INFLUENCE OF SERVICE QUALITY DELIVERY IN THE SMES OF THE MOTOR VEHICLE REPAIR SERVICE INDUSTRY IN GHANA

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ABSTRACT

SMEs of automobile industry in Ghana provide services which are seen to have great impact on the economic development in the country, yet, their services are often said to be influenced by a number of factors. When this happens the image of the service provider is greatly affected. A number of cars in the country receive after sales services at SMEs in the automobile repair service garages as an alternative to standard dealership service centres. These service garages are mostly handicapped in terms of modern facilities among others in their quest to providing quality services to their prospective customers. This study focuses on determining the influence of quality services in the automobile service industry in Ghana with specific attention to the SMEs automobile garages in Cape Coast. Forty respondents were involved in the study. Quantitative techniques were used in this study. Chi-square was used to test for independence and to prove three hypotheses postulated in the study. The result of the hypothesis showed that the quality of services rendered by the SME’s in Automobile Service Garages is dependent on the level of education of the manager. Again the result showed that the Quality of Service provided by SME’s in the Automobile Garages is independent on the level of experience of the manager and the modern equipment used. The study therefore recommends that the managers of the SMEs in the automobile repair services garages should avail themselves for educational training whenever the need arises. 

Keywords: Experience, Education and Equipment; Service Quality Delivery; SMEs Auto Repair Garages.

INTRODUCTION

Osman et al. (2009), described quality as a term that carries an important meaning to both producer and customer. Many organisations in today’s automobile industries have realised that it survival in the business world depend highly on bringing high quality product and services to their customers. Indeed, the global competition has compelled some companies and organisations to have stressed that, quality should have to be put in place and be integrated into all aspects of products and services in their management system. Adopting a quality culture through the implementation of quality management initiatives in all aspects of the business by concentrating towards building a continuous improvement culture based on resources (financial and human) and meeting the customer needs are
pertinent for business success. Therefore, quality has become increasingly popular managerial device to improving customer satisfaction and retention. SMEs of automobile industries in Ghana provide services, which are seen to have great impact on the economic development in the country. According to Abor and Quartey (2010), Small and Medium scale Enterprises (SMEs) in Ghana have been noted to provide about 85% of manufacturing employment in Ghana. They also believed that SMEs contribute about 70% to Ghana’s GDP and account for about 92% of business in Ghana. Mensah (2004) also indicated that, SMEs serve as the catalyst for the economic growth of the country since they serve as the major source of income and employment. These assertions mean that SMEs play pivotal role in the economic development of Ghana.

African development outlook (2005) indicates that at all levels of development, small and medium size enterprises (SMEs) have a significant role to play in economic development in general and in industrial development in particular. SMEs form the backbone of the private sector, make up over 90% of enterprises in the world and account for 50 to 60% of employment.

The African Economic outlook (2005) report indicated that Small and Medium Enterprises (SMEs) in Ghana are the focal point of the government’s efforts to spur growth and reduce poverty. SMEs of the automobile service centres are found in both urban and rural areas, and cover wide spectrum automobile vehicle service activities. These SMEs service garages need to compete globally, providing quality service is necessary to increase productivity. The reason why automotive industry is chosen for this research is that the automotive industry can be considered as one of the most important and strategic industries in the manufacturing sector. Thus, there is the need for automobile service industry, comprising of the small and medium enterprises (SMEs) to conform to the quality standard in order to provide good quality service for cars. Osman et al. (2009) describes their concern towards total quality management (TQM) in the SMEs of the automobile industry as being crucial to the general quest for quality-serviced cars and the increasing competition between the local car service garages and the standard car service garage. Quality in the essence that, surviving in the industry will depend on the quality of service delivered to prospective customer. In a competitive industry, such as the automobile industry, customer service makes the difference between a firm’s overall success and failure. When poor service is experienced, both the firm and the customer are negatively impacted, the customer receives poor service and the firm loses future potential sales.

Rajnish, and Satyendra (2010) stated that, quality of service rendered is at the core of the success of any service firm, and the automobile service dealership industry is no exception. In addition, customers are much concerned about quality of after sales service received irrespective of the service dealership. In the motor industry, it is standard practice for vehicle manufacturers to conduct ongoing research to monitor customer perceptions of the quality of the service provided by their dealers, namely the franchised vehicle retailers. Determining the influence of service quality in the SMEs automobile service industry in Ghana is needed as a strategy for continuous improvement of service quality in order to
fulfil customers' satisfaction. The need to fulfil customer’s satisfaction depends significantly on the product performance, reliability, responding to customers' needs and wants and continuous improvement. Focusing on the local automobile fitting shops, this research is focused on understanding and determining service managers’ expectations and perceptions about the quality of service being provided by this local industry. This area of investigation has not been given full attention in automobile industry in Ghana.

Statement of the Problem
The local automobile service workshops are among the small-scale industries that play a pivotal role in the economy of Ghana (Amoafio, 2012). Statistics available from the customs Exercise and preventive Service (CEPS) as published by myjoyonline.com (14th September 2011), indicates that an average of 70,146 cars are imported into Ghana yearly. This means that a good number of service garages are also needed to provide maintenance services to these cars. These automobile vehicles are used in all spheres of the economy as a means of facilitating commercial, social and other transactions, which help contribute to the cohesion and development of the Country. Despite the number of vehicles imported into the country, only few standard auto service workshops such as Toyota, Japan motors, Silver Star, Mechanical Lloyd, among few others are available to provide quality maintenance and repairs for these vehicles. In addition, branches of these standard repair garages can only be located in few of the regional capitals. This means that only few car owners have access to the services of the standard automobile garages. Apart from the few cars or vehicles that patronize the standard auto repair garages, the rest use the local garages as their repair shops. The local automobile workshop therefore serve as an alternative source of providing vehicle maintenance and servicing to the over 70,146 vehicles imported into the country every year in addition to the number of vehicles already in the country. Service quality has become an important issue of discussion for organizations to compete in today's business environment. It is important not only in terms of providing a long term success to the company, but also it is imperative element of providing competitive advantage towards fulfilling customer's expectations and company's performance. Despite the economic importance of these local garages, a research, which focuses on establishing the state of service delivery and the factors influencing it within the industry, is paramount.

Aim
The aim is to determine the influence of service quality delivery in the automobile service industry of the SMEs in Cape Coast.

Objective
To determine the critical factors that influence quality service as perceived by managers of the SMEs of the automobile industry in Cape Coast.
Research Hypotheses

The hypotheses for the research include the following null hypotheses:

**H₀:** Quality of service is independent on manager’s level of education

**H₁:** Quality of service is dependent on manager’s level of education

**H₀:** Quality of service is independent on manager’s level of experience.

**H₁:** Quality of service is dependent on manager’s level of experience.

**H₀:** Quality of service is independent on number of modern equipment used in an automobile fitting shop

**H₁:** Quality of service is dependent on number of modern equipment used in an automobile fitting shop

LITERATURE REVIEW

Service quality is considered a critical tool to determine industrial competitiveness. It is indeed an essential aspect of any service provider, and the automobile industry is no exception (Lewis, 1989). In quality service delivery, the customers are much concerned with “after sales service” (Moore, 1987). High quality of service is considered an essential determinant of the long-term profitability not only of service organizations, but also of manufacturing organizations (Margolies, 1988). In some manufacturing industries, “service quality” is given a higher premium than “product quality”. Superior “service quality” is a key to improved profitability, and not the cost of doing business. Several scholars like Margolies (1988), Horovitz (1990) and Moore (1987) hold this view. More importantly, it is held also that exemplary service is the next sale in the making. “Service quality” affects the repurchase intentions of both existing and potential customers. Market research has shown that customers dissatisfied with a service will divulge their experiences to more than three other people (Horovitz, 1990). Thus, it is reasonable to conclude that poor service will reduce the potential customer base.

According to the Technical Assistance Research Project (TARP) by Smith and Lewis (1989 it cost about four times more to attract new customers. Their research indicates that six times more people hear about a negative customer service experience than hear about the positive one. Positive word of mouth can be a very powerful tool for attracting new customers. According to the report, negative word of mouth can have a devastating impact on the credibility and effectiveness of organisations’ efforts to attract new customers (Horovitz, 1990).

Berndt (2009) asserts that despite the increasing importance of the automobile service sector, and of the significance of quality as a competitive factor, service quality concepts are not well developed in this area with respect to servicing of vehicles. This means that the issue of service quality in the automobile industry is largely unknown. In this respect, the automobile service sector lags behind the manufacturing sector. Moreover, the service sector lags behind the manufacturing sector in embracing philosophies such as “total quality management” and “continuous improvement”. There are major differences
between services and manufacturing sectors as far as “quality” is concerned. Certain features of the service sector increase the complexity of “quality control” and “improvement efforts” (Abby et al., 1994).

The Automobile Industry in Ghana
Automobile industry, globally, as well in Ghana, is one of the key sectors of the economy. The efficiency and productivity of the automobile sector helps directly and indirectly to accelerate the efficiency of the economy. Due to the crucial role of the automobile industry, therefore, Burange and Yamini (2008) state that the industry is recognised as one of the drivers of economic growth as it contributes significantly to the overall GDP of the nation.

Challenges Facing Automobile SMEs Development
Rajeshkumar and Rajendra (2011) in their topic “Six Sigma implementation in medium scale automotive enterprises” – revealed that, the automobile industry is undergoing a major restructuring. They asserted that, sustenance and survival remains an issue of concern for these SMEs automobile companies, as they will have to absorb global best practices in this competitive environment. According to these writers cost competitiveness, customer orientation, lead-time, are some key factors, constraint or the challenges that the automobile SMEs will have to imbibe to survive in the new global set-up’. It is significant enough to note that Rajeshkumar and Rajendra (2011) identify a similar challenge or constraint in the SMEs of the automobile service industry that goes to complement Osei et al. (1993), Daniels and Ngwira (1993), Aryeetey et al. (1994), Parker et al. (1995) and others outlined as the challenge or constraint facing SMEs in general. Rajeshkumar and Rajendra (2011) indicated in their report that these automobile companies face the limitations of being SMEs, like low capital base, limited generation of surplus funds for re-investment due to tight working capital cycle, lack of awareness of business opportunities, inadequate exposure to international environment, limited geographical diversity of markets, obsolete technology, poor infrastructure facilities, etc.

Defining Quality
Different authors have defined quality differently. Authors of quality definitions include Crosby (1984), Juran (1988), Eiglier and Langeard (1987) among others. Definitions by Crosby (1984), look at quality as ‘conformance to requirements’ whiles that of Juran (1988) also look at quality as ‘fitness for use’. However, Eiglier and Langeard (1987) looked at quality as ‘one that satisfies the customer’. As per the Japanese production philosophy, quality implies ‘zero defects’ in the firm’s offerings. Osman and Omar (2007) define quality as a term that carries important meaning to both producer and customer. These writers per their definition have stated that the customer’s definition in terms of quality is what matters most importantly. Gronroos (1982) identified two service quality dimensions. These dimensions include functional service quality aspect and the technical service quality aspect. According to Gronroos (1982) the functional aspect of the dimensions is about’
how” service is provided while the technical aspect dimension is about” what” service is provided. Again Lehtinen and Lehtinen (1982) also view service quality in terms of physical and corporate quality. According to Lihtinen and Lehtinen, physical quality refers to the tangible aspects of service while corporate quality refers to how current and potential customers, as well as other publics, look at the image of the service provider.

Service Quality in the Automobile Industry
In the automobile repair service industry attributes such as specification, conformance and standards are of importance. Contrary to these attribute will complicate the task of defining, delivering and measuring service quality. Many factors of service quality are likely to be interpreted differently depending on each customer and the service garage, Crouse and Anglin (1996). Another aspect to consider is the experience and facilities of the automobile repair service industry which customers think is a common phenomenon to influence service quality.

RESEARCH METHODOLOGY
The design of the study involved eliciting the views of respondents regarding the important factors that influence quality service as perceived by managers of the SMEs of the automobile industry in Cape Coast metropolis using a questionnaire. Since the study did not call for the manipulation of subjects to answer the questions raised, the descriptive survey design was considered to be appropriate because it had the potential to yield relevant information to answer the research questions. Again, the descriptive survey was considered to be appropriate because it enable the researcher to obtain responses from a large group of individuals who might be difficult to locate and whose co-operation might be difficult to obtain. Furthermore, the researcher had the opportunity to directly ask questions from respondents about the topic under study and from the data, collected inferences could be drawn about the situation.

Sources of data
Primary and secondary sources of data were used for this study. The primary sources of data for this study were the managers of automobile fitting shops in the Cape Coast Metropolis. Secondary sources of data for this study were from books, journals, internet sources and government publications.

Target population
The target populations of the study were the managers of automobile fitting service shops within the Cape Coast metropolis. Data on their socio-demographic characteristics, characteristics of their automobile fitting shops, and their assessment of delivery of service to customers was collected.
Sampling and Sample Sizes

The total sample size selected for the research was based on the total population size of members considered and precision value of ±10%. According to Yamene (1967), the minimum sample size required for a research work is determined using the formula

\[ n = \frac{N}{1 + N(e)^2} \]  

(1)

Where:

- \( n \) = Sample size
- \( N \) = Population size
- \( e \) = level of precision

About sixty (60) SMEs automobile fitting shops in Cape Coast metropolis were counted for the study. Hence the minimum sample size used for this study based on Yamene’s recommendation was;

\[ n = \frac{60}{1 + 60(0.1)^2} \]

= 37.5

Based on the above calculation, a sample size of 40 was used. A sampling frame or list was made for all the sixty (60) fitting shops in Cape Coast metropolis and forty (40) was randomly selected through the lottery method technique. A number was assigned to each of the sixty (60) garages identified and these numbers were written on pieces of paper, which was folded up and put in a hat and mixed up. Selection was done without replacement. So each time a piece of paper was selected the number on it were noted and the piece of paper discarded. The remaining pieces of paper in the hat were reshuffled before another selection was made. The process was continuing until the forty garages were selected. Non-probability sampling methods of purposive sampling and accidental sampling were used to collect data from respondents. Purposive sampling was used to select the management respondents. A questionnaire was administered to one management person from each of the selected automobile fitting shops; thus, covering forty (40) management personnel in all. The managers of the SMEs of the automobile service industry were used for the study because they serve as the key technical personnel of these service garages. The reason being that since they are in the service garages they played a significant role in ensuring that their services are of quality. The researchers further thinks that the managers of the SMEs of the automobile service garages perceptions and judgment about quality service would be relevant to the topic under study.
Influence of Service Quality Delivery In The SMEs of The Motor Vehicle Repair Service Industry In Ghana.


Research Instrument
The main research instrument used for the study was questionnaire and interview. Thus, a questionnaire was used to collect data from managers of automobile fitting shops in the Cape Coast metropolis. Questionnaires for the managers of the auto workshops, were divided into three (3) sections namely, socio-demographic characteristics, characteristics of their service garages and service delivery of the garage.

Tests for Independence (Chi-square)
The chi-square test was used to test the hypothesis of no association between two variables. The chi-square test was to perform a hypothesis test about the distribution of a qualitative (categorical) variable or a discrete quantitative variable having only finitely many possible values (Gordor and Howard, 2000).

Computational Formulae

1. The expected frequency for any cell can be determined by (Expected value)
   \[ E_{ij} = \frac{(\text{row total}) \times (\text{column total})}{(\text{Grand total})} \]
2. The test statistics follows the chi –square distribution, designated as
   \[ \chi^2 = \sum_{i=1}^{r} \sum_{j=1}^{c} \frac{(O_{ij} - e_{ij})^2}{e_{ij}} \]
   \[ \text{df}=(r-1)(c-1) \]

Where,
- \( O_{ij} \) = actual frequency in the \( i^{th} \) row, \( j^{th} \) column
- \( e_{ij} \) = expected frequency in the \( i^{th} \) row, \( j^{th} \) column
- \( r = \) number of rows
- \( c = \) number of columns

According to Gordon a low value of chi-square is an indicator of independence.

Decision Rule
According to Gordor and Howard (2000) a decision to reject or accept the null hypotheses is stated as follows: that
   - Reject the null hypothesis (H0) if the computed value of Chi-square \( (\chi^2) \) is greater than the critical value, otherwise accept H0.
• Reject the null hypothesis (H_0) if the p-value is smaller than the significance level, otherwise accept the H_0.

However, the researchers based their decision to accept or reject the null hypotheses using Gordor and Howard (2000) decision rules.

RESULTS AND DISCUSSION

Is Quality of Service Independent on Level of Experience?
Table 1 is a contingency table showing the level of Quality of Service rendered by the automobile fitting shop, against the manager’s working experience which is measured by the number of years he or she has been working in that organization.

Table 1: A Contingency Table Showing Quality of Service against Experience

<table>
<thead>
<tr>
<th>Number of years experience</th>
<th>Level of impression</th>
<th>Excellent</th>
<th>Very Good</th>
<th>Good</th>
<th>Satisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 – 4</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>5 – 9</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>14</td>
<td>1</td>
</tr>
<tr>
<td>10 -14</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>15 -19</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>20 and above</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Source: fieldwork July 2014

Recall the hypothesis
H_0: Quality of service is independent on manager’s level of experience.
H_1: Quality of service is dependent on manager’s level of experience.

A MINITAB output revealed that: Chi-Sq = 5.678 at DF = 12. The critical value from statistical tables at 0.05 significant levels is 21.026. Since this figure (21.026) is greater than the calculated figure (5.678), we do not have enough evidence to reject the null hypothesis, and therefore conclude that the quality of service rendered by the SME’s of Automobile Service Garages is independent on the level of experience of the manager.

Is Quality of Service dependent on managers Level of Education?
Table 2 is another contingency table showing the level of Quality of Service rendered by the SMEs of the automobile service shop, against the manager’s level of education which is measured by the type of qualification he or she has.

Table 2: A Contingency Table Showing Quality of Service against level of education

<table>
<thead>
<tr>
<th>Level of education</th>
<th>Quality of service</th>
<th>Excellent</th>
<th>Very Good</th>
<th>Good</th>
<th>Satisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td>Middle School certificate</td>
<td>0</td>
<td>1</td>
<td>13</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Junior Secondary School certificate</td>
<td>0</td>
<td>0</td>
<td>6</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>NVTI Grade 1</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>NVTI Grade 2</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

Recall the hypothesis

H₀: Quality of service is independent on manager’s level of education
H₁: Quality of service is dependent on manager’s level of education

A MINTAB output revealed that: Chi-Sq = 30.357 at DF = 12. The critical value from statistical tables at 0.05 significant levels is 21.026. Since this figure (21.026) is lower than the calculated figure (30.357), we do not have enough evidence to accept the null hypothesis, and therefore conclude that the quality of service rendered by the SME’s of Automobile Service Garages is dependent on the level of education of the manager. It can be said that one of the factors that influence service quality is the level of education of the person offering the service.

Is Quality of Service Independent on number of modern equipment rating?

Table 3 is a contingency table showing the level of Quality of Service rendered by the automobile fitting shop, against the number of modern equipment, which is measured by the number of modern equipment available at the service shop.

<table>
<thead>
<tr>
<th>Modern equipment rating</th>
<th>Quality of service</th>
<th>Excellent</th>
<th>Very Good</th>
<th>Good</th>
<th>Satisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good</td>
<td>2</td>
<td>0</td>
<td>7</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Average</td>
<td>1</td>
<td>2</td>
<td>10</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Below average</td>
<td>0</td>
<td>2</td>
<td>5</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Poor</td>
<td>0</td>
<td>3</td>
<td>4</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

Source: fieldwork July 2014

Recall the hypothesis

H₀: Quality of service is independent on number of modern equipment used in an automobile fitting shop
H₁: Quality of service is dependent on number of modern equipment used in an automobile fitting shop.

A MINTAB output revealed that: Chi-Sq = 8.723 at DF = 9. The critical value from statistical tables at 0.05 significant levels is 16.919. Since this figure (16.919) is greater than the calculated figure (8.723), we do not have enough evidence to reject the null hypothesis, and therefore conclude that the quality of service rendered by the SME’s of Automobile Service Garages is independent on the number of modern equipment own by the service garage. This is possible looking at the environment in which the research was...
CONCLUSION

The objective of this research work was to determine the important factors that influence quality service as perceived by managers of the SMEs of the automobile industry in Cape Coast. It can be concluded that the quality of service rendered by the SME’s of Automobile Service Garages is dependent on the level of education of the manager. It can be said that one of the factors that influence service quality is the level of education of the person offering the service. Another conclusion that is drawn out of the study is that the quality of service rendered by the SME’s of Automobile Service Garages is independent on the level of experience of the manager.

That the quality of service rendered by the SME’s of Automobile Service Garages is independent on the number of modern equipment the service garage has. Again, it could be concluded that the practices of the SMEs of the automobile repair services in Ghana could be improved by given their personnel the needed professional training and also adequately resourcing them in terms of modern equipment and logistics.

RECOMMENDATIONS

Based on the findings and conclusions drawn from this study, the following recommendations are put forward to help the SMEs of the automobile repair service industry study to operate at competitive advantage.

1. It was establish by the result of the hypothesis that level of education greatly have influence on service quality. It is therefore recommended that the managers of the SMEs in the automobile repair service garages avail themselves for educational training when the need arises.

2. Government must be encouraged to continuously support them to meet the challenges of the fast changing automobile technology systems.

3. In order to meet the increasing demand of after sales service the dealership service garages need to work in collaboration with the SMEs in the auto repair service garages.

REFERENCES

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