

**YANGON UNIVERSITY OF ECONOMICS**  
**DEPARTMENT OF MANAGEMENT STUDIES**  
**MBA PROGRAMME**

**THE SERVICE QUALITY AND CUSTOMER LOYALTY AT**  
**MEDILAND HOSPITAL**

**ME ME TUN**

**OMBA-160807**

**ONLINE MBA**

**DECEMBER, 2019**

**YANGON UNIVERSITY OF ECONOMICS**  
**DEPARTMENT OF MANAGEMENT STUDIES**  
**MBA PROGRAMME**

**THE SERVICE QUALITY AND CUSTOMER LOYALTY AT**  
**MEDILAND HOSPITAL**

**ME ME TUN**

**OMBA- 160807**

**ONLINE MBA**

**DECEMBER, 2019**

**YANGON UNIVERSITY OF ECONOMICS**  
**DEPARTMENT OF MANAGEMENT STUDIES**  
**MBA PROGRAMME**

**THE SERVICE QUALITY AND CUSTOMER LOYALTY AT**  
**MEDILAND HOSPITAL**

**ACADEMIC YEAR (2016 – 2019)**

**Supervised by**

**Dr.Yin Min Htwe**

**Associate Professor**

**Department of Management Studies**

**Yangon University of Economics**

**Submitted by**

**Me MeTun**

**OMBA - 160807**

**Online MBA**

**2016 – 2019**

**DECEMBER, 2019**

**YANGON UNIVERSITY OF ECONOMICS**  
**DEPARTMENT OF MANAGEMENT STUDIES**  
**MBA PROGRAMME**

**THE SERVICE QUALITY AND CUSTOMER LOYALTY AT  
MEDILAND HOSPITAL**

A thesis submitted to the Board of Examiners in partial fulfillment of the requirements for  
the degree of Master of Business Administration (MBA)

**Supervised by**

**Dr. Yin Min Htwe**

**Associate Professor**

**Department of Management Studies**

**Yangon University of Economics**

**Submitted by**

**Me MeTun**

**OMBA - 160807**

**Online MBA**

**2016 – 2019**

**DECEMBER, 2019**

## ACCEPTANCE

This is to certify that the thesis entitled “**The Service Quality and Customer Loyalty at Mediland Hospital**” has been accepted by the Examination Board for awarding Master of Business Administration(MBA) degree.

### Board of Examiners

.....

(Chairperson)

Dr. Tin Win

Rector

Yangon University of Economics

.....

(Supervisor)

.....

(Examiner)

.....

(Examiner)

.....

(Examiner)

**DECEMBER, 2019**

## **ABSTRACT**

The objectives of this study are to analyze the effect of service quality on customer satisfaction and customer loyalty in Mediland Hospital, Dawei. The data are collected from 110 respondents with structured questionnaires designed with 5-point Likert scale through personal interview. The study found that among interaction quality dimensions, behavior is the highest influencing dimension. Among physical environment quality, ambient condition and design are the most significant influence on customer satisfaction. All dimensions of outcome quality are highly significant on customer satisfaction. This analysis also indicated that customer satisfaction has significant effect on customer loyalty at Mediland Hospital. The study recommends that management of Mediland Hospital should have to exercise a high level of commitment to provide behavior of staff, hospital environment and design, comfortable waiting lounge, hospital equipments and facilities in order to increase the satisfaction of patients and their loyalty at the hospital.

## **ACKNOWLEDGEMENTS**

First and foremost, I would like to thank Professor Dr. Tin Win, Rector of the Yangon University of Economics, for kindly allowing me to write this thesis. I would like to express my sincere gratefulness to Dr. Nu Nu Lwin, Dr. Myint Myint Kyi, professors of Department of Management Studies, for providing supreme advice and guidance throughout my thesis.

Secondly, I would like to present again my gratitude to my supervisor, Dr. Yin Min Htwe, Associate Professor of Department of Management Studies. Completion of this paper is achieved under her supervision with valuable suggestions, helpfulness, essential advice, motivation and encouragement.

Furthermore, I would like to thank the admin staff of online MBA office, librarian of Yangon University of Economics, and all online MBA candidates for supporting me the necessary text books, documents, information and knowledge sharing.

Finally, I would also like to express my gratitude Dr. Min Zaw, Chief Executive Officer of Mediland Hospital, Dawei for allowing me to do this research and providing me with valuable information, comment and suggestion. I would like to thank everyone who supports during this research.

# TABLE OF CONTENTS

<b>ABSTRACT</b>		<b>i</b>
<b>ACKNOWLEDGEMENTS</b>		<b>ii</b>
<b>TABLE OF CONTENTS</b>		<b>iii</b>
<b>LIST OF TABLES</b>		<b>v</b>
<b>LIST OF FIGURES</b>		<b>vi</b>
<b>CHAPTER 1</b>	<b>INTRODUCTION</b>	<b>1</b>
	1.1 Rationale of the Study	1
	1.2 Objectives of the Study	2
	1.3 Scope and Method of the Study	3
	1.4 Organization of the Study	3
<b>CHAPTER 2</b>	<b>THEORITICAL BACKGROUND</b>	<b>4</b>
	2.1 Service Quality	4
	2.2 Hierarchical Model of Service Quality	5
	2.3 Customer Satisfaction	9
	2.4 Customer Loyalty	9
	2.5 Previous Studies	10
	2.6 Conceptual Framework of the Study	13
<b>CHAPTER 3</b>	<b>PROFILE AND SERVICE QUALITY DIMENSIONS OF MEDILAND HOSPITAL</b>	<b>15</b>
	3.1 Profile of Mediland Hospital	15
	3.2 Service Attributes of Mediland Hospital	19
	3.3 Reliability Analysis	19
	3.4 Profile of Respondents	20
	3.5 Service Quality Dimensions of Mediland Hospital	22



<b>CHAPTER 4</b>	<b>ANALYSIS ON CUSROMER SATISFACTION AND LOYALTY OF MEDILAND HOSPITAL IN DAWEI</b>	<b>30</b>
	4.1 Customer Satisfaction of Mediland Hospital	30
	4.2 Analysis on Effect of Service Quality Dimensions on Customer Satisfaction	31
	4.3 Customer Loyalty of Mediland Hospital	36
	4.4 Analysis on Influence of Customer Satisfaction on Customer Loyalty	37
<b>CHAPTER 5</b>	<b>CONCLUSION</b>	<b>39</b>
	5.1 Findings and Discussions	39
	5.2 Recommendations and Suggestions	40
	5.3 Needs for Further Study	41
<b>REFERENCES</b>		
<b>APPENDIX</b>		

## **LIST OF TABLES**

<b>Table No</b>	<b>Particulars</b>	<b>Page</b>
Table 2.1	Three Dimensions of Hierarchical Model	6
Table 3.1	Reliability Results	20
Table 3.2	Demographic Profile of Respondents	21
Table 3.3	Attitude	23
Table 3.4	Behavior	24
Table 3.5	Expertise	24
Table 3.6	Ambient Condition	25
Table 3.7	Design	26
Table 3.8	Social Factors	26
Table 3.9	Waiting Time	27
Table 3.10	Tangible	28
Table 3.11	Valence	28
Table 4.1	Customer Satisfaction	30
Table 4.2	Effect of Service Quality on Customer Satisfaction	31
Table 4.3	Effect of Interaction Quality on Customer Satisfaction	33
Table 4.4	Effect of Physical Environment Quality on Customer Satisfaction	34
Table 4.5	Effect of Outcome Quality on Customer Satisfaction	35
Table 4.6	Customer Loyalty	36
Table 4.7	Effect of Customer Satisfaction on Customer Loyalty	37

## LIST OF FIGURES

<b>Figure No</b>	<b>Particulars</b>	<b>Page</b>
Figure 2.1	Hierarchical Model	6
Figure 2.2	Conceptual Framework of Dabholkar	11
Figure 2.3	Conceptual Framework of Md.Hafez & Akther	13
Figure 2.4	Conceptual Framework of the Study	14

# CHAPTER 1

## INTRODUCTION

In many developed countries, service industries are the largest contributor to GDP. Developing countries are also promoting their service industries. Among them, private healthcare industry is a key service area that can attract major income for the country. Nowadays, the increase competition in private hospitals leads to provide superior service quality for their patients.

Service quality of health care has become one of the most substantial elements in this service sector. Patient satisfaction is a key outcome of service quality. Perception of patients on health care service quality has been considered by health care administrators. Service quality is perceived as an important element for building customer loyalty. High quality services can attract new customers and maintain the current customers.

Many studies show that when patients experience high-quality service of a hospital, they are more likely to come back to the same hospital in the future. They say optimistic things about that to others, and suggest it to their friends and relatives. Suggestions from friends, relatives and other patients are indicated to be an important cause of information for selecting a provider. Positive word-of-mouth of patients is the most effective advertising approach for physicians and hospitals.

In the strongly competitive market, creating a strong relationship with the customers followed by their loyalty is examined to be a main factor for increasing the market share and building an attractive benefit for the firms. Faithful customers are vital for an organization to sustain their business because attracting new customers is much more cost than retaining the current customers. Therefore, the relationship between patient satisfaction of service quality and loyalty need to study. Thus, this study intends to analyze the service quality and customer loyalty at Mediland Hospital, Dawei.

### **1.1 Rationale of the Study**

Service sectors are playing a greater important role in the economy of many countries. Among them, health care organizations are working in a competitive environment. In these days hospital needs to improve the level of satisfaction if they want to continue in the competition with other hospitals. Patient satisfaction is the serious issue

for healthcare benefactors. Concern of patient satisfaction forms an essential part of hospital management across the world and also a crucial necessity for healthcare providers.

Misunderstanding of patients' needs has led to an underutilization of the existing facilities and delayed the overall development of the health system. A challenging problem for healthcare providers is to realize what essentials of patients' perception significantly influence on patient satisfaction. One of the problems faced by most of the hospitals in Myanmar is increasing number of complaints by patients. Most of the complaints received from patients for private hospitals include unskilled doctors, nurses and paramedics. So medical providers play a key role in all countries and also the advanced medical treatment is the must for the patients and so there is a need to upgrade the Medical Care Standard. Due to the increased loads, the role of the Medical Care provider service in private sector becomes crucial.

Myanmar healthcare industry is financed and serviced by both government and private systems. Difficulties related to healthcare service quality are vital to any health system anywhere in Myanmar. Among the competitiveness between the private healthcare services, Mediland Hospital becomes popular and it plays a countable role in Dawei region with its service quality. Then Mediland Hospital established the aim to provide individual responsibility and community contribution towards an enhanced quality of life. In order to accomplish the objective, there has a clear typical procedure of each and every sector. The current condition needs to change externally and internally, to conduct Quality Service in order to support with changing situations and planning for future developments.

Thus, this research is how service quality affects customer satisfaction which is important factor to build customer loyalty of Mediland Hospital. The results of the study help to gain more understanding about customer's satisfaction and loyalty provided at Mediland Hospital.

## **1.2 Objectives of the Study**

This study intends to achieve the following objectives:

- 1) To analyze the effect of service quality on customer satisfaction in Mediland Hospital, Dawei
- 2) To examine the influence of customer satisfaction on customer loyalty in Mediland Hospital, Dawei.

### **1.3 Scope and Method of the Study**

This study focuses on the effect of service quality on customer satisfaction and customer loyalty of Mediland Hospital. Descriptive method is used in this study. The primary data are collected from 110 in-patients of sampling of 150 in-patients by using structured questionnaires of 5-point Likert scales and personal interview. The secondary data are obtained from the department of Ministry of Health and from relevant text books, previous research, papers, and online sources. The effect of service quality on customer satisfaction and loyalty are analyzed by regression analysis.

### **1.4 Organization of the Study**

This study consists of five chapters. Chapter one is the introduction of the study, and it includes rationale of the study, objectives of the study, scope and method of the study and the organization of the study. Chapter two is the theoretical background of service quality, service quality models, customer satisfaction and customer loyalty. Previous studies on relationship between service quality, customer satisfaction and customer loyalty are also presented. In chapter three, service attributes in Mediland Hospital, Dawei is presented. Chapter four is the analysis on the influence of service quality on customer satisfaction and customer loyalty in Mediland Hospital, Dawei. The Chapter five is the conclusion of findings, suggestions, recommendations and needs for the future research.

## **CHAPTER 2**

### **THEORITICAL BACKGROUND**

This chapter presents the theoretical background, concepts and relevant literature on service quality, hierarchical model, customer satisfaction and customer loyalty. Previous studies that are conducted regarding to those areas are also presented. Finally, the conceptual framework is revealed.

#### **2.1 Service Quality**

Among so many meanings, the Service is any action or benefit that one party can offer to another that is essentially intangible, does not outcome in the ownership of anything. Its production may or may not be tied to a physical product (Philip Kotler, 1997).

Services are actions or benefits offered for sales that are fundamentally intangible and do not result in the proprietorship of anything. Examples are banking, airline, hotel, hospital, retail, home repair services and specialized services. Goods are noticeable then touchable but services are intangible products. The service cannot be touched or observed, it is hard for customers to tell in advance what they will be getting. Goods can be stored for forthcoming used or resell drive but service cannot be stored likes goods.

The quality is never a chance, it always has high intent, sincere effort, intelligent direction, and skillful completing and it represents the wise choice of many alternatives. (Ruskin, 1993) The Service Quality is a service delivered by competent personnel which meets or exceeds internal and external customer expectations. (Barsky, 1995)

Service quality has been reported as having seeming relationship to costs (Crosby, 1979). Explanation of service quality focus on meeting the customer' needs and requirements, and how well the service delivered matches the customers' expectations of it (Sasser, Olsen, and Wyckoff, 1978).

## **2.2 Hierarchical Model of Service Quality**

In 2001 Brady and Cronin, recommended a new model by combining four models. They upgraded SERVQUAL (Parasuraman, 1988) by specifying what needed to be reliable, responsive, empathic, assured and tangible. The hierarchical approach comprises of three primary dimensions: interaction quality, physical environment quality, and outcome quality. Each dimension has three secondary sub-dimensions: attitude, behavior, and expertise (interaction quality); ambient condition, design, and social factors (physical environment quality); and waiting time, tangibles and valence (outcome quality) There are also sub-dimensions, under each secondary dimension All the three primary dimensions (interaction quality, physical environment quality, and outcome quality) are engaged in the present study.

However, the sub-dimensions have been adapted, as per the functioning of healthcare service organization as follows. Firstly, according to Brady and Cronin (2001), physical environment quality has been measured as a function of ambient condition, design, and social factor. In the current study, ambient condition and social factor are retained but design, which pertains to the layout or architecture of the environment, is measured indirectly under ambient condition. Further, the hierarchical approach of Brady and Cronin (2001) used “tangible” as an objective pointer of outcome quality, unlike Parasuraman (1985) concept of tangible. Parasuraman (1985) consider tangibles as one of the components of service quality that forecasts service quality. This study accepts the last concept of tangible (related to equipment, furniture, etc.) to extent physical environment quality.

Secondly, interaction quality was defined in terms of attitude, behavior, and expertise, whereas this study describes the same in terms of attitude and behavior, expertise, and process quality. The relationship between attitude and behavior (outcome of attitude) is measured a composite sub-dimension. However, expertise is reserved. In addition, process quality, given by Sardana (2003), was added to measure interaction quality more efficiently.

Thirdly, waiting time, tangibles, and valence were measured as important sub-dimensions of outcome quality, while in the present study waiting time; patient satisfaction, loyalty, and image are considered significant sub-dimensions of outcome quality. On the other hand valence, which reproduces the degree to which the object is



considered favorable or unfavorable, is retained but is considered as satisfaction in the study.

Lastly, in their hierarchical model, used three tertiary sub-dimensions below each secondary dimension. All of them have been retained and acknowledged as indirect indicators of secondary dimensions and not direct determinants of service quality.

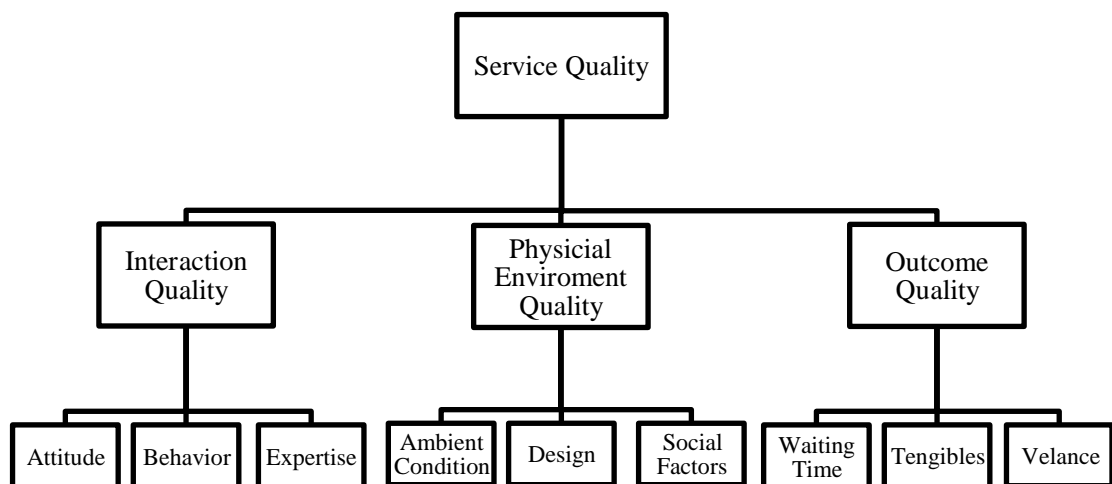
**Table (2.1) Three Dimensions of Hierarchical Model**

<b>Dimensions</b>	<b>Descriptions</b>
<b>Interaction Quality</b>	The employee-customer interactions that take place during service delivery.
<b>Physical Environment Quality</b>	The surrounding environment in the service encounter.
<b>Outcome Quality</b>	What the customer is left with when service is rendered.

Source: Brady & Cronin (2001)

This hierarchical model recommends that each of the primary dimensions of service quality (interaction, environment, and outcome) has three sub-dimensions. Customers combined their evaluations of the sub-dimensions to form their perceptions of an organization’s performance in each of the three primary dimensions. Then those perceptions lead to a total service.

**Figure (2.1) Hierarchical Model**



Source: Brady & Cronin (2001)

This model is able to identify problems in primary stage of their delivered services Interaction Quality, Physical Environment Quality, and Outcome Quality. It can help managers catch customer satisfaction and customer loyalty instantaneously in order to enhance service quality perception and service involvements of customer via high quality of service. This model displays better understanding about customer perception of service quality until today.

### **2.2.1 Physical Environment Quality**

A body of work (e.g., Parasuraman, 1985; Bitner, 1992; Rust & Oliver, 1994; Brady & Cronin, 2001) deliberates influence of the physical environment quality on customer service assessments. A literature discloses support for the relationship between three factors of physical environment quality (ambient condition, social factor, and tangibles). Ambient conditions connected to non-visual aspects, such as temperature, scent, and music (Bitner, 1992); peaceful atmosphere (Brady & Cronin, 2001); and natural light and fresh air (Chahal & Sharma, 2004).

The second main sub-dimension of physical environment quality is the social factor, which mentions to access to all types of people involved in the health-care services (Bitner, 1992). Transparency and ethics in decision, acceptance of legal and statutory framework, integrity, and honesty in practices emphasis on societal needs, pollution control, and hygienic life styles (Sardana, 2003). Another effect on physical environment quality is the tangible factor. It comprises physical facilities, equipment, and entrance of personnel (Conway & Willcocks, 1997); waiting room and amenities (Choi, 2005); technical services (Chahal & Sharma, 2004); amenities (Choi, 2005); and seating arrangements (Kang & Jeffrey, 2004).

### **2.2.2 Interaction Quality**

Services are intangible and are considered by inseparability features (Lovelock, 1981); that is, they cannot be disconnected from the service provider and are produced (by service producer) and consumed (by the user) at same time. The interaction that takes place during the service delivery has the utmost effect on service quality perceptions of the consumers (Brady & Cronin, 2001). A number of literature studies validate attitude

and behavior as one of the important dimensions of interaction quality (Brady & Cronin, 2001).

Bitner (1992) empirically confirmed that attitude is a super ordinate concept of satisfaction. The attitude and behavior of staff (doctors, nurses, supporting staff) can be recovered through things such as openness, helpfulness, ability to clear patient queries, honesty, support, and care, which also directly affect interaction quality (Chahal , 2005; Chahal & Sharma, 2004). The proficiency of the staff is another important dimension that affects interaction quality. Expertise, put simply, comprises correct diagnoses and adequate knowledge by the staff in their individual fields. The third important factor that affects interaction quality is procedure quality.

### **2.2.3 Outcome Quality**

The service outcome (i.e., satisfaction and loyalty) in general is assessed after service delivery (Rust & Oliver, 1994; Brady & Cronin, 2001). Choi (2005) considered waiting time as an important component of outcome quality along with satisfaction and loyalty. The waiting time indicators relate to items such as admission process, billing system, availability of nurses and doctors, and correct queue management. Satisfaction, another service performance measure, is a subjective pointer of outcome quality. Satisfaction propels a patient to choose the same hospital the next time (Sardana, 2003) and outcomes in patient loyalty later.

A number of dimensions that influence satisfaction and loyalty are recommended in literature. These primarily contain physician care, nursing care, supporting staff's behavior, convenient visiting hours, and availability of emergency aid (Sardana, 2003) along with food, room characteristics, and treatment (Raftopoulous, 2005). Overall, reduction of waiting time and satisfaction with respect to hospital services and its operative influence patient satisfaction and loyalty, which subsequently results in the development of the hospital image.

## **2.3 Customer Satisfaction**

Customer satisfaction is determined by defining customer perceptions of quality, prospects and favorites (Barsky, 1995, Ch. 2). To attain right customer satisfaction

companies essential to reach quality not only by excluding the causes for direct criticisms but also by providing their products with remaining, attractive quality- provide the delight to the customer.

Customer satisfaction has become most popular topic in the healthcare from last two decades. Customers will be satisfied if the overall performance of the service/product come across or reach expectations and vice versa (Kotler and Keller 2012). Woodruff (1993) stated that customer satisfaction tend to be treated as consumer attitudes in evaluating goods or services. Based on this definition Bitner and Zeithaml(2003) stated that satisfaction is customer evaluation of a product or service in terms of whether the product or service has met customer needs and expectations.

Customer satisfaction is a high priority aspect of private healthcare service providers and also very significant achievement in the competitive environment. Then research on customer satisfaction is often closely associated with the measurement of service quality (Anderson and Sullivan, 1993; Cronin and Taylor, 1992; Bitner and Hubbert, 1994).

## **2.4 Customer Loyalty**

Customer loyalty is definitely related to customer satisfaction as happy customers consistently favor the brands that meet their needs. Loyal customers are purchasing a firm's products or services completely, and they are not willing to change their preferences over a competitive firm. Anbori (2010) defined customer loyalty as a deliberate service plan to hold customers in long term by providing superior service quality.

Customer Loyalty in the services has long been considered a key outcome. Loyalty is generally expressed in terms of repurchase and willing to recommend to others (Bitner, 1990; Zeithaml et al 1996). Repurchase indicates whether or not a customer will maintain the relationship with his or her service provider (Zeithaml et al., 1996). Customer recommends a service firm to others is also likely to continue using the service provider for their own needs (Eisingerich and Bell, 2007).

## **2.5 Previous Studies**

There are many previous studies for service quality and customer satisfaction. Previous studies provided inconclusive evidence on the relationship between service quality and customer satisfaction.

### **2.5.1 Relationship between Service Quality and Customer Satisfaction**

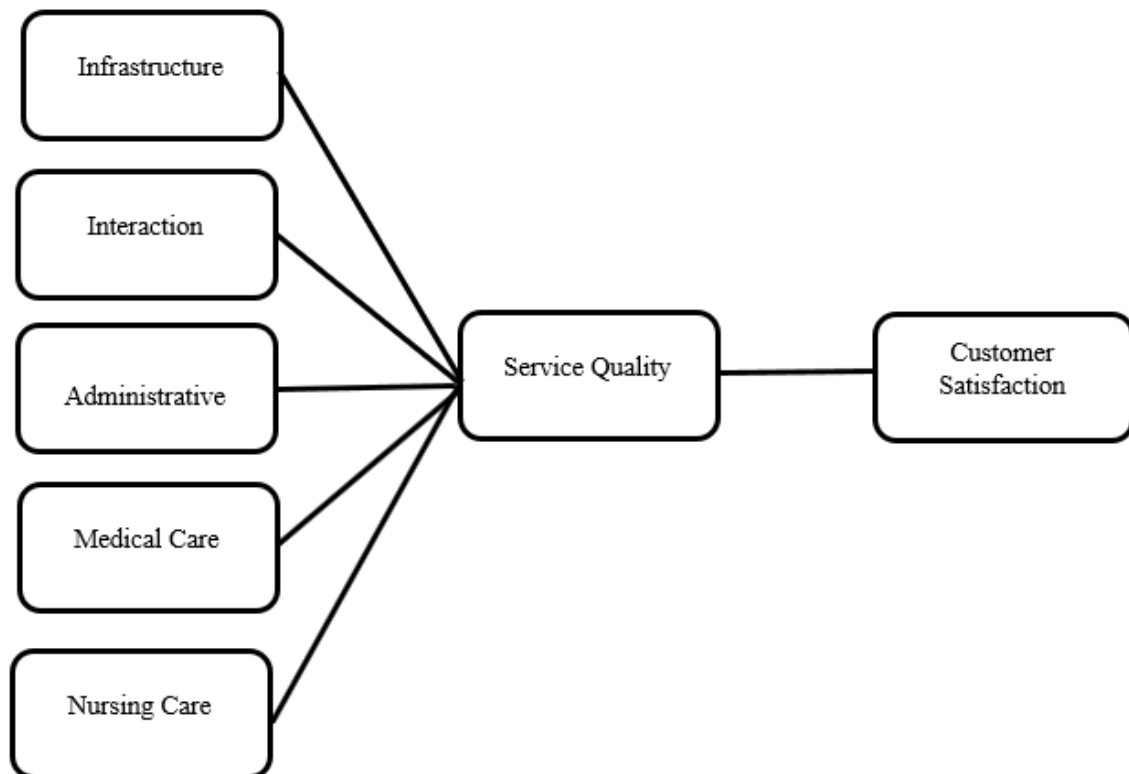
Service quality is a vital influence of customer satisfaction as well as word-of-mouth communication. There is a direct relationship between both service quality and satisfaction as service quality is the originator of satisfaction. It was observed by Parasuraman et al. that their instrument (SERVQUAL) can be habituated to evaluate the relative paramount of the dimensions of quality in influencing customers' overall perceptions of an accommodation. Reliability and empathy are the significant dimensions the insignificant across a seemingly wide array of service types. Previous research has identified many features that control customer satisfaction in the hospital industry and the alterations in how consumers perceive services through countries and cultures that cannot be generalized. For example, Urden(2002) highlighted that patients satisfaction are a rational approach, emotionally affected, and a patient's individual perception. Moreover, Crowe et al. (2002) pointed out that the interpersonal relationships between the patients and health care provider is the most important cause of customer satisfaction (Gill and White, 2009).

Similarly, the quality of the relationship between patients and doctors has a substantial impact on the patient satisfaction measure (Alhashem et al., 2011; Mercer et al., 2008; Moret et al., 2008). In this context, patient satisfaction is defined as the decision made by patients on their expectations for care services that have been met or not in respect of both technical and relational care (Campbell et al., 2000; Esch et al., 2008). Thus, hospital's ability to supply these benefits on a continuing basis will influence the patients' level of satisfaction.

Many researches have been showed so far to examine the link among patient satisfaction and healthcare quality. Apart from these studies it has also been planned that patient satisfaction is an important concept that intervenes the impact of perceived service quality on the behaviors and various other results.

In the marketing literature several studies displayed that perceived service quality and service satisfaction have a mixed relationship. A numeral of studies have established that service quality is an originator to customer satisfaction (Cronin & Taylor, 1992; Dabholkar et al., 2000; Brady & Robertson 2001; and Dagger & Sweeney, 2006). According to Dabholkar et al. (2000) and Choi et al. (2004) customer satisfaction and service quality are two different but related theories. Dabholkar et al. (2000) commended that customer satisfaction and perceived service quality should be measured separately in order to understand how customers evaluate service quality. Customer satisfaction in marketing concept has been functional in healthcare sector in order to serve the patient in a more efficient and effective way. Satisfaction with health care is connected to concepts of health care quality.

**Figure (2.2) Conceptual Framework of Dabholkar**



Source: Dabholkar (2000)

### **2.5.2 Relationship between Customer Satisfaction and Customer Loyalty**

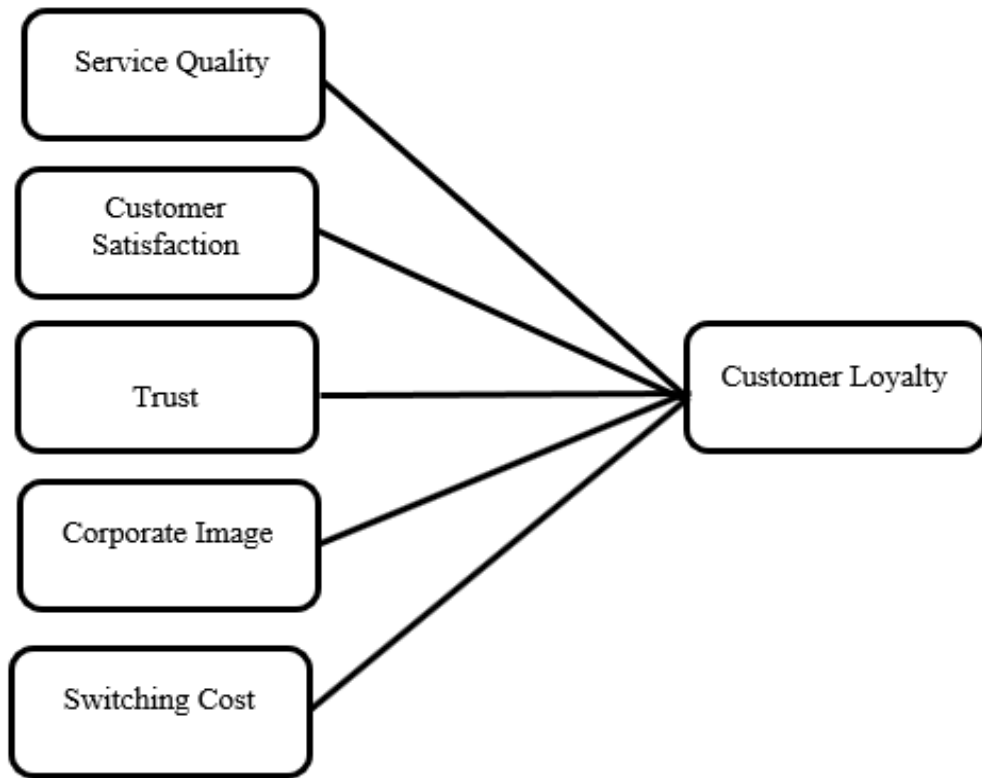
Studied have analyzed that patient satisfaction and loyalty data can be used in quality management, thereby enabling service managers to display and maintain service quality. Service providers can better comprehend how various dimensions and items affect overall service quality, and to design service delivery processes efficiently.

Hu (2011) measured patient satisfaction and patient loyalty in Taiwan's hospitals and found that patient satisfaction did not have a substantial influence on patient loyalty in Taiwan. Fornell (1992) claimed that loyal customers are not essentially satisfied, but satisfied customers must be loyal customers; i.e., loyalty is not exclusive, absolute and/or permanent (Roberge, 2001). To attain patient loyalty, providers need to communicate regularly with patients to comprehend their needs and expectations (Roberge, 2001).

Mortazavi (2009) showed research on patient satisfaction and patient loyalty in four Iranian private hospitals using six dimensions: nursing care; operating room; admission and administration services; meals; expenses; and patient rooms. They found that patient satisfaction and loyalty are expressively correlated, and both factors have significant associations with nursing care, operating room, admission and administration services, and patient room.

Md.Hafez & Akther (2017) showed that service quality, customer satisfaction, trust, corporate image, switching cost and customer loyalty are probably the most broadly used variables in the domain of relationship marketing. A research model has been planned based on literature review to analyze the relationships among these variables in order to detect the discerning impact of several determinants on customer loyal. Customer satisfaction has been assumed much attention among academic literatures and applied researches. They also defined satisfaction as a total valuation reliant on the total purchase and consumption experience of the mark product or service performance compared with repurchase prospects over time. There is a strong positive connection between customer satisfaction and customer loyalty.

**Figure (2.3) Conceptual Framework of Md.Hafez & Akthe (2017)**



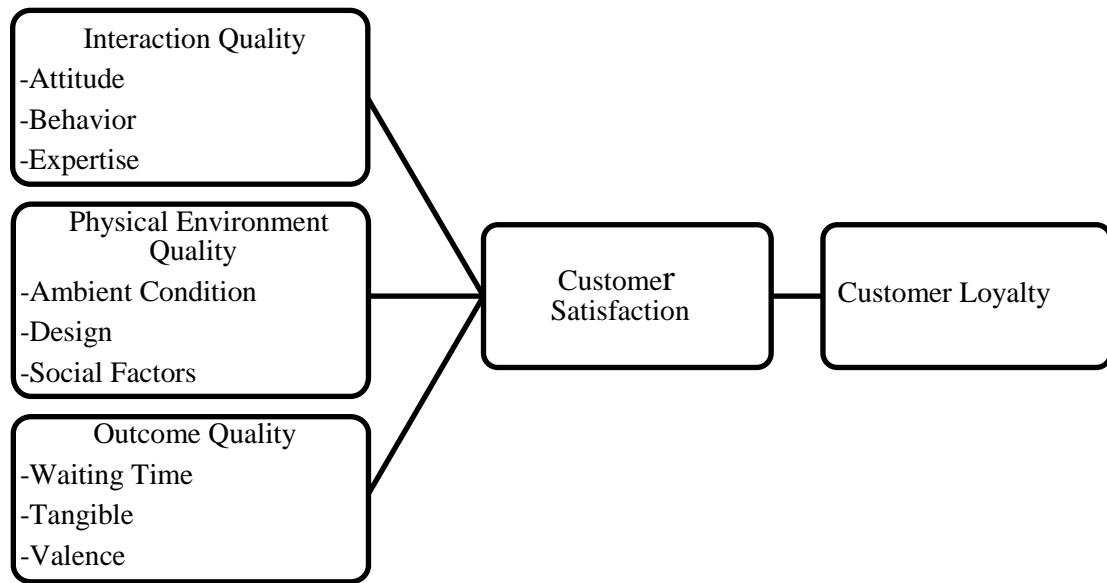
Source: Md.Hafez & Akthe(2017)

## **2.6 Conceptual Framework of the Study**

The conceptual framework is based on to analyze the customer satisfaction and customer loyalty of service quality of Mediland Hospital. This study is based on hierarchical model of service quality which has three primary dimensions: interaction quality, physical environment quality, and outcome quality. Based on those characteristics, the conceptual framework of the study is organized as follows:



**Figure (2.4) Conceptual Framework of the Study**



Source: Own Compilation (2019)

In this research, influencing factors have been considered as interaction quality, physical environment quality and outcome quality. Attitude, behavior and expertise are three factors of interaction quality. Ambient, design and social factor are used as variables for physical environment quality and waiting time, tangible, valence are for outcome quality in this study. Moreover, it is also analyzed customer satisfaction that can enhance consumer loyalty. This model is developed to examine the influence of service quality on customer satisfaction and customer loyalty at Mediland Hospital.

## **CHAPTER 3**

# **PROFILE AND SERVICE QUALITY DIMENSIONS OF MEDILAND HOSPITAL**

This chapter presents profile of Mediland Hospital, Dawei and services offered by Mediland Hospital. Then, reliability analysis and profile of respondents are described. Finally, patient's perception on service quality of Mediland Hospital is presented.

### **3.1 Profile of Mediland Hospital**

Mediland Hospital, Dawei is a 100-bedded hospital located in Dawei, the Capital of Southern part of Myanmar. Mediland Hospital, Dawei is serving a population of approximately 500,000 residents and foreign expatriates in Dawei region. It was formally opened by the previous regional chief minister on 26 July, 2015. Mediland is possessed by Fourteen Star Network Dawei Company Limited. Its vision is to become a regional healthcare leader.

Mediland Hospital is one of the well-known and famous hospitals in Dawei region because of its cleanliness, wide compound, state of art medical equipment and quality care services. It is located at No24, Kamyaw Kin Road, San Chi Quarter, West San Chi, Dawei, Tanintharyi Region of Myanmar. Mediland Hospital offers complete medical services with superior quality and high effectiveness.

To provide the best health care services in Dawei, Mediland is carefully organized and constantly adapted with technologically advanced equipment, an advance IT system, quality medical products and qualified professionals. Mediland has been forecasting to add more dedicated services and facilities to accomplish the gap of the healthcare supplies of the community.

Mediland is offering multidisciplinary medical care service with up-to-date medical equipment. It is afraid with quick and effective treatment to the patient given by well-trained housing medical doctors, nurses, health care assistant & support by skillful professional staffs at the every individual unit. Specialist on call service is also obtainable. There are many services and amenities those are related with Medical Care of Mediland

Hospital. They are Accident & Emergency, Imaging Service such as CT scan, X-Ray, Ultrasound, High Dependency Service, Medical Check-up Service, Laboratory Service, Inpatient Service, Operation Theater Service and Specialist OPD Services.

### **3.1.1 Accident & Emergency Service**

Accident and Emergency care and speedy treatment are delivered at Emergency Outpatient. Service includes emergency treatment by well-trained medical officers and nurses who have legal license and diplomas in Basic life support. They conduct history taking, initial physical examination and investigation for every admission patients. If desired, emergency doctors place on-call for the responsible specialists. There are 6 beds in Emergency Unit under the take care of 3 medical officers, 4 nurses and 5 health care assistants. Emergency Outpatient Unit is prepared with highly innovative resuscitation and medical devices like Defibrillator, Patient Monitor, Suction, wall mounted oxygen pipe line, infusion pump, syringe pump and crash cart with emergency medicines. Emergency Unit is the fullest unit in Mediland Hospital for quick and operative treatment for 24 hours.

### **3.1.2 Imaging Service**

Imaging service is delivered in ground floor for both inpatient and outpatient, this service is accomplished by well qualified Radiographers. Spotless and specious room is fitted with efficient high quality equipment made by US and Germany. X ray machine discloses the pure quality image. The virtualization of veins on the head, neck, chest, abdomen, and legs is made possible with revolutionary multi-slice CT technology. This technology allows high-speedy body scanning in which the body can be enclosed in a single with high image resolution. Ultrasound is made up of numerous different frequency waves. The very high frequency range is quiet to the human ear and is known as ultrasound. The information is accessible real time on a monitor screen and can also be printed on paper. The obstetrician assesses the fetus of a pregnant woman and a cardiologist examines the heart of a patient.

### **3.1.3 Medical Check-Up Services**

Medical Checkup Centre is a one-stop health screening center that provides to all health screening needs using modern diagnostic equipment and testing. Dedicated team of healthcare professionals deliver personalized attention to improve well-being, for better understanding and management of state of health. Through result analysis and health education, it provides customers with relevant knowledge to add many healthy years to life. And, it offers health screening that enable early detection of common chronic illnesses such as heart disease, stroke, hypertension and diabetes.

### **3.1.4 Laboratory**

Mediland Hospital Laboratory is 4 Year old department and has always been maintained countless number of doctors and patients to get right treatment at the right time. Taking regular external and internal Quality Check Program ensure of giving precise reports to patients and doctors. Commitment to deliver international quality makes the patients to find best technology and methods in the market for the best of result.

Mediland Hospital Laboratory provides following services:

- Hematology Services
- Biochemistry Services
- Immunology Services
- Microbiology Services
- Biopsy and Cytology Services
- Other Special Tests ( With Partner Laboratories)

### **3.1.5 Inpatient Service**

There are 3 inpatient wards in Mediland Hospital. They are on the first, second and third floor and can accommodate up to 100patients. There are overall four types of rooms: VIP, Single, Double and Common Hall. All the patient beds are furnished with wall oxygen, suction pipeline system and there are also defibrillator, patient monitor, infusion pumps and syringe pumps in every ward to be used for emergency cases. All the rooms are also linked to central nurse station with the nurse call bell arrangement. In the central nurse station, 2 Medical Officers, 3 Nurses and 3 Health Care Assistant and 2

General Workers are allocated for every duty roaster. Main tasks of nursing staffs are nursing care and giving medicine.

### **3.1.6 Operation Theater Service**

Mediland Hospital has 4 operation theaters inside and 3 rooms for major and 1 room for minor. It has well-equipped flat laminar flow operating theaters, an international standard central sterilization unit and a centrally integrated and observed critical care unit with the latest equipment to ensure the best possible surgical outcomes for patients. Central Sterilization Department is also important for Mediland. It washes and sterilizes operation instrument by using (3) steps infection control arrangements with Equipment under the International Standards and Procedures.

### **3.1.7 Specialist OPD Services**

It is offered for specialist outpatient care by more than 50 specialists as the schedule. There are 10 rooms for OPD service. Clean, spacious and comfortable waiting place was done to get suitable waiting time for patient and patient attendants. All patients have to register on the Hospital Information System (HIS) at the reception counter first. Booking system is adopting for specialist consultant service. OPD Service room has confidentiality for physical examination for the patients and use disposable sterile consumables.

## **3.2 Service Attributes of Mediland Hospital**

Mediland Vision is to be standard a best practice quality hospital at secondary care level. This requires that quality, safety, customer service and loyalty be major hospital priorities. Quality must be understandable and transparent and requires buy-in and ownership of the employees to achieve strategic goals. The followings are the service attributes of Mediland Hospital.

### **(a) Interaction Quality**

All the staffs in Mediland Hospital including house-keeping and general workers are trained to understand the specific needs of patient. The behavior of employees inspires

confidence with customers. Medical Persons are humble and kind to the patient and clinical staffs have the awareness to answer patients' questions and ability to handle patients' problems. The work system has to be defined for reliable and planned method for repeated service

**(b) Physical Environment Quality**

Mediland Hospital is planned for the convenience of the patients and customers especially in physical appearance such as relaxed waiting chairs in large waiting lounge with fully air-conditioned, clean and well-furnished inpatient rooms, standby generators for electricity break down, enough car parking space, in-house cafeteria and mini market for convenience, hospital meal service for inpatient, etc.

**(c) Outcome Quality**

Normally physicality of service provision includes many components such as space, product, people, facilities, and its attributes are very important as it is first impress on the patients and their families. Hospital' registration and billing practice are easy and fast and very convenient for patients. Moreover, Mediland Hospital offers ease and speed in getting ambulance services from the hospital and timely and hygienic food provided getting ambulance services from the hospital and timely and hygienic food provided to wards and rooms.

**3.3 Reliability Analysis**

Reliability mentions to the extent to which a measure produces consistent results, if the measurements are frequent a number of times. The analysis on reliability is so-called reliability analysis.

Reliability can be surveyed in four ways: test-retest; split-half; alternative form and the most popular method, internal consistency (Cronbach's  $\alpha$ ). In this study, internal consistency (Cronbach's  $\alpha$ ) is used to show how reliable the questionnaire is. According to Table (3.1), reliability of the questionnaire about behavior, ambient condition, tangibles and customer loyalty above 0.80 are highly significant. The result of attitude also indicated that 0.648 was the minimum. The results also indicated that 0.648 was the minimum, which makes all factors acceptable for further analysis.

**Table (3.1) Reliability Results**

<b>Variables</b>	<b>No. of Items</b>	<b>Cronbach's Alpha</b>
<b>Interaction Quality</b>		
(a)Attitude	4	0.648
(b)Behavior	4	0.816
(c)Expertise	4	0.652
<b>Physical Environment Quality</b>		
(a) Ambient Condition	4	0.808
(b)Design	4	0.742
(c )Social Factors	4	0.701
<b>Outcome Quality</b>		
(a)Waiting Time	4	0.698
(b) Tangibles	4	0.804
(c)Valence	4	0.664
<b>Customer Satisfaction</b>	5	0.739
<b>Customer Loyalty</b>	5	0.828

Source: Survey Data (2019)

### **3.4 Profile of Respondents**

The demographic profile of respondents can be divided into Age, Gender, Income level, Education level, Visit time to hospital by using percentage with Table. Structured questionnaires were asked to 110 patients who had visited to Mediland Hospital within the month of January 2019.

The age groups of respondents are divided into six which are less than 18, between 18 and 25 year between 26 and 35 years, between 36 and 45 years, between 46 and 55 years and above 56 years. The Table shows that the six group of age level.

According to this study, the respondents age less than 18 with the percentage of 5. The second age group is between 18 and 25 years with the percentage of 20. The third age group is between 26 and 35 years with the percentage of 34. The fourth age group is

between 36 and 45 with the percentage of 24. The fifth age group is between 46 and 55 years with the percentage of 9. The final age group is above 56 years with the percentage 9.

**Table (3.2) Demographic Profile of Respondents**

No	Characteristics	Number of Respondents	Percentage(%)
	<b>Total</b>	<b>110</b>	<b>100</b>
	<b>Age</b>		
1	<18	5	5
2	18-25	22	20
3	26-35	37	34
4	36-45	26	24
5	46-55	10	9
6	>56	10	9
	<b>Gender</b>		
1	Male	43	39
2	Female	67	61
	<b>Monthly Income</b>		
1	<100000	10	9
2	100001-200000	31	28
3	200001-300000	23	21
4	300001-400000	15	14
5	400001-500000	14	13
6	>5000001	17	15
	<b>Education</b>		
1	Primary	6	5
2	Secondary	16	15
3	High School	24	22
4	Bachelor	50	45
5	Master Degree	14	13
	<b>Visit Time to Hospital</b>		
1	One Time	29	26
2	Two Times	57	52
3	Three Times	24	22

Source: Survey Data (2019)

According to the Table 3.2, the respondents can be classified into two groups: male and female. Male group is 39% and female group is 61%. Therefore, female group is the major customers of Mediland Hospital.



The monthly income is composed with five groups which are under 100,000 kyats, between 100,001 and 200,000 kyats, between 200,001 and 300,000 Kyats, between 300,001 and 400,000 kyats, 400,001 and 500,000 kyats and above 500,000 kyats. The different in income level can influence the demand pattern of customers on Mediland Hospital. The first respondent income level is less than 100,000 kyats with the percentage of 9. And then followed by the income level of 100,001-200,000 kyats with 28 %.The third income level group is between 200,001 and 300,000 kyats with 21%.The fourth income level group is between 300,001 kyats and 400,000kyats with 14 %. And the fifth income level group is between 400,001 kyats and 500,000 kyats with 13% .The last group income level is above 500,000 kyats with 15%. Therefore, the majority users are in the income level of 100,001 to 200,000 kyats.

The education level is grouped into five which are primary level, secondary level, high school level, bachelor level and master degree level. According to the research, 5 percent and 15 percent of the respondents' education level are primary and secondary. The 22 percent of the respondents got high school. The 45 percent of the respondents got bachelor. And 13 percent of the respondents got the master degree. Among the survey data, respondents mostly got the bachelor degree. It can be mentioned that respondents are well educated and mostly possessed at least one degree.

There are many patients who have visited Mediland Hospital more than one time and Table (3.2) shows that number of respondents according to the different number of visits. Total visit time is grouped into three which are first time visit, second time visit and third time visit. Of them, 26 percent of the respondents are one time visit, 52percent of the respondents are two time visits and 22 percent are three time visits.

### **3.5 Service Quality Dimensions of Mediland Hospital**

This study covers the customer perception on service attributes of Mediland Hospital based on interaction quality, physical environment quality and outcome quality.

### 3.5.1 Interaction Quality

In this section, the analysis is based on the answers to the questionnaire for interaction quality of Mediland Hospital by three dimensions such as attitude, behavior and expertise.

**Table (3.3) Attitude**

No	Statements	Mean	Std Dev
1	Nurses treat with courtesy and respect	3.31	0.62
2	Doctors are courteous and polite	3.40	0.69
3	Confidential personal information	3.60	0.67
4	Good attitude of Medical Staff	3.30	0.65
	<b>Overall Mean</b>	<b>3.40</b>	

Source: Survey Data, 2019

The service quality on attitude is measured with four questions and each question is mentioned for customer perception on service attributes. The mean values for each question are shown in Table (3.3). In Table (3.3), it is found that the overall perception mean score for this dimension is (3.40). Out of four services of attitude dimension, personal information was treated confidentially is the highest. Mediland Hospital Management is normally concentrated on customer information as confidential data. But medical Staff show good attitude when receiving patients is the lowest mean value. This means that Mediland Hospital Management Team needs to train their clinical staffs how to reply and provide the services at assured time.

Service quality dimensions on behavior are measured with four questions and they are measured for customer perception on service attributes. The mean values are shown in Table (3.4). From Table (3.4), overall mean score of behavior is (3.12). Among four dimensions, diagnosis explained in clear language is the highest.

**Table (3.4) Behavior**

No	Statements	Mean	Std Dev
1	Listening skill of health care person	3.10	0.74
2	Explanation of diagnosis in clear language	3.30	0.85
3	Providing services at promised times	3.00	0.96
4	Doctors responded immediately for calling	3.10	0.91
	<b>Overall Mean</b>	<b>3.12</b>	

Source: Survey Data, 2019

Mediland Hospital is normally focused on customer explanation and conducts training by course with responsible persons. There is also lowest mean score on the dimension services provided at promised times and so management needs to train to train their clinical staffs how to reply and provide the services at assured time.

**Table (3.5) Expertise**

No	Statements	Mean	Std Dev
1	Correct Examination and treatment	3.50	0.71
2	Comfort and convenience blood taking procedures	3.30	0.91
3	Understand the specific needs of their patients.	3.10	0.68
4	Promptness of handling complications	3.20	1.05
	<b>Overall Mean</b>	<b>3.28</b>	

Source: Survey Data, 2019

Service quality dimensions on expertise are measured with four questions and they are measured for customer perception on service attributes. The mean values are shown in Table (3.5). Overall mean value is (3.28). Among these four dimensions, correct

examination and treatment (3.50) is the highest mean value. It is because Mediland hospital use of reliable medications and equipment for treatment. And understand the specific of needs of patients is the lowest so management needs to train clinical staffs to know the demand of patients.

### 3.5.2 Physical Environment Quality

In this section, the analysis is based on the answers to the questionnaire for physical environment quality of Mediland Hospital by three dimensions such as ambient condition, design, social factors.

The service quality on attitude is measured with four questions and each question is mentioned for customer perception on service attributes. The mean values for each question are shown in Table (3.6). In Table (3.6), it is found that the overall perception mean score for this dimension is (3.6).

**Table (3.6) Ambient Condition**

<b>No</b>	<b>Statements</b>	<b>Mean</b>	<b>Std Dev</b>
1	Good air ventilation and lighting of the hospital	3.70	0.75
2	Clean and safe environment	3.71	0.81
3	Quiet surrounding area	3.60	0.89
4	Comfortable in patient rooms	3.40	0.99
	<b>Overall Mean</b>	<b>3.60</b>	

Source: Survey Data, 2019

Among them, clean and safe environment is the highest. Mediland Hospital Management is always focused on environmental cleaning. But comfortable in patient rooms is the lowest mean value. It is due to lack of duty of housekeeping staffs and need to close supervision.

**Table (3.7) Design**

No	Statements	Mean	Std Dev
1	Adequate and sufficient hospital signs	3.50	0.66
2	Easily identified members of staff by their uniform	3.30	0.95
3	Prompt, simple and clear admission processes and procedures	3.00	1.05
4	Prompt & easy billing process	2.90	0.84
	<b>Overall Mean</b>	3.18	

Source: Survey Data, 2019

Service quality dimensions on design are measured with four questions and they are measured for customer perception on service attributes. From Table (3.7), overall mean score of behavior is (3.18). Among four dimensions, adequate and sufficient hospital sign is the highest. Mediland Hospital is normally provided instruction signboards for patients and visitors. There is also lowest mean score on the dimension services prompt and easy billing process. This is because billing system that currently used is not efficient and the cash counter is relatively lesser in number than the number of patient they serve daily and so management needs to provide more cash counters and train cashiers for easy process.

**Table (3.8) Social Factors**

No	Statements	Mean	Std Dev
1	Medical services with nominal cost to the needy patients	3.20	0.77
2	Following Ethical principles by the hospital	3.40	0.74
3	Non discrimination on religions	3.80	0.85
4	Non discrimination on races	3.60	0.91
	<b>Overall Mean</b>	3.50	

Source: Survey Data, 2019

From Table (3.8), overall mean score is 3.50. There are four questions to analyze and mean values of each question are shown as follow. The highest mean score is that no discrimination on religions with the mean score 3.8 is the highest. It is because one of concept of Mediland Hospital is that there is no judgment in religion and races and hospital staff treat every patient similarly and all the staffs are trained for that. However medical services with nominal cost to the needy patients have the lowest mean value. So Mediland management needs to take care of cost concern and review the pricing procedures.

### 3.5.3 Outcome Quality

In this section, the analysis is based on the answers to the questionnaire for outcome quality of Mediland Hospital by three dimensions such as waiting time, tangibles and valence.

**Table (3.9) Waiting Time**

No	Statements	Mean	Std Dev
1	Registration Time	2.70	0.88
2	Admission time	2.80	0.94
3	Lab Result waiting time	3.40	0.76
4	Examination and treatment time	3.20	0.73
	<b>Overall Mean</b>	3.03	

Source: Survey Data, 2019

From Table (3.9), overall mean value is 3.03. Among these dimensions, lab result waiting time is the highest score 3.40 and registration time is the lowest score 2.70. It is because Mediland Hospital uses modern and reliable machine and equipment for laboratory testing and for registration time, management need to train their staffs to be less waiting time for new registration.

**Table (3.10) Tangible**

<b>No</b>	<b>Statements</b>	<b>Mean</b>	<b>Std Dev</b>
1	Modern equipment of Hospital	3.90	1.01
2	Appealing facilities of Hospital	4.10	0.86
3	Professional appearance of hospital staff	3.40	0.77
4	Neat and well-dressed of hospital staff	3.50	0.86
<b>Overall Mean</b>		<b>3.73</b>	

Source: Survey Data, 2019

Service quality dimensions on tangibles are measured with four questions and they are measured for customer perception on service attributes. The mean values are shown in Table (3.10). From Table (3.10), overall mean score of tangible is (3.73). Among four dimensions, Hospital has visually appealing facilities.is the highest mean score. Mediland Hospital is always provided impressive interior decoration facilities and also offers enough elevators for patients, visitors and specialists. There is also lowest mean score on the dimension services hospital staffs have professional appearance. So management need to provide individual attention by doctors and nurses during daily ward round and take more time for patient's satisfaction if needed.

**Table (3.11) Valence**

<b>No</b>	<b>Statements</b>	<b>Mean</b>	<b>Std Dev</b>
1	Ease and quickness in getting ambulance services	3.61	0.73
2	Good house-keeping facilities	3.60	1.02
3	Availability of required drugs in time	3.00	1.14
4	Timely and hygienic food supplied	3.50	0.73
<b>Overall Mean</b>		<b>3.49</b>	

Source: Survey Data, 2019

From Table (3.11), overall mean score is 3.49. There are four questions to analyze and mean values of each question are shown as follow. The highest mean score is that ease and quickness in getting ambulance services from the hospital with the mean score 3.61 is the highest. It is because Mediland Hospital provide 24 hours ambulance service for both city are and out of city areas. However level of availability of required drugs in time the lowest mean value. Therefore, Mediland management needs to take care of well-functioning and good quality drugs.



**CHAPTER 4**

**ANALYSIS ON SERVICE QUALITY AND CUSTOMER  
LOYALTY OF MEDILAND HOSPITAL IN DAWEI**

This chapter presents analysis and findings obtained from the research study. At first, analysis on effect of service quality on customer satisfaction in Mediland Hospital, Dawei is presented. Then, analysis on influence of customer satisfaction on customer loyalty is described.

**4.1 Customer Satisfaction of Mediland Hospital**

The following Table 4.1 shows the mean value respondents and there are five questions to analyze and mean values of each question are shown as follow. According to Table 4.1, highest mean score is that, hospital services always meet patient’s expectations therefore Mediland Hospital will have reliable and good services which can help to increase the level of customer satisfaction.

**Table (4.1) Customer Satisfaction**

No	Statements	Mean	Std Dev
1	Meet patient’s expectations.	3.5	0.82
2	Delighted with the services provided by the hospital	2.9	0.78
3	Happy with the services provided by the hospital.	2.7	0.81
4	Feel emotionally attached to the hospital.	3.4	0.63
5	Satisfy with the overall performance of services	3.4	0.67

	<b>Overall Mean</b>	<b>3.18</b>	
--	---------------------	-------------	--

Source: Survey Data, 2019

## 4.2 Analysis on Effect of Service Quality on Customer Satisfaction of Mediland Hospital

In order to analyze the relationships between independent and dependent variables, Linear Regression Model is used. Interaction Quality, Physical Environment Quality and Outcome Quality are independent variables for customer satisfaction of Mediland Hospital.

### 4.2.1 Effect of Service Quality on Customer Satisfaction

With regard to observe the influence of service quality on customer satisfaction, regression model is also used to evaluate the outcomes of review collected from 110 respondents from Mediland Hospital.

**Table (4.2) Effect of Service Quality on Customer Satisfaction**

Variable	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	VIF
	B	Std. Error	Beta			
(Constant)	0.435	0.281		1.546	0.125	
Interaction	0.360***	0.097	0.333	3.723	0.000	1.729
Physical Environment	0.085	0.119	0.077	0.715	0.476	2.481
Outcome	0.388***	0.104	0.395	3.727	0.000	2.423
R	0.713					
R Square	0.508					
Adjusted R Square	0.494					
F-Value	36.472***					

Source: Survey Data, 2019

\*\*\* Significant at 99% level, \*\* Significant at 95% level, \* Significant at 90% level

According to the result shown in Table (4.2), R Square is 0.508 and Adjusted R Square is 0.494. This model can explain 49.4% about the variance of dependent variable

with the independent variable. F-value (the overall significance of the model) is highly significant at 99% level. Both of interaction quality and outcome quality are significant at 99% level. The Standardized Coefficient (Beta) shows that all two variables have positive relationship with customer satisfaction (dependent variable) of this study. A unit increase in interaction results in 0.360-unit increase in customer satisfaction of the hospital. A unit increase in outcome quality effects in 0.388-unit increase in customer satisfaction of the hospital. Interaction quality and outcome variables contribute the most to customer satisfaction of the hospital.

Customer satisfaction is an essential and normally used indicator for measuring the quality in health care. On condition that customer satisfaction is significantly concerned by interaction quality and outcome quality of the hospital. Definitely, hospital has responsibilities of giving the best health care to the patient, and primary the team or the organization in achieving the goal of satisfying the patient. That is why, for Interaction quality, hospital management needs to foster on patient's expectations a personal relationship that shows compassion and care. Moreover management has to encourage staffs to handle unexpected obstacles by medical sides. In order to outcome quality, the amount of time the patient spends in the waiting area and hospital facilities show a very essential role in determining the outcome of patient satisfaction. So hospital management need to conduct a survey of assessing waiting time and hospital facilities by an internal control team to measure the consequence of dissatisfied customers.

#### **4.2.2 Effect of Interaction Quality on Customer Satisfaction**

According to Table 4.3, the model could explain very well about the variation of the effect of interaction quality on customer satisfaction. In this study, interaction quality consists of three components – attitude, behavior and expertise. The results are shown in Table (4.3).

According to the result shown in Table (4.3), R Square is 0.434 and Adjusted R Square is 0.418. This model can explain 41.8% about the variance of dependent variable with the independent variable. F-value (the overall significance of the model) is highly significant at 99% level. The significance value of behavior is less than 0.001, meaning the variable is significant at 99% level. The Standardized Coefficient (Beta) indicates that behavior has positive relationship with the dependent variable (customer satisfaction) of

this study. A unit increase in staff behavior will lead to 0.423-unit increase in customer satisfaction. Staff behavior variable contributes the most to customer satisfaction of the hospital.

**Table (4.3) Effect of Interaction Quality on Customer Satisfaction**

Variable	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	VIF
	B	Std. Error	Beta			
(Constant)	1.377	0.297		4.644	0.000	
Attitude	0.080	0.099	0.071	0.81	0.420	1.422
Behavior	0.423***	0.069	0.567	6.105	0.000	1.614
Expertise	0.076	0.082	0.087	0.935	0.352	1.627
R			0.659			
R Square			0.434			
Adjusted R Square			0.418			
F-Value			27.14***			

Source: Survey Data, 2019

\*\*\* Significant at 99% level, \*\* Significant at 95% level, \* Significant at 90% level

Behavior of interaction quality creates the positive consequences for patients in Mediland Hospital. Behavior of the staff is main factor which also greatly affect customer satisfaction. In fact, Behavior of nurses and doctors are very important to deliver service quality to the patient for their satisfaction. Patients are satisfied only from the service quality of the hospital if the internal service provided to the patients are pleasing and health care members like doctors and nurses are noble to their duties and reply to the patients what they want and listen them carefully. And, patients are fully satisfied if the overall technical facilities like, blood bank, X-ray services provided to him and their expectation from the hospital encounters in a good manner. Therefore, behavior has positive effect on customer satisfaction in Mediland Hospital.

### 4.2.3 Effect of Physical Environment Quality on Customer Satisfaction

As shown in Table (4.4), R Square is 0.371 and Adjusted R Square is 0.353. This model can explain 35.3% about the variance of dependent variable with the independent variable. F-value (the overall significance of the model) is highly significant at 99% level. Ambient condition is significant at 99% level and design is significant at 99% level. The Standardized Coefficient (Beta) indicates that all two variables have positive relationship with customer satisfaction (dependent variable) of this study. It means that the higher the independent variables, the greater the dependent variable. A unit increase in ambient results in 0.272-unit increase in customer satisfaction of the hospital. A unit increase in design results in 0.313-unit increase in customer satisfaction of the hospital. Ambient condition and design variables contribute the most to physical environment quality on customer satisfaction.

**Table (4.4) Effect of Physical Environment Quality on Customer Satisfaction**

Variable	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	VIF
	B	Std. Error	Beta			
(Constant)	1.08	0.300		3.599	0.000	
Ambient	0.272***	0.071	0.359	3.828	0.000	1.483
Design	0.313***	0.063	0.393	4.987	0.000	1.045
Social	0.047	0.081	0.054	0.579	0.564	1.440
R			0.609			
R Square			0.371			
Adjusted R Square			0.353			
F-Value			20.816***			

Source Survey Data, 2019

\*\*\* Significant at 99% level, \*\* Significant at 95% level, \* Significant at 90% level

Service quality of Mediland hospital like hygienic condition of the hospital, good interior atmosphere for patients, preparation for natural light, and quiet environment of the wards, clean wards and proper placement of beds are important ambient items. If these things are arranged properly they will affect to the patients to come back to this hospital for treatment. So, availability of these things leads to finest service quality provided by

the hospital to their patients. Hence, customer satisfaction form more favorable variable when the ambient conditions are high.

Customer satisfaction is greatly affected by design of the hospital. In case, generally hospitals are related with infection and so patients expect that hospitals have neat appearance. Additionally the management focus on the physical design of the hospital such as regularly cleaning the floor, changing the bed range and pillows by providing the dust bin, use of glows and dresses by employees. It attracts more patients to be satisfied. Therefore, design of hospital positively affects customer satisfaction.

#### 4.2.4 Effect of Outcome Quality on Customer Satisfaction

According to the result shown in Table (4.5), R Square is 0.427 and Adjusted R Square is 0.411. This model can explain 41.1% about the variance of dependent variable with the independent variable. F-value (the overall significance of the model) is highly significant at 99% level. Waiting time is significant at 99% level, tangible is significant at 99% level and valence is significant at also 99% level. Beta values are all positive.

The correlation between independent variables and dependent variable is positive. A unit increase in waiting time will lead to 0.235-unit increase in customer satisfaction. A unit increase in tangible will make 0.198-unit increase in outcome quality of customer satisfaction. And a unit increase in valence will make 0.212-unit increase in outcome quality of customer satisfaction.

**Table (4.5) Effect of Outcome Quality on Customer Satisfaction**

Variable	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	VIF
	B	Std. Error	Beta			
(Constant)	1.039	0.247		4.198	0.000	
Waiting	0.235***	0.076	0.272	3.078	0.003	1.443
Tangible	0.198***	0.071	0.265	2.792	0.006	1.668
Valence	0.212***	0.071	0.265	2.99	0.003	1.456
R			0.654			
R Square			0.427			

Adjusted R Square		0.411			
F-Value		26.338***			

Source: Survey Data, 2019

\*\*\* Significant at 99% level, \*\* Significant at 95% level, \* Significant at 90% level

Customer satisfaction is significantly associated with waiting time of the hospital service. Extended waiting times for patients are commonly seen in registration, billing process, outpatient facilities, and this difficulty contributes to a range of interruption of hospital work plans, and patient dissatisfaction. Now, Mediland Hospital fosters better Service quality such as less waiting time .Therefore, waiting time has major impact on customer satisfaction of hospital.

Moreover, tangibles and valence play a critical role in customer satisfaction of the hospital. Hospital management always focuses on the cleanliness of the hospital and the ward, neatness of the buildings, décor in the wards and appearance of the nursing staff.

Therefore, Mediland tangible elements such as comfort of the room, a clean hospital environment, and modern equipment and valence such as easiness of getting diagnostic tests done and have great influence on customer satisfaction

### 4.3 Customer Loyalty of Mediland Hospital

From Table (4.6), overall mean score for customer loyalty of Mediland Hospital is 3.58. There are five questions to analyze and mean values of each question are revealed as follow.

**Table (4.6) Customer Loyalty**

No	Statements	Mean	Std Dev
1	Recommend the hospital to friends	3.3	0.75
2	Say positive things about this hospital to other people.	3.5	0.68
3	Continue to seek medical services from this hospital.	3.7	0.85

4	Refuse to change to another hospital.	3.6	0.81
5	Defend the hospital when other people criticized it.	3.6	0.91
<b>Overall Mean</b>		<b>3.58</b>	

Source: Survey Data, 2019

The highest mean score is that encourage friends and relatives to use Mediland Service with the mean score 3.7 is the highest. It is because Mediland Hospital can support patient expectations and all the staffs are qualified to assist every patient when they enter into the hospital till they go out. So patients are mostly satisfied and they became loyal customers.

#### 4.4 Analysis on Influence of Customer Satisfaction on Customer Loyalty

In order to find out the influence of customer satisfaction on customer loyalty, regression model is used to analyze the findings of survey collected from 110 respondents from Mediland Hospital.

**Table (4.7) Effect of Customer Satisfaction on Customer Loyalty**

Variable	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	VIF
	B	Std. Error	Beta			
(Constant)	1.078	0.283		3.805	0.000	
Customer Satisfaction	0.770***	0.087	0.648	8.844	0.000	1.000
R			0.648			
R Square			0.42			
Adjusted R Square			0.415			
F-Value			78.219***			

Source: Survey Data, 2019

\*\*\* Significant at 99% level, \*\* Significant at 95% level, \* Significant at 90% level



According to the result shown in Table (4.7), R Square is 0.420 and Adjusted R Square is 0.415. This model can explain 41.5% about the variance of dependent variable with the independent variable. F-value (the overall significance of the model) is highly significant at 99% level. Customer satisfaction on customer loyalty has expected positive sign and highly significant coefficient value at 99% level because significant value is 0.000. The positive sign means that the improvement in customer satisfaction may increase patient's perceptions towards service quality and their loyalty. The rise in customer satisfaction by 1 unit become increased the intention towards service quality from Mediland Hospital by 0.77unit.

Customer satisfaction had an essential role on several aspects of health care organizations. Service quality was deliberated as an important factor for developing customer loyalty. One of the main ways to sustained patient satisfaction is to provide health services of consistently high quality to meet consumer expectations that increased customer loyalty. Mediland Hospital makes progress of safety patient to improve customer satisfaction. One of the main ways to maintained customer satisfaction is to provide health services of consistently high quality to meet consumer expectations that increased patient loyalty. Therefore, the more customers feel satisfaction, the higher the customer loyalty for the hospital.

## **CHAPTER (5)**

### **CONCLUSION**

In this chapter, three parts are presented. The first one is findings and discussions on the analysis. The second part is the recommendation and suggestions that displays what and how to improve customer satisfactions and customer loyalty and the last one presents the limitations and needs of further study.

#### **5.1 Findings and Discussions**

The study is conducted to gain a better understanding of service quality and customer satisfaction at Mediland Hospital, Dawei. The objectives of this study to analyze the effect of service quality on patient satisfaction in Mediland Hospital, Dawei and to investigate the influence of customer satisfaction on customer loyalty in Mediland Hospital.

In this study, regarding the demographic of respondents, it includes age, gender, and monthly income level, education, and visit time. It is found that most of the patients are age group between 26-35 years old. Most are female and coming to Mediland Hospital for two times. In the analysis of service quality and customer loyalty, the study focused on three dimensions; interaction quality, physical environment quality and outcome quality which intended to determine the effect of service quality on customer satisfaction and customer loyalty.

Interaction quality includes such factors as attitude, behavior and expertise. Among of these factors, behavior has positive significant effect on customer satisfaction. This indicated that behavior is mainly influence on interaction quality of customer satisfaction of the hospital because the better compassionate services such as nursing care, respect of nurses, helpfulness of nurses and concentration of doctors to patients the higher and greater likelihood of customer satisfaction from the patients.

Physical environment quality includes factors such as ambient conditions, design and social factors. Two of those ambient conditions and design have significant positive impact on physical environment quality on customer satisfaction. It indicates that both factors have influence on physical environment quality of customer satisfaction because better hospital's physical environment that includes its overall layout, design, decoration and hospital environment, the greater an attractive atmosphere for customer satisfaction of the hospital.

Outcome quality includes factors such as waiting time, tangible and valence. All of those factors have significant effect on physical environment quality on customer satisfaction. This study results indicate that better outcome quality such as waiting time, tangible and valence would help positive customer satisfaction because outcome quality is very critical in customer experiences towards customer satisfaction. For instance, if the less time doctors spend on administrative chores, the more time they have for their actual job.

This study also highlights the effect of customer satisfaction on customer loyalty. Customer satisfaction has significant positive impact on customer loyalty. Customer satisfaction is a feeling of satisfaction after receiving a service as the result of relating between the service performance and the desired outlooks. Numerous customer satisfaction indicators are: getting a good experience, satisfied service, service received is accordance with the cost incurred, and services that exceed customer expectations. Loyalty is a conduct that is formed from experience, satisfaction, to a product or service by repurchasing. That is why the better the hospital get customer satisfaction, the higher the patient loyalty such as reuse of hospital services, convey positive things to relatives, recommend, and encourage others to use the same service of the hospital.

## **5.2 Recommendations and Suggestions**

Regarding the improvement of Mediland Hospital, management needs to consider to all the possible ways to improve service quality. Based on the results of this study, there are some recommendations and suggestions.

According to interaction quality, the respondents reach satisfaction level upon on behavior. That is why Mediland Hospital should withstand this kind of services and should also arrange to give awards to those clinical staffs who implement that caring of

services. Additional things that customer service and public relation education should provide by the patient experience supervisor, who served as an internal consultant to executive and clinical leaders. And take actions for customer's feedback and complaint to develop better service quality.

In physical environment quality, ambient condition and design impact on customer satisfaction. That's why Mediland Hospital needs to check on the chain of care of service, billing process and to see whether there is a lack of procedure or carelessness of the staffs. Another point that management need to consider is to supply public toilet clean and pleasant because hygiene of the toilets represents the image and typical of the hospital and it represents infection free environment.

In outcome quality, Mediland Hospital needs to manage delay waiting time of patients especially in Outpatient time. But there will be some complications as it is concerned with specialists. And hospital need to also arrange patient waiting lounge to become more comfortable like to connect more television with different network, to put Wi-Fi facilities, to make stands for magazines and journals, to arrange indoor playground for children. Another thing that management of Mediland Hospital needs to consider to take care is extend waiting time at Pharmacy and Cashier. In those departments, a reliable Cue System should be fixed and if possible, new Point of Sale (POS) counters should be opened to ease the traffic.

At last, the management of Mediland Hospital must have and keep up the reliable and supportable development at all service dimension in future. The findings of this study are expectable to contribute the improvement of service quality of medical care of Mediland Hospital.

Satisfaction is another vital factor to building customer loyalty. When customers are satisfied with services provided by the hospital their loyalty toward the hospital increases. Therefore, Mediland hospital should attempt to get customers trust by giving high quality services, by exceeds customer expectation, showing respect for patients showing concern for the health of their patients this will keep the satisfied customer loyal to the hospital.

### **5.3 Needs for Further Study**

This study does not emphasize on the entire medical care service of Mediland Hospital. In order to specific, the study should conduct and characterized based on the kinds of services and broader aspects of service quality in the future. There are many models to accurately measure the quality of service. This study focus on the service quality factors on private hospital but other researchers can study on other public hospital by using other service quality models. The study which examines other influencing factors on customer satisfaction on private hospitals also can be beneficial for the hospitals for improving customer satisfaction and retaining loyal customers.

## REFERENCES

- Andaleeb, S., 2001. Service quality perceptions and patient satisfaction: a study of hospital in a developing country. *Journal of Social Science & Medicine*. 52 (9), 1359-1370.
- Anbori A, Ghani SN, Yadav H, Daher AM, Su TT (2010). Patient satisfaction and loyalty to the private hospitals in Sana'a, Yemen. *Journal of Health Care*. 22 (4), 1-6.
- Bitner, M.J. (1992). Servicescapes: the impact of physical surroundings on customers and Employees. *Journal of Marketing* ,56,57-71.
- Brady & Robertson (2001). Searching for a consensus on the antecedent role of service quality and satisfaction: an exploratory cross-national study. *Journal Of Business Research*. 1, 53-60.
- Choi, K. H. L. C. K. & S. L., 2005. The service quality dimensions and patient satisfaction relationships in South Korea: comparisons across gender, age and types of service. *Journal of Services Marketing*. 19(3), 140-149.
- Conway, T, Willcocks, S (1997). The role of expectations in the perception of health care quality: Developing a conceptual model. *International Journal of Health Care Quality Assurance*. 10, 131–140.
- Cronin, J.J. Jr and Taylor, S.A. (1992), Measuring service quality: a re-examination and Extension. *Journal of Marketing*. 56, 55-68.
- Crosby, P.B. (1979) *Quality Is Free: The Art of Making Quality Certain*. McGraw-Hill, New York.
- Dagger TS, Sweeney JC, Johnson LW(2007). *A hierarchical model of health service quality*. *J SerRes-us*,10(2):123-42.
- Dabholkar (2000). The effect of perceived service quality on patient satisfaction at a public hospital in state of Pahang, Malaysia. *Asian Journal of Social Sciences & Humanities*. 307-323.
- Fornell, C. (1992). A national customer satisfaction barometer: The Swedish experience. *Journal of Marketing*. 56(1), 6–21.

- Hu (2011). An integrative model of customers' perceptions of health care services in Taiwan. *Service Industry Journal* 28(9), 1307-1319.
- Kyaw Zin Win, (2013). *A study on service quality in Medical Care of Victoria Hospital*, EMBA thesis, Yangon University of Economics.
- Kyaw Zin Htoo, (2014). *A study on service quality of Hotel 7 Mile*, EMBA thesis, Yangon University of Economics.
- Khin Thandar Kyaw, (2013). *A study on service quality of Tour Mandalay Company Limited*, EMBA thesis, Yangon University of Economics.
- Kotler, P. (1997). *Marketing Management: Analysis, Planning, Implementation, and Control*, 9th Edition, Prentice Hall, Upper Saddle River.
- Kotler, P. and Keller, K. (2012). *Marketing management*. Upper Saddle River, N.J.: Prentice Hall.
- Maive Suuroja, (2003). *Service quality – Main conceptualizations and critique*, Faculty of economic and business, University of Tartu.
- Md.Hafez & Akthe, (2017). Determination of Customer Loyalty in Mobile Telecommunication Industry in Bangladesh. *Global Journal of Management and Business Research*.
- Mortazavi (2009). The Relationships between Patient Satisfaction and Loyalty in The Private Hospital Industry. *Iranian Journal of Public Health*.(38)-3.
- Nay Chi Win, (2016). *A study on service quality of Hotel Amara, Nay Pyi Taw*, Online MBA thesis, Yangon University of Economics.
- L.Gerelmaa, 2009. *Study of patient satisfaction: Comparative analysis between public and private hospitals of Ulaanbaatar city*. Master's thesis, Ritsumeikan Asia Pacific University.
- Polluste, K. K. R. & L. M., 2000. Primary health care system in transition: the patient's experience. *International Journal for Quality in Health Care*.12, 503-509.
- Parasuraman, A., Zeithaml, V.A. and Berry, L.L. (1988). SERVQUAL: a multiple item scale for measuring customer perceptions of service quality, *Journal of Retailing*. 64,12-40.

- Parasuraman, A. B. L. & Z. V. A., 1988. SERVQUAL: A Multiple-Item Scale for Measuring Consumer Perceptions of Service Quality. *Journal of Retailing*. 1,12-40.
- Parasuraman, A., Zeithaml, V.A. and Berry, L.L. (1985).A conceptual model of service quality and its implications for future research. *Journal of Marketing*.49,41-50.
- Roberge, ( 2001). Customer Loyalty in Sport Services Industry: The Role of Service Quality In Customer Satisfaction, commitment and trust. . *International Journal of Human Sciences*.
- Su Myat Hnin, (2014). *A study on service quality of Total Learning Academy*, EMBA thesis, Yangon University of Economics.
- Säilä, (2008) .Measuring patient assessments of the quality of outpatient care: a systematic review. *Journal of Evaluation in Clinical Practice*.14, 148-154.
- Sasser, W. E., Olsen, R. P., Wyckoff, D. D., & Harvard University. (1978). *Management of Service operations: Text, cases, and readings*. Boston: Allyn and Bacon.
- Sang Le Ngoc & Huong Tran Thi Thu, (2017). *Customer satisfaction toward the services in Two Tigers restaurant, Helsinki -Vantaa airport*.
- Wu, C., Cheng, C. (2013).A hierarchical model of service quality in the airline industry. *Journal of Hospitality and Tourism Management* .20, 13-22.
- Zeithaml, V A, Bitner, M J & Gremler, D D, (2006). *Service Marketing Integrating Customer Focus across the Firm*, 4<sup>th</sup> edition, McGraw-Hill, New York.
- Zeithaml, V., 1988. Consumer perceptions of price, quality and value: a means-end model and synthesis of evidence. *Journal of Marketing*.52, 2-22.



## APPENDIX A : QUESTIONNAIRES

The following questions are asked just for reviewing attitude on medical care and observation upon services provided by Mediland Hospital. All the data will be intensely kept as confidential. We are thankful upon your participation.

### **SECTION (I) DEMOGRAPHIC PROFILE OF THE RESPONDENTS**

**PLEASE TICK THE MOST APPROPRIATE BOX**

1 **Name (Optional)**.....

2 **Age**

(a) **Under 18 years**

(b) **18 – 25 years**

(c) **26 – 35 years**

(d) **36 – 45 years**

(e) **46 – 55 years**

(f) **Over 56 years**

3 **Sex**

(a) **Male**

(b) **Female**

4 **Income per month**

(a) **Under 100,000ks**

(b) **100,000 – 200,000ks**

(c) **200,000 – 300,000ks**

(d) **300,000 – 400,000ks**

(e) **400,000 – 500,000ks**

(f) **Over 500,000ks**

**5 Educational Level**

- (a) **Primary**
- (b) **Middle School**
- (c) **High School**
- (d) **Graduate**
- (e) **Post-Graduate**

**6 Visit Time**

- (a) **One time**
- (b) **Two times**
- (c) **Three times**
- (d) **More than three times**

**SECTION (II) TO COMPLETE THE QUESTIONNAIRE, PLEASE CHOOSE THE APPROPRIATE ANSWERS ACCORDING TO THE FOLLOWING SCALE:**

1. Strongly Disagree   2. Disagree   3. Neutral   4. Agree   5. Strongly Agree

**Interaction Quality**

<b>(a)Attitude</b>		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1	Nurses treat with courtesy and respect					
2	Doctors are courteous and polite					
3	Personal information was treated confidentially					
4	Medical staff show good attitude					

<b>(b)Behavior</b>		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1	The health care person listened carefully.					
2	Diagnosis explained in clear language					
3	Services provided at promised times					
4	Doctors responded immediately for calling					

<b>(c)Expertise</b>		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1	Correct Examination and treatment					
2	Comfort and convenience blood taking procedures					
3	Understand the specific needs of their patients.					
4	Promptness of handling complications					

### **Physical Environment Quality**

<b>(a) Ambient Condition</b>		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1	Good air ventilation and lighting of the hospital					
2	Clean and safe environment					
3	Quiet surrounding area					
4	Comfortable in patient rooms					

<b>(b)Design</b>		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1	Adequate and sufficient hospital signs					
2	Easily identified members of staff by their uniform					
3	Prompt, simple and clear admission processes and procedures					
4	Prompt & easy billing process					

<b>(c )Social Factors</b>		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1	Medical services with nominal cost to the needy patients					
2	Ethical principles follow by the hospital					
3	No discrimination on religions					
4	No discrimination on races					

### Outcome Quality

<b>(a)Waiting Time</b>		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1	Registration Time					
2	Admission time					
3	Lab Result waiting time					
4	Examination and treatment time					

<b>(b) Tangibles</b>		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1	Hospital has modern equipment.					
2	Hospital has visually appealing facilities.					
3	Hospital staffs have professional appearance.					
4	Hospital staffs are neat and well-dressed personnel.					

<b>(c)Valence</b>		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1	Ease and quickness in getting ambulance services					
2	Good house-keeping facilities					
3	Availability of required drugs in time					
4	Timely and hygienic food supplied					

### Customer Satisfaction

		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1	Meet patient's expectations.					
2	Delighted with the services provided by the hospital					
3	Happy with the services provided by the hospital.					
4	Feel emotionally attached to the hospital.					
5	Satisfy with the overall performance of services					

### Customer Loyalty

		1	2	3	4	5
1	Recommend the hospital to friends					
2	Say positive things about this hospital to other people.					
3	Continue to seek medical services from this hospital.					
4	Refuse to change to another hospital.					
5	Defend the hospital when other people criticized it.					

## APPENDIX B : STATICAL OUTPUT

### Regression Analysis Result for Effect of Service Quality on Customer Satisfaction

#### Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.713 <sup>a</sup>	0.508	0.494	0.3741	0.508	36.47	3	106	0

a. Predictors: (Constant), Outcome Mean, Interaction Mean, Physical Environment Mean

#### ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	15.312	3	5.104	36.472	.000 <sup>b</sup>
	Residual	14.835	106	0.14		
	Total	30.147	109			

a. Dependent Variable: Customer Satisfaction

b. Predictors: (Constant), Outcome, Interaction, Physical Environment

#### Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	0.435	0.281		1.55	0.125	-0.123	0.99		
	Interaction	0.36	0.097	0.333	3.72	0	0.168	0.55	0.578	1.729
	Physical Environment	0.085	0.119	0.077	0.72	0.476	-0.151	0.32	0.403	2.481
	Outcome	0.388	0.104	0.395	3.73	0	0.182	0.6	0.413	2.423

a. Dependent Variable: Customer Satisfaction

**Regression Analysis Result for Effect of Interaction Quality on Customer Satisfaction**

**Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.659 <sup>a</sup>	0.434	0.418	0.40106	0.434	27.14	3	106	0	1.927

- a. Predictors: (Constant), Expertise, Attitude, Behavior
- b. Dependent Variable: Customer Satisfaction

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	13.1	3	4.366	27.14	.000 <sup>b</sup>
	Residual	17.05	106	0.161		
	Total	30.15	109			

- a. Dependent Variable: Customer Satisfaction
- b. Predictors: (Constant), Expertise, Attitude, Behavior

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Interval Confidence for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	1.377	0.297		4.64	0.000	0.79	1.965		
	Attitude	0.08	0.099	0.071	0.81	0.420	-0.12	0.276	0.703	1.422
	Behavior	0.423	0.069	0.567	6.11	0.000	0.29	0.56	0.62	1.614
	Expertise	0.076	0.082	0.087	0.94	0.352	-0.09	0.238	0.615	1.627

- a. Dependent Variable: Customer Satisfaction

**Regression Analysis Result for Effect of Physical Environment Quality on Customer Satisfaction**

**Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.609 <sup>a</sup>	0.371	0.353	0.42305	0.371	20.82	3	106	0	1.98

a. Predictors: (Constant), Social, Design, Ambient

b. Dependent Variable: Customer Satisfaction

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	11.176	3	3.725	20.816	.000 <sup>b</sup>
	Residual	18.971	106	0.179		
	Total	30.147	109			

a. Dependent Variable: Customer Satisfaction

b. Predictors: (Constant), Social, Design, Ambient

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	1.08	0.300		3.599	0.000	0.485	1.676		
	Ambient	0.272	0.071	0.359	3.828	0.000	0.131	0.413	0.674	1.483
	Design	0.313	0.063	0.393	4.987	0.000	0.188	0.437	0.957	1.045
	Social	0.047	0.081	0.054	0.579	0.564	-0.11	0.207	0.695	1.44

a. Dependent Variable: Customer Satisfaction



## Regression Analysis Result for Effect of Outcome Quality on Customer Satisfaction

### Model Summary<sup>b</sup>

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.654 <sup>a</sup>	0.427	0.411	0.40366	0.427	26.34	3	106	0	1.783

a. Predictors: (Constant), Valence, Waiting, Tangible

b. Dependent Variable: Customer Satisfaction

### ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	12.875	3	4.292	26.34	.000 <sup>b</sup>
	Residual	17.272	106	0.163		
	Total	30.147	109			

a. Dependent Variable: Customer Satisfaction

b. Predictors: (Constant), Valence, Waiting, Tangible

### Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	1.039	0.247		4.198	0.000	0.548	1.53		
	Waiting	0.235	0.076	0.272	3.078	0.003	0.084	0.387	0.693	1.443
	Tangible	0.198	0.071	0.265	2.792	0.006	0.057	0.339	0.599	1.668
	Valence	0.212	0.071	0.265	2.99	0.003	0.071	0.353	0.687	1.456

a. Dependent Variable: Customer Satisfaction

**Regression Analysis Result for Effect of Customer Satisfaction on Customer Loyalty  
Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.648 <sup>a</sup>	0.42	0.415	0.47815	0.42	78.219	1	108	0.000	1.636

a. Predictors: (Constant), Customer Satisfaction

b. Dependent Variable: Customer Loyalty

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	17.883	1	17.883	78.219	.000 <sup>b</sup>
	Residual	24.692	108	0.229		
	Total	42.575	109			

a. Dependent Variable: Customer Loyalty

b. Predictors: (Constant), Customer Satisfaction

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	1.078	0.283		3.805	0.000	0.516	1.639		
	Customer Satisfaction	0.77	0.087	0.648	8.844	0.000	0.598	0.943	1	1

a. Dependent Variable: Customer Loyalty