

**AN EMPIRICAL STUDY ON THE FACTORS
INFLUENCING CUSTOMER SATISFACTION AMONG
MOBILE PHONE USERS AT THE UNIVERSITY OF
BENGAZI IN LIBYA**

ZIAD. W. AHMED. ALDROGI

**MASTER OF SCIENCE MANAGEMENT
UNIVERSITI UTARA MALAYSIA**

2013

**AN EMPIRICAL STUDY ON THE FACTORS INFLUENCING
CUSTOMER SATISFACTION AMONG MOBILE PHONE USERS
AT THE UNIVERSITY OF BENGHAZI IN LIBYA**

ZIAD. W. AHMED. ALDROGI

MASTER OF SCIENCE MANAGEMENT

UNIVERSITI UTARA MALAYSIA

2013

**AN EMPIRICAL STUDY ON THE FACTORS INFLUENCING CUSTOMER
SATISFACTION AMONG MOBILE PHONE USERS AT THE UNIVERSITY OF
BENGHAZI IN LIBYA**

ZIAD. W. AHMED. ALDROGI

(811785)

**A project paper submitted to the Othman Yeop Abdullah Graduate School of
Business Universiti Utara Malaysia in fulfillment of the requirement for the degree
of Master of Science Management**

2013

DECLARATION

I hereby declare that this thesis is my original work except for quotations and citations which have been duly acknowledged and that it has not been previously or concurrently submitted for any other degree at University Utara Malaysia.

ZIAD. W. AHMED. ALDROGI

811785

PERMISSION TO USE

This project is presented as part of the requirements for the award of Master's Degree in Science Management, University Utara Malaysia (UUM). I warmly agree that the university library may make this work available for inspection. I also agree to the permission for copying the series and the sequential manner of this study, for academic and scholarly purposes may be granted by my supervisor or in his absence, by the Dean College of Business, COB UUM. It is clearly known that any copying or publication or use of this project report thereof for financial purpose shall not be allowed without any written permission. It is also agreed that due recognition should be given to me and to the University Utara Malaysia for any scholarly use which may be made of any material from this project report. Official request for permission to copy or make other use of material of this project report in whole or in part should be addressed to:

*Dean
Othman Yeop Abdullah Graduate School of Business
Universiti Utara Malaysia
06010 UUM Sintok
Kedah Darul Aman
Malaysia*

ABSTRACT

The company needs an achievement for business continuously in order to sure the satisfaction of customer every day. This is targeting refer to the group whether individual or organizations. The purpose of this study is to understand the effect between customer relationship management (CRM) information systems, service quality, reliability and tangibles on customer satisfaction in the Libyan mobile telecommunication services and also this sector is highly competitive. In addition, the purpose of this research is to gain the knowledge customer relationship management information systems. This is an empirical study using mainly primary data collected through a well-structured questionnaire. This study carried out by covering 132 of customers who using a mobile phone. The results indicate that all of the four hypotheses tested are supported. There is a positive impact and significant relationship between the customer satisfaction and customer relationship management (CRM) information systems, service quality, reliability and tangibles. In conclusion, the present study has its own limitation since this research is only conducted in master program students at Benghazi University in Libya. Therefore the finding of the study is unable to be generalizing for the whole population of hand phone users in Libya as the sample size is considered small.

ACKNOWLEDGEMENT

In the Name of Allah, the Most Gracious and the Most Merciful, I give thanks to my creator, the able and powerful Almighty Allah for His help in seeing me through my master program. It would not have been an easy achievement if not for His love and mercy on me. Peace is upon our Prophet Mohammed S.A.W, who has given light to mankind.

Firstly and foremost, I am grateful to Allah the Almighty for everything He has granted me, the Most Merciful who has granted me the ability and willing to start and complete this study. I do pray to His Greatness to inspire and enable me to finish this dissertation on the required time. Without his permission, for sure I cannot make it possible.

Secondly, from the inception until the completion of this research, my sincere appreciation and innumerable thank you goes to my supervisor - Mr. Shahmir. Abdulla, whose guidance, careful reading, constructive comments, support and advice has enabled me to gain a deep understanding throughout the whole process of the thesis. I am really very grateful for his effort, and time spent in sailing me through this research.

My sincere appreciation also goes to my father, mother, sisters, brothers, and all my friends. Their words of encouragement, advice, love, and moral support brought me to where I am today. I really appreciate their love and effort. I pray God give them long life and sound health.

I would like to express my high appreciation to my all lecturers of College of Business, especially, lecturers of the Division of Management. I am grateful to my hardworking and diligent lecturers, who have academically grounded me, and impacted their precious knowledge and experience on me.

Lastly, I am thankful to my dignified university (UUM) for giving me the opportunity to carry out this research in a very conducive environment. Thanks a lot.

TABLE OF CONTENTS

DECLARATION	i
PERMISSION TO USE.....	ii
ABSTRACT.....	iii
ACKNOWLEDGEMENT	iv
TABLE OF CONTENTS.....	v
LIST OF FIGURES	viii
LIST OF TABLES	ix
LIST OF ABBREVIATIONS.....	x
CHAPTER ONE	1
1.0 Introduction.	1
1.1 There are Two Companies in Libya for Telecommunication Services:.....	3
1.1.1 Libyan Company.	3
1.1.2 AL Madar Company.....	3
1.2 Significance of the Study.	4
1.2.1 Contribution to the Body of Knowledge.	4
1.2.2 Contribution to the Organization.....	10
1.3 Problem Statement.	10
1.4 Research Questions.....	11
1.5 Research Objectives.....	11
1.6 Scope of the Study.....	12
CHAPTER TWO	13
2.0 Overview.	13
2.1 Relationship between (CRM) Information Systems and Customer Satisfaction. ...	13
2.1.1 Purpose of CRM Information Systems.....	21
2.1.2 CRM Information Systems Process.....	23
2.1.3 Benefits of CRM Information Systems.....	24
2.1.4 CRM information Systems Implementation of People, Process, and Technology.	27
2.2 Relationship between Service Quality and Customer Satisfaction.....	32

2.3 Relationship between Reliability and Customer Satisfaction.....	39
2.4. Relationship between Tangibles and Customer Satisfaction.	39
2.5 Summary.	40
CHAPTER THREE	41
3.0 Introduction.....	41
3.1 Research Framework.....	41
3.2 Basic Concept of Independent and Dependent Variables.....	43
3.2.1 CRM Information Systems.....	43
3.2.2 Service Quality.....	43
3.2.3 Reliability.....	44
3.2.4 Tangibles.....	44
3.2.5 Customer Satisfaction.....	44
3.3 Hypothesis.....	45
3.4 Research Design.....	46
3.4.1 Questionnaire.....	46
3.4.2 Variables and Measurement.....	46
3.4.3 The summary of each questions are as follows:.....	47
3.5 Sampling.....	51
3.6 Data Collection.....	52
3.7 Data Analysis.....	52
3.8 Summary.....	53
CHAPTER FOUR.....	54
4.0 Introduction.....	54
4.1 Profiles of Respondents.....	54
4.1.1 Respondent According to Gender.....	55
4.1.2 Respondent According to Age.....	56
4.1.3 Respondent According to Service Provider.....	58
4.1.4 Respondent According to Using a Mobile Phone.....	59
4.2 Reliability Test.....	61
4.3 Descriptive Statistics.....	62
4.3.1 CRM information systems.....	63

4.3.2 Service Quality.....	64
4.3.3 Reliability.....	64
4.3.4 Tangibles.....	65
4.3.5 Customer Satisfaction.....	65
4.4 Correlation Analysis.....	66
4.4.1 Correlation between CRM Information Systems and Customer Satisfaction. .	68
4.4.2 Correlation between Service Quality and Customer Satisfaction.	69
4.4.3 Correlation between Reliability and Customer Satisfaction.....	70
4.4.4 Correlation between Tangibles and Customer Satisfaction.....	70
4.5 Summary.....	71
CHAPTER FIVE.....	72
5.0 Introduction.....	72
5.1 Discussion of Findings.....	72
5.2 Limitations of Research.....	73
5.3 Recommendation for Future Research.....	73
5.4 Conclusion.....	75
References.....	76
Appendix A: Questionnaire.....	86
Appendix B: Frequency Table and Pie Chart.....	93
Appendix C: Descriptive Statistics.....	97
Appendix D: Correlation Analysis.....	98

LIST OF FIGURES

Figure 2.1: CRM Information Systems Implementation.....	27
Figure 3.1: Research Framework.....	42
Figure 4.1: Percentage Distribution by Gender.....	56
Figure 4.2: Percentage Distribution by Age.....	57
Figure 4.3: Respondent According to Service Provider.....	59
Figure 4.4: Respondent According to Using a Mobile Phone.....	60

LIST OF TABLES

Table 3.1: Measurement of Independent Variables and the Dependent Variable.....	47
Table 3.2: Master Program Students at University of Benghazi.....	51
Table 4.1: Frequency Distribution by Gender.....	55
Table 4.2: Frequency Distribution by Age.....	57
Table 4.3: Respondent According to Service Provider.....	58
Table 4.4: Respondent According to Using a Mobile Phone.....	60
Table 4.5: Results of Reliability Tests for Variables.....	62
Table 4.6: Descriptive Statistics.....	63
Table 4.7: Mean and Standard Deviation for CRM Information Systems.....	63
Table 4.8: Mean and Standard Deviation for Service Quality.....	64
Table 4.9: Mean and Standard Deviation for Reliability.....	64
Table 4.10: Mean and Standard Deviation for Tangibles.....	65
Table 4.11: Mean and Standard Deviation for Customer Satisfaction.....	66
Table 4.12: Correlation Test Table of all over the Variables.....	67
Table 4.13: Hypothesis.....	68
Table 4.14: Correlation between Customer Satisfaction and CRM information systems.....	69
Table 4.15: Correlation between Customer Satisfaction and Service Quality.....	69
Table 4.16: Correlation between Customer Satisfaction and Reliability.....	70
Table 4.17: Correlation between Customer Satisfaction and Tangibles.....	71

LIST OF ABBREVIATIONS

CRM: Customer Relationship Management

SR: Service Quality

R: Reliability

T: Tangibles

CS: Customer Satisfaction

IT: Information Technology

CHAPTER ONE

INTRODUCTION

1.0 Introduction.

Telecommunication is an important economic sector in world economy. It also has a growing impact on our lives as individuals, on businesses in terms of efficiency and customer service and on every country's competitiveness as a profitable economy. Telecommunications Industry is one of the most important services in the industrial field, characterized by high customer contact with individually customized service solutions, where customer satisfaction has been an increasing focus of researched arousal (Oliver, 2007). GSM service provider is pursuing this strategy, in part, because of the difficulty in differentiating based on the service offering. Typically, customers perceive very little difference in the services offered by retail provider and any new offering is quickly matched by competitors (Coskun, 1992). Point out that customer satisfaction and retention are critical for retailing. He investigate the main determinants of customer satisfaction (quality of service, features, customer service, handling complaints and situational factors), and future intentions, in the retail sector (Oliver, 1999).

Communication is used to initiate and build relationships, mediate ideas, thoughts and feelings, transfer information, solve problems and simply connect people (McDougall, 1994). The area of communications research is vast encompassing the transfer of meaning, as well as the transfer of data, and the use of channels of communication (e.g., technology mediated communication (TMC)). The abundance of communication channels available today increases the volume of information, as well as the quantity of information transferred. Telecommunication industry is experiencing a radical change, generating new opportunities and challenges for infrastructure and service providers. With the increase in production of mobile devices and services as international market in recent years, according to the triple play of telecom, entertainment and IT convergence the global telecommunication market is growing and changing (ITU publications, 2002).

In addition, satisfaction in the mobile phone context focuses on the achievement of customer's requirements (needs and wants). It means assessment of the mobile connections of a signal, contents; etc that gives a level of comfort and is related to attainment of that requirement, including the accomplishment of needs and wants below expectation or exceeds their expectation. Satisfaction is defined as a post-consumption evaluation containing both cognitive and affective elements, distinguishing for example between satisfaction as contentment, satisfaction as pleasure, and satisfaction as relief on the basis of the level of reinforcement (Chen, 2007).

1.1 There are Two Companies in Libya for Telecommunication Services:

1.1.1 Libyan Company.

Libyan started its GSM mobile services in September 2004, and quickly achieves success in the market by providing extensive network coverage in all key areas throughout Libya. Continues offering of value added services and its introduction of 3G services, a first in North Africa in September 2006, have pushed Libyana to market leadership in Libya. The company aspires to the proliferation and delivers to every home and the city, have approved no fewer than 15 Business Centers in different regions, taking the number of its subscribers to more than 6.200.000 subscriber throughout four years of working, it's about 116% of population (Company, 2012).

1.1.2 AL Madar Company.

Al Madar national Libyan mobile operators run by highly Industry-skilled and loyal personnel. To keep their customers always multimedia connected with their beloved ones, business and entertainment everywhere. Their values are quality, innovation, simplicity, caring, credibility, and accountability (Company A. m., 2012).

1.2 Significance of the Study.

1.2.1 Contribution to the Body of Knowledge.

The satisfaction for this study research is to provide a useful source of information for manager's in the satisfaction of customer loyalty, service quality and security offered by phone service providers (Al Madar and Libyan in Libya). The research also would contribute by providing new evidence on the practicality and usefulness of customer relationship management (CRM) information systems and its input in enhancing a customer satisfaction, and the study intends to interpret the service quality elements of reliability and tangibles as a construct to measure customer satisfaction.

1. Customer Relationship Management (CRM) Information Systems.

First of all, customer relationship management (CRM) information systems means the start of a dialogue with a customer, who later on is converted into enterprise's profit and finally it means enterprise's survival in the competition. Thus CRM gets into the market as the system based on implemented together with (Urbanskiene, 2008). In addition, one of the characteristics of successful CRM implementation is the capability of the business to develop better or more suitable products and services via these (touch points) (Davenport, 2001). The most obvious evidence of these (touch points) is the use of Internet which decreases the communication cost with customers (Sharma, 2000).

Customer Relationship Management (CRM) information systems has become more and more important over the last decade due to the emerging global markets (Payne, 2006). Even if the term CRM is relatively new it has its roots in relationship marketing which has been used as a tool for improving long run profitability by focusing on managing current customer relationships rather than winning new ones (Popovich, 2003). Publications on the significance of relationship marketing can be traced back to the 1970s while its origin can be seen in ancient times, but it was not until the 1990s relationship marketing became a topic of great interest (Payne, 2006). Today, it is a necessary for organizations to bring high value to its customers by improved communication and personalized products and services (Popovich, 2003). This can be accomplished by CRM strategies which seek to give quality service delivered with passion rather than exclusively focusing on price (Stewart, 2005). CRM is an enterprise approach to understanding and influencing customer behavior through meaningful communications in order to improve customer acquisition, customer retention, customer loyalty, and customer profitability (Alryalat, 2008).

2. Customer Satisfaction.

Before proceeding further, it is best that one fully understands the definition of the customer satisfaction. Customer satisfaction is the term most commonly used in trade and industry. But is an expression of the work explaining this type of measurement of

products and services offered by the company to meet the expectations of its customers. For some, this may be considered the company's key performance indicator.

Customer satisfaction itself is said to influence the upgrade decision of a customer (Bolton, 2008). Also (Kim, 2003) relates customer satisfaction to increased value as it creates the feeling that a service meets customers' expectations and can lead to lifetime customers. The level of customer satisfaction can be dependent on the perceived brand image, service level, assurance, reliability, empathy, responsiveness, and tangibles (Kim, 2003). Furthermore, the applications used to manage customer relationships can influence customer satisfaction as it can help a business to customize offerings, improve its reliability, and efficiency (Mithas, 2005). A good customer base is at start for achieving customer satisfaction.

According to (Prabhakaran, 2003) highlights that customer is the king. According to (Webster, 1954), the fundamental purpose of any business is to create customer satisfaction. Increasing customer satisfaction has been found to lead organization for higher future profitability (Anderson, 1994), and higher levels of customer retention and loyalty (Fornell, 1992). Transaction-specific evaluation of client satisfaction is very special to him or her experience and the reaction to a particular service meeting (Lian, 2009). In order to achieve customer satisfaction, organizations must be able to satisfy their customers' needs and wants (Labarbera, 1983).

Customer satisfaction has significant implications for the economic performance of firms (Bolton N. K., 2004). Increased customer loyalty may increase usage levels (Bolton R. N., 2000), secure future revenues (Rust, 2002). Accordingly, improved customer retention generates more profit (Anderson E. W., 2004).

Customer relationships can be managed by providing efficient and effective customer service since these increases the value of service for the customer (Richard, 2008). Furthermore, the customers' perception of quality and value of the service has a positive influence on customer retention (Bolton R. N., 2008). The experience of customers is a source to be managed carefully as it critical for creating value. Unique experiences create and strengthen customer relationships

To make customer satisfaction more specific three factors are chosen to explain customer satisfaction in relation to business value; trust, commitment and loyalty. These relational resources are the primary drivers of business performance as they lead to superior corporate performance and increased shareholder value (Luo, 2004). Furthermore, customer satisfaction is positively related to customer loyalty. Customer loyalty can be achieved at three levels; financial, social and structural (Leeuwen, 2010). Therefore, customer satisfaction is a state of mind that a customer has about a company when their expectations have been met or exceeded over the lifetime of the product or service. The achievement of customer satisfaction leads to company loyalty and product repurchase.

Important for this study is the perception of service by customers delivered by the business. Achieving customer satisfaction is the primary goals of most companies today. In addition, there is not dearth in the literature addressing the concept of customer satisfaction.

3. Service Quality.

Definitions of service quality hold that this is the result of the comparison that customers make between their expectations about a service and their perception of the way the service has been performed (Caruana, 2002). Service quality also can be defined as the difference between customers' expectations for service performance prior to the service encounter and their perceptions of the service received (Asubonteng, 1996). However, service quality can be also defined as a judgment about a service's overall excellence or superiority. In this study Attraction in customer satisfaction is measured by Service quality. Delivering more effective service quality than others is one of the ways that a firm can be a successful in achieving today's business environment is to (Lai, 2007).

Without service quality, even the best designed business model will soon fall apart. In their quest to develop a loyal customer base, most companies try their best to continually satisfy their customers and develop long run relationship with them (Anderson, 2003). At a higher level, and basically from a customer's perspective, they see quality as being two dimensional, consisting of process and output quality. (Caruana A. M., 2000). Issue of

measuring the quality of service has been studied extensively in recent years. Study by (McCleary, 1982) indicated that good service is defined on the basis of identifying and quantifying Behaviors that are important to customers. Moreover, it may be noted that Customers can understand the differences in the quality of service (Chaoprasert, 2004). Although there has been criticism from some other researchers to SERVQUAL instrument, yet SERVQUAL is the instrument most utilized for its confirmatory factor analyses in most cases (Caruana, 2002).

4. Reliability and Tangibles.

Developed a meditational model that link the service quality and service loyalty via customer satisfaction (Caruana, 2002), these determinants are tangibles, reliability, responsiveness, competence, courtesy, credibility, security, access, communication, and understanding the customer. It has become widely used as a generic instrument for perception measuring of service quality.

1. Reliability. This dimension refers to the ability to perform the service dependably and accurately.
2. Tangibles. This dimension refers to the physical facilities, equipment, and appearance of personnel.

1.2.2 Contribution to the Organization.

The outcomes of this study will provide useful recommendations to practitioners and marketers, of the two GSM providers - Al Mader and Libyana, also determine their influence on master program students at Benghazi University in Libya. The target is to provide an overview and in-depth analysis of customer experience and satisfaction drivers that may be exploited by service providers.

Through the analysis of clients in different background, this research can provide marketers a better understanding of customer needs and wants to meet the GSM service provided, and also provides insights for the development of customer satisfaction strategy of the university.

1.3 Problem Statement.

The level of satisfaction among mobile phone users influences the choice of mobile phone service providers. This research intends to look at the factors that influence satisfaction especially through the use of Customer Relationship Management (CRM) information systems. The choice of service providers at the university of Benghazi may be influenced or 'value added' to improve their customer base. Zahay, (2004) posits that segmenting and tailoring relevant offering's positively affects the use of service provided

by firms. This has to be conducted in conjunction with service quality, reliability and tangibles.

1.4 Research Questions.

This research is guided by the following questions:

1. What is the relationship between Customer relationship management (CRM) information systems and Customer Satisfaction among mobile phone users at Benghazi University in Libya?
2. Is there any significant relationship between Service quality and customer satisfaction among mobile phone users at Benghazi University in Libya?
3. Is there any significant relationship between reliability and customer satisfaction among mobile phone users at Benghazi University in Libya?
4. Is there any significant relationship between tangibles and customer satisfaction among mobile phone users at Benghazi University in Libya?

1.5 Research Objectives.

The main objective of the study is to examine some of the important factors attributable to organization culture towards contributing to job satisfaction among employees most especially the staffs at University of Benghazi.

1. To determine if there is any significant relationship between Customer relationship management (CRM) information systems and customer satisfaction.
2. To identify if there is any significant relationship between Service quality and customer satisfaction.
3. To Investigate if there is any significant relationship between reliability of product and customer satisfaction.
4. To identify if there is any significant relationship between tangibles of product and customer satisfaction.

1.6 Scope of the Study.

This study is limited only to the master program students at Benghazi University in Libya who use service provider such as Al Mader and Libyana at Benghazi University in Libya. Therefore, the researcher intends to analyze the relationship between customer satisfactions, customer relationship management (CRM) information systems, service quality, reliability, tangibles, and come out with the factors that contribute to the provision of mobile services.

CHAPTER TWO

LITERATURE REVIEW

2.0 Overview.

This chapter is a review and appraisal of the literature supporting the research objectives and defines literature review as a documentation of a comprehensive review of the published and unpublished work from secondary sources of data in an area of specific interest to the researcher. The more ambitious goal of this research is to help the readers understand the essence of customer relationship management information system as necessary and important elements of managing every successful enterprise. Hence, this chapter reviews related literature about the research problem as a foundation for developing a theoretical framework to be tested in this research and the chapter is organized into three parts: Customer relationship management (CRM) information systems, customer satisfaction, and service quality.

2.1 Relationship between (CRM) Information Systems and Customer Satisfaction.

In recent years, many businesses have turned to customer relationship management (CRM) information systems to build their customer bases and develop customer satisfaction. In addition, CRM extensively uses information technology (IT) to detect,

monitor and satisfy customer needs and expectations. Continual advances in mobile technology, the rapid evolution of the mobile services market and its quick rise to maturity, and market dynamics may offer many challenges to CRM (Chen, 2007).

Customer relationship management (CRM) information systems starts off from new business practices that focus on how to manage customers, such as attracting new customers and retaining them. (Peter, 2003) Customer relationship management is a business strategy process that improves organization's competitive ability. Therefore, (Usman, 2012) It also creates a successful strategy for an organization which helps them to focus on customer's behaviors, promotes the emerging speed of firm and maintains their customers in a very highly competitive market environment. (Scullin, 2004) The need to understand the consumer's behavior in various marketplaces is very important in electronic commerce.

Benefit of customer relationship management (CRM) information systems for a customer, to get an offer in an appropriate form when it is necessary and what it is necessary, to be appropriately served, to feel important, to be informed in time, a possibility to choose a service channel (self-service, full service) (Urbanskiene, 2008). In fact, revealed that CRM implementation is associated with customer satisfaction; and there are significant interactions amongst Information technology (IT) capability, contact rate management and recovery management with customer satisfaction. A regression

model was churned to evaluate the criteria to measure the level of CRM implementation on customer satisfaction (Business, 2012).

In addition, customer relationship management has tendency to select and manage the most valuable relationships with the customers. Customer relationship management consists of three components, customer, relationship and management. It tries to show a single view to its customers, while looking for a customer-centric viewpoint (Sarlak, 2009).

Defines CRM as the process of segmenting customers and tailoring relevant offerings to them to create value for the firm (Zahay, 2004), this process included to manage relationships by focusing on customer maintenance and relationship development (Popovich, 2003). Company used to be able to satisfy their customers' need with standardized products and mass marketing, but nowadays the needs and preferences of customers are under constant change, which requires firms to define smaller and smaller segments (Popovich, 2003).

If CRM is performed correctly and in the steps your marketing staff should be able to reach the right people with the right message at the right time. It should not be considered as an add on for a supplier to find out its customers most wanted needs; it should be continuously conducted by the firm, the secret of keeping your customers happy is to

continue paying them attention (Stewart, 2005). CRM can be used as a tool to identify the right customer groups in order to help deciding which customer to retain (Bull, 2003). The aims of a company should accord to consist of cementing a long-term, collaborative relationship based on shared trust (Lawrence, 2002).

Other hand, by creating satisfaction customers a company can save the switching costs are five times the cost as retaining an existing customer. Having a loyal customer is not only about the maintenance of the relationship overtime, it is also about nurturing the relationship to encourage re-buys and a level of support (Rauyruen, 2005). Therefore, combined these part gives overall view of CRM from both the buyers and the sellers perspective. All the part can be seen as goals for organizations when performing CRM strategies meeting customer satisfaction, customer needs, and creating satisfaction.

Customer relationship management (CRM) information systems is a new customer-centric business model that reorients firm operations around Customer needs as opposed to products, resources, or processes in order to improve customer satisfaction, loyalty, and retention. CRM is the integration of customer focus in marketing, sales, production, logistics and accounting, in all parts of the company's operations and structure (Boulding W. S., 2005). The concept CRM used widely and many authors define the term differently, it has divided the concept into six main parts are satisfaction, customer, needs, partnership, increasing profits, loyalty, and value (Ata, 2012).

Customer relationship management (CRM) information systems are strategy view of how to handle customer relationship from a company perspective. The strategy deals with how to establish developed and increase customer relation from profitability perspective, based upon the individual customer needs and potentials (Sarlak, 2009). The basic underlying CRM is that the basis of all marketing and management activities should be the establishment of mutually beneficial partnership relation with customers and other partners in order to become successful and profitable. In the service business that always needs to contact with customer, it is important for companies to know how to improve customer relationship (Kamakura, 2002). Therefore, enterprises can make the customer satisfied and create larger commercial profit for company and raise the market share if the CRM was well done. So a large numbers of companies introduce the CRM system in order to provide customers with customized services. Previous studies have focused on components of CRM strategy, such as the link between satisfaction and business performance the link between customer loyalty and profitability (Reinartz, 2004).

Customer relationship management (CRM) information systems have emerged in recent years as the convergence of a number of factors and which encouraged a new movement towards customer relationships rather than customer transactions (Sun, 2006). CRM is an IT enhanced value process, which identifies, develops, integrates and focuses the various competencies of the firm to the (voice) of the customers in order to deliver long-term superior customer value, at a profit, to well identify existing and potential customer segments (Payne, 2005).

Customer relationship management (CRM) information systems are initiation, enhancement, and maintenance of the mutually beneficial customer and partner long-term relationship through business intelligence-generated strategies based on the capture, storing and analyzing of information gathered from all customer and partner touch points and transaction processing system (Murillo, 2002). Such as that, the motivating factors for companies moving toward CRM technology are to improve customer satisfaction level, to retain existing customers, to improve customer lifetime value, to provide strategic information from the CRM system and to attract new customers (Don, 2004).

Increasingly companies realize that consumers are their most important asset and view customer relationships as mutual beneficial exchanges and as opportunities that need to be managed (Parvatiyar, 2001). CRM system has been called an inevitable, literally relentless, and movement because it represents the way customers want to be served, and offers a more effective and efficient way of conducting business (Mithas, 2006). In addition, underpinning the paradigm of CRM is the basic belief that customer relationships, like other important assets in an organization, can be effectively developed, and managed. By better customizing of product and service offerings for individual customers, customer retention, and profitability can be increased. However, CRM means obtaining customer information, understanding what different customers are worth, treating different customers differently and improving efficiency (Swift, 2002).

In the past decades many firms have (re)adopted a customer focus often through a formal program of customer relationship management (CRM) (Uncle et al., 2003). Recent advances in information technology have provided the tools for marketing managers to create a new generation of CRM tactics. One such tactics that thousands of firms have considered, and which may have adopted, is to establish a customer loyalty program. Typically these programs offer financial and relationship rewards to customers, and in some instances benefits also accrue to third-parties such as charities.

The last several years saw the rise of Customer Relationship Management (CRM) information systems as important business approach. Therefore, CRM is a strategy that goes beyond increasing transaction volume (Plakoyiannaki, 2008). Its objectives are to increase profitability, revenue and customer satisfaction. To achieve CRM, a companywide set of tools, technologies and procedures promote the relationship with the customer to increase sales (Seeman, 2006). Nowadays with advancing information technology, there are modern systems that can help to increase the organization power with the purpose of decreasing internal expenses, making better interaction (Sarлак, 2009).

Although the basis of customer relationship management (CRM) information systems have been around since 1956 it is only within the last 6 to 10 years that CRM has created a significant impact in the business world. CRM is one of the key processes in any firm (Bose, 2002). Although CRM is a relatively new business term, and therefore, the

definition can vary depending on the background of the individual writing it (Bolton, 1998). They believe that CRM as those processes that address all aspects of identifying customers, creating customer knowledge, building customer relationships, and shaping their perception of the organization and its products and also focused on collecting, analyzing and disseminating large quantities of customer data. The rapid growth of CRM can be attributed to fierce business competition for valuable customers, the economics of customer retention, and technology advances (Nguyen, 2007).

In order to more efficiently manage customer relationships, customer relationship management (CRM) information systems focus on effectively turning information into intelligent business knowledge. The contemporary view of CRM is defined more around using technology and IT to help manage the relationship with customers (Bull, 2003). In general, CRM technology defining characteristics and elements found within the extant literature generally focus around the use of IT to acquire and retain long-term customers, create long-term business strategy, help implement CRM processes, and increase profit over time. Therefore, this information can come from anywhere inside or outside the firm and this requires successful integration of multiple databases and technologies such as the internet, call centers, sales force automation, and data warehouses (Boulding, 2005). CRM technology has also been viewed as providing the “glue” that integrates “front office” (sales, support and marketing) and “back office” (order fulfillment) applications for sales and marketing, via tools for detailed analysis and modeling, along with the technology infrastructure to seamlessly provide a single cohesive and comprehensive customer-facing unit.

2.1.1 Purpose of CRM Information Systems.

In reviewing of the illustrated definitions, we can find that most of definitions concentrate on the terms related to customer's acquisition, retention, satisfaction, profitability and loyalty (Wang, 2012). As a result, the following can be stated in this regard:

1. CRM information systems involve using existing customer information to improve company profitability and customer services.
2. CRM information systems are management approach that enables organization to identify, attract, and increase retention of profitable customers by managing relationship with them.
3. CRM information systems are only a tool used to make the entity more customers centric and to develop the concept of relationship marketing.
4. CRM information systems include numerous aspects, but the basic theme is for the company to become more customers centric. Methods are primarily web-based tools and internet presence (Osarenkhoe, 2007).
5. CRM information systems comprise the business processes and organization performs to identify, select, acquired, develop, retain, and better services customers.
6. CRM information systems in the twentieth century are no longer the responsibilities of customer services department only. It's a complimentary process within all various parts of the organization.

7. CRM information systems are technology used to blend sales, marketing, and service information system to build partnership with customers.
8. The customer's data base can be considered as corporate assets. The sufficient use of these assets leads to increase profitability and establish revenue growth.
9. CRM information systems are comprehensive strategy and process of acquiring, retaining and partnering with selective customers to create superior value for the company and the customers (Öztaysi, 2011).
10. CRM information systems are about the development and maintenance of long term mutually relationship with strategically significant customers.
11. CRM information systems are enterprise wide mindset, mantra, and set of business process and policies that are designed to acquired, retain and services customers. CRM include the customer facing business process of marketing, sales and customer services.
12. CRM information systems can be used for support management decisions for better segmentation and targeting for the most profitable customers. Moreover, it helps the organization to avoid the unprofitable customers and turn them into competitors.
13. CRM information systems align business processes with customer strategies to build customer loyalty and to increase profits over time.
14. The strategic use of information, process, technology, and people to manage the customer relationship with the company across the whole customer life cycle.

15. CRM information systems are comprehensive tool helps the companies build mutual beneficial relationship with its customers (Baird, 2011).

2.1.2 CRM Information Systems Process.

This section describes a traditional customer relationship management (CRM) information systems process and highlights the potential disconnect between the CRM process and a relationship marketing approach. CRM information systems are an integral component of the information technology growth to support and improve the business (front office) and the customer relationship (Zablah, 2004). Therefore, depicts process of CRM, which involves collecting customer information on an ongoing basis, using that knowledge to manage customer contact through such activities as marketing campaigns and direct sales promotions, developing business and marketing strategies, developing marketing programmers, and measuring success, while refining and enhancing the customer database (Roberts, 2005).

The underlying assumption for the process is that the firm conducts ongoing information collection, refines, enhances and applies the information appropriately. Knowledge about the customer is collected, stored and made available to customer contact personnel (Shoemake, 2001). As customer information is analyzed, new information is created, stored, transferred and marketing programs created and enacted. Feedback is obtained from the marketplace, customer data is updated and refined, new information is created

and new programmers created (Chaudhry, 2007). This CRM system process is iterative and ongoing, and has similarities with knowledge management systems (KMS) (Zablah, 2004).

Researchers have given different names to the CRM information systems process, but they all have the same underlying themes. The stages include:

1. Identification of key moments of truth throughout the customer life-cycle.
2. Identification of the ideal value customer.
3. Identification of the gap between what the company currently offers and what the customer values most.
4. Identification of discrepancies among the current and expected services.
5. Identification of core competencies along with enablers required to close the gap.

2.1.3 Benefits of CRM Information Systems.

Interest in customer relationship management (CRM) information systems began to grow in 1990s (Ling, 2001). Regardless of the size of an organization, businesses are still motivated to adopt CRM to create and manage the relationships with their customers more effectively. An enhanced relationship with one's customers can ultimately lead to greater customer satisfaction and retention and, also, profitability (Smith, 2010). In

addition, the rapid growth of the internet and its associated technologies has greatly increased the opportunities for marketing and has transformed the way relationships between companies and their customers are managed, they have divided into six main parts presented below:

1. Lower Cost of Recruiting Customers.

The cost for recruiting customers will decrease since there are savings to be made on marketing, mailing, contact, follow-up, fulfillment, services, and so on.

2. No need to recruit so many customers to preserve a steady volume of business.

The number of long-term customers will increase and consequently the need for recruiting many new customers decreases (Baird C. H., 2011).

3. Reduced Costs of Sales.

The costs regarding selling are reduced owing to that existing customers are usually more responsive. In addition, with better knowledge of channels and distributors the relationships become more effective, as well as that costs for marketing campaigns is reduced.

4. Higher Customer Profitability.

The customer profitability will get higher since the customer wallet-share increases, there are increases in up-selling, cross-selling and follow-up sales, and more referrals comes with higher customer satisfaction among existing customers (Wang Y. &, 2012).

5. Increased Customer Retention and Loyalty.

The customer retention increases since customers stay longer, buy more and buy more frequently. The customer does also more often take initiatives, which increase the bounding relationship, and as a result the customer loyalty increases as well.

6. Evaluation of Customer Profitability.

The company will get to know which customer are profitable, the ones who never might become profitable, and which ones that might be profitable in the future. This is very important since the key to success in any business is to focus on acquiring customers who generate profit, and once you have found them, never let them go (Hadzagas, 2011).

2.1.4 CRM information Systems Implementation of People, Process, and Technology.

Customer relationship management (CRM) information systems have evolved from advanced in information technology and organizational changes in customer centric process. The people, process and technology focus provides additional support for a more holistic view of CRM technology implementation. Understanding and modifying existing business practices, utilizing customer information, and integrating existing IT and manual business systems to provide value to users and customers reinforce the adoption of CRM technology (Öztaysi B. S., 2011). Therefore, CRM system is a combination of people, process and technology that seeks to understand a company's customer. It is an integrated approach to managing relationships by focusing on customer retention and relationship development (Hoots, 2005).

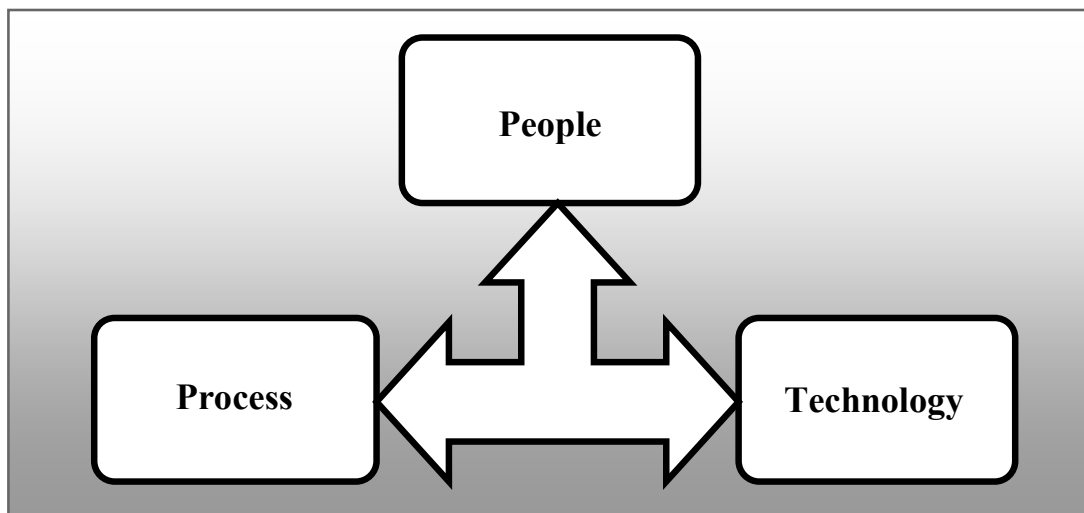


Figure 2.1 CRM Information Systems Implementation.

1. People.

Collaboration between people is the key to successful customer relationship management and also successful CRM is predicated on effectively transforming customer information to customer knowledge. Specifically, to enhance customer profitability, information about customers should be gathered through interactions or touch points across all functions or areas of the firm. Customer knowledge thereby generated needs to be shared and disseminated throughout the organization to address customers' current and anticipated needs (gilaninia, 2011). Explored the role of the sales person in sustaining CRM practices since adoption is required to support CRM (Dickinson, 2005). Provides salespeople with tools which enhance their knowledge of customers, providing the ability to generate better and more timely alternatives and decisions, improving customer relationships. Therefore, Salespeople are then equipped with a wealth of valuable customer knowledge to meticulously adjust marketing offers to fit the idiosyncratic needs of each customer (Srinivasan, 2005).

One of the greatest challenges in CRM implementation is aligning the people with the customer strategy and process. The process and technology that help implement CRM strategies and achieve CRM goals will only be as effective as the people performing them. Occurs when people understand clearly what changes are expected of them, why they are necessary, and how their efforts to change are shaped, reinforce, and rewarded by the internal systems that are designed to drive behavior. So, understanding the need for change is just the beginning. Implementers needs to understand what changes are

needed, what barriers there are to change, and how the change program will benefit the organization (Kim, 2011).

2. Process.

For CRM success, there also must be an organization wide commitment of resources. With concerted efforts by all organizational functions to continuously provide a stream of value-rich actions and customer outcomes, the company and its sales force are assured that they can satisfy customers' needs and enhance customer relationships (Sheth, 2002). The organizational structure needs to be flexible and, if necessary, reconstructed to generate customer centric values and improve coordination of customer focused, cross functional teams. In addition, with a strong focus on key customers deeply embedded throughout its CRM system, the entire company should be organized around cultivating these valuable relationships. Where the goal was to sell what manufacturing produced. Target marketing, or segmentation, shifted a company, focus to adjusting products and marketing efforts to fit customer requirements. Changing customer needs and preferences require firms to define smaller and smaller segments (Lukkari, 2011).

Customer relationship marketing techniques focus on single customers and require the firm to be organized around the customer, rather than the product. Firms that evolve to this stage will benefit from a marketing-manufacturing interface, resulting in the flexibility to meet changing customer needs efficiently and effectively (Nguyen, 2012).

In fact, CRM characterizes as an integrated approach to managing customer relationships with reengineering of customer value through better service recovery and competitive positioning of the offer. Customer centric organizations seamlessly integrate marketing and other business processes to serve customers and respond to market pressures (Raman, 2006).

3. Technology.

CRM system applications take full advantage of technology innovations with their ability to collect and analyze data on customer patterns, interpret customer behavior, develop predictive models, respond with timely and effective customized communications, and deliver product and service value to individual customers. Technology is the primary impetus behind CRM approaches (Padmavathy, 2012). Information technology (IT) has long been recognized as an enabler to radically redesign business processes in order to achieve dramatic improvements in organizational performance and other hand IT assists with the redesign of a business process by facilitating changes to work practices and establishing innovative methods to link a company with customers, suppliers and internal stakeholders. In fact, with the development of sophisticated information management tools, such as database marketing, data warehousing, data mining, and push technology, companies are striving to seamlessly incorporate the latest technology into their CRM systems (Yoon, 2008).

CRM technology as linking available IT applications to a firm's ability to develop market-relating capability (Ling, 2001). CRM (the customer-facing system) is used to create partnerships and relationships with customers at all touch points. In particular, salespeople frequently depend on continually updated software programs to better respond to their customers and build enduring customer relationships. CRM technology helps companies and their salespersons' collect, analyze, and distribute information for enhanced prospecting, improved communication and sales presentations, and tailored product configurations (Valsecchi, 2007). It also facilitates cross-referencing of customers within divisions of a company for greater sales opportunities. Among the major outcomes sought by incorporating CRM-based technology are enhanced customer satisfaction, higher customer retention, and more profitable long-term customer relationships. In summary, it is imperative that IT and marketing departments work closely together on CRM system implementation.

A good customer information system should consist of a regular flow of information, systematic collection of information that is properly evaluated and compared against different points in time, and it has sufficient depth to understand the customer and accurately anticipate their behavioral patterns in future (Bharadwaj, 1993). The customer database helps the company to plan, implement, and monitor customer contact. Customer relationships are increasingly sustained by information systems. Companies are increasingly adding data from a variety of sources to their databases. Customer data strategy should focus on processes to manage customer acquisition, retention, and development (Smith, 2010).

All in all, with the increased penetration of CRM philosophies in organizations and the concomitant rise in spending on people and products to implement them, it is clear we will see improvements in how companies work to establish long-term relationships with their customers. The research on CRM becomes an important topic nowadays. Therefore, researchers begun to give more attentions on it. Relating to customer satisfaction and outcome definitions of satisfaction exists.

2.2 Relationship between Service Quality and Customer Satisfaction.

High service quality is regarded as a key to succeed in competitive service markets. Many researchers have showed that service quality perceived by customers are will directly influence customers' satisfaction, as well as their trust in the service firm (Parasuraman, 1988). Customers might be satisfied when a firm provides better services than their pre-purchase expectations. Customer trusts also emerge when customers perceive positive service quality from a firm, and believe the service firm would bring preferable outcomes for them (Ismail, 2006). In mobile telecommunication industry which belongs to service industry, service quality is an important indicator to assess a service provider's performance. Offering a high quality service is considered to be a visible way to create customers trust and satisfaction, as well as obtaining competitive advantages and building a long-term relationship with customers (Aydin, 2005).

In fact, the concepts of service quality and service satisfaction are closely linked, although the exact nature of these provisions for the clients (DeRuyter, 1997). Defined of quality of service in the form of three columns: the lower the level of service (expected) would be, the desire of the level of service (expected to be), and see the performance (Parasuraman, 1994).

Service quality is a vital antecedent of customer satisfaction (Cronin Jr, 1992). In turn, customer satisfaction is believed to affect post purchase and perception and future decisions. Service quality since the past three decades has been able to attract the attention of researchers and managers due to its robust influence on the dimensions of business, operation, profitability, customer loyalty and satisfaction (Sureshchander, 2002).

At this time, the quality of service has become one of the important factors in measuring the customer satisfaction. Marketers agree that the service quality provided really have a major impact on customers to distinguish between organizations competing and contribute effectively to customer satisfaction (Parasuraman, 1994). Service quality has a definition and wide, but the definition of a comprehensive concept and definition of the most famous of the concept proposed by researchers around the idea that this is the result of a comparison between that customers make their expectations about service and their perception of the performance of service (Li, 1998).

However, services, telecommunications are an important part of the service sector (Mishkin, 2001). Previous research has shown that raising the quality of service customer satisfaction, which is related to repurchase intentions, customer retention, market share and financial return (Zajac. E. J., 2000) Has been linked with the quality of the service provider customer satisfaction within the GSM (Zajac. E. J., 2000). Mobile phone provider now know that the provision of better services to customers is essential for success and survival in today's GSM provider global and competitive (Wang, 2003).

Fully satisfied with the quality of service or product, Due to such cooperation the situation, in which both parts win, occurs: (Urbanskiene, 2008)

1. A customer because he or she gets a qualitative service or product.
2. An organization because it gets profit and has a reliable client.
3. An organization can easier and more appropriately serve a customer when he or she is well-known, his or her needs and tastes are known.

From the finding, a study in Canada research to customers of Credit Union Bank at Canada. It shows that quality services and customer satisfaction have a significant relationship (Alhemoud, 2010). Conducted a research towards the customer of foreign private banking at United States. Researchers are made to review the relation between quality services and customer satisfaction by using two models which are SERVQUAL and Technical or Functional Quality. The result shows that SERVQUAL and Technical

or Functional Quality explains the customer satisfaction Varian. Empathy is the most critical and significant factor. Furthermore, a study in New Zealand sound that, overall internet banking service quality is strongly related to overall customer satisfaction with the bank. Also suggested that delivering high quality service online in order to maintain or increase customer satisfaction with the bank (Blanc, 1999).

Another study in UK found that role of staff satisfaction and service quality as key a driver of customer satisfaction technical service quality (TSQ) is found to pay a critical role in determining customer satisfaction. Othman and Owen, (2000) in his research at Kuwait show that quality services effect the customer satisfaction. Caruana, (2002) had conducted a research towards the customer in private banking at Malta. The researched had been done by survey and it shows that a quality service explains the customer satisfaction variant.

In the modern, highly competitive business world, the key to sustainable competitive advantage lies in delivering high quality service that will in turn lead to satisfied customers. Customer satisfaction is considered a pre-requisite of customer retention and loyalty and can help to boost profitability, market share and return on investment. Other hand, examined in detail the relationship between service quality and customer satisfaction (Sureshchandar, 2002). There are identified five factors of service quality as critical form a customer point of view are as follows:

1. Core service or service product-the content of a service.
2. Human elements of service delivery aspects such as reliability responsiveness, assurances, empathy and service recovery, which are part of human element in service delivery.
3. Systematization of service delivery- the processes, procedures, systems and technology that make a service seamless.
4. Tangibles of service- the equipment, signage, appearance of employees, and the man-made physical environment surrounding the service, which is commonly known as (service space).
5. Social responsibility- the ethical behavior of the service provider.

That research by Sureshchandar, Rajendran, and Anantharaman, (2002). Was therefore showed that service quality and customer satisfaction are closely related and an increase in one is likely to lead to rise in the other. Therefore, satisfaction can be gained by providing the service more quickly than expected. The presence of these satisfying factors may also create positive, virtuous circles, reinforcing the bond between contact staff and customer.

A study antecedent to customer satisfaction in business service by Nawak and Washburn, (1998) found that service quality has the strongest relationship with overall customer satisfaction. Quality of service is the main driving force to achieve commercial

sustainability (Bradi et al, 2000), and in the global market today for a business to be able to compete, it is recognized that high quality service is essential to the success of the company (Hooks and Higgs, 2002). When it was considered with other factors, it leads to customer loyalty (Worren et al, 2002), and higher profitability (Zajac et al, 2000). Therefore, a key strategy for companies that focus on customers is to measure and monitor customer satisfaction and quality service. Quality of service is a critical component in customer perception as it is prior to customer satisfaction. Based on exploratory research and quantitative research findings have shown these five dimensions to be related to features such as mobile phones, short message service, data conversion, system of securities, brokerage and long distance phone service and auto repair industries.

Cronin and Taylor, (1992) mentioned that satisfaction is an antecedent of service quality; service quality takes place before, and leads to overall customer satisfaction. Service quality appears to be only one of the service factors contributing to customers' satisfaction judgments. The empirical studies show that two constructs service quality and customer satisfactions are conceptually distinct, and identified that there are high relationships between service quality and customer satisfaction. On other hand, emphasized that the two constructs, service quality and customer satisfaction, do exhibit the independence and are indeed different constructs from the customers' point of view. The service literature supports that perceived service quality and value serve as drivers of customer satisfaction and loyalty intention (Cronin J. J., 2000).

Vowed to Bahia and Nantel, (2000) empirically test the principle of reciprocity between satisfaction and quality in several service industries. Using structural equation modeling, they found it can be seen that the quality of services as a determinant of satisfaction, which in turn affects the purchase intentions (Naser, 2008). However, it was suggested that, in addition to service quality and satisfaction, image, are also important factors to take care of customers. In most models of client evaluation of mobile phone services was the focus on the comparative judgment of expectations versus perceived performance resulting in a judgmental assessment of the main perceived quality of service and customer satisfaction (Shin, 2007).

Parasuraman, (1988) had developed SERVQUAL instrument that consist of four dimensions have become widely used as a generic instrument for measuring of service quality. Explained below:

1. Reliability. This dimension refers to the ability to perform the service dependably and accurately.
2. Responsiveness. This dimension refers to the willingness of customers and provides prompt service.
3. Tangibles. This dimension refers to the physical facilities, equipment, and appearance of personnel.
4. Empathy. This dimension refers to the level of caring and individual attention provided to customer.

The study has taken two dimension of service quality, these are Reliability and Tangibles.

2.3 Relationship between Reliability and Customer Satisfaction.

Reliability is the ability to perform the promised service consistently, confidently, and accurately. The most important dimension of reliability in the assessment of quality of service often cited by the and therefore a prerequisite for companies to compete in the market (Hooks, 2002). Reliability is the ability to perform the service in an accurate and reliable (Parassuraman, 1998). Also stresses that the reliability and ease of use are important features in the evaluation of technology-based services (Wang, 2000).

The researcher added that the dimensions of reliability consists of "promises" and "right to do so" without dimensions (Spatis, 2004) In addition to fulfilling the promise and performance of the right part of the service reliability, and availability of goods as part of the work "on the right of" quasi-dimensional.

2.4. Relationship between Tangibles and Customer Satisfaction.

Tangibles refer to the emergence in physical factors such as facilities equipment with workers (Parassuraman, 1998). Service tangibles have some unique characteristics that make them different from physical products (Zeithaml, 2006). Service tangibles are often characterized by their prejudice, correlation, contrast, and damage (Lovelock, 2006).

Suggests that the physical environment itself plays a key role in assessing the client's expectation of the level of quality and service (Granet, 2006), concrete the dimension is critical to customer service (Parasuraman, 1988). The dimension of the concrete has proven to be an important factor in the research and banking studies carried out in other developing countries (Angur, 2008), tangibles component made up of both physical and mental (Caruna, 2002), where the physical part is the proof of service (Snetsinger, 2000). Refers to these types of features of the concrete as an alternative, because it's not concrete that is derived from the performance of the service and it is a courtesy call to active duty (Carson, 2008).

2.5 Summary.

This chapter is done by doing some literature review from primary and secondary resource such as internet, books, and journals. Researcher briefly discussed on literature review according to the previous research from several researchers that applied certain methods, framework and techniques. This chapter explained about customer relationship management information system, service quality, reliability, tangibles, and customer satisfaction.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction.

This chapter provides an outline of the way in which the research will be conducted is presented. Details of the research framework, hypothesis, research design, and the methodology for collecting the data, approach and data analysis are presented in this section. In addition, this chapter will present how to we compared theories with reality. The primary objective of this study is to investigate the relationships between customer relationship management (CRM) information systems, service quality, reliability, and tangibles on customer satisfaction toward the mobile telecommunication service provider in Libya. Thus, this chapter reviews the methods used to study these relationships.

3.1 Research Framework.

Based on the problem and the research objectives, a research framework is provided for this study, in order to be guide and answer the questions of this study and this theoretical framework to make the research easy going. In this research, identified that there are variables in the research framework in this study are independent variables (IV) are

customer relationship management (CRM) information systems, service quality, reliability, tangibles. The dependent variable (DV) is customer satisfaction.

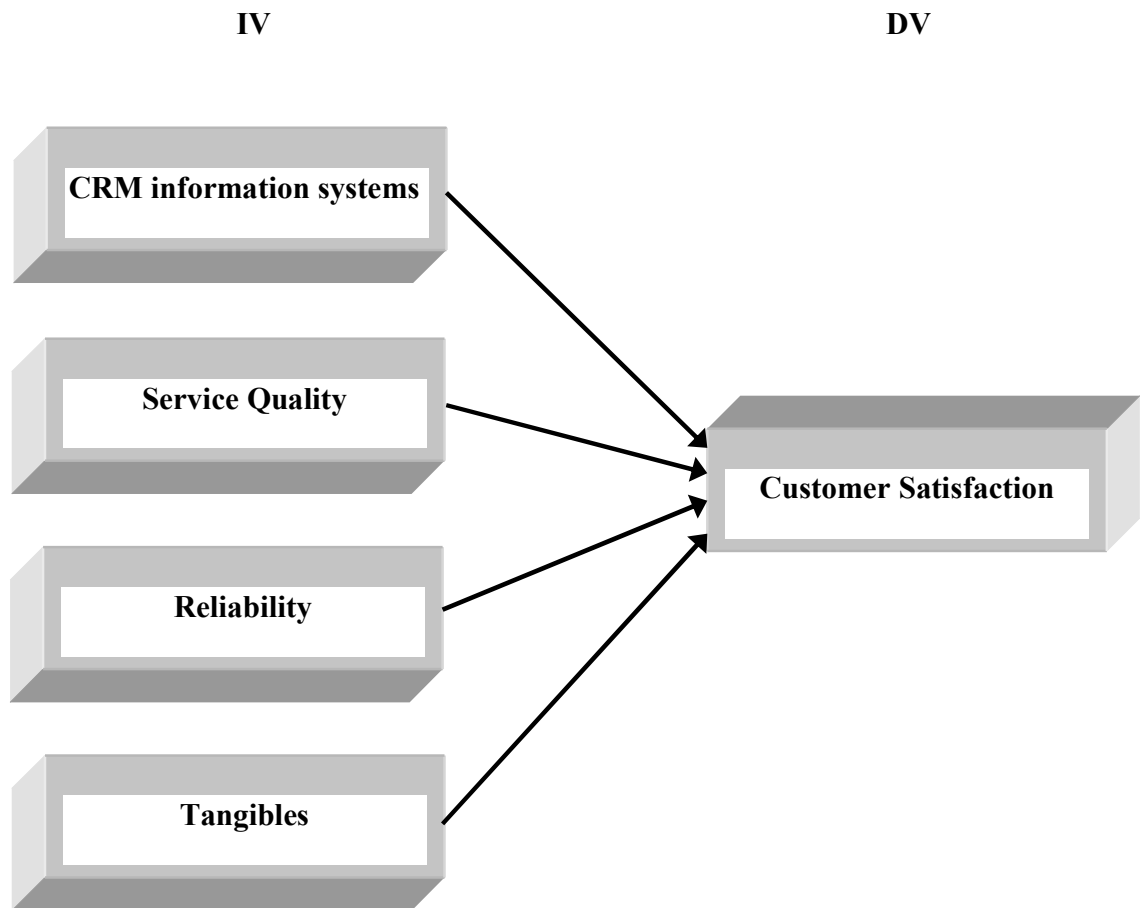


Figure 3.1 Research Framework

Figure 3.1 Research Framework Assessing Customer Relationship Management (CRM) Information Systems, Service Quality, Reliability, and Tangibles Effect on Customer

Satisfaction in the Mobile Telecommunication Service Provider in Libya among master program students at Benghazi University in Libya.

3.2 Basic Concept of Independent and Dependent Variables.

3.2.1 CRM Information Systems.

CRM is a strategic approach concerned with creating improved shareholder value through the development of appropriate relationships with key customers and customer segments (Chen, 2007). CRM unites the potential of relationship marketing strategies and IT (information technology) to create profitable, long-term relationships with customers and other key stakeholders. CRM provides enhanced opportunities to use data and information to both understand customers and co-create value with them. This requires a cross-functional integration of processes, people, operations, and marketing capabilities that is enabled through information, technology and applications (Wang, 2012).

3.2.2 Service Quality.

Service Quality is a vital precedent of customer satisfaction. On the other hand, they believe customer satisfaction to influence the purchase of another (Stafford, 2008). Other define, quality is the degree of excellence of the product in relation to objective standards, while the satisfaction of the consumers appears after consumption, expressed

as the degree of fulfillment of prior expectations. Therefore, creating strong customer-focused relationships requires understanding the needs of specific customers and the firm's success in meeting these needs (Parasuraman, 1988). Such as, a means to measure the perceptions of customers' experiences in the services encounter is important.

3.2.3 Reliability.

According to Kotler, (2002) reliability is defines as the ability to perform the promised service dependably and accurately is the reliability. He added that customers want performance to be consistent and dependable.

3.2.4 Tangibles.

According to Kotler, (2002) Tangible a defined as the appearance of physical facilities, equipment, personnel, and communication material of an organization is the tangibles. He added that customers look for quality in the equipment, facilities, and communication materials used to provide the service.

3.2.5 Customer Satisfaction.

Lin, (2003) defines customer satisfaction as the outcome of a cognitive and affective evaluation of the comparison between expected and actually perceived performance,

which is based on how customers appraise delivery of goods or services. A perceived performance, which is less than the expected, leads to an unsatisfied customer. Perceived performance that exceeds expectations, on the other hand, leads to a satisfied customer. The expectations of a customer are built from past buying experience, advice from friends and counterparts, marketers' and competitors' information and promises.

3.3 Hypothesis.

The following hypothesis is proposed:

H1: There is a significant and positive relationship between customer relationship management information systems on customer satisfaction in mobile telecommunication service provider in Libya.

H2: There is a significant and positive relationship between service quality on customer satisfaction in mobile telecommunication service provider in Libya.

H3: There is a significant and positive relationship between reliability on customer satisfaction in mobile telecommunication service provider in Libya.

H4: There is a significant and positive relationship between tangibles on customer satisfaction in mobile telecommunication service provider in Libya.

3.4 Research Design.

This research concentrates on customer relationship management information systems, service quality, reliability, and tangibles on customer satisfaction. This study is quantitative in nature. The data in this research were collected by the survey method using a questionnaire to study the relationship between the independent variables and the dependent variables.

3.4.1 Questionnaire.

The questionnaire is one of the main tools for collecting data from the respondents. The types and designs of questionnaire that were used depend on the studies that had been carried out.

3.4.2 Variables and Measurement.

The questionnaire divided to six parts. A total of 39 questions contain in the questionnaire which is divided into six sections respectively which is Section A, Section B, Section C, Section D, Section E, and Section F. On every section of the questionnaires has its own instruction and guideline to the respondents. Scales rating from 1 to 5 were used for sections B, C, D, E, and F anchored by 1= “strongly disagree” to 5= “strongly agree”. This part has 35 questions.

3.4.3 The summary of each questions are as follows:

Section A: Demographic.

Respondents were asked about their demographic information such as Gender, Age, Service provider, and Using a Mobile Phone.

Section B: Customer Relationship Management (CRM) Information Systems.

Consist of 13 questions adopted from Richard, (2008).

Section C: Service Quality.

Consist of 6 questions adopted from Bloemer and Ruyter, (1998).

Section D: Reliability.

Consist of 4 questions adopted from Parasuraman et al., (1988).

Section E: Tangibles.

Consist of 4 questions adopted from Parasuraman et al., (1988).

Section F: Customer Satisfaction.

Consist of 8 questions adopted from Bitner and Hubert, (1994).

Table 3.1: Measurement of Independent Variables and the Dependent Variable.

Customer relationship management (CRM) information systems are a management	1. I feel satisfied of the services provided by the CRM information systems.
---	--

<p>approach that enables organization to identify, attract, and increase retention of profitable customers by managing relationship with them.</p>	<p>2. I feel satisfied in case CRM information systems called me to ask for my opinion regarding the provided services.</p> <p>3. I feel satisfied in case CRM information systems; contact me by phone, cell phone or Email.</p> <p>4. I feel satisfied if I received congratulations letter from the CRM information systems in religious and public events.</p> <p>5. CRM information systems department regularly exchange information with our customer service directly is new prospects to increase the number of participant.</p> <p>6. I am feeling satisfied in case the CRM information systems developed effective communication tools with the customers.</p> <p>7. CRM information systems department is not transparent in providing information.</p> <p>8. I feel satisfied in case the information regarding the provided services can be found in the CRM information systems website.</p> <p>9. I feel satisfied if the CRM information systems in case it shows more interest of the customers and their complaints.</p> <p>10. I feel that the CRM information systems providing good services will lead to changing the way the customers dealing.</p>
--	--

	<p>11. Providing the information regarding the services provided by the CRM information systems in comfortable way to the customers will lead to develop the relation with you.</p> <p>12. Employee quick response in CRM information systems to my calls leads to I am feeling satisfied.</p> <p>13. I feel comfort in the CRM information systems services office.</p>
<p>Service quality is difference between customers' expectations for service performance prior to the service encounter and their perceptions of the service received.</p>	<p>1. Given the quality of your operator's coverage area, how would you rate the coverage area for your operator?</p> <p>2. Given the quality of your operator's customer services, how would you rate the customer service for your operator?</p> <p>3. Given the quality of your operator's adding service (GRPS, WAP, etc) how would rate the adding service for your operator?</p> <p>4. Given the quality of your operator's vendor, how would you rate the vendor for your operator?</p> <p>5. Given the quality of your operator's campaign, how would you rate the campaign for your operator?</p> <p>6. When you compare advertisement with service, how would you rate the service for your operator?</p>
<p>Reliability is The ability to perform the promised service dependably and accurately.</p>	<p>1. My service provider insists on error-free records.</p> <p>2. My service provider performs the service right.</p>

	<p>3. When I have a problem, features shows a sincere interest in solving it.</p> <p>4. My service provider provides its service at the time promise to do so.</p>
<p>Tangibles are appearance of physical facilities, equipment, appearance of personnel, and communication materials.</p>	<p>1. My service provider has contemporary and attractive visuals.</p> <p>2. The service provider frames with a very neat looking employee.</p> <p>3. Features of physical facilities are visually appealing.</p> <p>4. Materials associated with the service (such as pamphlets or statements) are visually appealing.</p>
<p>Customer satisfaction enhances the quality of relationship between customers and service providers, and increases the repeat purchase behavior.</p>	<p>1. Overall, My service provider has updated and effective technology.</p> <p>2. I am satisfied with the performance of my current service provider.</p> <p>3. I will not change my service provider.</p> <p>4. Overall, My service provider supports my work as a student.</p> <p>5. Overall, I do believe that My service provider has a minimal error level.</p> <p>6. Services delivered at the customer service counter are effective.</p> <p>7. Physical conditions of tangible features are well maintained.</p> <p>8. Valid instrument surroundings and nice ambience of service provider.</p>

3.5 Sampling.

Sekaran, (2003) in his book stated that sampling design and sampling size are very important. A proper sampling design and size helps the researcher to draw conclusions that would be generalized to the population of interest. In this study, the total population for this study consists of 250 master program students at University of Benghazi the details as show in table 3.2. However the purpose of this study a total of 152 master program students, questionnaires will be distributed randomly and it has studied base the Krajcic & Morgan sample table specification.

Table 3.2: Master Program Students at University of Benghazi

No.	Faculty	Total
1	Faculty of Law	22
2	Faculty of Science	20
3	Faculty of Education	47
4	Faculty of Economics & Administrative Sciences	36
5	Faculty of Applied Medical Science	31
6	Faculty of Engineering	18
7	Faculty of Information Technology	33
8	Faculty of Arts & Human Sciences	43
	Total	250

3.6 Data Collection.

Data gathering is an important process in this study. There are several methods in collection data such as primary data and secondary data. Primary data is the gathered and assembled specifically for the at hand, which has been observed and survey by using questionnaire. This research used primary data collection. The collecting data using quantitative technique which survey approach done using questionnaire. The questionnaire is used as the main tool to collect data from the respondents.

Data in this study was collected through the research instrument. The questionnaire was distributed and collected from the students after completing it, which were identified earlier. Then questionnaires collected and start analyzing the information based on the data in the questionnaire.

3.7 Data Analysis.

Data analysis is used and can help researcher to summarize the conclusion of the study. All items and variables were coded before entered to the computer in order to carry out factor analysis. The reasons or purpose to having data analysis was to help researcher achieve the objective of the study.

The data is analyzed by using Statistical Package for the Social Science (SPSS) version (19.0) the data collected in this study. For data processing, three statistical techniques have used for different purposes. These include reliability test, descriptive statistics, and correlation analysis.

3.8 Summary.

This chapter discussed the methodology that is used in this research. Specifically the study has identified the research framework, hypotheses, research design, measurement, population of the study, sample size, and the sampling procedure for the study. Finally, the data collection process and data analysis is explained in details. The following chapter will be discussed on the finding of the study in accordance with the research questions and objectives.

CHAPTER FOUR

FINDINGS

4.0 Introduction.

This chapter outlines the results of the analysis of data obtained from the data that was collected from the participants. So that as mentioned earlier; SPSS version (19) will be used to analyze the existing data using some of the statistics analyses related to the main aim for this study, such as profiles of respondents, reliability test, descriptive statistics and correlation analysis, in order to answer the research objective as well as to test the hypotheses that appeared in the chapter three in this study and answers to research questions highlighted in one chapter.

4.1 Profiles of Respondents.

The questionnaire was designed to seek information about the respondents (gender, age, service provider, and using a mobile phone). Questionnaires were distributed to 152 students (respondents) and only 132 respondents returned the answered questionnaire. Therefore, only 132 students were investigated using the questionnaire technique. The detailed breakdown of the customer's background has been given from table (4.1) to table (4.4) and from figures (4.1) to (4.4).

4.1.1 Respondent According to Gender.

From the table (4.1), the total number of respondents in the study is 132 consisting of both males and females. The results show that more than of the respondents consist of males and the rest are females. The results indicate that 117 or 88.6 % of the male respondents provided answer to the questionnaire and the percentage of female students who responded were 15 or 11.4 % at Benghazi University in Libya. The table (4.1) below illustrates the gender distribution of these students.

Table (4.1) Frequency Distribution by Gender

	Frequency	Percent
Male	117	88.6
Female	15	11.4
Total	132	100.0

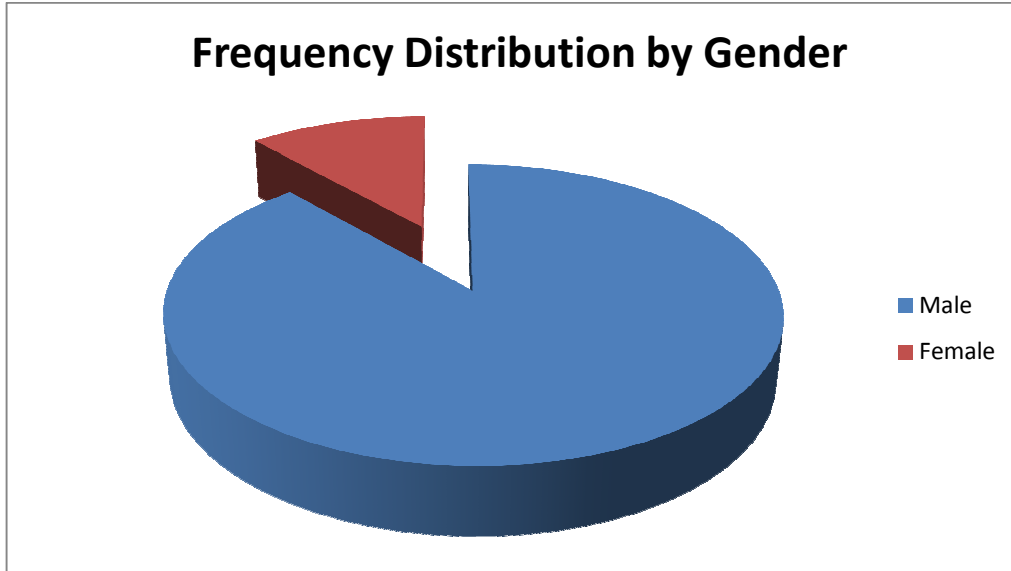


Figure (4.1) Percentage Distribution by Gender

4.1.2 Respondent According to Age.

From the table (4.2), most of the respondents which has a larger number of males as compared to women in terms of age, 42.4 % were below or between 20 to 25 years, 40.9 % were 26 to 30 years, 15.2 % were 31 to 35 years, and 1.5 % were 35 and above out of 132 respondents. The table (4.2) illustrates the age distribution of these students.

Table (4.2) Frequency Distribution by Age

	Frequency	Percent
20 to 25	56	42.4
26 to 30	54	40.9
31 to 35	20	15.2
More than 35	2	1.5
Total	132	100.0

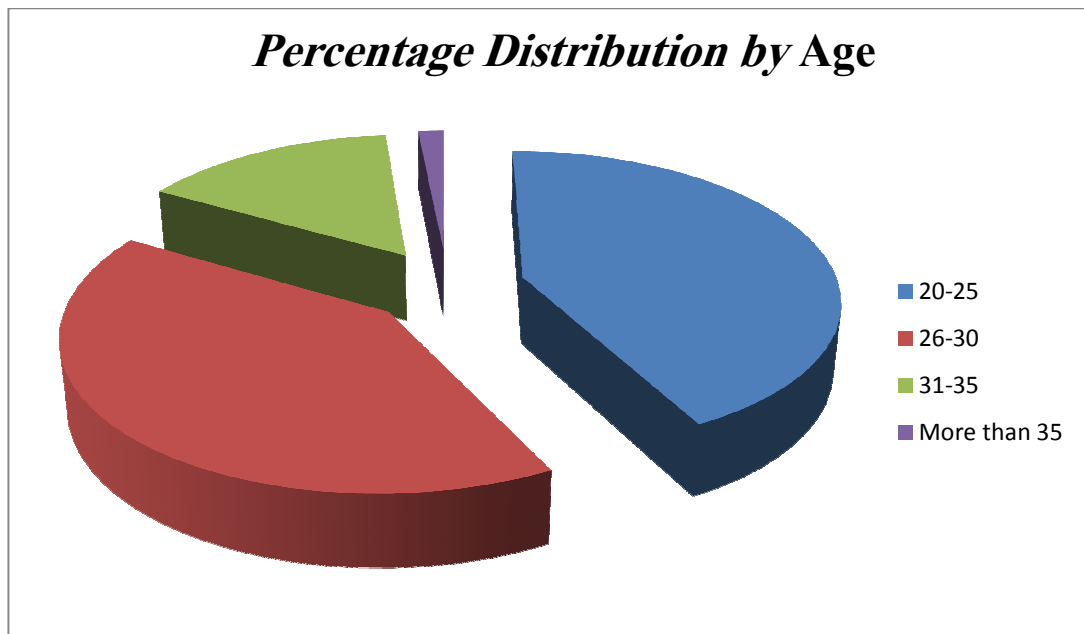


Figure (4.2) Percentage Distribution by Age

4.1.3 Respondent According to Service Provider.

From the table (4.3), indicates that the majority of the students who participated in answering the questionnaire were from the 86 users or 65.2 % was from Libyana company while the rest which is 46 users or 34.8 % of Al Mader company. In summary of this, the students at Benghazi University in Libya have a large number of the use of Lbyana Company than Al Mader Company. The table (4.3) below illustrates the service provider distribution of these students.

Table (4.3) Respondent According to Service Provider

	Frequency	Percent
Libyana	86	65.2
Al Mader	46	34.8
Total	132	100.0

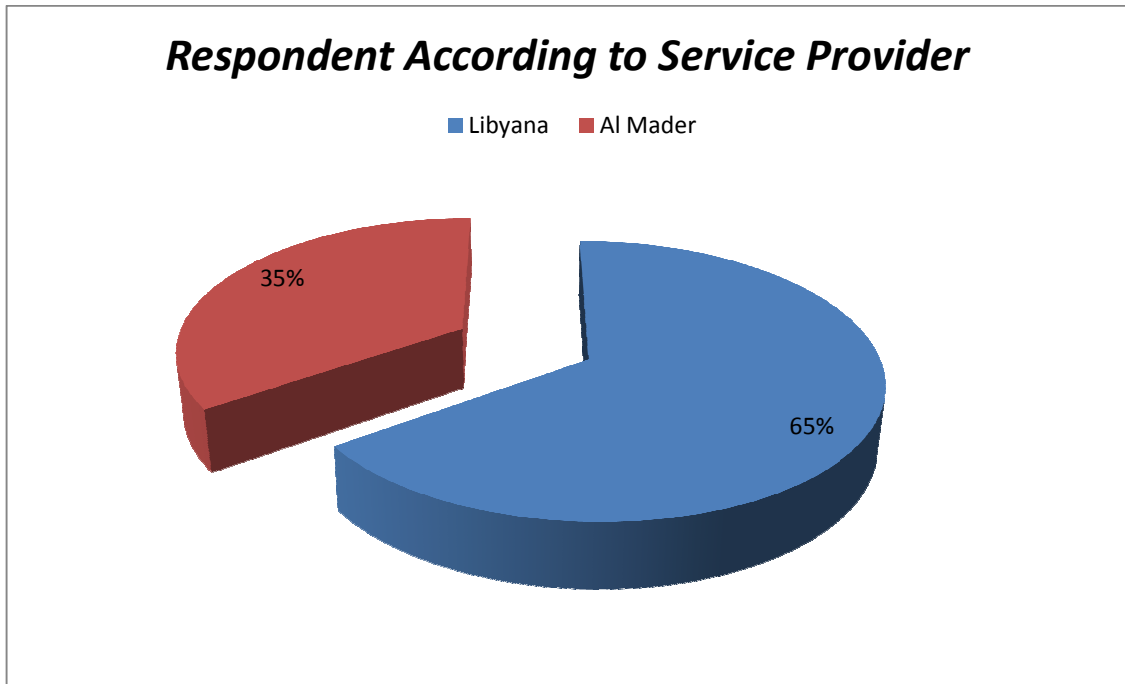


Figure (4.3) Respondent According to Service Provider

4.1.4 Respondent According to Using a Mobile Phone.

From the table (4.4), with regards to the using a mobile phone, it has been shown that the majority of respondents of 1 to 2 years were 61 or 46.2 %, more than 2 years were 39 or 29.5 %, 6 to 12 months were 25 or 18.9%, and less than 6 months were 7 or 5.3 % of respondents were using the Libyana and Al Mader at Benghazi University in Libya. The table (4.4) illustrates the using a mobile phone distribution of these students.

Table (4.4) Respondent According to Using a Mobile Phone

	Frequency	Percent
Less than 6 months	7	5.3
6 to 12 months	25	18.9
1 to 2 years	61	46.2
More than 2 years	39	29.5
Total	132	100.0

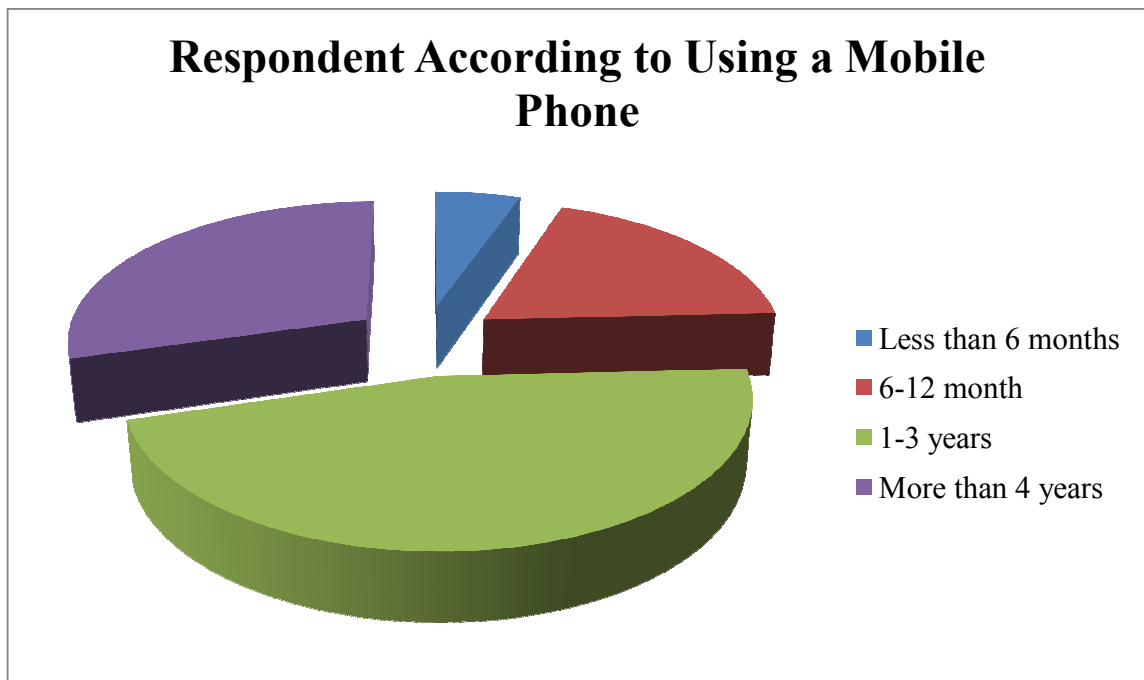


Figure (4.4) Respondent According to Using a Mobile Phone

4.2 Reliability Test.

In order to prove the internal reliability of the model used, the Cronbach's Alpha Test of Reliability has been performed. Applying this test specifies whether the items pertaining to each factor are internally consistent and whether they can be used to measure the same construct or variation of the framework. According to Nunnally (1978) Cronbach's alpha should be (0.7) or above. But, some of the studies (0.6) also considered acceptable (Gerrard, et al, 2006; Kenovaand Jonasson, 2006). Table no (4.5) indicates that the Cronbach's alpha value of Reliability was (.765) which is the lowest value, where it still remained above or more than (0.7), and for CRM information systems Cronbach's alpha value (.878), the tangibles (.822), Customer satisfaction (.997) and Service quality was (.841). Therefore, all of the items were suitable for performing the factor analysis and so on. However, Cronbach's alpha value of all items were acceptable, which means that, present date suitable to go ahead of performing the pervious purposed analysis technical tests.

Table (4.5) Results of Reliability Tests for Variables

	N of Items	Cronbach's Alpha
CRM information systems	13	.878
Service quality	6	.841
Reliability	4	.765
Tangibles	4	.822
Customer satisfaction	8	.997
Total	35	

4.3 Descriptive Statistics.

The descriptive provides the summary of statistics such as the minimum and maximum values, mean, we have used graphs to show the percentage of consumer users of the both companies Al Madar and Libyana (by users) in relation to each of the variable. The measurement of satisfaction is based on the percentage of respondents who, on a scale from 1 to 5, rated their satisfaction in the range between 3 and 5. The measurement of dissatisfaction is based on the percentage of respondents who rated their satisfaction equal to or less than 3. When comparing the proportion of users or un-users consumers of the Al Madar and Libyana companies, 2 situations can be observed in the graphs. This information is provided in the result's table (4.6).

Table (4.6) Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Gender	132	1.00	2.00	1.1136	.31858
Age	132	1.00	4.00	1.7576	.76289
Service Provider	132	1.00	2.00	1.3485	.47831
Mobile usage	132	1.00	4.00	3.0000	.83803
Valid N (listwise)	132				

The descriptive analyses of the variables namely CRM Information Systems, Service Quality, Reliability, and Tangibles on customer satisfaction are discussed in this section.

4.3.1 CRM information systems.

There were 13 questions on CRM information systems and the mean for them was ranged 3.8473. The standard deviation ranged .77058 of the 13 questions that were answered on CRM information systems. A detailed description of this information is shown in the table 4.7 below.

Table 4.7 Mean and Standard Deviation for CRM Information Systems

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
CRM information systems	132	1.00	5.00	3.8473	.77058
Valid N (listwise)	132				

4.3.2 Service Quality.

There were 6 questions on service quality and the mean for them was ranged 4.1490. The standard deviation ranged .65843 on the 4 questions that were answered on service quality. A detailed description of this information is shown in the table (4.8) below.

Table 4.8 Mean and Standard Deviation for Service Quality

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Service quality	132	1.00	5.00	4.1490	.65843
Valid N (listwise)	132				

4.3.3 Reliability.

There were 4 questions on reliability and the mean for them was ranged 4.0606. The standard deviation ranged .54748 of the 4 questions that were answered on reliability. A detailed description of this information is shown in the table (4.9) below.

Table (4.9) Mean and Standard Deviation for Reliability

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Reliability	132	1.00	5.00	4.0606	.54748
Valid N (listwise)	132				

4.3.4 Tangibles.

There were 4 questions on tangibles and the mean for them was ranged 4.0625. The standard deviation ranged .77187 of the 4 questions that were answered on tangibles. A detailed description of this information is shown in the table (4.10) below.

Table (4.10) Mean and Standard Deviation for Tangibles

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Tangibles	132	1.00	5.00	4.0625	.77187
Valid N (listwise)	132				

4.3.5 Customer Satisfaction.

There were 8 questions on customer satisfaction and the mean for them was ranged 3.9337. The standard deviation ranged .77633 on the 4 questions that were answered on customer satisfaction. A detailed description of this information is shown in the table (4.11).

Table (4.11) Mean and Standard Deviation for Customer Satisfaction

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Customer Satisfaction	132	1.00	5.00	3.9337	.77633
Valid N (listwise)	132				

4.4 Correlation Analysis.

After conducting a descriptive analysis of the data a correlation test is conducted to determine the relationship among the variables the independent and dependent variables by keeping customer satisfaction as a dependent variable and CRM information system, service quality, reliability and tangibles as an independent variable. It shows a positive correlation between the customer satisfaction and CRM information systems and the same to customer satisfaction and service quality, reliability and tangibles which have shown a positive relation in the following table (4.12). It shows that reasons of CRM information systems, service quality, reliability and tangibles influence the customer satisfaction as well.

Table (4.12) Correlation Test Table of all over the Variables

		CRM information systems	Service quality,	Reliability	Tangibles	Customer satisfaction
CRM information systems	Pearson Correlation Sig. (2- tailed) N	1 132	.348** 132	.338** 132	.425** 132	.799** 132
Service quality	Pearson Correlation Sig. (2- tailed) N		1 132	.490** 132	.200* 132	.358** 132
Reliability	Pearson Correlation Sig. (2- tailed) N			1 132	.290** 132	.385** 132
Tangibles	Pearson Correlation Sig. (2- tailed) N				1 132	.389** 132
Customer satisfaction	Pearson Correlation Sig. (2- tailed) N					1 132

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Table (4.13) Hypothesis

Null Hypothesis	The result
H1: There is a significant and positive relationship between customer relationship management information systems on customer satisfaction in mobile telecommunication service provider in Libya.	Positive
H2: There is a significant and positive relationship between service quality on customer satisfaction in mobile telecommunication service provider in Libya.	Positive
H3: There is a significant and positive relationship between reliability on customer satisfaction in mobile telecommunication service provider in Libya.	Positive
H4: There is a significant and positive relationship between tangibles on customer satisfaction in mobile telecommunication service provider in Libya.	Positive

4.4.1 Correlation between CRM Information Systems and Customer Satisfaction.

From the table (4.14), there is a significant correlation between customer satisfaction and CRM information systems. A significant positive relationship is observed between customer satisfaction and CRM information systems (.799**). Therefore, and based on

that we accepted H1 which states that there is a significant relationship between Customer Satisfaction and CRM information systems.

Table (4.14) Correlation between Customer Satisfaction and CRM information systems

		Customer satisfaction
CRM information systems	Pearson Correlation	.799**
	Sig. (2-tailed)	.000
	N	132

4.4.2 Correlation between Service Quality and Customer Satisfaction.

From the table (4.15), there is a significant correlation between customer satisfaction and service quality. A significant positive relationship is observed between Customer Satisfaction and service quality (.358**). Therefore, and based on that we accepted H2 which states that there is a significant relationship between customer satisfaction and service quality.

Table (4.15) Correlation between Customer Satisfaction and Service Quality

		Customer satisfaction
Service quality	Pearson Correlation	.358**
	Sig. (2-tailed)	.000
	N	132

4.4.3 Correlation between Reliability and Customer Satisfaction.

From the table (4.16), there is a significant correlation between customer satisfaction and reliability. A significant positive relationship is observed between customer satisfaction and reliability (.385**). Therefore, and based on that we accepted H3 which states that there is a significant relationship between customer satisfaction and reliability.

Table (4.16) Correlation between Customer Satisfaction and Reliability

		Customer satisfaction
Reliability	Pearson Correlation	.385**
	Sig. (2-tailed)	.000
	N	132

4.4.4 Correlation between Tangibles and Customer Satisfaction.

From the table (4.17), there is a significant correlation between customer satisfaction and tangibles. A significant positive relationship is observed between customer satisfaction and tangibles (.389**). Therefore, and based on that we accepted H4 which states that there is a significant relationship between customer satisfaction and tangibles.

Table (4.17) Correlation between Customer Satisfaction and Tangibles

		Customer satisfaction
Tangibles	Pearson Correlation	.389**
	Sig. (2-tailed)	.000
	N	132

4.5 Summary.

This chapter discussed the findings of this study using statistical analysis and it has explained characteristics of the sample. Also, it has used the reliability test, descriptive statistics, and correlation analysis. There is a positive effect and significant relationship between customer relationship management (CRM) information systems, service quality, reliability, tangibles, and customer satisfaction.

CHAPTER FIVE

DISCUSSION AND CONCLUSION

5.0 Introduction.

This chapter discusses the findings of the study based on the research questions developed as well as different literature reviewed. This chapter structured as follows: first section includes the discussion, followed by the second section on limitation of research. The third section is the recommendation for future study, and finally the fourth section on the conclusion of study.

5.1 Discussion of Findings.

This study addresses the research questions relating to the role played by customer relationship management (CRM) information systems, service quality, reliability, and tangibles in influencing the customer satisfaction among the master program students using a mobile phone at the University of Benghazi in Libya. The study has achieved the objective which had a positive relationship, and the discussion of this study is as follow:

The hypothesis tests confirm that independent variables and dependent variable are positively associated with customer satisfaction. In addition, is shows the customer

relationship management (CRM) information systems the highest positive correlation (.799**) with customer satisfaction. There is a positive correlation between service quality and customer satisfaction (.358**). Also, There is a significant correlation between reliability and customer satisfaction (.385**). Finally, there is a positive relationship between tangibles and customer satisfaction (.389**).

5.2 Limitations of Research.

The study has its own limitation. Firstly, the study is only focused on master program students at the University of Benghazi in Libya. Therefore the finding of the study is unable to be generalized for the whole population of mobile phone users in Libya. Secondly, future researches should be employ large sample size from diverse locations. Third, it will improve the performance of firms by designing the best CRM information systems strategies to tailor with customers' preference. Finally, should focus more on the CRM information systems activities due to the result that the highest contribution for customers' satisfaction is come from the CRM information systems.

5.3 Recommendation for Future Research.

Based on the research finding above, found that there is a relationship exist between CRM information systems efforts to the contribution of customer satisfaction. According to the correlation analysis, occurs a high relationship between (CRM) information

systems and customer satisfaction. It means that the (CRM) information systems really contribute to customer satisfaction.

This study found that when wishing to enhance customer satisfaction, the effective strategy is to build a good (CRM) information systems functional program, which has equal effects on customer satisfaction and loyalty. The establishment of customer relationships can help enterprises understand the real needs of customers and provide customers with unique services, which are different from those by their competitors who are unable to offer the same value and the difference is effective.

Our suggestion for other researchers to intensification more study about customer relationship management (CRM) information systems in Libyan area, and try to test more variables which influence of customer satisfaction. It develop new sources of customers so as to upgrade competitive advantage, the primary method is to establish a perfect (CRM) information systems functional program.

In light of this study and the results that have been achieved the researcher recommend the following studies.

1. CRM information systems are large topic of research.
2. The critical success factors of (CRM) information systems implementation in the Libya Market.

3. Feasibility study of application and implementation of customer relationship management (CRM) information systems.
4. The Effect of Top management support on achieving successful (CRM) information systems implementation.
5. The aims of (CRM) information systems differ between different kinds of companies.

5.4 Conclusion.

This research is designed to study on relationship between customer relationship management (CRM) information systems, service quality, reliability, and tangibles, towards customer satisfaction at the University of Benghazi in Libya the master program students using a mobile phone. The researcher concluded that (CRM) information systems, service quality, reliability, and tangibles, were significantly positively correlated with customer satisfaction.

As competition is increasing among the companies especially in the mobile market today and this market has become extremely competitive and the service provider are moving aggressively to attract customer by offering attractive promotion and service. Finally, this research will encourage further study and useful guidelines for these types of researches.

References.

- Alhemoud, A. M. (2010). Banking in Kuwait: a customer satisfaction case study, competitiveness review. *An International Business Journal incorporating Journal of Global Competitiveness* , 20(4), 333-342.
- Anderson, R. E. (2003). E-satisfaction and e-loyalty: A contingency framework. *Journal of Psychology and Marketing* , 20(2), 123-138.
- Alryalat, H. &. (2008). Towards customer knowledge relationship management: Integrating knowledge management and customer relationship management process. *Journal of Information and Knowledge Management* , 7(3), 145-157.
- Ata, U. Z. (2012). The effect of customer relationship management adoption in business-to-business markets. *Journal of Business and Industrial Marketing* , 27(6), 497-507.
- Anderson, E. W. (1994). Customer satisfaction, market share, and profitability: findings from Sweden. *The Journal of Marketing* , 53-66.
- Asubonteng, P. M. (1996). SERVQUAL revisited: a critical review of service quality. *Journal of Services Marketing* , 10(6), 62-81.
- Aydin, S. &. (2005). The analysis of antecedents of customer loyalty in the Turkish mobile telecommunication Market. *European Journal of Marketing* , 39(8), 910-925.
- Anderson, E. W. (2004). customer satisfaction and shareholder value. *Journal of Marketing* , 68(4), 172-185.
- Baird, C. H. (2011). From social media to social customer relationship management. *Strategy & Leadership* , 39(5), 30-37.
- Bharadwaj, S. G. (1993). Sustainable competitive advantage in service industries: A conceptual model and research propositions. *Journal of Marketing* , 57(4), 82-97.
- Blanc, L. &. (1999). Customers perceptions of service quality in financial institution. *International Journal of Marketing* , 6(4), 7-18.

- Bahia, S. T. (2000). A comparison of service quality in the banking industry. *International Journal of Bank Marketing* , 23(7), 508-526.
- Bitner, M. J. & Hubert, A. R. (1994). Encounter Satisfaction Versus Overall Satisfaction Versus Quality: The Customer's Voice. *New Directions in Theory and Practice*, Sage Publications, London, 72-94.
- Bloemer & Ruyter. 1998. *Customer loyalty in extended service settings, the interaction between satisfaction, value attainment and positive mood*. Limburg: Limburg University Centre, Department of Applied Economics, Universities Campus, Belgium.
- Bradi, M. A. (2000). Stated-importance versus derived importance customer satisfaction measurement. *Journal of Service Marketing* , 16(4), 285-301.
- Bolton, R. L. (2008). Expanding Business-to-Business customer relationships: modeling the customer's upgrade decision. *Journal of Marketing* , 72(4), 46-64.
- Boulding, W. S. (2005). A customer relationship management roadmap: What is known, potential pitfalls, and where to go. *Journal of Marketing* , 69(4), 155-166.
- Bolton, R. N. (1998). A dynamic model of the duration of the customer's relationship with a continuous service provider: The role of satisfaction. *Marketing Science* , 17(1), 45-65.
- Bose, R. (2002). Customer relationship management: Key components for IT success. *Industrial Management & Data Systems* , 102(2), 89-97.
- Bolton, N. K. (2004). Theoretical underpinnings of customer asset management: A framework and propositions for future research. *Journal of the Academy of Marketing Science* , 32(6), 271-291.
- Bolton, R. N. (2000). Implications of loyalty program membership and service experiences for customer retention and value. *Journal of the Academy of Marketing Science* , 28(1), 95-108.
- Business, M. H. (2012). Customer relationship management and customer satisfaction. *African Journal of Business Management* , 6(22), 6682-6686.

- Bull, C. (2003). Strategic issues in CRM implementation. *Business Process Management Journal* , 9(5), 592-602.
- Caruana, A. (2002). Service loyalty: The effects of service quality and the mediating role of customer satisfaction. *European Journal of Marketing* , 36(7), 811-828.
- Cronin Jr, J. J. (1992). Measuring service quality: a reexamination and extension. *The Journal of Marketing* , 55-68.
- Company, A.m.(2012). *About us* Retrieved from <http://www.almadar.ly/aboutUs.aspx?lang=2>.
- Company, L. (2012). *About us*. Retrieved from <http://libyana.ly/en/aboutus.php>.
- Chen, J. S. (2007). The effects of mobile customer relationship management on customer loyalty: Brand image does matter. *Proceedings of the 40th Hawaii International Conference on System Sciences*, (1-10). Hawaii.
- Coskun, A. &. (1992). Service: the competitive edge in banking. *Journal of Services Marketing* , 6(1), 15-22.
- Cronin, J. J. (2000). Assessing the effects of quality, value, and customer satisfaction on consumer behavioral intentions in service environments. *Journal of Retailing* , 76 (2), 193-218.
- Caruana, A. M. (2000). "Service quality and satisfaction ± the moderating role of value. *European Journal of Marketing* , 34, 11-12.
- Chaoprasert, C. &. (2004). Service quality improvement in Thai retail banking and its management implications. *ABAC Journal* , 24(1), 47-66.
- Chaudhry, P. E. (2007). Developing a process to enhance customer relationship management for small entrepreneurial businesses in the service sector. *Journal of Research in Marketing and Entrepreneurship* , 9(1), 4-23.
- Dickinson, R. F. (2005). Setting priorities with CSFs. *Business Horizons* , 35(2), 44-47.
- Don, P. &. (2004). Managing customer relationship. *Harvard Business Review* , 77, 151-160.

- Davenport, T. H. (2001). How do they know their customers so well. *Sloan Manag* , 42 (2), 63-73.
- Fornell, C. (1992). A national customer satisfaction barometer: the Swedish experience. *The Journal of Marketing* , 6-21.
- Gilaninia, S. A. (2011). CRM application impact on customer satisfaction in financial and credit institutions (Case study: Financial and Credit Institutions in Guilan, Iran). *Journal of Basic and Applied Scientific Research* , 1, 956-963.
- Hadzagas, C. (2011). Applying customer relationship management systems for customer satisfaction: An empirical approach for small-and- medium-sized companies. *European Journal of Economics, Finance and Administrative Sciences* , 40, 59-72.
- Hoots, M. (2005). Customer relationship management for facility managers. *Journal of Facilities Management* , 3(4), 346-361.
- Hooks, K. L. (2002). Customer satisfaction and retention: The experiences of individual employees. *Managing Service Quality* , 14(1), 40-57.
- Kim, J. S. (2003). A model for evaluating the effectiveness of CRM using the balanced scorecard. *Journal of Interactive Marketing* , 17(2), 5-19.
- Kim, S. (2011). Assessment on security risks of customer relationship management system. *International Journal of Software Engineering and Knowledge Engineering* , 20(1), 103-109.
- Kotler, P. (2002). Country as brand, product, and beyond: A place marketing and brand management perspective. *The Journal of Brand Management* , 9(4), 249-261.
- Kamakura, A. W. (2002). Assessing the service profit chain. *Marketing Science* , 21, 294-317.
- Lukkari, P. (2011). Merger: institutional interplay with customer relationship management. *Management Research Review* , 34(1), 17-33.
- Li, R. Y. (1998). A case study for comparing two service quality measurement approaches in the context of teaching in higher education. *Quality in Higher Education* , 4(2), 103-113.

- Lin, C. C. (2003). A critical appraisal of customer satisfaction and ecommerce. *Managerial Auditing Journal* , 18(3), 202-212.
- Ling, A. &. (2001). Customer relationship management research. *International Journal of Research in Marketing* , 14(5), 405-420.
- Lai, T. (2007). Service Quality and perceived value's impact on satisfaction, Intention and usage of short message service (SMS). Information Systems Frontiers: Special Issue:. *Industrial Information Systems Frontiers* , 6(4), 353-368.
- Luo, X. G. (2004). The effects of customer relationships and social capital on firm performance. *Journal of International Marketing* , 9(3), 25-45.
- Ling, R. &. (2001). Customer relationship management: An analysis framework and implementation strategies. *The Journal of Computer Information Systems* , 41(3), 83-99.
- Lian, K. (2009). Service quality and customer satisfaction: Antecedents of customer's re-patronage intentions. *Sunway Academic Journal* , 12(4), 4-60.
- Labarbera, P. A. (1983). A longitudinal assessment of consumer satisfaction/dissatisfaction: the dynamic aspect of the cognitive process. *Journal of Marketing Research* , 393-404.
- Lawrence, C. (2002). Exploring some myths about customer relationship management. *Managing Service Quality* , 12(5), 271-277.
- McDougall, G. &. (1994). A revised view of service quality dimensions: an empirical investigation. *Journal of Professional Services Marketing* , 11(1), 189-210.
- Mithas, S. K. (2005). Why do customer relationship management applications affect customer satisfaction? *Journal of Marketing* , 69(2), 201-209.
- Mithas, S. A. (2006). Do CRM systems cause One-to-One marketing effectiveness? *Statistical Science* , 21(2), 223-233.
- McCleary, K. W. (1982). Improving employee service levels through identifying sources of customer satisfaction. *International Journal of Hospitality Management* , 1(2), 85-89.

- Mishkin, L. (2001). Modelling bank customer satisfaction through mediation of attitudes towards human and automated banking. *International Journal of Bank Marketing* , 18(3), 124-134.
- Murillo, M. G. (2002). Customer knowledge management. *The Journal of the Operational Research Society* , 53(8), 875-884.
- Nawak., & W. (1998). Antecedents to client satisfaction in business services. *Journal of Service Marketing* (12), 441-452.
- Nguyen, T. H. (2007). Strategies for successful CRM implementation. *Information Management & Computer Security* , 15(2), 102-115.
- Naser, K. J.-K. (2008). Islamic banking: A study of customer satisfaction and preferences in Jordan. *International Journal of Bank Marketing* , 17(3), 135-150.
- Nguyen, B. &. (2012). A review of customer relationship management: successes, advances, pitfalls and futures. *Business Process Management Journal* , 18(3), 400-419.
- Oliver, R. L. (1999). When consumer loyalty? *Journal of Marketing* , 63(4), 33-44.
- Othman, A. &. (2000). Adopting and measuring customer services quality (SQ) in Islamic bank: A case study in Kuwait Finance House. *International Journal of Islamic Financial services* , 3(1), 123-137.
- Osarenkhoe, A. &. (2007). An exploratory study of implementation of customer relationship management strategy. *Business Process Management Journal* , 13(1), 139-164.
- Öztaysi, B. S. (2011). A measurement tool for customer relationship management processes. *Industrial Management & Data Systems* , 111(6), 943-960.
- Popovich, K. &. (2003). Understanding customer relationship management. *Business Process Management Journal* , 9(5), 672-688.
- Padmavathy, C. B. (2012). Measuring effectiveness of customer relationship management in Indian retail banks. *International Journal of Bank Marketing* , 30(4), 246-266.

- Plakoyiannaki, E. T. (2008). How critical is employee orientation for customer relationship management? Insights from a case study. *Journal of Management Studies* , 45(2), 268-293.
- Payne, A. &. (2006). Customer Relationship Management: from Strategy to Implementation. *Journal of Marketing managment* , 22, 135-168.
- Parasuraman, A. &. (1988). SERVQUAL: A Multi-Item Scale for Measuring Consumer Perceptions of Service Quality. *Journal of Retailing* , 64(1), 12-40.
- Parasuraman, A. Z. (1994). Reassessment of expectations as a comparison standard in measuring service quality. *The Journal of Marketing* , 111-124.
- Prabhakaran, S. &. (2003). An insight into service attributes in banking sector. *Journal of Services Research* , 3(1), 157-169.
- Parasuraman, A. Z. (1985). A conceptual model of service quality and its implications for future research. *The Journal of Marketing* , 12(3), 41-50.
- Popovich, K. &. (2003). Understanding customer relationship management. *Business process Management Journal* , 9(5), 672-688.
- Peter, C. V. (2003). Understanding the effect of customer relationship management efforts on customer retention and customer share development. *Journal of Marketing*, 67(2), 30-45.
- Parvatiyar, A. &. (2001). Customer relationship management: emerging practice, process, and discipline. *Journal of Economic and Social Research* , 3(2), 1-34.
- Payne, A. &. (2005). Strategic framework for customer relationship management. *Journal of Marketing* , 69, 167-176.
- Raman, P. W. (2006). Leveraging CRM for sales: The role of organizational capabilities in successful CRM implementation. *Journal of Personal Selling & Sales Management* , 26(1), 39-53.
- Reinartz, W. K. (2004). The customer relationship management process: Its measurement and impact on performance. *Journal of Marketing Research* , 41, 293-305.

- Richard, K. A. (2008). Customer relationship management: Finding value drivers. *International Marketing Management* , 37(2), 120-130.
- Rust, T. R. (2002). getting return on quality: revenue expansion, cost reduction, or both? *Journal of Marketing* , 66(7), 7-24.
- Rauyruen, P. &. (2005). Relationship quality as predictor of B2B customer loyalty. *Journal of Business Research* , 60, 21-31.
- Roberts, M. L. (2005). Strategy, technology and organisational alignment: Key components of CRM success. *Journal of Database Marketing & Customer Strategy Management*, 12(4), 315-326.
- Richard, J. E. 2008. *The impact of customer relationship management on customers' loyalty*. New York: Irwin/McGraw-Hill.
- Stewart, B. (2005). The key to keeping business-to-business customers. *Measuring Business Excellence* , 6(4), 26-27.
- Smith, M. &. (2010). Improving customer outcomes through the implementation of customer relationship management: Evidence from Taiwan. *Asian Review of Accounting* , 18(3), 260-285.
- Sun, B. (2006). Technology innovation and implications for customer relationship management. *Marketing Science* , 25(6), 594-597.
- Sarlak, A. M. (2009). The impact of CRM on the customer satisfaction in Agricultural bank. *American Journal of Economic and Business Administration* , 1(2), 173-178.
- Seeman, E. D. (2006). Customer relationship management in higher education: Using information systems to improve the student-school relationship. *Campus-Wide Information Systems* , 23(1), 24-34.
- Sheth, J. N. (2002). The future of relationship marketing. *Journal of Services Marketing* , 16(7), 590-592.
- Srinivasan, R. &. (2005). Strategic firm commitments and rewards for customer relationship management in online retailing. *Journal of Marketing* , 69(4), 193-200.

- Swift, C. I. (2002). Customer relationship management systems implementation risks and relationship dynamics. *Qualitative Market Research: an Internal Journal* , 5 (4), 225-239.
- Stafford, M. R. (2008). Determinants of service quality and satisfaction in the auto casualty claims process. *The Journal of Service Marketing* , 12(6), 426-440.
- Spatis, C. (2004). Managing service quality in banks: customer gender effect. *Managing Service Quality* , 14, 90-102.
- Shin, D. H. (2007). Mobile number portability on customer switching behaviour: in case of Korean Mobile market. *Emerald Group Publishing Limited* , 9(4), 226-238.
- Shoemake, M. E. (2001). A framework for examining IT-enabled market relationships. *Journal of Personal Selling & Sales Management* , 21(2), 177-185.
- Sureshchander, G. R. (2002). The relationship between service quality and customer satisfaction: a factor specific approach. *Journal of Services Marketing* , 16(4), 363-379.
- Sarlak, M. A. (2009). The impact of CRM on the customer satisfaction. *American Journal of Economics and Business Administration* , 1(2), 167-172.
- Sharma, A. L. (2000). Knowledge structures of salespeople as antecedents of retail sales performance: An empirical examination. *Retail* , 76(1), 53-69.
- Scullin, S. F. (2004). E-Relationship marketing: changes in traditional marketing as an outcome of electronic customer relationship management. *Journal of Enterprise Information Management* , 17(6), 410-415.
- Usman, U. M. (2012). The impact of electronic customer relationship management on consumer's behavior. *International Journal of Advances in Engineering & Technology* , 3(1), 500-504.
- Urbanskiene, R. Z. (2008). The model of creation of customer relationship management (CRM) system. *The Economic Conditions of Enterprise Functioning* , 3(58), 15-59.
- Uncle, M. D. (2003). customer loyalty and customer loyalty programs. *Journal of Consumer Marketing* , 20(4), 294-316.

- Valsecchi, M. R. (2007). Mobile customer relationship management: an exploratory analysis of Italian applications. *Business Process Management Journal* , 13(6), 755-770.
- Wang, J. E. (2000). Introducing uncertain performance expectations in satisfaction models for services. *International Journal of Service Industry Management* , 10(1), 82-99.
- Wang, J. E. (2003). Introducing uncertain performance expectations in satisfaction models for services. *International Journal of Service Industry Management* , 10(1), 82-99.
- Wang, Y. &. (2012). Customer relationship management capabilities: Measurement, antecedents and consequences. *Management Decision, & CRM capabilities* , 50(1), 115-129.
- Worren, R. B. (2002). Customer satisfaction. *International Journal of Health Care Quality Assurance* , 19(1), 8-31.
- Yoon, D. C. (2008). Building customer relationships in an electronic age: The role of interactivity of E-Commerce web sites. *Psychology and Marketing* , 25(7), 602-618.
- Zahay, D. &. (2004). Customer learning process, strategy selection, and performance in business-to-business service firms. *Decision Sciences* , 35(2), 169-203.
- Zajac, E. J., K. C. (2000). Service quality perspective and satisfaction in private banking. *Journal of Service Marketing* , 14(3), 244-271.
- Zablah, A. R. (2004). An evaluation of divergent perspectives on customer relationship management: Towards a common understanding of an emerging phenomenon. *Industrial Marketing Management* , 33(6), 475-489.