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A Study on Enhancing Service Quality in Driving Schools: A Case of Jeddah Driving School

By Ahmed Sami Hanbazazah

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تحسين جودة الخدمة: دراسة عن مدرسة جدة المتطورة لتعليم قيادة المركبات

A Study on Enhancing Service Quality in Driving Schools: A

Case of Jeddah Driving School

A Thesis for the Degree of Master of Science in Industrial Engineering

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Abstract

"Currently the economies of the majority of both the developed and developing countries are now heavily relying on services, the quality of service delivered by the vendor has become middle phase for both scientific researchers and business managers of many different businesses including those who only providing service such as driving schools. This research study investigates and evaluates the service quality levels and customer satisfaction at Jeddah driving development school. The preliminary chapter includes an introduction that outlines the research service quality indicating the significance of customer satisfaction at Jeddah Driving School and the development of service quality practices at the driving school. The research aims to measure the service quality at Jeddah driving school. Then, the literature review chapter focuses on the available studies that linked to service quality practices applied by various businesses. Next, is the methodology chapter which discusses the literature eligibility criteria, moreover, the evaluation for the sucrose of information and the research methods that adopted for conducting this work. Basically, the survey of online questionnaires is used in collecting the primary data in this research. Furthermore, the information collected from both primary and secondary data is analyzed in the analysis and discussion chapter by connecting it with the theories that argued in the literature review chapter. Finally, the concluding chapter that discussed the limitations of the study and presented some suitable recommendations from the findings and analysis chapter, which will allow enhancing business development strategies and service quality practices at Jeddah driving school.

Acknowledgment

First of all, I would like to express my sincere appreciation to my supervisor, Dr. Mohammed Balubaid, for professional guidance and support during the journey of completing this study.

I would like also to take this opportunity to thank my parents and my small family for the great support and encouragement during this journey. Actually, their positive support helped me overcome obstacles until this work was done.

Ahmed Sami,

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Chapter 1: Introduction

First of all, the initial part of this chapter is the introduction and background that gives a conceptual view on enhancing service quality as a general concept and its importance to Jeddah Advanced Driving School (JADS). The next part is a declaration to the problem statement of the study. The third part is the purposes and goals of the research which consisting of three main modules. After that, the research questions that divided into three main questions. Finally, an integrated presentation of research hypotheses.

1.1 Problem statement

Very few earlier studies in service quality on Driving School in Saudi Arabia has been found. This gap of earlier studies is a motivation to find an integrated scientific methodology to apply service quality and other management techniques for driving schools in particular Jeddah driving school JDS. According to the Saudi 2030 vision that introduced in April 2016 by the Saudi government which stated to adopt further measurement plans to "ensure traffic safety, reduce traffic accidents and minimize their tragic consequences" (Saudi vision 2030, 2016). The government allowed more driving school to be opened hence JDS was one of those initiatives that have established in the middle of 2018. Accordingly, Driving schools are the first to gate to be allowed for driving, therefore, they obliged to provide high-quality service.

JDS is a new organization that will provide services to the public. Therefore, those services must meet the minimum expectations of delivering an accepted service during engagement and training time. According to Grönroos (1984), there are two types of quality concept the first one is the technical quality which means what the trainee will receive when he interacts with JDS, the second concept is the functional quality that means how the service delivered from JDS to trainees, for example, the punctuality and the promptness of services.

According to Ali and Zairi (2005), "the concept of quality refers to the matching between what customers expect and what their experience". Hence, this study will focus on measuring the current quality service levels on three main areas at Jeddah driving school. Those areas are the process of how easy and clear to have an appointment for training, the quality level of available training facilities and finally the service quality provided by the training staff. Therefore, identifying customer expectations and measuring the provided service quality by JDS will be major aspects of this research. Furthermore, there will be some scientific suggestions to improve quality to ensure JDS profitability, sustainability, and survivability.

1.2 Important of the Thesis

Generally, this study will build a scientific tool to increase public awareness toward service quality particularly among driving schools. Accordingly, the expected outcomes of this research are to create a substantial service quality improvement at JDS. In addition, this will be measured by improving trainees' satisfaction and develop all potential operation within JDS. Furthermore,

investigating the current service quality at JDS to provide solid organizing structure by implementing industrial engineering tool such as six sigma (DMAIC) standers.

However, there appears to be a gap in the recent literature that discuss the current level of service quality and six sigma implementations. According to Amuharib (2014), the six sigma implementations is not mature enough in Saudi Arabia and need more attention for organizations. Therefore, the researcher will conduct an empirical study, using an online survey and case study techniques.

Driving schools in Saudi Arabia will benefit from this research by eliminating waste and non-value activities, which will result in better training process that focuses on better training that raises the driving awareness not just to teach the skill. Thus, to increase trainees' level of satisfaction in addition to that, the reliability and credibility in driving schools will be increased.

1.3 Objectives of the Thesis

This research aims to fulfil the following objectives:

- Critically analyse the cultural behaviour factor which influence service quality awareness at JADS.
- Evaluate and analyse the level of service quality that has been followed by JADS.
- Critically assess the positive outcomes of applying quality service management with JADS and to other institutions that provide services.

- Evaluate the positive and the negative effects that might impact a new institution through the quality of its services

1.4 Research Questions

The following questions will help to achieve the research purpose and objectives:

R.Q.1: Dose JADS follow or apply any service quality regulations, measurements or future plan.

R.Q.2: how is the service level provided by JADS from the following sides the online services, the facilities services, and the training service?

R.Q.3: how is the satisfaction level among service beneficiaries in terms of provided services?

1.5 Research Hypothesis

According to the research model, the study objectives is to test the following hypotheses against a significance level of [0.05]:

Ha1: The relation between quality service provided at JADS and JADS customers satisfaction:

$H_{a1.0:}$ There is **no** statistically significant relationship between quality service provided at JADS and JADS customers' satisfaction.

$H_{a1.1:}$ There is a statistically significant relationship between quality service provided at JADS and JADS customers' satisfaction.

Ha2: The relation between JADS online services and JADS customers satisfaction:

$H_{a2.0}$: There is **no** statistically significant relationship between JADS online services and JADS customers satisfaction.

$H_{a2.1}$: There is a statistically significant relationship between JADS online services and JADS customers satisfaction.

Ha3: The relation between JADS facilities and JADS customers' satisfaction.

$H_{a3.0}$: There is **no** statistically significant relationship between JADS facilities and JADS customers' satisfaction.

$H_{a3.1}$: There is a statistically significant relationship between JADS facilities and JADS customers' satisfaction.

Ha4: There is a statistically significant differences within JADS customer satisfaction in terms of demographic characteristics (age, level of education and driving knowledge) of customers.

This final proposed hypothesis is divided into four sub-hypotheses in order to be examined according to all demographic variable according to the following:

Ha4.1: The differences between JADS customer satisfaction according to age.

$H_{a4.1.0}$: There is **no** statistically significant differences between JADS customer satisfaction according to gender.

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H$_{a1.1}$: There is a statistically significant differences between JADS customer satisfaction according to gender.

H$_{a4.2}$: The differences between JADS customer satisfaction according to education level.

H$_{a4.2.0}$: There is **no** statistically significant differences between JADS customer satisfaction according to education level.

H$_{a4.2.1}$: There is statistically significant differences between JADS customer satisfaction according to education level.

H$_{a4.3}$: The differences between JADS customer satisfaction according to driving knowledge.

H$_{a4.3.0}$: There is **no** statistically significant differences between JADS customer satisfaction according to driving knowledge.

H$_{a4.3.1}$: There is statistically significant differences between JADS customer satisfaction according to driving knowledge.

1.6 Thesis structure

The research structure is divided into five main chapters. The first chapter is the introduction which will include seven sections that first, discuss the study background and the problem statement. Second, clarification on the importance of the thesis. Then, the thirds section which consist of the research objectives. Fourth, the research question that consist of three questions. Fifth, the research hypothesis. Finally, the research structure. The second chapter is the literature

review which will focus on the related studies similar to our research. The research methodology is going to be the third chapter which will cover six sections as followed problem statement, research model, hypothesis, data collection method, sample and location of study and finally, is the data analysis. The fourth chapter will analyze and test the research hypotheses. Finally, chapter five which include three sections as followed research results, recommendations, and future studies.

Chapter 2: Literature review

This chapter travels around the available literature on service quality enhancement and development. Particularly, the goal of this chapter is to develop critical analyses on the related literature, theories, and models from main studies, whereas highlighting some significant role of service quality enhancement and development context.

2.1 Service quality definition:

There are various definitions explain the quality of service but the most important definition is suggested by one of the innovators in the field of service quality researches, Parasuraman et al. (1988) defined the service quality as "the difference between customer expectations on service and perceptions of service actually received". Another definition is giving by Fourie, and Lubbe, (2006) is that "service quality in its simplest form our perceptions and impressions of the customers relating to the service provided by the service provider". However, these impressions and expectations are extremely important because they influence customer behavior. Moreover, Service quality is now classified as an important part of the overall service strategy and represent the basis or guide to further strategy formation (Harrington and Akehurst, 1996). Substantially for this to take place, the service quality has to be continuously monitored, modified and examined to remain an effective part of the strategy formation. Adopting this view, by understanding and measuring customer-defined service quality dimensions and weight can help to develop organizational performance along those

dimensions and play an important role in establishing competitive service strategy (Barnes and Glynn, 1993). Furthermore, according to Parasuraman et al. (1985) who are known as innovators in service quality research defined "service quality" as the degree and track of the variation between customer's perceptions and expectations, whereas "perceived service quality" is the gap between a customer's expectations and perceptions as a measurement of service quality and when the gap is smaller, the better is the service quality and customer satisfaction is higher. However, they propose that service quality cannot be a universal thing and vary from service to another, because different industries provide a diverse type of services. Accordingly, the form of quality of this service delivery also changes based on the sector and customer expectation from the vendor in that segment. For instance, some industries such as the health care industry are service intensive and very sensitive where the customer needs are highly demanded and must be fulfilling their demands but on the other hand in aviation services the needs of intensive customer services are occasional and less intensive and sensitive than health sector. Broadly, there are two levels of service quality, the first level consists of the standard or basic level of quality at which regular and expected service is delivered in that particular sector, for example in the case of hospitals, there is a steady cleaning behavior of rooms done whereas certain other services are provided on request demand for example when the patient request a separated room. The second form of service comes into effect for complaint resolving. For example that related to our study in the driving schools if the customer is not satisfied with the service provided and

complain about it, then the norm of action taken by the driving school, the rapidity of response at which the complaint is solved, the manner in which it is handled, have the staff showed empathy and sympathy all will effect in making the final impression of the service quality. Accordingly delivering excellent service quality requires efforts at both levels moreover, reacting quickly with empathy whenever the complaint appears is extremely important as lack of quick action, communication and empathy from the staff providing the services in any service area can create a negative image of the overall service provided for a long time. Therefore delivering immediate and excellent quality service quality at the complaints or problems level is highly serious than the other normal ones because the harm to the perception of the brand image is much higher at the problem level.

2.2 Important of service quality

Andersson and Mossberg, (2004) have suggested that providing outstanding customer service and exceeding customer expectations and satisfaction should be the main goal of every service providers. According to Dabholkar et al, (2000) quality service is important because it will help to retain existing customers, attract future ones and improve their market share in the industry, it is extremely important for providers to deliver excellent quality service to the customers. Which will help in creating and filling customer satisfaction which in turn helps in achieving customer retention and loyalty ultimately positively Impacting the sales and profitability of the organization (Jensen and Hansen, 2007). Whilst working on providing good service to the customers, the researchers and service

providers mainly focus on one essential aspect that is known as the "moment of certainty". This characteristic helps them to understand the importance of providing the top service to all customer by sustaining decent service interaction by taking the best care. Moreover, Edvardsson and Strandvik, (2000) believe that delivering good service experience to the customers is influenced by every interaction with the customer and service provider , therefore, delivering excellent service is not a one-off thing but a constant a process that requires to be controlled and measured in order to remove deficiencies and improve quality. Thus the key areas that the service influences are the following:

Improve better understanding of customers' expectations	Those organizations who recognises the needs of its customers better and truly looking forward to serve them positively with excellent manner has the enthusiasm to deliver respectable quality service which helps in keeping the customers as well as getting new ones.
Guarantee competitive advantage	Those organizations who steadily maintain customer prospects and providing them with a service that is better than the other competitors which will help to ensure competitive advantages.
Bad service causes reputational damage	Commonly it used to be said that a dissatisfied customer will negatively influence number of other customers, but today in the era of Internet and the high use of social media like twitter and Facebook, the one dissatisfied customer can negatively influence a large number other customers. Therefore, this user generated and user controlled media via social networking sites has the ability to damage brand reputation through the negative view which once damaged might take years to reconstruct if at all.

2.3 Website quality service.

Aladwani and Palvia (2002) have explained the concept of website quality as the perception of users to take into account the features of a website, whether they can satisfy the requirements of users and if they can be described as the first-class website. Another definition by Zeithami (1988) that the quality requirements of users are clearly understood by the organization and choose its determinants clearly. According to Montoya-Weiss et al. (2003), there are three main factors that affect the services quality's evaluations provided by online channels for example information provided, graphic design and navigation structure. Reflective worldwide quality measurement is used to evaluate and then authenticate website quality. With this second methodology, quality of the website can be defined as forming a perception about the quality, distinction and pre-eminence of a product through consumers' thinking as given by (Zeithami et al., 1988,).

Number of different authors' such as Alhudaithy & Kitchen (2009), Liang & Chen (2009) and Aldås-Manzano et al. (2001), suggested that certain type of website features will users behavior and impressions. However, the study findings carried over website quality kept some particular unclear conceptual framework (Chen & Chang, 2008). Furthermore, some other authors, Janita & Miranda (2013) recommended that that website quality should be assessed electronically.

The quality of the website is first measured against its order aspects by Chang & Chen (2008). The different parts of the website were not been carefully identified which explained by several researchers. (Mithas et al., 2007) out of them. However, some of the areas found from the prior authors are as tallow: • Expediency, customization, interactivity, and temperament (Chang & Chen, 2008).

2.4 The benefits of service quality

according to some researchers Yoon and Suh (2004); Cronin et al. (2000); and (Ladhari, 2009) the quality of services are highly important for the public and private sectors, and the excellent quality service has a number of positive impacts, such as customer loyalty, customer satisfaction, maintaining large market share, income increase, improve the financial position and reduce costs. According to (Bakti & Sumaedi, 2015, p. 534), an excellent level of quality service will increase customer satisfaction and loyalty, expand the number of customers and the organization to build a high reputation. Furthermore, Tseng (2016, p. 205) suggested that investing in service quality preserves current customers and attracts potential customers. Moreover, it increases changes toward more profitability, eliminates unnecessary costs and builds a good repetition of the organization in the market. However, offering a high level of service quality supports the public and private sector to enhancing its overall performance.

High level of quality service also reflects the level of the satisfaction that employees have to their jobs (Ramayah et al., 2011, p. 13). Additionally, providing an excellent level of service quality leads to a positive personal attitude for employees and improves organizational overall performance, because of this level of high-quality service will increase employees' confidence in what they are providing (Lindsey et al., 2016). Accordingly, High service quality will develop communication and collaboration between employees through emotional support and decrease negative atmospheres, because all employees will be able to focus on one goal, which raises organizational outcomes (Ghylin, Moon, & Rhee, 2016).

In contrast, providing poor service quality will encourage customers to find alternative, even if it involves a higher cost because usually, most customers are willing to pay more for a better level of service quality (Sharabi & Davidow, 2010). Normally, customers believe they should receive excellent quality service in return for their payments (Ghylin et al., 2008). According to t0 Kitapci, Dortyol, Yaman, & Gulmez, (2013) customers are willing to deal at an acceptable price with organizations that provide high levels of service quality.

2.5 Distinctive Characteristics of Services

It is important to understand the definition of goods while exploring the distinctive characteristics of services. Commonly goods are known as those physical objects that prepared for customers to purchase and use them. The fowling table () we explore some definitions of services and goods to illustrate some features and characteristics of services which show how service is significantly different from the tangible product. However, all these mentioned characteristics of service cannot cover all type of different service.

Table 2-2 Distinctive Characteristics Of Services

1	Service products are intangible performances.
2	Customers do not obtain ownership of services.
3	Supplementary persons may custom part of the product.
4	There is greater involvement of customers in the production process.
5	There is greater inconsistency in operational inputs and outputs.
6	There is typically an absence of inventories.
7	Several services are challenging for customers to evaluate.
8	Delivery system might involve both automated and physical channel
9	The time factor is relatively more important

We suggest the following review to the three basic dimensions of service (Figure 2-1):
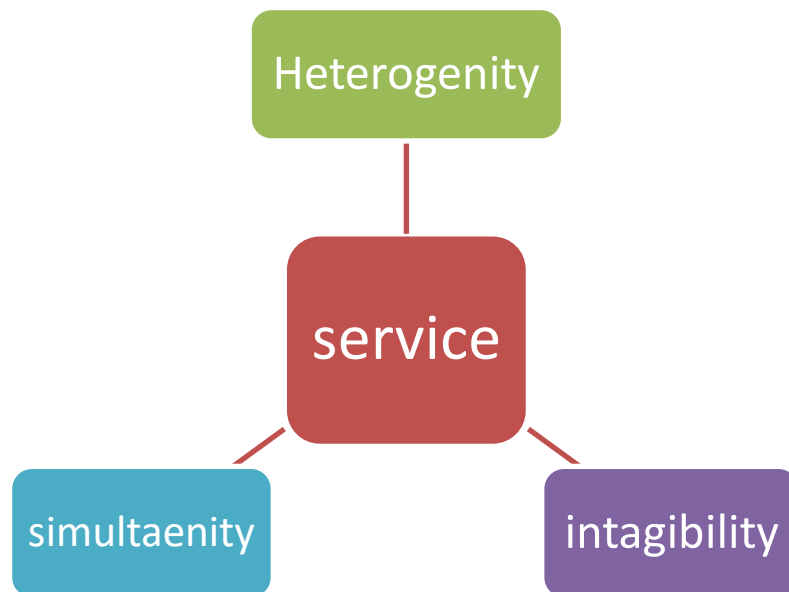
• **Intangibility**: The received service cannot be touched, stored, or owned. Customers can only feel it. In fact the service existence is in the perception of the Customers.

• **Heterogeneity**: Services are never the same. It vary from situation to another or client to another.

• **Simultaneity**: Service is produced and received at the same time, which indicates a great level of client's involvement in delivering the service.

Distinctive service characteristics results in several management issues. According to Gilmore (20003) "The identification of these characteristics was the concern of much of the earlier research and conceptual development of services marketing. The core characteristics are now widely recognized as intangibility, inseparability, perishability and heterogeneity".

Chapter 3: Research Methodology

In the third chapter, the study applied the systematic review technique in order to choose works of literature which is called PRISMA (Preferred Reporting Items for systematic reviews) that declared and explained by pioneer researchers such as Liberati (2009) and Moher (2009). Interestingly, PRISMA is a systematic review that commonly used in the medical sector, however, it's still can be used for systematic review techniques in other sciences to collect data from published literature (Herman, 2008). Moreover, some of Kitchenham (2009) systematic review techniques followed in quality assessment in the selection process.

3.1 Eligibility Criteria for Selecting Literature

Literature eligibility criteria (LEC) was followed as a systematic literature search (SLS) in this study in order to enhance the quality of selected literature. This style is referred to as Preferred Reporting Items for Systematic reviews and Meta-Analyses (PRISMA). Although PRISMA is frequently used in the medical field, we still can use this technique in other sciences to gather and obtain data from published literature (Herman, 2008). Hence, our study will apply six criteria for selecting papers related to the study topic, they are as followed: published publications in the English language (LEC1), the second LEC is a peer-reviewed publication (LEC2). Then publication that discusses the adoption of six sigma and any other quality enhancement or measurement in an organization (LEC3), the fourth LEC is the publications that discuss applying six sigma or other quality tools

in Saudi organization (LEC4). Finally, publications that discuss quality in driving schools (LEC5). First, publications that are written in the English language (LEC1) were selected because English is the lingua franca for most scientific publications. Finally, LSE2, LSE 3, LSE 4, and LSE 5, were selected to meet research problems and objectives.

The research followed the survey methodology by using an online questionnaire that was published in Google Docs technology for primary data collection to assess and understand the adoption of quality services in Jeddah driving school. The designed online questionnaire contained a number of closed questions to help in measuring all of the research hypothesis. According to Sekaran (2003) applying a will, structured questionnaires are an effective method to collect data that helps researchers to get accurate and relevant results. The research sample is those who got service from Jeddah driving school. The descriptive and inferential analysis methods are followed for analyzing collected data and computerized software such as the Statistical Package for Social Software (SPSS) is applied to analyze the results.

3.2 Source of Information

the source of information was gathered through using the Saudi Digital Library (SDL), it has the largest academic collection of information sources that has more than (300،000) scientific reference and has access to more than 200 international publishers, in addition, all available academic resources available in Saudi Arabia such as official websites that are related to the study topic which

was declared in all references. Finally, this study conducted between November 2018 and March 2019.

3.3 Evaluation Check List

At the initial stage of the study a number significant words were primarily removed from the research topic "Enhance Service Quality – Case Study of Jeddah Advanced Driving School" as shown in (table 4). Then we use the Boolean "AND" and "OR" to retrieve more related results and more various query strings related to study topics, the following examples of various topics are presented in (table 4).

Main Keywords	Matched key word
Quality	quality management, Quality management tools
Service quality	Service quality measurements, Service quality management
Six sigma	Process improvement, DMAIC method
Enhancing Quality	Quality development, Quality enhancement measurements
Website Quality	Website Quality service, Online services
Kingdom of Saudi Arabia	Developed country, Middle east and Developing country

Table 4: main matched words

3.4 Definition of Key Words

To avoid prejudice in literature systematic reviews, the assessment checklist list is applied. Interestingly, this approach helped to evaluate selected

articles by applying unbiased strategy to validate inclusion of these applied. Accordingly, the following pointing system is used: A- the highly related article (+1), B- related article (0), and C- none related article (-1)

S. NO	integration using AND/OR
1	" Enhance **OR** Developing **OR** Applying **AND** Service **AND** Quality **AND** Saudi Arabia"
2	" Enhance **OR** Applying **AND** six sigma **AND** in new organization"
3	" Website **OR** online **AND** Quality **AND** services"

Table 4: Combination examples of applying Boolean
system "AND" and "OR"

3.5 Articles Selection Process

As explained in the earlier section that RPISMA system is applied, the overall number of nominated articles for this study from SDL library were 31 and the following stages demonstrate how is the selection criteria used to retrieve articles, (figure 5) clarify the overall image of the selection procedure.

1- Firstly, 124 papers were the complete number of related topics found after applying (LEC1) and (LEC2) between conference publications, journals and magazines. Initially, the main objective of this phase is to find papers and articles that discuss enhancing service quality to help to build the minimum required standards for service quality meaning. Accordingly, this will assist to analyze and

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evaluate the accessible theory against survey results and will help to answer the study questions. Finally, after scanning and evaluating the title topics, index and abstracts, the number of remaining articles were 18 papers.

2- Secondly, the overall number of related topics when applied (LEC1) , (LEC2), (LEC4) and (LEC5) were 214 papers between conference publications, journals, and magazines, After scanning titles, index and abstracts, the number of remaining papers were 12.

3- Thirdly, the overall number of related topics after applying (LEC1) and (LEC5) were 19 articles between conference publications, journals, and magazines, After scanning titles, indexes, and abstracts, the remaining were 6 papers.
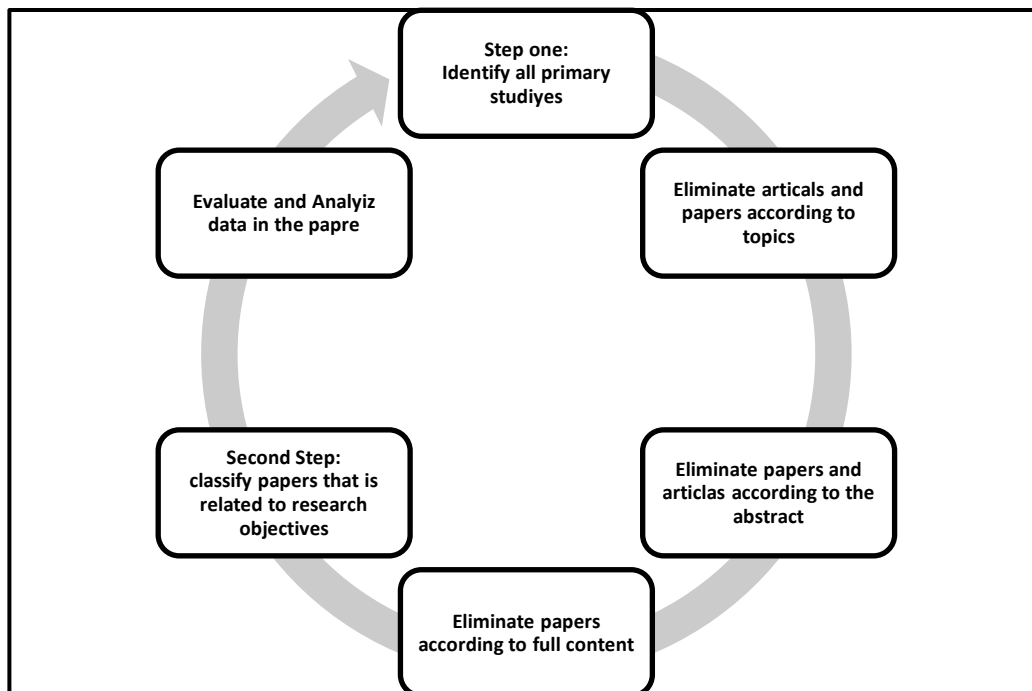
Figure 4 articles selection process

3.6 Research Model

According on the suggested literature review, the research model which is
proposed for study is in the following:

Independent Variables	Dependent Variable
Customers Service Factors	
Online Services Factors	Service quality
Equipment Factors	
Training services Factors	
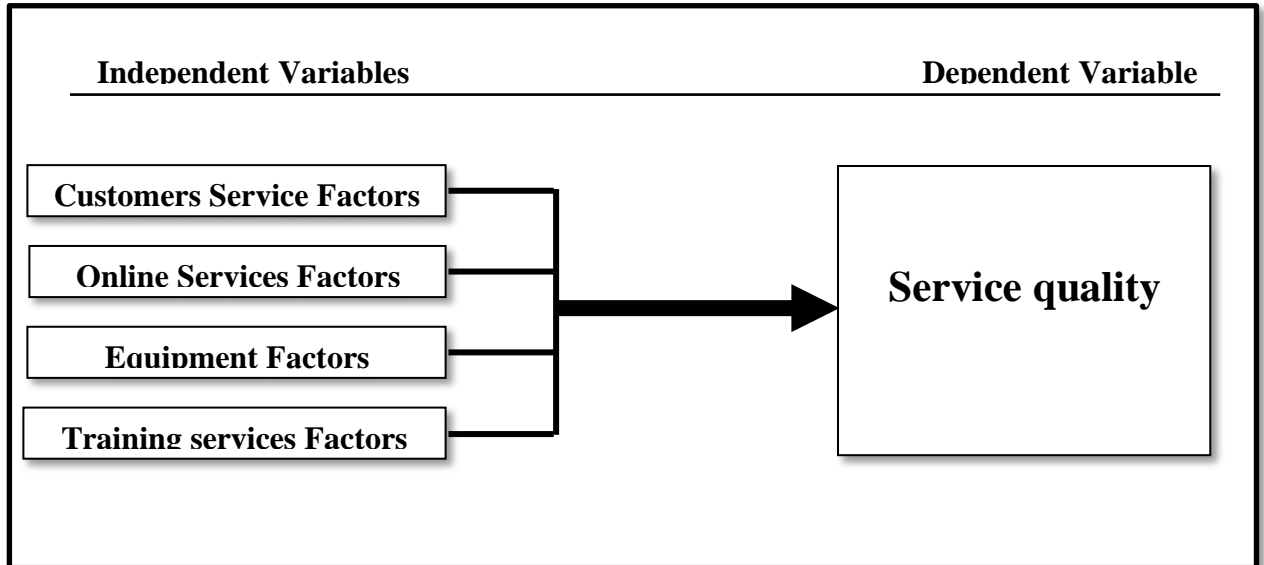
Figure 1 suggested Research Model

3.7 Data Collection Method

The study work will apply the survey methodology by using a survey of online
questionnaire to collect data that assess and evaluate service quality in Jeddah
driving school for womans. However, this study will use two main sources of
collecting data:

- First is the primary data: this data will be collected by designing an online
  questionnaire. All questions are designed as closed questions to help in
  evaluating variables of the study, however, this methodology is considered
  an effective tool to conduct questioner and widely applied in various
  researches (Srivatanakul & Wiwatwattana, 2014). Moreover, according to
  Sekaran (2003) is very important to prepare a will structured

questionnaires, moreover, doing so will be an efficient technique to collect data which will help researchers to have accurate and important results. In addition, the very high number of internet users are totally increased, and large population are having the internet for communication and information (Nie et al., 2002 and Fox et al., 2001). Interestingly, using this method will help to access populations in easy and friendly way, moreover, it will save money (; =Couper, 2000; Kapis & Korojelo, 2011; Bachmann & Elfrink, 1996 and Llieva et al., 2002). And time (Lumsden et al., 2006 and Llieva, Baron, & Healey, 2002). Furthermore, the descriptive technique (Karatzouni, 2007) and inferential analysis methods will be applied for analyzing all the collected data and computerized software such as the Statistical Package for Social Software (SPSS) will be used for analyzing the results (Jargowskya and Yang, 2005).

- Secondary data: which is relying on revising most relevant books and previous studies, as well as available databases that discussed quality services in general.

3.8 Research Sample

The study of the population involved only those who responded to the online questionnaire. An invitation was sent to more than 600 trannies who dealt with JDS in the past, they were asked to voluntarily participate to an online questionnaire that was published on the Internet for a period of one month. Accordingly, the timeline to receive responses from participants was from 30/1/2019 to 28/2/2019. However, the total number of received responses was 152 response but the valid responses which included in the study were 122 response in total as participants who are living in Jeddah, Saudi Arabia.

3.8 Data Analysis

The study applied the automated software package for statistics which called (SPSS) that is mainly used to summarize and analysis data results by using the following tools and tests (Levesque, 2005):

- Correlation analysis (Dietrich, 1991).

- The following where used (Descriptive analysis using frequencies, percentages, means and standard deviations).

- Independent sample T-Test (Mankiewicz, 2004).

- Multiple regression analysis.

- One way ANOVA (Larson, 2008).

Chapter 4: Analysis, discussion and Hypotheses test

This chapter discusses the questioner results in terms of the respondent's demographic characteristics and non-demographic characteristics. Then it will present the descriptive statistics that analyze all responses of questionnaire four elements (customer services factors, the E-services factors, the equipment and facilities factor, and the Training services factors) which will be followed by hypotheses' testing.   .

4.1 Descriptive analysis of sample

The actual number of questioner participant for this study was 122 participants. The first section of the survey is the demographic questions that included the following (gender type, age group, educational background, cars driving experience and receiving service from driving school). The descriptive statistical analysis is presented in the following order. Accordingly, the demographic questions will be illustrated and explain by using pie charts. However, pie charts are excellent to illustrate results because it is an easy tool for the reader to read and understand the results (Friendly, 2008).

Gender Type

0, 0%

122, 100%
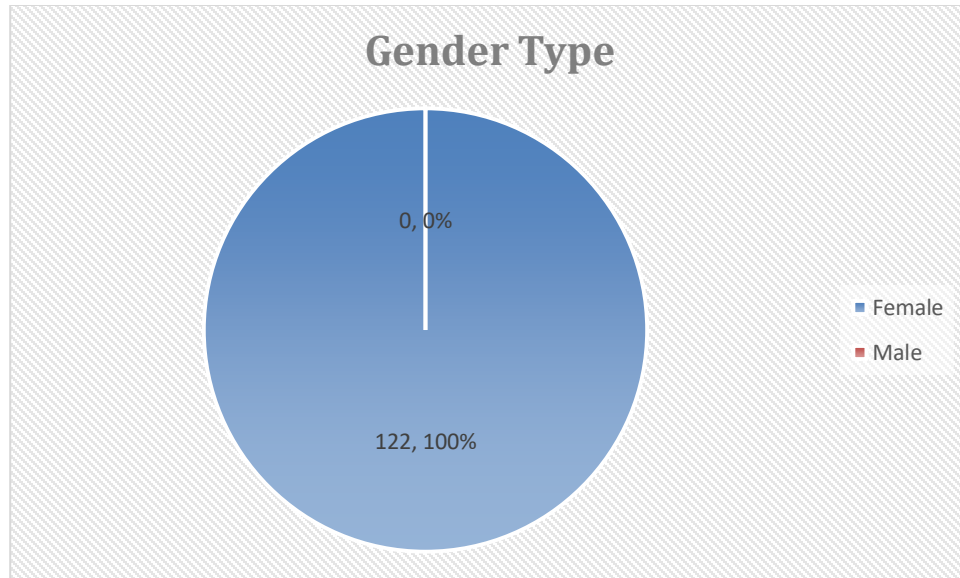
■ Female
■ Male

The first demographic question "D1" was to collect gender type, the result is illustrated in the above (chart 5). Statistics showed that 100% of respondents were female in the count of 122 participants. On the other hand, zero% of respondents were male with a count of zero participants. Apparently, the percentage of female participation was dominating the scene, therefore this situation may not reflect the reality of gender in service quality. However, the sample accessing to male was impossible this JDDS is only for female and the study where applied there. However, it's not expected that the gender participation will affect other elements of this study but having male participated could be helped for more comprehensive statistical analysis.
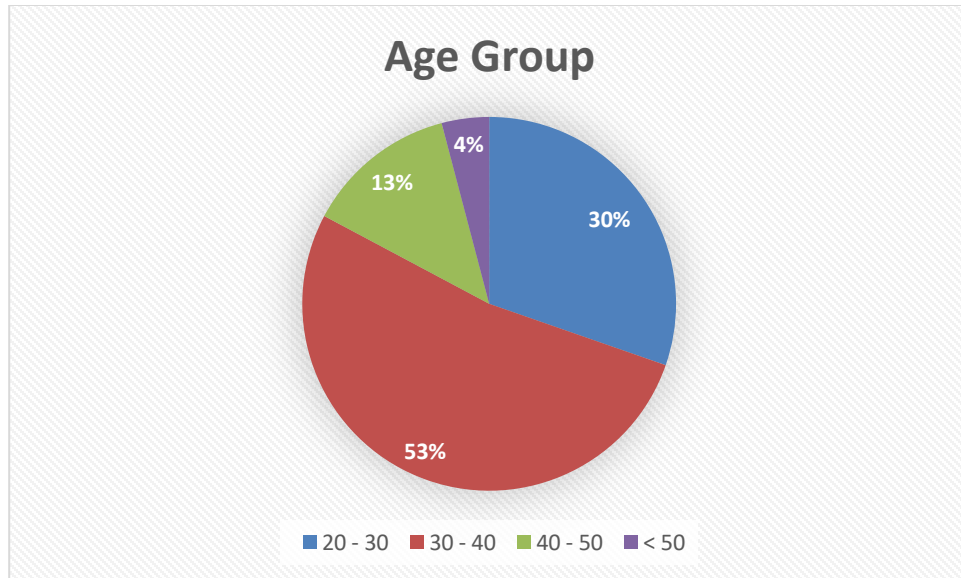
Age Group

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	20 - 30	37	30.3	30.3	30.3
	30 - 40	64	52.5	52.5	82.8
	40 - 50	16	13.1	13.1	95.9
	More than 50	5	4.1	4.1	100.0
	Total	122	100.0	100.0	

The second demographic question "D1" was aiming to collect different age group, the result is shown above in (chart 6). Apparently, the vast majority percentage was for respondents from the age group between 30 to 40 years with 53% in a count of 64person. The second age group was from 20 to 30 years by 30% in a count of 37 person. The third age group was from 40 to 50 years with 13% in a count of 16 people. The final age group was above 50 years with 4% in a count of 5 people. There was no participation for the age group under 20 years.

Accordingly, we realize that the most age group was between the two age group from 20 – 30 and 30 to 40 years old with a total of 83%. However, as this research focus on JDDS in Saudi Arabia and according to the Saudi population statistical report GASTAT (2017) showed that the majority of The Saudi population is between 20 to 44 years old. Therefore, this result is aligned with the Saudi GATAT population report. Eventually, the percentage of two other age groups 40 - 50 and above 50 was small with a total of 17%. However, this result is expected to affect the statistical analysis and we will help in comparing age groups against each other for further analysis.

Educational Background

- Phd. Degree
- Master Degree
- Bachelor Degree
- Diploma
- High School
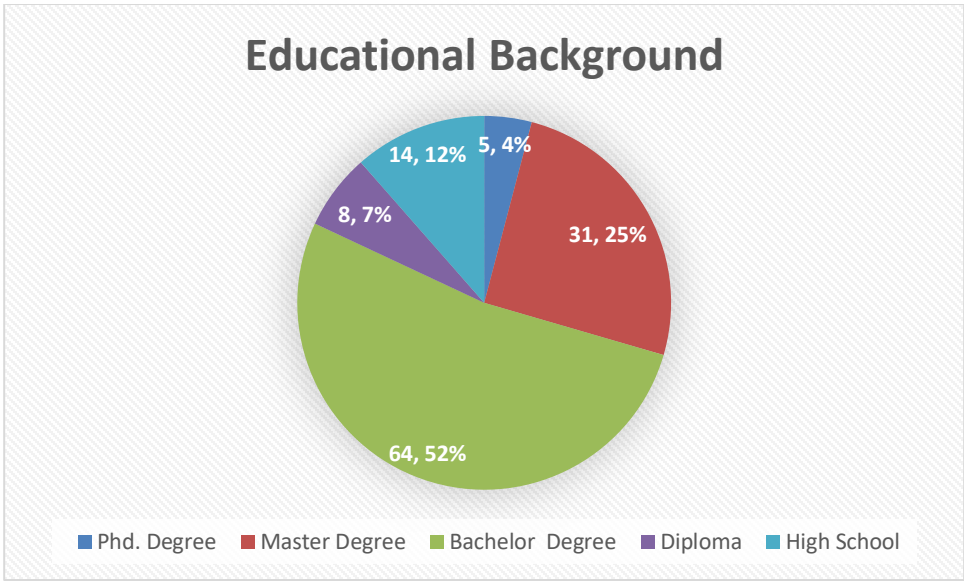
The third demographic question "D1" was aiming to collect different educational background, according to the results the bachelor degrees were the highest percentage with 64.52%. While master degrees were representing 31.25% of the sample. The third place was for high school and below wit 14.12%.

Then the Diploma holders with 8.7%. Finally the Ph.D. Degree with 5.4%. The

detailed result is shown above in (chart 7). However, this distribution will help in

analyzing and understanding how quality service perceived and viewed.

Cars Driving Experience

7%	
10%	
15%	
68%	

■ more than one year ■ 8 months to 1 year ■ 4 to 8 months ■ 1 to 4 months
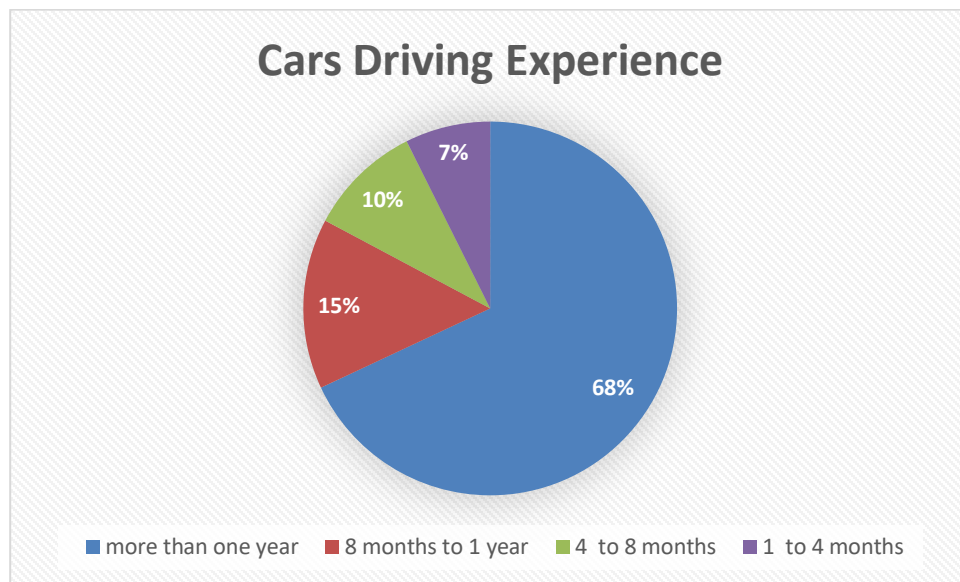
The forth demographic question "D1" was aiming to collect different cars

driving experience, according to the results the largest group was those who have

more than one year of driving experience 68%. While the second group were

those who have 8 months to 1year of driving experience with 15% of the sample.

The third group was those who have 4 to 8 months of driving experience with

10%. Finally, those who have 1 to 4 months experience with 7%. The detailed

result is shown above in (chart 7). However, this the distribution will also help in

analyzing and understanding how clients experience will affect quality service

perception.

Receiving Service from Driving School
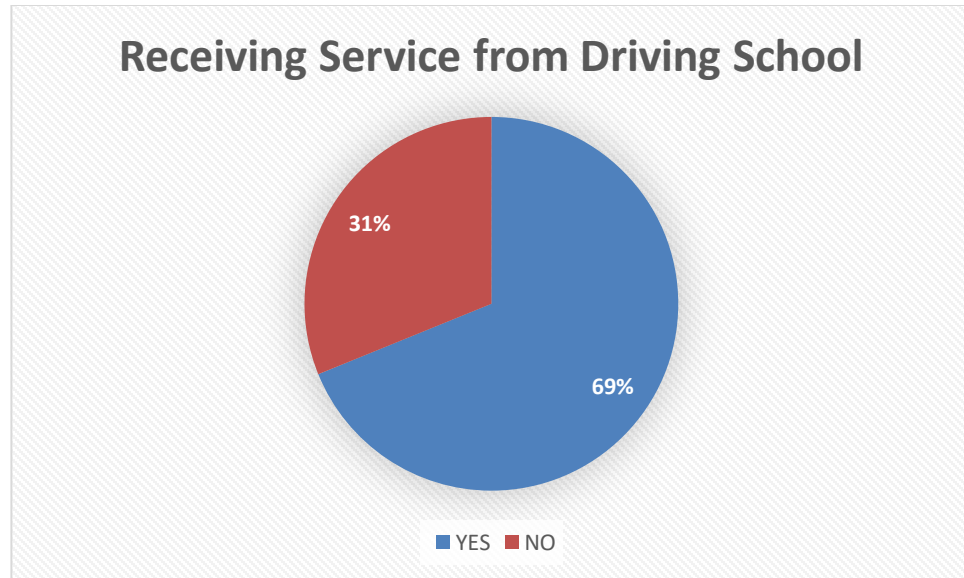
The final demographic question "D1" was aiming to collect data on if the participant has received service or dealt with the driving school before. Interestingly, the result showed that 69% of total participants have received service from driving school and 31% of participants never had experience in receiving services from the driving school.

4.2 Means and standard deviation for dimensions

This section includes frequencies and percentages for responses of customer services factors, E-services factors, equipment and facilities factor and training services factors. In the following, there will be 4 tables that calculate means and standard deviation for each question with total statistics for dimension. Essentially, to measure responses the Likert scale of 6 point is used with an interval of 5 ranges to interpret the mean scores for all results   .

The firs factor analysis (customer services factors)

Question	Strongly Disagree Count %	Disagree Count %	Slightly Disagree Count %	Slightly Agree Count %	Agree Count %	Strongly Agree Count %	Mean	Standard Deviation	Result
Q1-1) JDS customer service centres have up to-date equipment's	14 / 11.5%	10 / 8.2%	18 / 14.8%	15 / 12.3%	49 / 40.2%	16 / 13.1%	2.99	1.57	**Agree**
Q1-2) Employees are well dressed and appear neat	5 / 4.1%	3 / 2.5%	6 / 4.9%	13 / 10.7%	60 / 49.2%	35 / 28.7%	2.16	1.21	**Agree**
Q1-3) When they promise to do something by a certain time, they do	21 / 17.2%	11 / 9.0%	13 / 10.7	15 / 12.3%	46 / 37.7%	16 / 13.1%	3.16	1.71	**Slightly Agree**
Q1-4) Employees are friendly and show interest to solve problems	8 / 6.6%	6 / 4.9%	12 / 9.8%	22 / 18%	41 / 33.6%	33 / 27%	2.52	1.45	**Agree**
customer services factors	**48** / **10%**	**30** / **6%**	**49** / **10%**	**65** / **13%**	**196** / **40%**	**100** / **20%**	**2.21**	**1.42**	**Agree**

In order to determine the quality of customer services, four questions were asked to study participant's responses from (Q1-1 to Q1-4). Essentially, the overall responses to the quality of customer services were leaning towards agreeing as shown above in (table xxx) the means and standard deviation for quality of customer services dimension. The first two questions and the fourth question (Q1-1, Q1-2 and Q1-4) was leaning toward agreeing, which was asking about up-to-date equipment of customer service, the decent appearance of customer service personals and kindness and attention of customer service provider. As for question number three (Q1-3) the answers were leaning toward

slightly agree, which was discussing the fulfilling's of promises on time. Furthermore, the following charts for the first factor illustrate the different percentage of responses.

Q1-1) JDS customer service centers have up to-date equipment's

Strongly Agree
Agree
Slightly Agree
Slightly Disagree
Disgree
Strongly Disgree

Q1-2) Employees are well dressed and appear neat

Strongly Agree
Agree
Slightly Agree
Slightly Disagree
Disgree
Strongly Disgree

Q1-3) When they promise to do something by a certain time, they do

Legend: Strongly Agree, Agree, Slightly Agree, Slightly Disagree, Disgree, Strongly Disgree

Q1-4) Employees are friendly and show interest to solve problems

Legend: Strongly Agree, Agree, Slightly Agree, Slightly Disagree, Disgree, Strongly Disgree

The second factor analysis (E-services factors)

Question	Strongly Disagree Count %	Disagree Count %	Slightly Disagree Count %	Slightly Agree Count %	Agree Count %	Strongly Agree Count %	Mean	Standard Deviation	Result
Q2-1) The-Eservice by JDS is at acceptable level	21 17.2%	10 8.2%	10 8.2%	18 14.8%	48 39.6%	15 27%	3.12	1.69	**Slightly Agree**
Q2-2) The website is friendly and easy to use, and there is enough information.	15 12.3%	6 4.9%	10 8.2%	22 18%	49 40.2%	20 16.4%	2.82	1.56	**Agree**
Q2-3) JDS using the communication technologies such email and twitter to send messages and solve problems.	24 19.7%	17 13.9%	18 14.8%	16 13.1%	37 30.3%	10 8.2%	3.55	1.68	**Slightly Agree**
Q2-4) The E-payment services are friendly to use.	35 28.7%	9 7.4%	8 6.6%	16 13.1%	43 35.2%	11 9%	3.54	1.84	**Slightly Agree**
E-services factors	**59** **19%**	**42** **9%**	**46** **9%**	**72** **15%**	**177** **36%**	**56** **11%**	**3.33**	**1.72**	**Slightly Agree**

The E-services factors were expressed by four questions directed to participants for evaluation. Essentially, the overall responses to the quality of customer services were leaning towards slightly agree as shown above in (table xxx) the means and standard deviation for quality of E-services dimension. Accordingly, three questions (Q2-1, Q2-3, and Q2-4) were leaning toward slightly agree. Basically, those questions were discussing the level of e-services quality, using a variety of communication technology and the quality of E-payment

services. On the other hand, One question (Q2-2) leaned toward agreeing, this question focused on the friendly use of available e-services. Furthermore, the following charts for the first factor illustrate the different percentage of responses.

Q2-1) The-Eservice by JDS is at acceptable level

Strongly Agree
Agree
Slightly Agree
Slightly Disagree
Disgree
Strongly Disgree

Q2-2) The website is friendly and easy to use, and there is enough information.

Strongly Agree
Agree
Slightly Agree
Slightly Disagree
Disgree
Strongly Disgree

Q2-3) JDS using the communication technologies such email and twitter to send messages and solve problems.

- Strongly Agree
- Agree
- Slightly Agree
- Slightly Disagree
- Disgree
- Strongly Disgree

Q2-4) The E-payment services are friendly to use.

- Strongly Agree
- Agree
- Slightly Agree
- Slightly Disagree
- Disgree
- Strongly Disgree

42
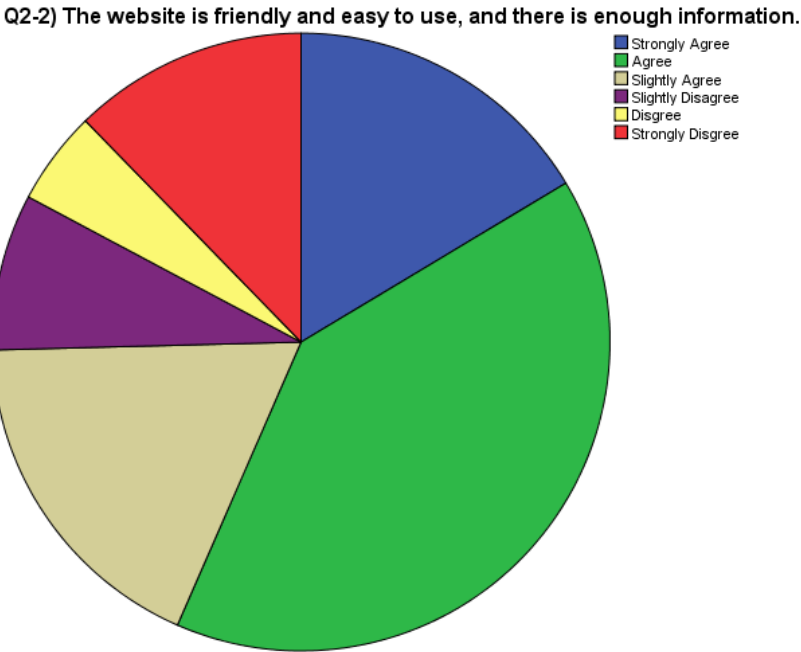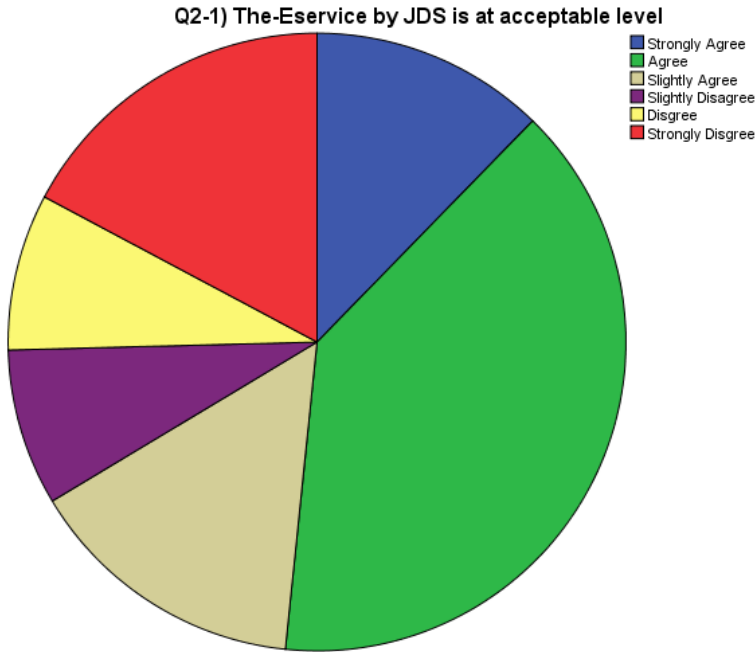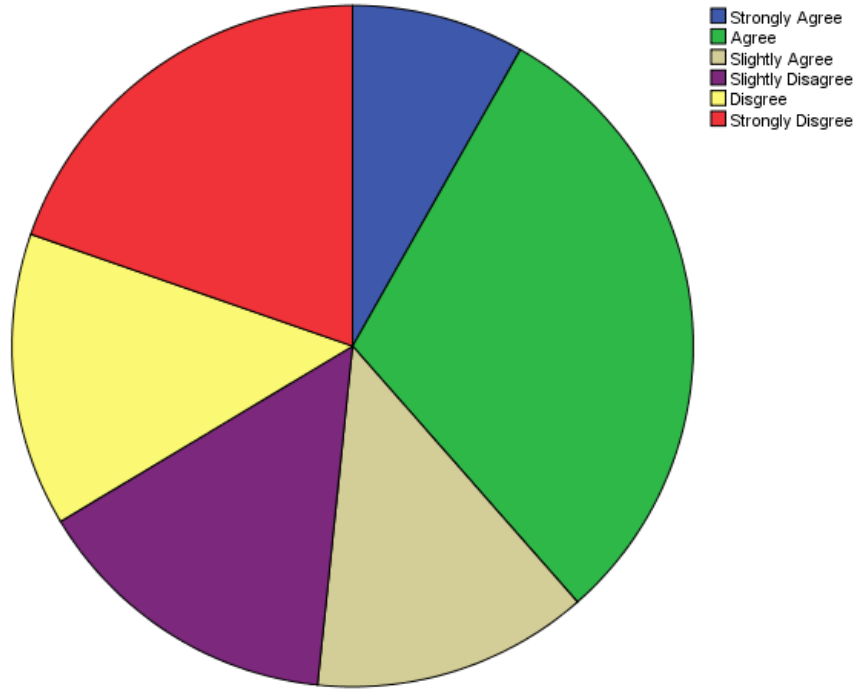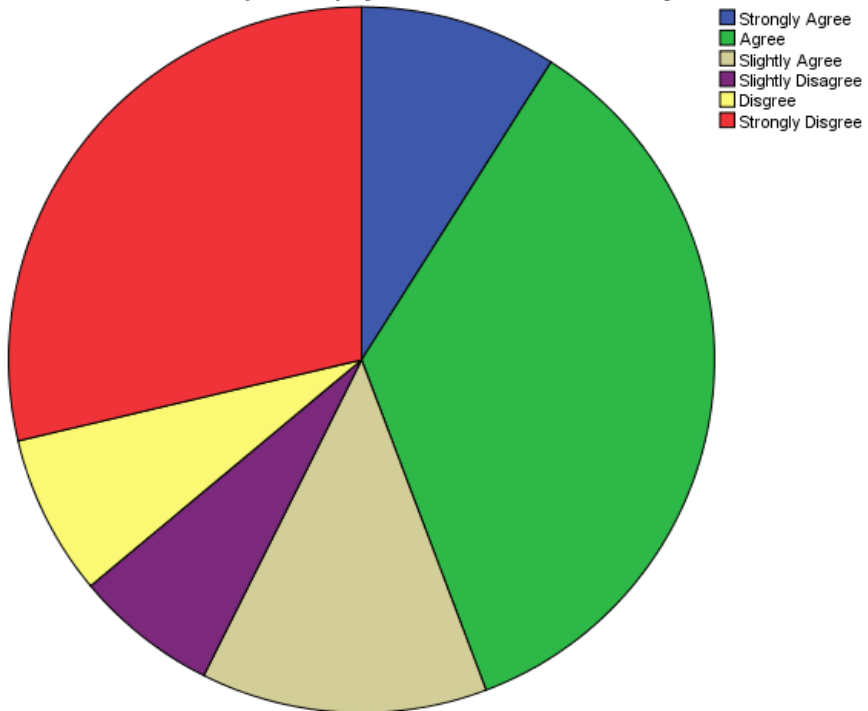
The third factor analysis (Equipment and facilities factor)

| Question	Strongly Disagree Count %	Disagree Count %	Slightly Disagree Count %	Slightly Agree Count %	Agree Count %	Strongly Agree Count %	Mean	Standard Deviation	Result
Q3-1) The training equipment such as (Cars –training - simulation) are in good condition	5 / 4.1%	9 / 7.4%	5 / 4.1%	13 / 10.7%	64 / 52.5%	26 / 21.3%	2.36	1.3	Agree
Q3-2) The facilities available in the building are acceptable.	7 / 5.7%	3 / 2.5%	6 / 4.9%	21 / 17.2%	51 / 41.8%	34 / 27.9%	2.3	1.31	Agree
Equipment and facilities factor	**12** / **5%**	**12** / **5%**	**11** / **5%**	**34** / **14%**	**115** / **47%**	**60** / **25%**	**2.3**	**1.3**	Agree

The equipment and facilities factor was presented in tow questions for participants. Essentially, the overall tendency of response was leaning toward agreeing as shown in (table xxx) the means and standard deviation for organizational factors dimension. Four questions (Q3-1 and Q3-2) was leaning toward slightly agree, they were discussing the quality of training equipment such as (Cars and simulation systems) and the quality facilities available in the building. Furthermore the following charts for the first factor illustrate the different percentage of responses.

Q3-1) The training equipment such as (Cars –training -simulation) are in good condition

Legend:
- Strongly Agree
- Agree
- Slightly Agree
- Slightly Disagree
- Disgree
- Strongly Disgree

Q3-2) The facilities available in the building are acceptable.
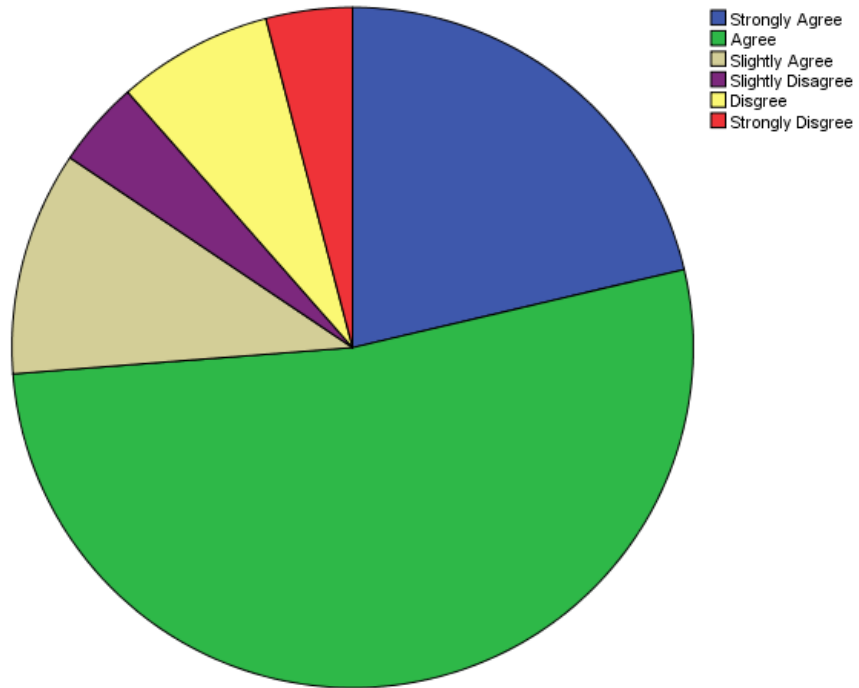
Legend:
- Strongly Agree
- Agree
- Slightly Agree
- Slightly Disagree
- Disgree
- Strongly Disgree
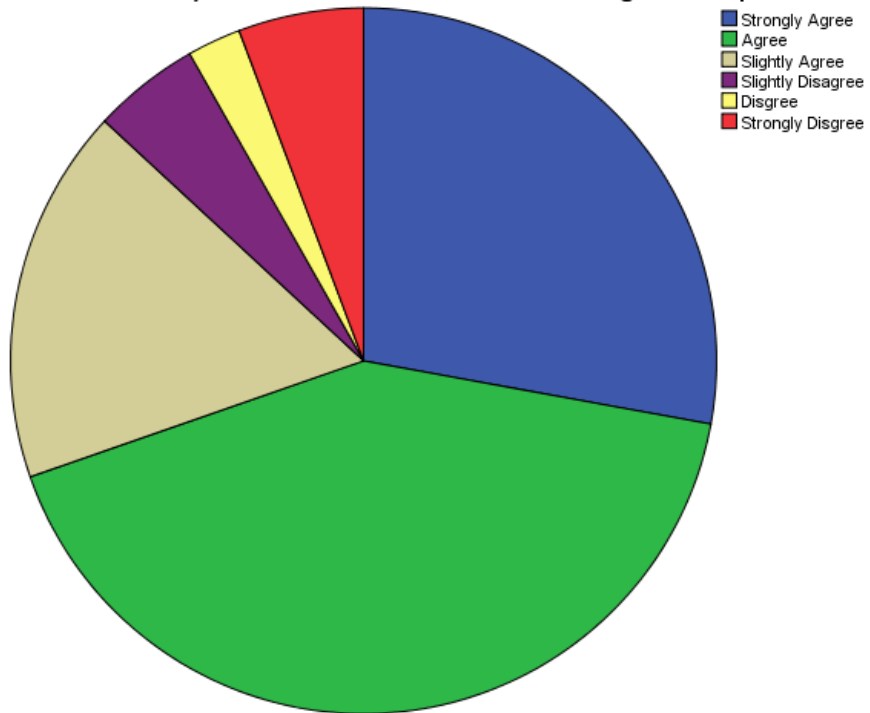
The forth factor analysis (Training services factors)

Question	Strongly Disagree Count %	Disagree Count %	Slightly Disagree Count %	Slightly Agree Count %	Agree Count %	Strongly Agree Count %	Mean	Standard Deviation	Result
Q4-1) Training schedule are clear and easy to understand for new trainee	9	4	7	16	58	28	2.41	1.38	**Agree**
	7.4%	3.3%	5.7%	13.1%	47.5%	23%			
Q4-2) The training plan are clear and explained for trainee to enjoy his training session	14	6	11	14	50	27	2.68	1.6	**Agree**
	11.5%	4.9%	9%	11.5%	41%	22.1%			
Q4-3) There are some differences between instructors in training	4	8	7	22	53	28	2.39	1.27	**Agree**
	23%	43.4%	18%	5.7%	6.6%	3.3%			
Q4-4) The training dates are available so I can get the driving license	42	9	12	15	32	12	3.82	1.87	**Slightly Agree**
	34.4%	7.4%	9.8%	12.3%	26.2%	9.8%			
Q4-5) There is full commitment to the training schedules (theoretical - practical) by the school and the trainers	13	4	8	17	50	30	2.55	1.54	**Agree**
	10.7%	3.3%	6.6%	13.9%	41%	24.6			
Training services factors	**82**	**31**	**45**	**84**	**243**	**125**	**2.42**	**1.45**	**Agree**
	13%	**5%**	**7%**	**14%**	**40%**	**20%**			

Training services factors were presented in five questions for participants.

The overall tendency of response was leaning toward agreeing as shown in (table

xxx) the means and standard deviation for awareness factors dimension.

Interestingly, Four questions (Q4-1, Q4-2, Q4-3, Q5-5) out of five questions leaned toward agreeing. Essentially, those questions focused on the following, if training schedule is clear and easy to understand for new trainee, if the training plan is clear and explained for trainee to enjoy the training session, if There are some differences between instructors in training and finally if there is full commitment to the training schedules (theoretical - practical) by the school and the trainers. On the other hand, the only question (Q4-4) that leaned toward slightly agree was asking if The training dates are available so I can get the driving license. Furthermore, the following charts for the first factor illustrate the different percentage of responses.

Q4-1) Training schedule are clear and easy to understand for new trainee

Legend:
- Strongly Agree
- Agree
- Slightly Agree
- Slightly Disagree
- Disgree
- Strongly Disgree

Q4-2) The training plan are clear and explained for trainee to enjoy his training session

Legend:
- Strongly Agree
- Agree
- Slightly Agree
- Slightly Disagree
- Disgree
- Strongly Disgree

Q4-3) There are some differences between instructors in training

Legend:
- Strongly Agree
- Agree
- Slightly Agree
- Slightly Disagree
- Disgree
- Strongly Disgree

Q4-4) The training dates are available so I can get the driving license

Legend:
- Strongly Agree
- Agree
- Slightly Agree
- Slightly Disagree
- Disgree
- Strongly Disgree

Q4-5) There is full commitment to the training schedules (theoretical - practical) by the school and the trainers

Legend:
- Strongly Agree
- Agree
- Slightly Agree
- Slightly Disagree
- Disgree
- Strongly Disgree
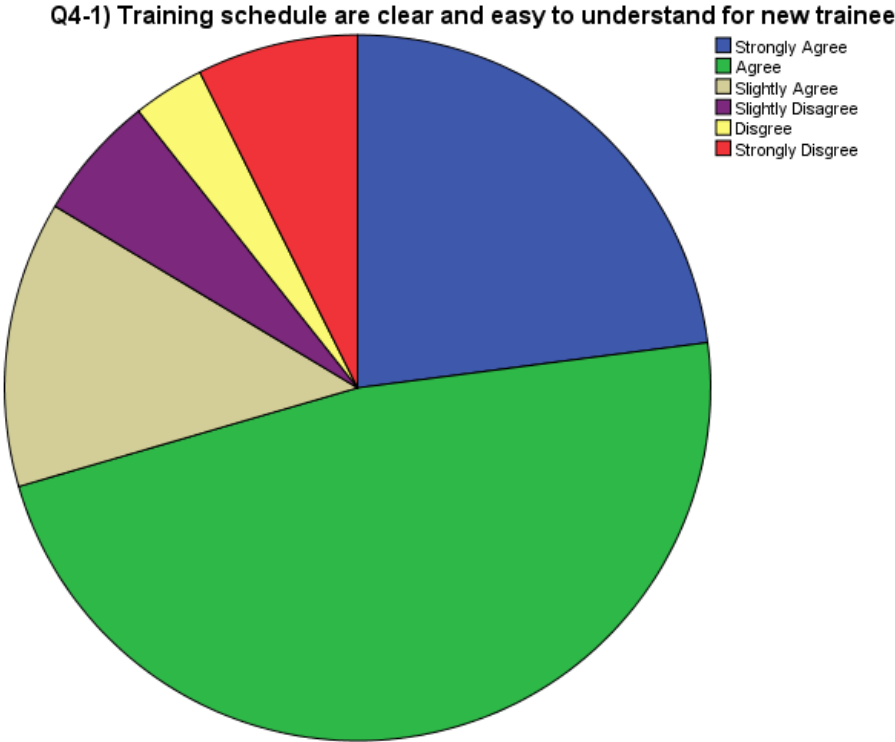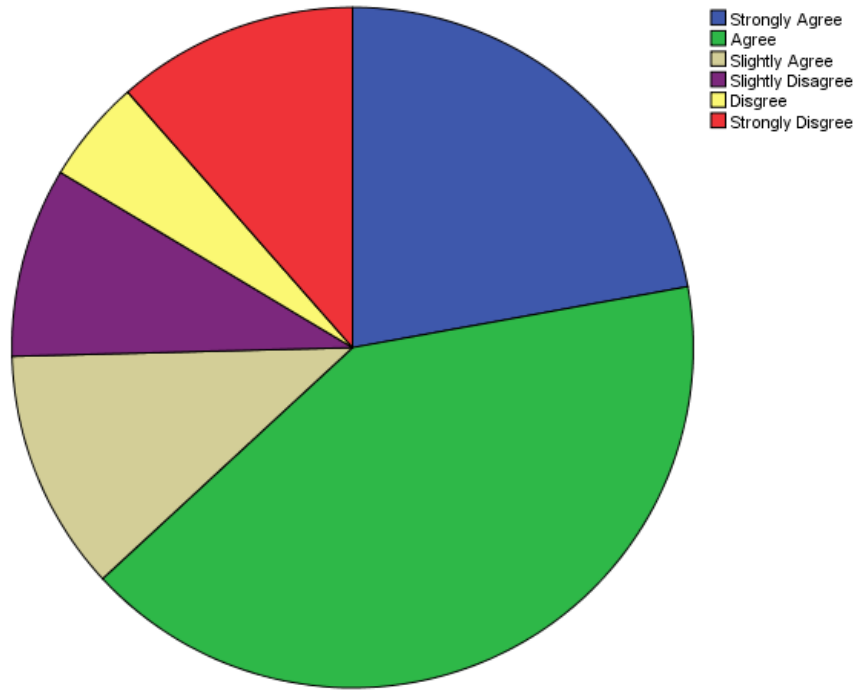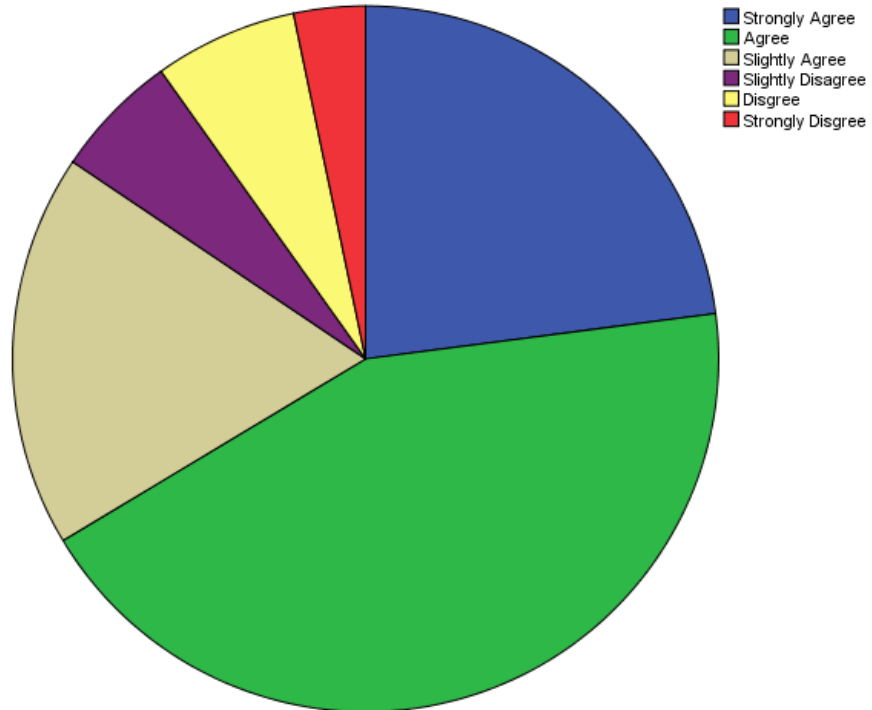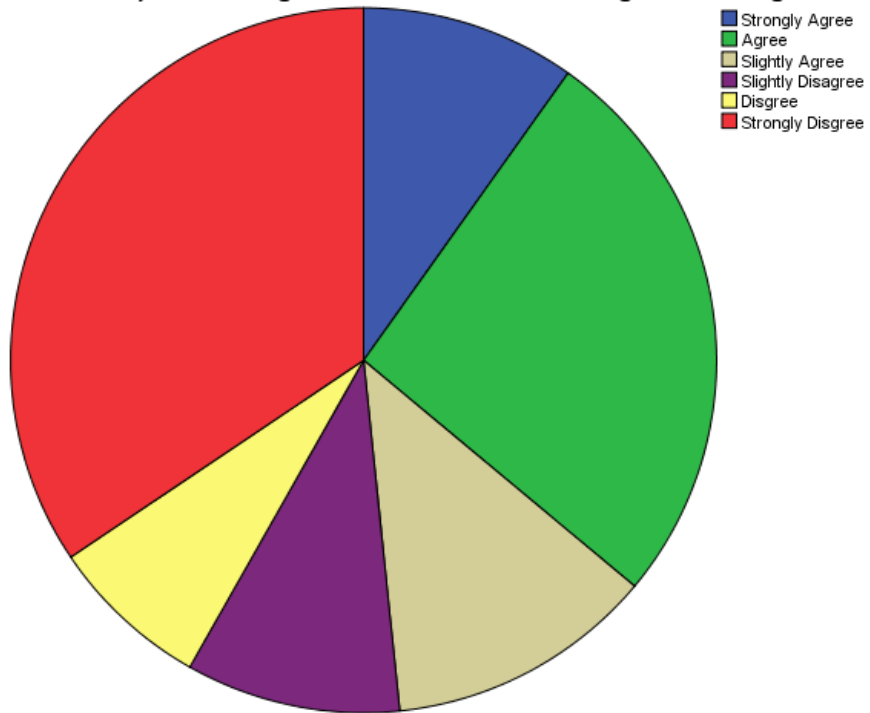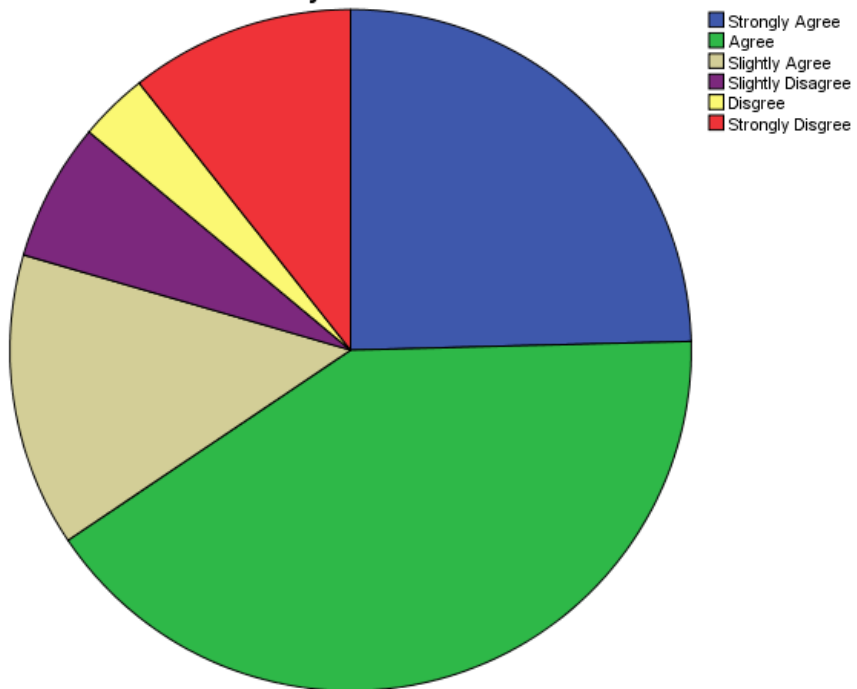
4.3 Correlation Analysis

In order to determine the correlation between customer services factors, the E-services factors, the equipment and facilities factor and the Training services factors, the researchers applied the bivariate association through Pearson Correlation method. Essentially, the strength of the relation between two variables can be interpreted as follow (Cohen, 1988), (table 15):

Pearson Correlation Range	Relationship Strength
0.10 to 0.29	Small
0.30 to 0.49	Moderate
0.50 to 1.00	Large

Table: Strength of relationship between variables (Cohen,1988)

The result of analysing correlation in variables of study is explained as follow:

		Total Awareness Factor	Relationship Strength
Total customer services factors,	Pearson Correlation	.305**	Moderate
	Sig. (2-tailed)	.002	
	N	102	
Total E-services factors	Pearson Correlation	.476**	Moderate
	Sig. (2-tailed)	.000	
	N	102	
Total equipment and facilities factor	Pearson Correlation	.423**	Moderate
	Sig. (2-tailed)	.000	
	N	102	
Total yraining services factors	Pearson Correlation	.386**	Moderate
	Sig. (2-tailed)	.000	
	N	102	
**. Correlation is significant at the 0.01 level (2-tailed).			

Table 16: Pearson Correlation

Obviously, the study analysis reveals that there is a moderate relationship because values are greater than zero. All four factors are involved in moderate relationship with service quality.

4.4 Hypotheses Tests

Essentially, to test hypotheses in this study Correlation Analysis and Multiple regression is used which revealed that R-Square of model is (.286) which means that the model explains 28.8% of the variance in the dependent variable. However, according to "ANOVA" test that applied in this study the model statistically significant as sig is .000 .

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.534[a]	.286	.263	.73585
a. Predictors: (Constant), Total quality service Factor, Total s-services Factor, Total facility Factor				

Table 17: Model Summary.

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	22.763	3	7.326	13.607	.000[b]
	Residual	52.142	97	.595		
	Total	72.219	102			
a. Dependent Variable: Total quality service factors`						
b. Predictors: (Constant), Total services Factor, Total e-services Factor, Total facility Factor						

Table 18: ANOVA analysis for averages of responses.

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	1.806	.527		3.682	.000
Total services Factor	.162	.086	.151	1.560	.132
Total s-service Factor	.511	.120	.363	3.774	.000
Total facility Factor	.186	.078	.247	2.336	.032
a. Dependent Variable: Total services Factor					

Table 19: Result of multiple regression analysis of variables.

Chapter 5: Conclusion

In this chapter, the following are discussed. First, research limitations are explained in details. Next, the study will present the number of suggestions and recommendations for future work on quality service and other related topics. Then, the recommendations of this current study will discuss how this study can be enhanced for better and future studies. Finally, the conclusion section gives a brief end to the study.

5.1 Research Limitations and future studies

Similar to other scientific studies this research also have some specific limitations that should be addressed for future studies. However, those limitations will not damage the significance of results and findings in this research, instead, it will give credibility to the work done. Accordingly, the following facts are acknowledged in order to direct the attention to all limitations:

- This research is conducted on a small size of a population those who are having a relationship with Jeddah development driving school for women in Jeddah, Saudi Arabia. Obviously, the limitation of budget and time frame stood as a barrier for accessing different organizations.
- Jeddah development driving school is only serving woman therefore it was not possible to have gender variety in our study. Accordingly we only had access to the female gender in this study.
- Also, the sample will be random due to the difficulty in obtaining permission to study a particular organization. Therefore, using an online survey will reduce those obstacles.

- Studying the human and cultural factors in alignment to services would increase the credibility and understanding of the services overall.

- This research goal was to fulfill the master degree which is limited by a time frame, therefore, we could not have a longer time to do more deep analysis.

- This study was aiming to evaluate quality service in driving schools in Saudi Arabia and to understand the current quality level and to address problems or lack of service, we could say we have to identify and analyzing the level of service quality in alignments with available scientific effort in the failed, therefore, the next effort should investigate the minimum requirements for having quality service in driving school and how to address those requirements.

5.3 Discussion and Recommendations

- According to the research results, the following recommendations are proposed to the evaluation of quality service at JDDS:

- The responses to question number 1-3 regarding if the school keep promises and act rapidly there was almost a percentage of 37% their answers were between (slightly disagree, disagree and strongly disagree) which is a large number, therefore, this may be an indication that there might be a problem in this area that should be investigated in more detail to understand where is the problem.

- When we asked participants if E-service provided by JDDS is at an acceptable level, there was a degree of variation in the answers which opens the gate for other studies to be made and to understand and identify new findings.

- Questions on the equipment that provided by JDDS showed that there is a high level of customer satisfaction, therefore, this trend of response opens the horizon towards more research questions on how and why customer Satisfaction was at a good level.

- In the question (Q4-4) "the training dates are available so I can get the driving license" most answers chose strongly disagree which mean the satisfaction level at its lower rate and this type of evaluation help and give the organization the space to study and understand where is the problem coming from and how to start to solve it. Furthermore, scientifically it gives a chance for researchers to start to understand where the reason behind dissatisfaction in any part of services.

5.4 Conclusion

To conclude, the main objective of this research was to examine and evaluate the quality services in driving schools in Saudi Arabia. The results illustrated that the four factors that are statistically significant in relation to quality services are the quality service, the e-services, and the facilities available for service. Interestingly, the demographic characteristics that test in the study: (gender type, age group, education background and experience in having cars)

the study discovered that there is no statistical relationship with evaluating services. However, it is not possible to generalize the findings of this result due to the lack of demographic characteristics of research sample distribution and gender variety.

Importantly, this study shows that Jeddah development driving school did not reach the level of maturity as the school is only one year ago. Moreover, the Disparities and contrast between the answer to quality services show that the school should but some effort to reach a satisfactory level of service overall. However, considering those evaluations will help JDDS to provide a consistent level of quality service in order to meet, fulfill and exceed its customers' requirements.

Overall, the findings and results of the study likewise have shown that there is a great desire by the participants towered helping organizations to evaluate there effort and service quality level. Therefore, it is strongly recommended for service organizations to invest in this advantage to introduce awareness in quality services by investing in more comprehensive scientific studies to develop this area of studies which at the end will benefit everyone around this area.

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