informants and participating buyer companies.

Table 1: Informants

	Job Title	Company
1	Part and vendor development executive	Motorcycle manufacturer
2	Incoming quality control executive	
3	Material control supervisor	
4	Material control line leader	
5	Material control expeditor	
6	Procurement department section head	
7	Incoming quality control section head	
8	Material control senior executive	
9	Senior manager of quality management	

	department	
10	Localization Department Head	Passenger and commercial vehicle assembler
11	Purchasing executive	
12	Material management executive	
13	QA Assistant supervisor	
14	Local content executive	
15	Quality Manager	Motorcycle engine manufacturer
16	Logistic supervisor	
17	Procurement account clerk	
18	SQE supervisor	
19	EHS/HMS Assistant Manager	

### 4.3 Number of Cases

There are no specific rules that determine the number of cases that should be included in the multiple cases of qualitative inquiry. The richness and complexity of the within-case sampling will determine the number of cases, and did not suggest more than fifteen cases for high complexity within-case sampling because the data will become thinner, thus, the quantitative approach is more appropriate [50]. The number of cases for theory generation is within the range of four to ten cases [51].

Although, [50];[51] suggest the appropriate number of cases for multiple cases, however, [52] remind us by saying that “consideration and justification of how many cases to include and how many interviews to carry out in order to achieve ‘sufficient’ data would not be relevant. Instead the key requirement would be to carry out research until understanding is reached and the researcher has sufficient data to analyze in appropriate depth”.

Hence, with regard to the number of cases that should be selected for the study, the researchers have halted at six cases because the researchers found that there are sufficient data that can be analyzed in appropriate depth, and in turn, leads to the understanding of the investigated phenomenon. In addition, it is also within the range of acceptable number of cases for theory generation.

## 4.4 Data Collection Procedures

This section details the procedures of data collection for the study. It includes the researcher’s actions during the case interview, and the study protocol used for the interviews.

### 4.4.1 Researcher’s Actions during the Interview

An interview is one of the evident sources for study. There are two strengths and four weaknesses of interviews [49]. The strengths are (1) targeted (focuses directly on study topic), and (2) insightful (provides perceived causal inferences), and the weaknesses are (1) bias due to poorly constructed questions, (2) response bias, (3) inaccuracy due to poor recall, and (4) reflexivity (informant gives what the researcher wants to hear).

Due to the weaknesses that exist during the case interview, the study took precautionary actions in its effort to minimize and eliminate (if possible) them. In order to overcome the bias due to poorly constructed questions, the researchers have constructed the questions based on priori theory and discussed with the academic experts and practitioners. Then, to overcome response bias, the researchers have verified the response with other evident sources such as performance evaluation reports, part improvement sheet report, and other internal documents. Next, to overcome inaccuracy due to poor recall, the researchers have tape-recorded the interviews. In addition, the researchers also took notes during the interview. Finally, to overcome reflexivity problem (informant gives what the researcher wants to hear), the researchers have prepared probing questions that could guide the researcher to be objective.

### 4.4.2 Study protocol

Study protocol contains the instruments together with the procedures and general rules of how to use them [49]. It is crucial in multiple cases design. It guides the researcher in carrying out a case study research. The protocol of this study comprises two main sections. The first section contains questions related to the informant’s background such as the position, years of experience, and duties. The aim of this section is to ensure that the researchers have interviewed the right person. The second section contains



questions related to the issue of the study such as the duration of relationship, part/component supplied to the buyer, and the informant's experience on the vendor's quality of service practices. The probing technique was used to make the informants share as much as possible with the researchers about their experience dealing with their vendors.

#### 4.5 Analysis Procedure

The analysis is one of the crucial parts in qualitative research. The process is challenging, time consuming, and complex because it has to deal with abundant evidence that usually begins as dialogue [53]. Hence, a researcher must engage a right data analysis method in order to ensure the trustworthiness of a study. In the case of this study, the data typically come from an in-depth interview. Therefore, a hermeneutics analysis method was employed in analyzing the data. Hermeneutics focuses on interpreting something of interest, traditionally a text or work of art, but in the larger context of qualitative inquiry, it has also come to include interpreting interviews and observed actions [54]. Moreover, it explores how the subject-object dichotomy may be bridged by an interpreter engaging the "other" through a reading that is grounded in, but not determined solely by, the interpreter's (pre-) understanding [55].

The data were gathered via interview and they are in the form of the informants' narration of their experience. The interviews were tape recorded and transcribed before the data analysis was carried out.

### 5. Findings

The buyers shared their experience of what they perceived as the quality of service practices of the automotive vendors. They were very passionate in sharing their experience. Hence, the quality of service practices were unearthed from the interviews are as follows:

#### Responsiveness

Responsive to problem is the most highlighted theme that appears from the analyzed data. The vendors take immediate action when a problem occurs. In other words, the vendors give a priority to problems and ready to rectify them. The buyers share their experience:

...this vendor from last time until now...the vendor's swiftness in taking action when there is issue especially related to quality...delivery...

...any problem...very fast you can see them here already...due to near to our company....

...other than that due to the vendor's plant near to our plant...so one of the advantages is the vendor's technical support...so if there is problem in quality, delivery, production...so the response is very fast...may be in an hour...so the vendor send its technical personnel to rectify and settle the problem...

...although there is an issue...the vendor's response is fast...the vendor always has solution...for example like last time we have problem with one part that the vendor supply...so the vendor counter quickly and propose what the vendor need to do to resolve the issue...so the vendor always take fast response...we don't have to ask no need to follow up...the vendor knows what the company needs to do...for this vendor we don't see any problem from the aspect of response...

...I want to touch on its technical staff...so far very good...really fast action...he is really takes action when we inform something related to technical (technical aspect) for improvement...

In general, the buyers are pleased with the current situation, although, there are problems surface in quality and delivery aspect. The buyers acknowledge that the vendors are committed and taking immediate action in overcoming the problems.

#### Quality part

The interviews with the buyers confirm that the vendors are committed in delivering good quality parts. According to the buyers, the vendors are concerned about the quality of the parts and the vendors are taking diverse actions in order to uphold the commitment towards maintaining it. What follows is an array of descriptions given by the buyers to enlighten us on the aforementioned commitment of the vendors.

...other than that...the part that we received now from the vendor does not have many problems...there is no problem in in-coming or in

production line...the vendor fulfills the specification that we have set...

...we don't have many issues with because most of the vendor's parts fulfill our specification...just to manage the issues only...not much issues about this vendor...

...and one more advantage is...the vendor's part is really not many rejects...

...usually when the vendor submit sample for the evaluation with mass production quality always consistent...this means it always maintained...that is why we don't have many issues with this vendor...

...quality also they meet our quality...consistently...

The above accounts are the expressions of the buyers with regard to the commitment of the vendors in delivering the quality parts. The vendors realize the importance of quality parts and they are committed in their actions in order to continue and deliver them to the buyers. The empirical data shows that the vendors have the right understanding about the quality parts and have translated it into their actions. The vendors engage various quality assurance measures ranging from the receiving stage until the product reaches the buyer's plant.

### **Good delivery**

The delivery of parts or components is one of the major activities in the automotive industry. A hitch in delivery can pose a serious problem to the buyer's production. This is most probably why many buyers speak about delivery. The interview show that the buyers acknowledge the importance of delivery.

...every month we give the forecast...so perhaps the vendor follows the schedule and build up a bit of stock...so when we have abnormal situation...we request advance delivery...never faced any problem...this means whatever we request the vendor can catch up well...there is no problem...

...next is from commitment aspect...if we request advance delivery...the vendor is very committed to assist us...for example if our production increase...the vendor commit by doing overtime in order to fulfill our request...

...sometimes there is a problem but on average if once or twice a year...consider not many...there is no problem in the vendor's overall delivery...the vendor can follow the schedule given...

...the vendor's delivery is okay...its schedule is okay...its service is okay...its service like I mentioned earlier is regardless of time...what else we want...as a customer here we make sure the line (production) is not stop...

...other than that, I know the vendor produces a bit excess from what we requested...the vendor also worries if model change happened...change this part...the vendor worries that it cannot support...so the vendor produces a little bit extra...

The preceding discussion reveals the experience of the automotive buyers with regard to the delivery commitment of the vendors. The frequent changes in the delivery schedule due to various factors mentioned earlier has resulted in the vendors to produce extra as a safety stock and also they are ready to work at odd working hours. The vendors need to take this action to ensure no disruption to the buyer's production although they have to incur the unnecessary cost of keeping extra stock and overtime cost. These are the ways of how they can support the buyers since the revision of production plan that directly affects the delivery schedule.

### **Competitive price**

Competitive price is another practice of the quality of service which emerges from the empirical data of the study. Basically, the vendors' practice of competitive price is to meet the buyer's costing, in turn, to secure business from the buyer. The vendors understand that they have to balance the competitive price against the quality and the company's profit.

...actually we request the price first...we compare the price and looking for the competitive...after that we start giving sample...procurement gives part sample for the vendor to do testing...

...for example we take X model...this vendor got it because his price is the lowest...

...it depends on the cost...it means from his price...so this vendor's price is among the

lowest...so in the case of X (model), his price is the lowest...

...and his price is okay as compared to the other two (vendors)...

...usually there is no problem to get good price from the vendor...we will push until the vendor meets our target...from price aspect...its quotation is negotiable...if compare with other vendors sometimes they are fixed...

...the vendor's price is more competitive...it is easier to discuss about price...I saw vendor's trend does not fix too high profit margin in order to get the businesses...

...from the price aspect is competitive...the vendor is still can maintain the price...

The above account reports the practice of automotive vendors with regard to competitive price. The vendors acknowledge that they have to quote the price within the buyer's expected price range and at the same time consider a reasonable profit to the company. This means the vendors cannot under quote or over quote in order to safeguard the company's and buyer's interest respectively. Moreover, the vendors also realize that they have to deliver quality parts equivalent to the price that they are charging to the buyer.

### **Good relationship**

The practice of engaging good relationship with the buyers is another practice of the automotive vendors that emerges from the analysis of the empirical data. The buyers confess that the vendors put great effort to establish good relationship with them via various actions such as frequent contact or communication, visits, and participation in the buyers' organized program.

The buyers share their views with regard to the vendor's effort to establish good relationship with the company.

...his contact or its communication with us is regular...

...he always contacts...every week or two weeks, he will contact...other than that he comes here frequently...

...another one is his communication with our R&D especially design...he has communicate with R&D to ensure that he meet what has been designed by R&D...so when he comes to our company he visits three departments...purchasing, quality, and R&D...usually when he comes he covers the three departments...R&D is he makes sure he follow the design...quality (department) is from quality aspect...like mine is from delivery aspect and ensure he fulfills all the aspects that he needs to achieve...because he usually covers that three...from the aspect of price, quality, and design...

...he often comes...this is good...when often coming...we have relationship...when there is a relationship we can discuss easily...

...then the relationship of the person...there is no problem with the PIC (person-in-charge) that we contacted...with logistics, quality, procurement...it is really good relationship...when we call at any time he will come...

The above findings enlighten us that the vendors contact and visit the buyers regularly. These vendors have their own reasons for their actions, for example there are vendors intend to get closer with the buyer so that the company can anticipate the buyer's need and eye for more business opportunities. In addition, the vendors also participate in the buyer's organized program. Finally, the vendor's dependable contact person has boosted the buyer-vendor relationship.

### **Sharing of knowledge and expertise**

The empirical data reveals that sharing of knowledge and expertise is another quality of service practice of the automotive vendors. This practice refers to the commitment of the vendors to share their knowledge and expertise with the buyers. As the buyers noted:

...they give us ideas to develop new parts... for example we have deal with to produce grip frame...we use plastic base...normally it is from metal... gives idea use plastic base material...and also idea for tank...in my opinion, is a company contributes a lot of ideas and also support our company from quality aspect...it is because its certification which is TS...

...its technical background is good...and it deals with high performance company such as company x...

The prior revelation shows that the automotive vendors are taking the right action via extending their knowledge and expertise to the buyers because it helps the industry to produce better products as well as the cost. This healthy practice will benefit all industry players including the customers. Hence, the customers can expect better automotive products that have good quality and impressive designs with reasonable prices.

In summary, the aforementioned findings have highlighted six automotive vendor's quality of practices from the perspective of the Malaysian automotive buyers. Generally, the quality of service practices can be grouped into two categories namely "common" and "specific" practices. The former refers to the vendor's action in fulfilling the expectation of all departments concerned within the buyer's company such as procurement/purchasing, receiving and quality. The practices that fall into this category include responsiveness, and good relationship. On the other hand, the latter practice focuses on the fulfillment of specific department's expectation such as competitive price, and sharing of knowledge and expertise, fulfill the procurement/purchasing department. In addition, good quality, and good delivery fulfill the expectation of the purchasing and receiving department.

## 6. Discussions

The vendors' responsiveness to problem appears to be the most practiced. The interview with the automotive buyers show that they acknowledge this practice as critical. There are two major factors such as location proximity and commitment that assist the vendors in taking immediate action to rectify the problems that surfaced. This practice is consistent with the responsiveness of service quality dimension as reported in [3];[56];[57]. Many studies reveal that responsiveness dimension plays a significant role in satisfying the quality of service's measurement function [58];[59];[60].

The actions of the vendors such as voluntarily monitoring the buyer's record on defects, developing multiskills workers, and immediately responding to the buyer's complaint are evident of

the vendors' right practice in pleasing their customers. In addition, the vendor's decision to place the plant within the same vicinity as the buyers allows the company to attend to the problem immediately. These vendors' actions meet the behavioral aspect dimensions of service quality in [30] because this behavioral aspect emphasizes on the right attitude of a service provider in solving problems and handling a customer's complaint and this is what the automotive vendors are practicing as mentioned earlier. Finally, the vendors must be very cautious when the company decides to rework at the buyer's plant because it gives a bad impression on the company's image. This action must be avoided unless there are no other options available.

The commitment to deliver quality parts is explicitly acknowledged by the buyers. This practice parallel with [33];[61];[62]. This indicates that the automotive vendors in Malaysia are taking the right step in satisfying their customers. The vendors are taking the necessary precautionary actions to ensure good quality parts are delivered to their buyers. For example, the vendors have engaged in control measures of activities related to the production of parts such as the quality control process chart, defect countermeasure request, and key performance index.

Although the buyers acknowledge that the vendors deliver quality parts, yet the quality parts issue is still surfaces. However, the swift actions of the vendors as reported in the responsiveness practice to overcome quality problem most likely has become part of the commitment of the vendors to deliver quality parts. Secondly, the severity and frequency of the poor quality parts received is probably still at the acceptable level for the participating vendor companies, thus, the buyers perceive that the good quality parts that they receive supersedes the poor ones.

Delivery is one of the most important aspects in manufacturing activities. An efficient delivery is one of the pre-requisites for buyers to achieve high efficiency in their production process. To achieve this alone is almost impossible because buyers do not have full control over vendors' delivery performance. In this study, the vendors admit the importance of delivery because twelve interviews reveal the commitment of the vendors with regard to delivery. Therefore, it can be concluded that various actions of the vendors especially concerning the delivery is to achieve

on-time delivery with no difficulties faced by the buyers. The actions of the vendors are consistent with several past studies' quality of service practices such as [46];[57];[62];[63]. The vendors' practice to ensure no delivery outstanding or achieve on-time delivery reflects the commitment of the vendors to delivery. In other words, the vendors are emphasizing in delivering the right quantity (i.e. zero outstanding) at the right time (i.e. on-time).

Though the buyers acknowledge that the vendors are committed to delivery, however, the problem of delay in delivery still exists. This issue is similar to the quality parts issue discussed earlier. The empirical data as highlighted in the findings show that this is the reality. Although the buyers experience delay in delivery, they still believe that the vendors are committed in executing their delivery responsibility. This is most probably the issue of delay in delivery is not critical and is still manageable. That is why this practice emerged as one of the quality of service.

Pricing is one of the marketing mix principles which generate direct revenue for a company. The better the company employs the pricing strategy the quickest the company can improve its revenue. As described in the findings, the subject of pricing is no exception in this study, since it is also highlighted by the participating buyer companies. This can be seen, where the practice of quoting at competitive price or reasonable cost was highlighted. This finding is consistent with [62];[64];[65]. In a nutshell, this indicates that the finding holds the same stance with the service industry's quality of service practices in relation to the importance of competitive price.

The study also reveals that the price is quoted within the buyers' expected price range and at the same time the vendors also consider a reasonable profit for the company. Basically, there are two reasons of why the vendors practice competitive prices: 1) to meet the buyers' costing; and 2) to secure the business of supplying to the buyers. Although the competitive price is important, the buyers and vendors must also consider the consequence of pushing down the price too low because it may affect the quality of the parts. Therefore, this study suggests that the two parties must have a mutual understanding in determining the price in order to ensure the quality of the parts is not sacrificed.

As elaborated in the findings, the vendors are taking the necessary actions to establish good relationship with the buyers. They always communicate with the buyers via frequent visits and regular phone calls. The visits are not just between the vendor's "window" with the buyer's workers, but it also involves the top management of the vendor's company with the buyer's management. There is a vendor treat this initiative as part of the company's customer service. Another vendor expects to be remembered by the buyer so that the company will be given continuous business. In addition, the vendors support and participate in the buyer's organized program. Finally, buyers acknowledge that the vendors are accessible at any time.

The practice of developing good relationship is supported by [2];[46];[66]. The action of the vendors' "window" makes themselves available to be contacted at any time. Evidently, the dimension of communication is used to build a good relationship between the vendors and buyers. This is in line with this practice where the vendors are putting effort so that they can have a good relationship with their buyers.

This practice is critical in the present automotive industry. This is due to the fact that the industry is very competitive especially during sluggish economy period. The industry players are forced to work very hard in order to be in the business. This is probably the reason of why the industry is practicing this quality of service practices. The buyers acknowledge that this practice is part of the vendors' service and a strategy eyeing for more business opportunities. Obviously, this practice benefits the vendors and buyers.

The final quality of service unearth from the study is sharing of knowledge and expertise. This practice refers to the vendors' action in extending their knowledge and expertise in improving the parts that have been designed by the buyers. In this respect, the vendors usually have the capability to improve the parts due to their vast experience in supplying them to giant companies. They also own the technology concerning the production of the parts. Unfortunately, it has not been given priority by the vendors. This practice correspond with [46];[57];[66].

The action of the vendors is a very good example for the other industry players because such commitment will benefit the whole industry.

Additionally, this practice will support the current practice in the industry where the buyers start to encourage the vendors' participation from the beginning stage of a new model development. In other words, the vendors are encouraged to contribute ideas on the design, quality, cost, and manufacturability of the proposed parts before the final decision is made. Therefore, the study strongly suggests that the vendors equip themselves with the necessary knowledge, skill, technology and capital so that they can significantly play their roles in working hand in hand with the buyers to develop better future automotive products.

## 7. Conclusions

This study makes significant contribution to the literature where it proposes the quality of service practices in the business market. The practices can be categorized into four categories such as cost, quality, delivery, and service. The findings are consistent with the four main principles in a buyer-vendor relationship within the automotive industry. The principles are cost (i.e. competitive

price), quality (i.e. quality parts), delivery (i.e. good delivery), and service (i.e. responsiveness, good relationship, and sharing of knowledge and expertise). However, the practices measurement alone without the understanding on the relationship between the measured quality of service, customer satisfaction and the consequent behavioral outcome will not be able to create an added value for companies [67].

In addition, this study also highlights the practices that will ensure superior quality of service for business market. This is very important since there is a need for businesses to improve their services much faster due to growing competition in the market, higher customer demands and globalization forces [68], to retain customers by understanding what factors contribute to service quality [69], to escape the product commoditization trap [70], and to face complex and dynamic manufacturing environment than ever having passed in the era of Industry 4.0 [71].

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