YANGON UNIVERSITY OF ECONOMICS

DEPARTMENT OF MANAGEMENT STUDIES

MBA PROGRAMME

FACTORS INFLUENCING CUSTOMER SATISFACTION OF CLINICAL LABORATORY SERVICES IN YANGON

MAY THET SU

EMBA II - 56

EMBA 16th BATCH

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ACADEMIC YEAR (2017-2019)

Supervised By: **Submitted By:**

Daw Myo Thanda Htun   May Thet Su

Lecturer   EMBA II - 56

Department of Management Studies   EMBA 16th Batch

Yangon University of Economics   2017 - 2019

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OF CLINICAL LABORATORY SERVICES IN YANGON

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

Supervised By: **Submitted By:**

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Yangon University of Economics   2017 - 2019

ACCEPTANCE

This is to certify that the thesis entitled **"Factors Influencing Customer Satisfaction of Clinical Laboratory Services in Yangon"** has been accepted by the Examination Board for awarding Master of Business Administration (MBA) degree.

Board of Examiners

(Chairman)

Dr. Tin Win

Rector

Yangon University of Economics

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(Supervisor)   (Examiner)

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December, 2019

ABSTRACT

This study focuses on the factors influencing the customer satisfaction of clinical laboratory services in Yangon and analyze the effect of customer satisfaction on customer loyalty of clinical laboratory services in Yangon. This study is conducted through structured questions with 346 respondents who have experiences in any clinical laboratory services in Yangon. The sampling method is simple random sampling. The findings of the study show that the physical environment and cost of laboratory tests are positively influence the customer satisfaction. The physical environment of laboratory promotes positive feelings within consumers and influences positive customer satisfaction. Additionally, attractiveness of best price in offering laboratory services has an effect on customer satisfaction and that the better pricing plan, the more satisfied the customers are. Furthermore, the study indicates that the customer satisfaction has a large impact on the customer loyalty on clinical laboratory services. Therefore, laboratory service providers should act in integrity, being polite, friendly, offer personalized medical care and be interested with patient needs so as to positively influence customer satisfaction.

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CHAPTER (1)
INTRODUCTION

Today's company knows that customer satisfaction is the key to the success of the business and, at the same time, plays a vital role in the development of market value. Customer satisfaction refers to the degree to which customers are happy and gratified with the products and services provided by a business. In order to other words, satisfaction is the state of mind of a person who has encountered a product or service result that has exceeded his or her standards. Understanding the factor influencing customer satisfaction and identifying those hinder it is the most essential basis for improving the quality of service delivered.

Laboratory services are essential for the diagnosis and assessment of patient health. The services embrace requisition of the tests, patient preparation, patient identification, specimen assortment, specimen transportation, storage, process and examination of the specimen, along with consequent result validation, interpretation, and reporting of the results. Laboratory services should meet the patient's needs, clinical staff responsible for patient care, and any other interested parties. The aim of the laboratory is to deliver accurate results and to the right patient within a meaningful timeframe in terms of clinical management, using appropriate laboratory procedures and patient confidentiality.

Customer satisfaction towards clinical laboratory service is affected by service quality and staff competency, provision of adequate information to collect specimen and when and how to receive laboratory results, waiting time to get laboratory results, availability of varieties laboratory tests, cleanliness of the laboratory room, location of the laboratory, availability and accessibility of latrine. Understanding the effect of customer satisfaction and loyalty is vital for all kinds of business. Once the customer is satisfied, customer loyalty will certainly come along with it as well. Therefore, this research focused on the factors influencing the customer satisfaction of clinical laboratory services in Yangon.

1.1. Rationale of the Study

The healthcare industry is currently in a highly competitive health care environment; it is not just a matter of choice that clinical laboratories need to meet the expectations of their customers. In order to provide health services that are responsive to consumer needs, consumer assessment work must be carried out by organizations whose role is to purchase, present or access health services. Customers are experts on their own priorities, their individual needs, and their own experiences, and they should be consulted as should any other expert group.

The healthcare industry is growing and changing dramatically and also changing their lifestyle. Today, preventative health care is becoming commonplace as people become more aware and delegated about their health. People are preemptively seeking a medical recommendation on the way to live a healthy lifestyle. They try to reduce lower their risk of different conditions or diseases by maintaining a healthy diet, weight, and level of physical activity. In order to understand whether the customer needs are being met. The laboratory needs to use information-gathering equipment. The laboratory needs to actively find information from its customers, rather than just waiting for customers to contact the laboratory with a complaint. Monitoring customer satisfaction is a relevant and useful quality improvement tool for clinical laboratories in particular, and health care organizations in general. Most clinical laboratories in the Yangon are required to assess their customers' satisfaction in order to improve the quality of laboratory services.

Therefore, marketers and owners need to be up-to-date with consumer perceptions of many aspects of their business to be successful in their principal business. The owner needs to be aware of the attitude and behavior of the customer to offer sufficient value while meeting the growing demand of the customer. Thus, this study is aimed to assess customer satisfaction toward clinical laboratory services in Yangon.

1.2. Objectives of the Study

There are two specific objectives in the study. These objectives are as below:

(1) To explore the factors influencing customer satisfaction of clinical laboratory services in Yangon.

(2) To analyze the effect of customer satisfaction on customer loyalty of clinical laboratory services in Yangon.

1.3. Scope and Method of the Study

This study focuses on the factors influencing customer satisfaction of clinical laboratory services in Yangon. The descriptive and analytical research method is used in this study. It is a quantitative study where the structured questionnaires are given out to the respondents. The sampling method is simple random sampling and the data is collected from customers who have experience in clinical laboratory services in Yangon. The sample size of this research is 377 respondents as per Raosoft software based on total population in Yangon who have a previous experience with any laboratory services, and the respondents were surveyed by interviewing. The data collection time is two days (two weekends) per week and at least 30 respondents per day. Five-point Likert scales questionnaires are used to find out the influencing factors of customer satisfaction and the effect of customer satisfaction on customer loyalty. However, the category type questions are also involved at some relevant parts. A regression analysis is also conducted to find out the influencing factors of customer satisfaction and the effect of customer satisfaction on customer loyalty of clinical laboratory services in Yangon.

In this study, two sources of data-primary data and secondary data are used. Primary data from the respondents is obtained by using structured questionnaire. Secondary data is obtained from the Ministry of Health and Sports website, published paper, Myanmar pharmaceuticals and reference text books.

1.4. Organization of the Study

This paper is organized into five chapters. Chapter one is the introduction chapter which includes rationale of the study, objectives of the study, scope and method of the study and organization of the study. Chapter two illustrates the theoretical background regarding to customer satisfaction and customer loyalty and factors influencing customer satisfaction. Chapter three consists of factors influencing customer satisfaction of clinical laboratory services in Yangon. Chapter four involves the analysis of the effect of customer satisfaction on customer loyalty of clinical laboratory services in Yangon. Chapter five is the conclusion chapter in which finding and discussions, suggestions and recommendations and needs for further research.

CHAPTER (2)

THEORETICAL BACKGROUND

This chapter focuses mainly on the theoretical background to this study. This chapter includes the theories and definitions of customer satisfaction and customer loyalty, as well as factors that influence customer satisfaction and the impact of customer satisfaction on customer loyalty. The conceptual framework of the study is followed.

2.1 Customer Satisfaction

Customer satisfaction is the main importance of a business strategy as well as customer loyalty and service retention. It is a vital role for businesses to effectively manage customer satisfaction. strengthened customer satisfaction can provide business benefits such as customer loyalty, extending a customer's life cycle by extending the customer's purchase merchandise life and enhancing positive mouth communication to customers. When the customer is pleased with the product or service of the company, it can make the customer to purchase frequently and to recommend products or services to potential customers. A business organization cannot expand if the company ignores or ignores customer needs. (Tao. F, 2014)

Figure (2.1): Customer Satisfaction Analysis Model
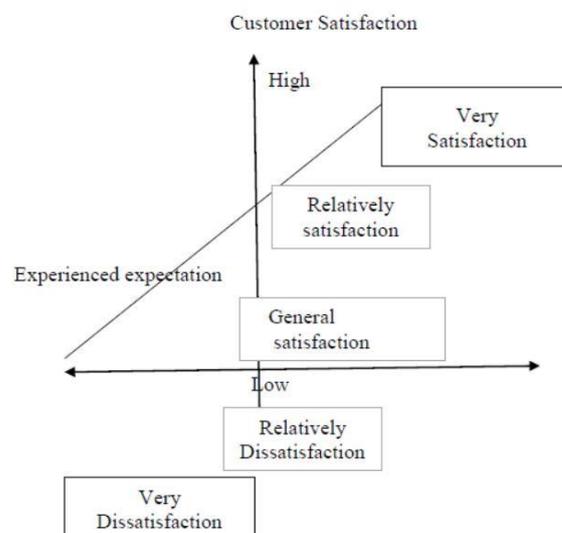
Source: Tao. F,2014

In the given figure, a negative correlation between customer satisfaction and consumer expectations can be seen. The figure is shown the difference between customer experience and customer expectation. Therefore, it is divided into five intervals (very dissatisfied, relatively dissatisfied, general satisfaction, relatively satisfied, and very satisfied). When the customer experiences essential apartments with the customer's expectations, the customer's satisfaction increases. On the contrary, compared with the expectations, the worse customer experience leads to lower customer satisfaction. There are two ways to improve customer satisfaction for companies. The first one is to increase the customer experience and the second one is to manage customer expectations by lowering the desired level effectively. However, the first approach is widely used in the organization and has been successful. In the future, the business will still need to make any changes for continuous improvement (Tao, 2014)

If the performance is less than expected, the customer shall be unhappy. If the performance meets the expectations, the customer shall be satisfied. If the performance increases expectations, the customer is highly satisfied. Therefore, on applying this concept to the healthcare sector, customer satisfaction in clinic is basically a state of mind of the patient. It is the ability of the clinic service to meet the expectations of the patient. Customer delight is all about exceeding the expectations of the patients to make him highly satisfied with the hospital (Kilboume et al 2004).

The service provider should aim for a high level of satisfaction or customer delight, as customers have no doubt about switching when a better offer comes from a different laboratory. Those who are very satisfied or pleased with the laboratory are much less willing to move. High satisfaction or delight establishes an emotional bond with the laboratory in the patient's view, not just reasonable desire. The result is high patient loyalty, which is what every laboratory is looking at, to reduce the competition (Jabnoun, N., A1 Rassasi, A.J. (2005). Laboratory services are therefore now making efforts to identify what healthcare clients need, tailoring their services to meet those needs, and then attracting patients to take advantage of these services.

2.2   Customer Loyalty

The gain of new customer costs more than the retention of the current customers. Loyal customers are the core elements which encourage different customers to purchase from the seller and always review their decision time and again before changing mind to

purchase the alternative services/products. Customer loyal is well constructed by the help of effective designs and information which shows that customer loyalty does not earned by an accident. Customer loyalty is gained through a customer-oriented strategy that meets the interests and needs of customers.

Loyalty may comprise attitudinal and behavioral loyalty. Customer loyalty is not only the repeat purchase but also the customer's attitudinal state of intention to re-patronize. Therefore, repeat purchase intention becomes a critical part of such attitudinal or behavioral constructs. In terms of behavioral purchasing, it is associated with actual customer consumption behavior which involves the measurement of past purchases or the measurement of profitability of future purchase based on past purchase behaviors (Ehrenberg, 1988).

A relationship with a customer is equally important in terms of customer loyalty, and this requires a company to work in a wider context that extends beyond itself, as no company can be world-class at all.

The company must pay attention to cost, advertising, service and products in order to gain the customer loyalty. Meanwhile, it is important to create a comfortable environment between the client and the business. Investing in loyal customers brings benefits to the company such as increasing efficiency and business income.

2.3   Factors Influencing Customer Satisfaction

Cure is a basic expectation of a health service (Conway and Willcocks, 1997). Specifically, patient satisfaction is defined as the assessment of the different dimensions of health care (Linder-Pelz, 1982). As the researchers, international paper pointed out that many factors such as service quality, tangibility, reliability, responsiveness, turnaround time, test report, technology and communication. In this study, only laboratory environment, staff competency, quality of laboratory, collection service and delivery and cost of laboratory tests.

2.3.1   Physical Environment

Laboratories are becoming increasingly aware of best practices in quality and safety. In response to the accelerating changes in the laboratories field, there has been a great deal of attention to create in design and provide a more comfort environment for customers. A pleasant environment promotes positive feelings within consumers. Pruyn

and Smidts (1998) show perceived attractiveness has a positive impact on the effective response to waiting, a known component of waiting time satisfaction. So, it was anticipated that satisfaction with the environment will positively affect the customer satisfaction with waiting time. The greater the satisfaction with the environment, the more waiting time satisfaction Pruyn and Smidts (1998).

Most of the studies showing it has a significant influence on the marketing management services (Parasuraman et al., 1985); especially in healthcare and hospital industries. It makes understanding of the physical evidence and costs more complicated for consumers than the core service.Physical evidence refers to the environment in which the service is provided where the laboratory and the customer interact with any tangible goods that facilitate the performance or communication of the services. It includes the design and infrastructure of the laboratory, interior design, modern equipment, visual appearance of facilities and staff's personality and appearance.

2.3.2 Staff Competency

Staff competency can be defined as level of employee involvement and concerns when customers required on assistance. It is very depending on individual customer's wants and needs. It can extend to convenience operating service hours, individual and personal attention given to customers, attention to their problem facing and customers risk and safety evaluation (Kumar and Kee, 2009). This dimension is urgency and fast response when dealing with the customers' requests on new enquiry, questions of uncertainty of result or extraction method, feedback and complaints. A firm is considering responsive when it uses the shortest time to communicate and get back the answer to customers. A successful company must look at responsiveness from a customer's point of view rather than a company's point of view. (Zeithaml et al., 1990)

The laboratory providers must also aware that the services offered must be parallel with the demand and expectations of their customer (Wisniewski, 2001). Communication is the degree to which the patient is understood, kept updated in understandable terms, given social interaction and appointment time, and provided psychological and non-technical information. (Tucker, 2002). Service responsiveness related that managing with customer's request and answering their questions and complaints promptly. According to Kumar and Charles, 2010 as cited in Neupane, R., & Devkota, M. (2017), responsiveness is another quality of service playing pivotal role to exceed customer's expectation, which

is the readiness and willingness of employees to offer service encompasses timeliness of services. It also includes understanding customer safety and transaction problems, individual employee attention and convenient working hours. These are important in satisfying customer's expectation that responsiveness will delight customers and increase their likelihood for the organization.

2.3.3 Quality of Laboratory

Laboratory quality can be described as the reported results being accurate, reliable and timely. The result of laboratory must be as accurate as possible, all aspects of the laboratory activities must be reliable, and documentation must be timely in order to be useful in a clinical or public health setting (World Health Organization. (2011). Laboratories have traditionally restricted discussion of quality to technical or analytical quality, focusing on imprecise and inaccurate objectives. Nevertheless, clinicians are interested in the quality of service, which includes total test error (imprecision and inaccuracy), accessibility, price, relevance and timeliness (Watts, N. B.,1995). Clinicians desire a rapid, reliable and efficient service delivered at low cost (Neuberger, J., & Peters, M. ,1996). Of these characteristics, timeliness is perhaps the most important factor for the clinician, who may be prepared to sacrifice analytical quality for faster turnaround time (TAT).

2.3.4 Collection Service and Delivery

Home collection service enables the customers to provide specimens for testing without leaving their home. The experienced person come to their home to collect blood, urine and feces specimens, for pathology testing. They will also take the specimens to the laboratory so the results can be got on time. Delivery service is the link in a supply chain that directly deals with customers and it is called the driver of customer satisfaction.

2.3.5 Cost of Laboratory Tests

According to Andaleeb, 1988 as cited in Mumbua, K. S. (2012), studies show that if laboratory test costs are perceived as high, then patient satisfaction is lower. Chen et al., (2004) define price is the customer's acceptable, reasonable and fair judgment about a service's average price comparison to its competitors. Customers are likely to come back again and again if the price is recognized to be fair. On the other hand, if they perceive the price is unfair, they will complain and finally defect to others.

2.4   Empirical Studies

This study mainly based on previous research paper. This previous research was a study about the factors that influence of medical services at The Kenyatta National Hospital Cancer Treatment Centre. The previous research framework starts from the independent variables of this research which are service quality, waiting time, conducive environment, healthcare costs and physical facilities then to the dependent variables such as customer satisfaction. The conceptual model of this previous research paper is illustrated in Figure (2.2)

Figure (2.2): The Model of Factors Influencing of Medical Services at The Kenyatta National Hospital Cancer Treatment Centre

| Service quality
Waiting time
Conducive environment
Healthcare costs
Physical facilities | → | Customer Satisfaction |
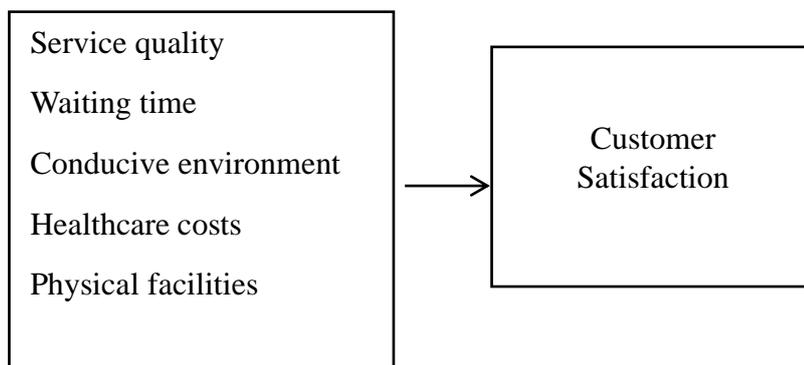
Source: Mumbua, K. S. (2012)

From the conceptual model above the factors that affect customer satisfaction are triggered off by mostly the hospital internal causes. The nature of the relationships therefore is such that customer satisfaction is the dependent variable while hospital environment is the independent variable. Consequently, the moderating variables which define the relationship between the independent and dependent variable are factors from both the external and internal environment. In the conceptual framework above the factors and reasons behind customer satisfaction include service quality, waiting time, conducive environment, healthcare costs and the condition of the hospital's physical facilities.

There is another previous study about assessment of customer satisfaction with the clinical laboratory services Provided in King Abdullah Medical City, Makkah. The previous research framework starts from the independent variables of this research which are Laboratory Information System (LIS), lab user guide, collection and delivery process,

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quality and staff competence then to the dependent variables such as customer satisfaction. The conceptual model of this previous research paper is illustrated in Figure (2.3)

Figure (2.3): The Model of Assessment of Customer Satisfaction with the Clinical Laboratory Services Provided in King Abdullah Medical City, Makkah

```
┌─────────────────────────────────┐                    ┌──────────────────────────┐
│ Laboratory Information System   │                    │                          │
│ Lab User Guide                  │                    │  Customer Satisfaction   │
│ Collection and Delivery Process │───────────▶        │                          │
│ Quality                         │                    │                          │
│ Staff Competence                │                    │                          │
└─────────────────────────────────┘                    └──────────────────────────┘
```
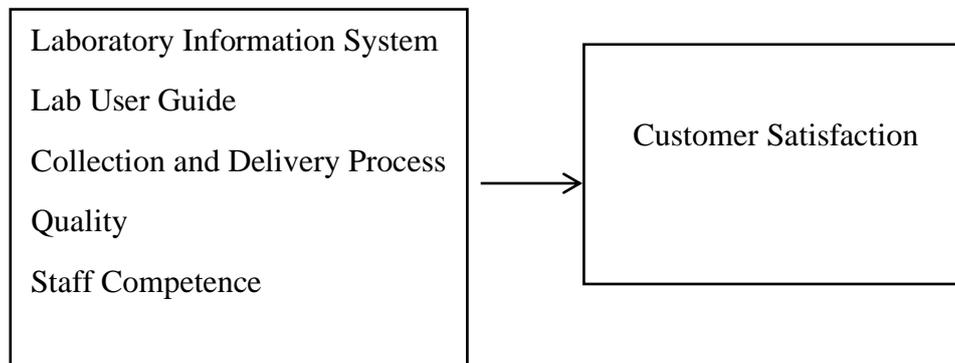
Source: Almatrafi, D (2018)

Customer satisfaction and loyalty are regarded as a top important of the company's success and profit. It is very important to understand the relationship that exist between the concepts of customer satisfaction and customer loyalty. These two concepts that have an important part to play in the success of any business. According to Dick and Basu (1994), in terms of loyalty, the role of customer satisfaction indicates that satisfaction is a key determinant of loyalty. Therefore, there is a link between customer satisfaction and customer loyalty. Both concepts must be incorporated together to achieve the desired goals of the company which are market share and profitability. Customer loyalty can be described as a by-product of customer satisfaction. Customer satisfaction leads to customer loyalty. (Fornell 1996). Customer satisfaction is a key point for every organization desiring to increase customer loyalty and build a better business achievement. The role of satisfaction in loyalty largely indicates that the former is a primary determinant of the latter (Dick & Basu 1994.)

2.5   Conceptual Framework of the Study

Through the study of previous research, factors such as laboratory environment, staff competency, quality of laboratory, collection service and delivery and cost of

laboratory tests are formulated in order to suit into this study. The conceptual model of this study is shown the Figure (2.4);

Figure (2.4): Conceptual Framework of the Study

```
┌─────────────────┐
│    Physical     │
│   Environment   │──┐
└─────────────────┘  │
┌─────────────────┐  │
│     Staff       │  │
│   Competence    │──┤
└─────────────────┘  │   ┌──────────────┐        ┌──────────────────┐
┌─────────────────┐  │   │              │        │                  │
│     Quality     │──┼──▶│   Customer   │───────▶│ Customer Loyalty │
└─────────────────┘  │   │ Satisfaction │        │                  │
┌─────────────────┐  │   │              │        └──────────────────┘
│   Collection    │  │   └──────────────┘
│   Services &    │──┤
│    Delivery     │  │
└─────────────────┘  │
┌─────────────────┐  │
│      Cost       │──┘
└─────────────────┘
```
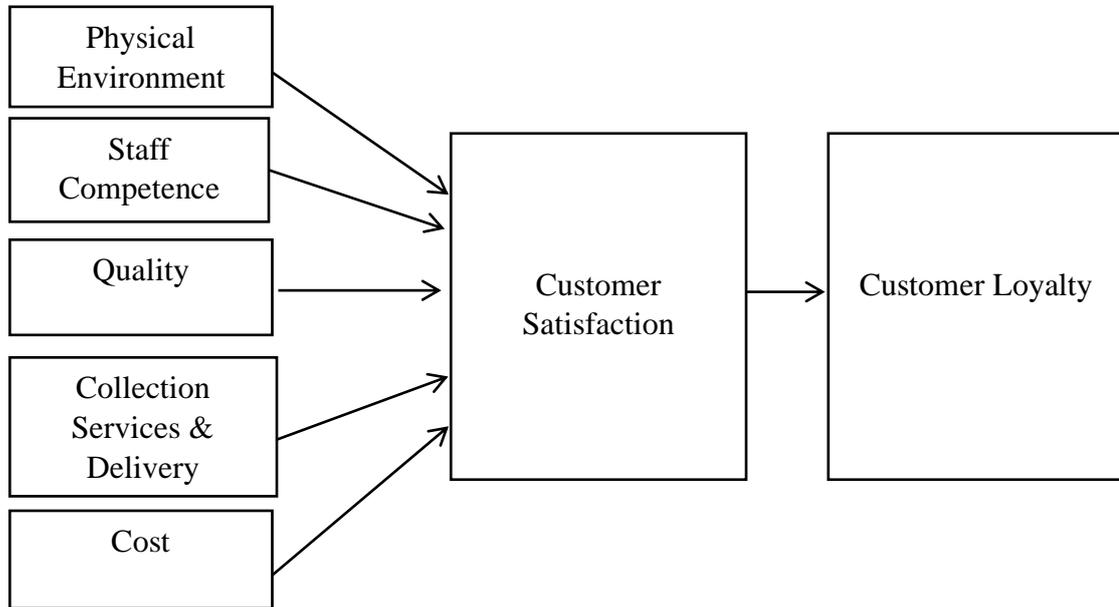
Source: Own Compilation (2019)

According to the conceptual framework, physical environment, staff competence, quality of laboratory, collection service and delivery and cost of laboratory tests are the factors that influence on customer satisfaction and there is also the effect of customer satisfaction on customer loyalty. The framework is about the factors influencing on customer satisfaction and the effect of customer satisfaction on customer loyalty of clinical laboratory services in Yangon.

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CHAPTER (3)
PRACTICES OF CLINICAL LABORATORIES

This chapter is arranged into three sections. The first section introduces about the clinical laboratory services. In the second section, research design and reliability analysis are presented. The third section examines the demographic factors of respondents and is showed with number of respondents and percentage. Then the last section explores the factors that affect the customer satisfaction and is represented with mean scores and standard deviation is presented based on the findings.

3.1   Clinical Laboratory Services in Yangon

Myanmar health care system evolves with dynamical political and administrative system though the Ministry of Health and Sports remains the leading supplier of comprehensive health care services. It has a mixture of public and private system in each the finance and provision. Myanmar health care is organized and provided by public and private sectors.

Clinical laboratories give data and services that contribute to maximizing the effective delivery of care in today's advanced healthcare system by guaranteeing that the proper check is performed on the proper person at the proper time, providing the correct check results that enable providers to make the right diagnostic and therapeutic decisions using the right level of health care resources.

Laboratory knowledge helps doctors and other healthcare professionals to make effective medical decisions for their patients based on evidence. Clinical laboratory facilities are the most cost-effective and least invasive source of reliable medical decision-making data. Clinical laboratory services have a direct effect on many aspects of patient care including waiting time, patient safety, use of resources, and customer satisfaction.

Laboratory services are essential for the diagnosis and assessment of the patient health. The services embrace requisition of the tests, patient preparation, patient identification, specimen assortment, specimen transportation, storage, process and examination of the specimen, along with consequent result validation, interpretation, and reporting of the results. Laboratory services should meet the patient's needs, clinical staff responsible for patient care, and any other interested parties. The aim of the laboratory is

to deliver accurate results and to the right patient within a meaningful timeframe in terms of clinical management, using appropriate laboratory procedures and patient confidentiality.

In Myanmar, there are private and public sectors and three categories of laboratory nature. There are laboratories with inpatients, laboratories without inpatients and national health laboratory.

3.2   Research Design

This study aims to explore the factors influencing customer satisfaction of clinical laboratory services in Yangon and to analyze the effect of customer satisfaction on customer loyalty of clinical laboratory services in Yangon. Analytical research method is used in this study. To achieve these objectives, both primary and secondary data are used in this study. Secondary data are obtained from Ministry of Health and Sports website, published paper, Myanmar pharmaceuticals and reference text books.

Primary data is especially meant for making a survey using structured questionnaire to total 377 respondents. To obtain the primary data, the respondents at five leading laboratories which are have experiences in clinical laboratory services in Yangon were asked whether they have satisfaction and loyalty toward clinical laboratory services or not. Five-point Likert scales questionnaires are used to find out the influencing factors of customer satisfaction and the effect of customer satisfaction on customer loyalty. Mean value of each variables is calculated in this study. A regression analysis is also conducted to find out the influencing factors of customer satisfaction and the effect of customer satisfaction on customer loyalty of clinical laboratory services in Yangon. The respondents were survey with the systematic survey question in Yangon. It is found that the responses from 31 respondents were not completed out of 377 respondents. Therefore, the sample size of this study is only 346 respondents. The respondents were surveyed by simple random sampling method.

After the survey data were collected, these results were entered in SPSS to analyze the results and test the reliability analysis. Descriptive and analytical research method was used in this study. The survey question used for this study consists of three main sections. Section (A) includes the questions for demographic (personal) information. Section (B) involves the questions for the factors influencing customer satisfaction. In Section (C), the questions for customer satisfaction and customer loyalty of clinical laboratory

services in Yangon. The questions in section (A) are closed questions (i.e., the respondents are required to choose one or more out of given possible answers). The questions in section (B) and (C) are measured with a five-point Likert scale ranging from "strongly disagree to strongly agree" (1= strongly disagree to 5= strongly agree). In this chapter, all parts of the profile of the respondents are discussed by descriptive research method.

Reliability was undertaken in order to test the internal consistency of the variables in the questionnaire. Cronbach's alpha is a measure of internal reliability of the questionnaire. Cronbach's alpha was selected to conduct the reliability test as it is the most common tool for internal consistency reliability coefficient in particular psychometric measurement. The reliability test is a process of measuring the consistency or repeatability of the scale. Cronbach's alpha test to see if multiple question Likert scale surveys are reliable. These questions measure latent variables – hidden or unobservable variables like: a person's conscientiousness, openness. Cronbach's alpha will tell if the test is accurately measuring the variable of interest. (Tavakol and Dennick, 2011)

Table (3.1) Reliability Analysis

Category	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	No. of Items
Physical Environment	0.900	0.900	11
Staff Competency	0.843	0.844	7
Quality of Laboratory	0.878	0.883	11
Collection Services & Delivery	0.846	0.843	5
Cost of Laboratory Tests	0.783	0.798	5
Customer Satisfaction	0.924	0.926	8
Customer Loyalty	0.919	0.921	8

Source: Survey Data (2019)

The Table (3.1) showed that Cronbach's Alpha of all the factors in this study were more than 0.7. Therefore, it can be interpreted that the data is considered to be reliable and valid.

3.3 Demographic Factors of Respondents

According to the survey data, the respondent's personal (demographic) factors are classified into five categories such as gender, age, education, occupation and income level. There are total 346 respondents who were surveyed with structured questionnaire to measure factors influencing customer loyalty towards clinical laboratory services.

Table (3.2) Demographic Factors of Respondents

Demographic Factors	Description	No. of Respondents	Percentage (%)
	Total	**346**	**100.00**
Gender	Male	156	45.09
	Female	190	54.91
Age (Years)	Under 20 years	0	0.00
	21-30 Years	45	13.01
	31-40 Years	105	30.35
	41-50 years	141	40.75
	Over 50	55	15.90
Academic Education	Under Graduate	10	2.89
	Bachelor Degree	160	46.24
	Master Degree	170	49.13
	Others	6	1.73
Occupation	Student	24	6.94
	Government Service	120	34.68
	Company Staff	130	37.57
	Self-employed	70	20.23
	Others	2	0.58
Monthly Income	Below 150,000 Kyats	3	0.87
	150,001 Kyats – 300,000 Kyats	40	11.56
	300,001 Kyats – 500,000 Kyats	130	37.57
	500,001 Kyats and above	173	50.00

Source: Survey Data (2019)

From Table 3.2 above, 45% (156) were males while 54% (190) were female. From these study findings there is no relationship that can be established between the gender of the respondents and the laboratory services although it was obvious that there were more females than males.

Then this implies that customers who visit laboratory centers for medical checkup and treatment were of all ages with the order generation being affected most and go healthy lifestyle. It also indicates that the respondents who go for medical services may either be educated or not as their call to visit the hospital is the common the need for medical services.

This result of occupation represents that most of the consumers who visit to the hospital are company staff because nowadays most of the companies pay attractive salary and also have gone under employment medical checkup program.

Regarding the income of the respondents, it can be concluded that most of the respondents who gone under medical laboratory services have an income level of over 500,000 MMK in this study because they have attractive salary to do regular medical checkup and go healthy life style.

As the purpose of this survey is to find out the effect of customer satisfaction on customer loyalty in clinical laboratory services. It can be concluded that the age of 41 to 50 years, salaried worker, female customers with income level above 500,000 MMK are mostly the consumers of clinical laboratory services in Yangon.

3.4   Factors Influencing Customer Satisfaction of Clinical Laboratory Services

In this study, factors that influence customer satisfaction is identified. This study uses physical environment, staff competency, quality of results, collection and delivery services and cost to measure customer satisfaction and customer loyalty. The Likert scale method is used to score and rate response. All data are shown by analyzing mean value and standard deviation for each dimension. The results are presented in Table (3.3), (3.4), (3.5), (3.6), (3.7), (3.8) and (3.9).

3.4.1 Physical Environment

Environment of laboratory is analyzed by addressing survey to 346 respondents with eleven different questions. The following Table (3.3) shows the mean value and standard deviation of physical environment factor that influence consumer satisfaction of clinical laboratory services. Then results are calculated and drawn on the following table:

Table (3.3) Physical Environment

No.	Description	Mean	Standard Deviation
1	Cleanliness of the facility	4.28	.726
2	Cleanness and comfort of waiting room	3.96	.817
3	Adequacy of sitting arrangement in waiting room	3.57	.952
4	Comfort of seating chair in waiting room	3.64	.788
5	Privacy of Blood collection/taking (phlebotomy) room	4.14	.864
6	Accessibility and availability of Toilet/Latrine	3.84	.860
7	Cleanness of Toilet/Latrine facilities	3.74	.915
8	Cleanness of the rubbish area	4.02	.796
9	Accessibility and availability of handwashing area is accessible and easy to use	3.84	.807
10	Location and convenience of Laboratory	3.90	.743
11	Overall physical appearance of the Laboratory center	3.79	.699
Overall Mean		**3.88**	

Source: Survey Data (2019)

As shown in Table (3.3), the overall mean of physical environment is above the neutral score of 3. The mean value of cleanness of facility is the highest mean score. It shows that the respondents are satisfied with cleanness of laboratory facility. The second largest mean score is the mean value of privacy of phlebotomy room, followed by cleanness of rubbish area. It means that the laboratory provides the privacy of the respondents.

3.4.2 Staff Competency

Staff competency of laboratory is analyzed by addressing survey to 346 respondents with seven different questions. The following Table (3.4) shows the mean value and standard deviation of staff competency factor that influence consumer satisfaction of clinical laboratory services. Then results are calculated and drawn on the following table:

Table (3.4) Staff Competency

No.	Description	Mean	Standard Deviation
1	Welcoming approach/ friendliness of staff	3.86	.795
2	Prompt and quick service of the staff	3.95	.871
3	Respect and courtesy of staff	3.87	.830
4	Take care of each and every customer	3.71	.947
5	Laboratory personnel's professional appearances	3.72	.573
6	Number of needle stick attempts	4.07	.758
7	Information given before specimen collection	3.75	1.112
Overall Mean		**3.85**	

Source: Survey Data (2019)

As shown in Table (3.4), the overall mean of staff competency is above the neutral score of 3. The mean value of number of needle stick attempts is the highest mean score. This indicates that the respondents are pleased with minimum attempts of number of needle stick. The second largest mean score is the mean value of prompt and quick service, followed by respect and courtesy of the staff. It means that the laboratory provides the prompt, quick services.

3.4.3 Quality of Laboratory

Quality of laboratory is analyzed by addressing survey to 346 respondents with eleven different questions. The following Table (3.5) shows the mean value and standard deviation of quality factor that influence consumer satisfaction of clinical laboratory services. Then results are calculated and drawn on the following table:

Table (3.5) Quality of Laboratory

No.	Description	Mean	Standard Deviation
1	New sterile syringe in blood collection	4.62	.618
2	New gloves before blood collection	4.29	.912
3	Usage of sterile urine collection bottles	4.42	.699
4	Urgent result services	3.92	.832
5	Corrected report	4.29	.829
6	Correct test result	4.44	.696
7	Reliability of test results	4.29	.748
8	Satisfactory of processing time of test results	4.02	.861
9	Information booklets (or) Pamphlets	3.70	.859
10	Guidebooks for investigation	3.47	.858
11	Lab test guides	3.58	.851
Overall Mean		**4.09**	

Source: Survey Data (2019)

As mentioned in Table (3.5), it is found that the overall mean of quality of laboratory is above 4. The highest mean value is from the new sterile syringe in blood collection which means that respondents are highly satisfied with new sterile syringe to prevent the infectious disease. The second largest score comes from corrected test results. It can say that laboratory results were correct in Name, Age, Test items. It can be concluded that the quality of laboratory is high based on above facts. Thus, the customers are mostly fascinated with sterile usage of laboratory products.

3.4.4 Collection Service and Delivery

Collection service and delivery service of laboratory is analyzed by addressing survey to 346 respondents with five different questions. The following Table (3.6) shows the mean value and standard deviation of collection service and delivery of the results factor that influence consumer satisfaction of clinical laboratory services. Then results are calculated and drawn on the following Table (3.6):

Table (3.6) Collection Service and Delivery

No.	Description	Mean	Standard Deviation
1	Home service collection	3.52	1.008
2	Results delivery service to home	3.38	.940
3	Results send by email (or) viber, etc.	3.81	.954
4	Test results received on time as told	4.18	.832
5	Home service collection with no extra charges	3.95	.871
Overall Mean		**3.76**	

Source: Survey Data (2019)

As shown in Table (3.6), the overall mean of collection and delivery service is above the neutral score of 3. The highest mean value is from the test results received on time as told which means that the respondents are highly satisfied with the results on time to save the waiting time. The second largest scores come from the home service collection with no extra charges. Therefore, the customers are pleased with home service collection.

3.4.5 Cost of Laboratory Tests

Cost of laboratory test is analyzed by addressing survey to 346 respondents with five different questions. The following Table (3.7) shows the mean value and standard deviation of cost factor that influence consumer satisfaction of clinical laboratory services. Then results are calculated and drawn on the following table:

Table (3.7) Cost of Laboratory Tests

No.	Description	Mean	Standard Deviation
1	Promotional/Reward gift based on total cost	3.93	.717
2	Reasonable of cost of Laboratory tests	3.95	.816
3	Promotional packages	3.62	.923
4	Variety of medical checkup program	3.93	.717
5	Price based on different customer groups (Pre-employment package, Company medical checkup package	3.95	.871
Overall Mean		**3.88**	

Source: Survey Data (2019)

As shown in Table (3.7), the respondents agree with all the statements of price and all of the mean value is more than 3. The highest mean value is the price based on different customer groups and reasonable price. It can be said that the laboratory charges the tests with customization and reasonable price. The possible reason is that the appropriate cost can draw the attention of customers to revisit the hospital and laboratory.

3.4.6 Summary of Influencing Factors

The following Table (3.8) represents the summary of mean value of influencing factors such as food quality, service quality, price and restaurant environment.

Table (3.8) Summary of Influencing Factors

No.	Description	Mean
1	Physical Environment	3.88
2	Staff Competency	3.85
3	Quality of laboratory	4.09
4	Collection service and delivery	3.76
5	Cost of Laboratory	3.88

Source: Survey Data (2019)

Results shown in the Table (3.8) indicates that the quality of laboratory tests is slightly higher than the staff competency. According to the result, the respondents come to hospital and laboratory services because of the laboratory quality, staff competency and price. Therefore, it can be assumed that the laboratory quality has the highest influence on consumer satisfaction towards clinical laboratory services.

CHAPTER (4)

THE EFFECT OF CUSTOMER SATISFACTION ON CUSTOMER LOYALTY OF CLINCAL LABORATORY SERVICES IN YANGON

In this chapter, analysis on the effect of customer satisfaction on customer loyalty of clinical laboratory services in Yangon is covered. This chapter comprised of four parts. In the first part, the mean value and standard deviation of customer satisfaction towards laboratory services is presented. In the second part, influencing factors on the customer satisfaction of clinal laboratory services is analyzed. The third part shows the mean value and standard deviation of respondents' customer loyalty and the final part analyses the effect of customer satisfaction on customer loyalty of clinal laboratory services in Yangon.

4.1 Customer Satisfaction of Clinical Laboratory Services

The following Table (4.1) shows the mean value and standard deviation of consumer satisfaction of clinical laboratory services. There are eight questions to be analyzed. The overall mean is shown as shown in Table (4.1).

Table (4.1) Customer Satisfaction

No.	Description	Mean	Standard Deviation
1	Pleased at this laboratory	3.75	0.68
2	Satisfied for doing the medical checkup	3.85	0.63
3	Decision to visit this laboratory	3.75	0.70
4	Quality and services fulfill expectations	3.74	0.74
5	Good impression of this laboratory	3.71	0.67
6	Performance of laboratory exceeds expectation	3.61	0.85
7	Feeling of trust	3.75	0.76
8	Overall, satisfied this laboratory	3.91	0.67
Overall Mean		**3.76**	

Source: Survey Data (2019)

As shown in Table (4.1), the respondents agree with all of the statements of customer satisfaction and all of the mean value is more than 3.6. The mean values are

range between 3.71 and 3.91. Moreover, the overall mean value of customer satisfaction is 3.76 which represents the respondents are satisfied for doing the medical checkup in this laboratory enjoyed and pleased with this restaurant. Then the respondents recognized that the quality and service quality of the restaurant can fulfill the customers' expectation. It can be concluded that the customers are satisfied with clinical laboratory services because the quality and service quality can fulfill the customers' expectations.

4.2 Analysis of Factors Influencing Customer Satisfaction

This section analyzes the influencing factors on customer satisfaction and explores the most influencing factors on customer satisfaction. The five factors which are physical environment, staff competency, quality of laboratory, collection service and delivery and cost will be analyzed. To know the detail about this, the linear regression method is used. The result is shown in Table (4.2).

Table (4.2) Analysis on Factors Influencing Customer Satisfaction

Variable	Un-standardized Coefficient		t	Sig.	VIF
	B	Std. Error			
(Constant)	1.006	0.191	5.282	0.000	
Physical Environment	0.170**	0.066	2.597	0.010	2.509
Staff Competence	0.003	0.081	0.034	0.973	4.338
Quality of Laboratory	0.133	0.082	1.619	0.106	3.417
Collection service and delivery	0.019	0.053	0.354	0.723	2.480
Cost	0.378***	0.074	5.102	0.000	3.381
R value	.645				
R Square	0.415				
Adjusted R Square	0.407				
F value	48.327***				

Source: Survey Data (2019)

Notes: *** Significant at 1% level; ** Significant at 5% level; * Significant at 10% level

In Table (4.2), R square and adjusted R square are at 41.5 percent and 40.7 percent respectively. This indicates that the model can explain 40.7 percent about the variance of dependent variable (customer satisfaction) with independent variable (physical environment, staff competency, quality of laboratory, collection service and delivery and cost). The value of F-test, the overall significance of the models, turned out highly significant at 1% level.

Two variables among five are significant and others are not significant by regression analysis table. Therefore, physical environment and cost of the laboratory have positively significant effect on customer satisfaction. As it can be seen from Table (4.2), cost is significant at 1% confidence level. It indicates that reasonable cost and promotional package in the laboratory increase customer satisfaction. Every one unit increase in cost that are reasonable and promotional package helps customer satisfaction to increase by 0.378.

As it can be seen from Table (4.2), physical environment is significant at 5% confidence level. It presents that one unit increase in physical environment will lead to almost 0.17 rises in consumer satisfaction.

On the other hand, other factors, staff competency and collection service and delivery and quality of laboratory tests are not significant at any significant level. It means that the staff competency and collection service and delivery factor and quality of laboratory tests does not have impact on consumer satisfaction of clinical laboratory services. Consumer satisfaction will not increase or decrease due to staff competency and collection service and delivery service and quality of laboratory tests.

To sum up, the results show that cost and physical environment is significant. Customers satisfied that the laboratory offers the best pricing which is the reasonable medical checkup program. Moreover, the customers are pleased with physical environment such as waiting area cleanness and cleanness of facilities that can draw the customer satisfaction. The better pricing and the higher the quality of laboratory, the more the customers are satisfied.

4.3   Customer Loyalty of Clinical Laboratory Services

The following Table (4.3) shows the mean value and standard deviation of customer loyalty of clinical laboratory services. There are eight questions to be analyzed. The mean values and standard deviation of each and overall mean are shown in Table (4.3).

Table (4.3) Customer Loyalty

No.	Description	Mean	Standard Deviation
1	Continue to visit this laboratory again	3.72	0.60
2	Recommend this laboratory to friends & others	3.81	0.65
3	Choose this laboratory to do medical check up	3.86	0.60
4	Choose this laboratory for family members	3.83	0.68
5	Choose this laboratory for colleague or friends	3.81	0.60
6	Say positive things about this laboratory to others	3.80	0.62
7	Right choice by doing medical checkup at this laboratory	3.69	0.61
8	Choose this laboratory services in the future.	3.40	0.74
Overall Mean		**3.74**	

Source: Survey Data (2019)

According to Table (4.3), the respondents agree with all of the statements of customer loyalty and all of the mean value is more than 3.4. The mean values are range between 3.4 and 3.86. Moreover, the result brought out the respondents would like to choose the laboratory to do their medical checkup. The lowest mean is to choose this laboratory services in the future. However, the overall mean value for customer loyalty is 3.74, the clinical laboratory services has high customer loyalty.

4.4   Analysis on the Effect of Customer Satisfaction on Customer Loyalty

In this research, liner regression model is used in order to find out the effect of customer satisfaction on customer loyalty by surveying 346 respondents. Table (4.4) shows the effect of customer satisfaction on customer loyalty.

Table (4.4) Analysis on the Effect of Customer Satisfaction on Customer Loyalty

Variable	Un-standardized Coefficient		t	Sig.	VIF
	B	**Std. Error**			
(Constant)	1.141	0.118	9.688	0.000	
Customer Satisfaction	0.692***	0.031	22.332	0.000	1.000
R value	.769				
R Square	0.592				
Adjusted R Square	0.591				
F value	498.699***				

Source: Survey Data (2019)

Notes: *** Significant at 1% level; ** Significant at 5% level; * Significant at 10% level

In Table (4.4), R square and adjusted R square are at 59.2 percent and 59.1 percent respectively. This indicates that the model can explain 59.1 percent about the variance of dependent variable (Customer Loyalty) with independent variable (Customer Satisfaction). The value of F-test, the overall significance of the models, turned out highly significant at 1% level.

Customer satisfaction variable has the expected positive sign and highly significantly coefficient value at 1% confidence level. It means that one unit of consumer satisfaction can lead to 0.692 increase in customer loyalty. Overall evaluation reveals that the models explain the customer loyalty well because the estimation produced expected signs and significant coefficient for customer satisfaction. The conclusion is that there is a positive relationship between customer satisfaction and customer loyalty of clinical laboratory services in Yangon.

To sum up, the results show that customer satisfaction is significant. It will be important for the laboratory services to introduce loyalty programs to encourage customers to come back. They can encourage the customers to collect points from the loyalty program that can be transformed to free collection service, seasonal promotional package of regular customers. Staff competence play a vital part in making customers to become loyal. The service quality offered by employees either leave the customers satisfied or dissatisfied which is a major factor in becoming loyal.

CHAPTER 5
CONCLUSION

This chapter is conclusion of the study that is included the finding and discussion of the previous chapter, the suggestion and recommendation of the study and needs for further research of the study. Finding and discussion are based on the influencing factors of customer satisfaction and the analysis on the effect customer satisfaction on customer loyalty of clinical laboratory services in Yangon. Suggestion and recommendation are based on the result of the finding and need for further research described on the result of the finding.

5.1   Findings and Discussions

This study is to examine the factors influencing on customer satisfaction and analyze the effect of customer satisfaction on customer loyalty on clinical laboratory services in Yangon. Customer satisfaction and customer loyalty are one of the important concepts of consumer behavior, business practice and academic research. It can help the organization to create differentiation from its competitors and to modify their services to keep customers in the competitive market. The higher level of customer satisfaction results in increased customer loyalty.

As a survey data, the customers are delighted with the reasonable price and promotional package. The laboratory's price fairness can attract customers and customers agree that the price and cost for what they get is fair and relevant. Therefore, the role of price plays an important role in the satisfaction of customers towards the clinical laboratory services in Yangon. This study shows that the laboratory costs are reasonable and promotional package, then the customer satisfaction is higher.

According to the research results, laboratory environments is another contributing factor on customer satisfaction. Customer are gratified with the cleanliness of the facility and privacy of blood collection room. Customer expect that the waiting area and rubbish area should clean and tidy at hospital or clinic to prevent the infection. Pleasant waiting area in the laboratory also influence ton customer satisfaction, Customers today look for an international standard laboratory experience. Therefore, laboratory can make use of this information to further improve their services to gain the competitive advantage.

Through statistically analysis of the effect of the influencing factors on customer satisfaction, this study found out that, cost and physical environment have a significant positive effect on customer satisfaction towards clinical laboratory services in Yangon. The staff competency, quality of laboratory tests and collection service and delivery have not significant coefficient with the customer satisfaction of clinical laboratory services in Yangon due to analysis research result of this study.

According to the mean value of customer loyalty, respondents intended to continue to laboratory in the future and they also want to recommend to others to do the medical checkup. And also, customer satisfaction is significantly impact on customer loyalty. In competitive laboratory services industry, the owner of the laboratory needs to encourage and understand the customer needs and wants to satisfy those targeted customers.

From analysis on the effect of customer satisfaction on customer loyalty, it is found that the customer satisfaction has positive and highly significant with customer loyalty of clinical laboratory services in Yangon. Maximize customers satisfaction is essential in order to attract customers to revisit to the laboratory. Thus, in order to achieve customer satisfaction, the laboratory owner must understand the most important factor that customers are looking into.

5.2 Suggestions and Recommendations

According to the analysis, there are some suggestion points relating to factors influencing customer satisfaction and customer loyalty in clinical laboratory services in Yangon. Within the finding of the study, the management of the laboratory should provide the best pricing plan and promotional package as like seasonal discount, festival discount in order to differentiate from the competitors in the competitive environment.

The research finding discovered that physical environment is another contributing factor on customer satisfaction. The environment of laboratory is important as it will affect the perception of customers when they waiting the results in laboratory, Thus, it is necessary for the management to take note that the environment of the laboratory should make comfortable and privacy and increase customer loyalty.

It is concluded that better and better laboratory services play a key role in the satisfaction of patients. Healthcare centers and public hospitals in developing countries need to upgrade their infrastructure and provide better services. Poor people visit

laboratory, and their satisfaction is very important. Staffs and doctors should give them a thorough check up and examination, treat them with courtesy and respect. There is a need for staff to be polite, empathetic and concerned about their patients. They should behave politely to the patients and their attendants. Thus, it is important for the management to foster better understanding and knowledge on factors that actually attract the customer satisfaction and loyalty. Thus, management should also find factors that influence customer satisfaction because the greater the gain in customer satisfaction, the greater the chance for loyalty.

5.3   Needs for Further Research

This research is only focus on identify the factors that influence on customer satisfaction of clinical laboratory services in Yangon. Thus, the further research should attempt to examine of other laboratories and make comparisons between different laboratories. It is therefore recommended that further research work should look at the customer satisfaction successes and challenges of other related services in the health care industry. There is need to carry out further research to determine how well health care industry in the country and need to investigate the perception of other customers of the laboratory including, nurse and physicians.

REFERENCES

Andaleeb, S. S. (1998). Determinants of customer satisfaction with hospitals: a managerial model. *International Journal of health care quality assurance*, *11*(6), 181-7.

Almatrafi, D., Altaweel, N., Abdelfattah, M., Alomari, A., Yaseen, W., Alsulami, M., ... & Darrar, H. (2018). Assessment of Customer Satisfaction with the Clinical Laboratory Services Provided in King Abdullah Medical City, Makkah. *Egyptian Journal of Hospital Medicine*, *70*(11).

Chen, L. D., Gillenson, M. L., & Sherrell, D. L. (2004). Consumer acceptance of virtual stores: a theoretical model and critical success factors for virtual stores. *ACM SIGMIS Database: the Database for Advances in Information Systems*, *35*(2), 8-31.

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*(3), 131-140.

Dick, A. S., & Basu, K. (1994). Customer loyalty: toward an integrated conceptual framework. *Journal of the academy of marketing science*, *22*(2), 99-113.

Ehrenberg, A. S. (1988). Repeat buying: Facts, theory and data. *New York: Oxford University Press.(1991)," New Brands and the Existing Market," Journal of the Market Research Society*, *33*(4), 285-99.

Fornell, C., Johnson, M. D., Anderson, E. W., Cha, J., & Bryant, B. E. (1996). The American customer satisfaction index: nature, purpose, and findings. *Journal of marketing*, *60*(4), 7-18.

Jabnoun, N., A1 Rassasi, A.J. (2005), "Transformational leadership and service quality in UAE hospitals", *Managing Service Quality,* 15/l, 70-81

Kilbourne, W. E., Duffy, J. A., Duffy, M., & Giarchi, G. (2004). The applicability of SERVQUAL in cross-national measurements of health-care quality. *Journal of services Marketing*, *18*(7), 524-533.

Kumar, M., Tat Kee, F., & Charles, V. (2010). Comparative evaluation of critical factors in delivering service quality of banks: An application of dominance analysis in modified SERVQUAL model. *International Journal of Quality & Reliability Management*, *27*(3), 351-377.

Kumar, M., Tat Kee, F., & Taap Manshor, A. (2009). Determining the relative importance of critical factors in delivering service quality of banks: an application of dominance analysis in SERVQUAL model. *Managing Service Quality: An International Journal*, *19*(2), 211-228.

Kumar, V. I. S. W. A. N. A. T. H. A. N., & Shah, D. (2004). Building and sustaining profitable customer loyalty for the 21st century. *Journal of retailing*, *80*(4), 317-329.

Linder-Pelz, S. (1982). Toward a theory of patient satisfaction. *Social science & medicine*, *16*(5), 577-582.

Mumbua, K. S. (2012). A Survey of Customer Satisfaction with the Medical Services Offered At The Kenyatta National Hospital Cancer Treatment Centre.

Neuberger, J., & Peters, M. (1996). The clinical interface—a British physician's view. *Clinica chimica acta*, *248*(1), 11-18.

Neupane, R., & Devkota, M. (2017). Evaluation of the Impacts of Service Quality Dimensions on Patient/Customer Satisfaction: A Study of Private Hospitals in Nepal. *International Journal of Social Sciences and Management*, *4*(3), 165-176.

Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1985). A conceptual model of service quality and its implications for future research. *Journal of marketing*, *49*(4), 41-50.

Pruyn, A., & Smidts, A. (1998). Effects of waiting on the satisfaction with the service: Beyond objective time measures. *International journal of research in marketing*, *15*(4), 321-334.

Tao, F. (2014). Customer relationship management based on increasing customer satisfaction. *International Journal of Business and Social Science*, *5*(5).

Tucker, J. L. (2002). The moderators of patient satisfaction. *Journal of Management in Medicine*, *16*(1), 48-66.

Watts, N. B. (1995). Reproducibility (precision) in alternate site testing. A clinician's perspective. *Archives of pathology & laboratory medicine*, *119*(10), 914-917.

Wisniewski, M. (2001). Using SERVQUAL to assess customer satisfaction with public sector services. *Managing Service Quality: An International Journal*, *11*(6), 380-388.

World Health Organization. (2011). *Laboratory quality management system: handbook*. World Health Organization.

APPENDIX (A)

SURVEY QUESTIONNAIRE

This questionnaire will be used to study factors influencing customer satisfaction of clinical laboratory services in Yangon. This would be confidential and data will be only used for the academic research of MBA thesis for Yangon University of Economics. Thank you for your participation.

SECTION (A): GENERAL INFORMATION

1. Gender

   ☐ Male

   ☐ Female

2. Age (Completed year) _____

3. Academic Education

   ☐ Under Graduate

   ☐ Bachelor Degree

   ☐ Master Degree

   ☐ Other; Please specify _____

4. Occupation

   ☐ Student

   ☐ Government Service

   ☐ Company staff

   ☐ Self-employed

   ☐ Others; Please specify _____

5. Monthly Income

   ☐ Below 150,000 Kyats

   ☐ 150,001 Kyats – 300,000 Kyats

   ☐ 300,001 Kyats – 500,000 Kyats

   ☐ 500,001 Kyats and above

SECTION (B): FACTORS INFLUENCING ON CUSTOMER SATISFACTION

Please tick (✔) in the box to indicate how agreeable you are with the following statements.
(1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree)

1.   Physical Environment

No.	Characteristics	1	2	3	4	5
1	The facility of the laboratory is cleanliness					
2	The waiting room is cleanness and comfort					
3	The sitting arrangement in waiting room is adequate and enough space					
4	The seating chair in waiting room is comfortable					
5	Blood collection/taking (phlebotomy) room provides comfortable and privacy					
6	Toilet/Latrine is easily accessible and available					
7	Toilet/Latrine facilities are thoroughly clean					
8	The rubbish area is clean and tidy					
9	Handwashing area is accessible and easy to use					
10	Location of laboratory is convenient					
11	Overall physical appearance of the Laboratory center is satisfied					

2. Staff Competency

No.	Characteristics	1	2	3	4	5
1	The staff are warmly welcome					
2	The staff provide prompt and quick service					
3	The staff are treated with respect and courtesy					
4	The staff are taking care of each and every customer					
5	The staff are neatly dressed					
6	Number of blood drawing attempts in blood collection is satisfied					
7	The staff are given the information before specimen collection					

3. Quality of Laboratory

No.	Characteristics	1	2	3	4	5
1	Laboratory use new sterile syringe in blood collection					
2	The gloves are changed every patient before blood collection					
3	Laboratory use sterile urine collection bottles					
4	Laboratory results get urgent service					
5	Laboratory results were trustworthy					

No.		1	2	3	4	5
6	Laboratory results were correct in Name, Age, Test items					
7	Laboratory results are reliable					
8	Processing time of test results is satisfied					
9	Information booklets (or) Pamphlets are adequate					
10	Guidebooks for investigation are adequate					
11	Lab test guides are useful					

4.   Collection Service & Delivery

No.	Characteristics	1	2	3	4	5
1	Home service collection is available					
2	Results delivery service to home is available					
3	Results send by email (or) viber, etc. is available					
4	Test results received on time as told					
5	Provide home service collection with no extra charges					

5.   Cost of Laboratory Tests

No.	Characteristics	1	2	3	4	5
1	Promotional/Reward gift based on total cost					
2	Cost of Laboratory tests is reasonable					
3	Promotional packages are available					
4	Variety of medical checkup programs are available					
5	Price based on different customer groups (Pre-employment package, Company medical checkup package)					

SECTION (C): CUSTOMER SATISFACTION AND CUSTOMER LOAYLTY

Please tick (✔) in the box to indicate how agreeable you are with the following statements.

(1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree)

1.   Customer Satisfaction

No.	Characteristics	1	2	3	4	5
1	I am pleased that I have visited this laboratory					
2	I am satisfied for doing the medical checkup in this laboratory					
3	Decision to visit this laboratory is a wise one					
4	Quality and services of this laboratory fulfill my expectations					

No.	Characteristics					
5	I have always had a good impression of this laboratory fulfill my expectations					
6	The performance of laboratory exceeds my expectation will bring me satisfaction					
7	I got the feeling of trust					
8	Overall, I am satisfied about this laboratory					

2. Customer Loyalty

No.	Characteristics	1	2	3	4	5
1	I will continue to visit this laboratory					
2	I recommend this laboratory to friends & others					
3	I will choose this laboratory if I need to do medical check up					
4	I will choose this laboratory if one of my family members need to make lab tests					
5	I will choose this laboratory if my colleague or friends need to make lab tests					
6	I would say positive things about this laboratory to others					
7	I believe I made the right choose by doing medical checkup at this laboratory					
8	I will likely choose this laboratory even I have the alternative laboratory services in the future.					

APPENDIX (B)

STATISTICAL OUTPUT

Regression Analysis Result for Factors Influencing Customer Satisfaction

Model Summary[b]

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	.645[a]	.415	.407	.445	.415	48.327	5	340	.000	2.184

a. Predictors: (Constant), Cost, Physical Environment, Collection Delivery, Quality Total, Staff Competence

b. Dependent Variable: Customer Satisfaction

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	47.857	5	9.571	48.327	.000[b]
	Residual	67.339	340	.198		
	Total	115.196	345			

a. Dependent Variable: Customer Satisfaction

b. Predictors: (Constant), Cost, Physical Environment, Collection Delivery, Quality of Laboratory, Staff Competence

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	1.006	0.191		5.282	0.000		
	Physical Environment	0.170	0.066	0.171	2.597	0.010	0.399	2.509
	Staff Competence	0.003	0.081	0.003	0.034	0.973	0.231	4.338
	Quality of Laboratory	0.133	0.082	0.124	1.619	0.106	0.293	3.417
	Collection & Delivery	0.019	0.053	0.023	0.354	0.723	0.403	2.480
	Cost	0.378	0.074	0.389	5.102	0.000	0.296	3.381

a. Dependent Variable: Customer Satisfaction

APPENDIX (C)

STATISTICAL OUTPUT

Regression Analysis Result for Relationship between Customer Satisfaction and Customer Loyalty

Model Summary[b]

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	.769[a]	.592	.591	.332	.592	498.699	1	344	.000	2.045

a. Predictors: (Constant), Customer Satisfaction

b. Dependent Variable: Customer Loyalty

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	55.129	1	55.129	498.699	.000[b]
	Residual	38.028	344	.111		
	Total	93.156	345			

a. Dependent Variable: Customer Loyalty

b. Predictors: (Constant), Customer Satisfaction

Coefficients[a]

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)	1.141	.118		9.688	.000	.910	1.373		
	Customer Satisfaction	.692	.031	.769	22.332	.000	.631	.753	1.000	1.000

a. Dependent Variable: Customer Loyalty