

RELATION BETWEEN QUALITY SERVICE  
DETERMINANTS WITH THE QUALITY OF  
CLEANING SERVICE

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**RELATIONSHIP BETWEEN QUALITY SERVICE DETERMINANTS WITH THE  
QUALITY OF CLEANING SERVICE**

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Thesis submitted in fulfilment of requirement for the award of the degree of Bachelor Degree  
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## **SUPERVISOR'S DECLARATION**

I hereby declare that I have checked project and my opinion, this project is adequate in terms of scope and quality for the award of the degree of Bachelor of Project Management with Honours.

Signature:

Name of Supervisor:

Position:

Date:

## **STUDENT'S DECLARATION**

I hereby declare that the work in this project is my own except for quotations and summaries which have been duly acknowledge. The project has not been accepted for any degree and is not concurrently submitted for award of other degree.

Signature :

Name :

ID Number :

Date :

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## **ABSTRACT**

Quality of Cleaning Service is an important essence in Cleaning Service Industry. Customers Satisfaction is often used as the evaluation method to determine the quality of cleaning service. Customer satisfaction is depends on the element of customers expectation and perception of quality which can be divided into four main determinants which is Functional Quality, Technical Quality, Process Quality and Aesthetic Quality. Therefore, this paper intends to identify the relationships of quality determinants and the quality of cleaning service as well as its dominant factor. So, the respondents targeted for this project is staffs that work in office in UMP Gambang. Questionnaires were distributed and collected. For the analysis performed on the gathered data, the study shows that there is correlation of quality determinants with the quality of cleaning service.

## ABSTRAK

### Kualiti

Perkhidmatan Pembersihan adalah intipati penting dalam Pembersihan Industri Perkhidmatan . Kepuasan pelanggan sering digunakan sebagai kaedah penilaian untuk menentukan kualiti perkhidmatan pembersihan. Kepuasan pelanggan adalah bergantung kepada unsur jangkaan pelanggan dan persepsi kualiti yang boleh dibahagikan kepada empat penentu utama iaitu Kualiti Fungsi, Kualiti Teknikal, Kualiti Proses dan Kualiti Estetik. Oleh itu, kertas kerja ini bertujuan untuk mengenal pasti hubungan penentu kualiti dan kualiti perkhidmatan pembersihan dan juga faktor yang dominan. Oleh itu, responden yang disasarkan untuk projek ini adalah penyelia di UMP Gambang. Borang soal selidik telah diedarkan dan dikumpul. Untuk analisis yang dijalankan ke atas data yang dikumpul, kajian menunjukkan bahawa terdapat korelasi penentu berkualiti dengan kualiti perkhidmatan pembersihan.

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## **CHAPTER 1**

### **INTRODUCTION**

#### **1.1 INTRODUCTION**

Cleaning service is a scheduled and a series of periodic task that can be done daily, weekly and monthly. Cleaning service is under operation and maintenance services which under Facility Management. According to (International Facility Management Association), profession that consist of multiple disciplines ensure functionality of the built environment by integrating people, technology and process. According to (Wikipedia) the aspect of Facility manager need to manage are health and safety, fire safety, security, maintenance, testing and inspection, cleaning, operational, tendering, commercial property management, business continuity planning, as well as space allocation and changes. Under the Facility Manager aspect above, we can see that there is specific aspect on cleaning that also include in the Facility Management.

To breakdown and match up the element of project with cleaning service, it starts with the project owner. For cleaning project in UMP Gambang, the project owner would be UMP Gambang itself. UMP Gambang hires contractor as their project team to handle the cleaning

process in UMP Gombang by open tendering. As the nature of a project who has the beginning and an end, cleaning service project is also have a beginning and an end. It is depends on the duration of the contract which in UMP Gombang, the duration would be one or two years top.

Cleaning service is still can be consider as a project . Because in every cleaning tender, there is always a contract duration, estimates and bu as people still didn't see the importance of a quality of cleaning service and how it would impact our daily lives. If there is no cleaner that manage our waste in the office, take the trash out or clean the window, our working environment will be very uncomfortable and dangerous as nobody manages the unwanted stuff in that laying around in our working place.

To maintain a good quality of cleaning service, we need to identify what are the factors that most influence in cleaning service. Does the cost of the cleaning service impact the quality of cleaning services? Does the amount of worker will affect the quality of the cleaning services? There endless amount of possibility that affect the quality of cleaning services that perceived by customers or future customers.

To simplified and narrowed all the possibilities, a study on the factors that influencing the quality of cleaning service is very important so that we can the relationship of those two factors and how we can improve and learn from it.

## **1.2 PROBLEM BACKGROUND**

In cleaning service , the degree of customer satisfaction is the indicator of the quality of the service . A good feedback from customers are not just good for business but it also give a company a good reputation among the potential customer . A good reputation among customers also can benefits as the competitive advantage strategy and allows the possible of cost cutting in the future which will increase the gross margin . In recent years , the emphasis

of quality is no longer focus on the quality of a product but also the quality of services . Because there are no exact definition and ways to measure quality , the high expectation from customer s can lead to customer dissatisfaction .

Even though , there are no exact definition in quality , they are some standards that the service provider can follows and achieve according to their specialty . According to Cleaning service for example , it has its own standards such as the ISO 9000 series and INSTA 800 . Example for the ISO 9000 series is the ISO 9001:2008 for the “Provision of Cleaning Service” . By achieving this type of standard , the reliability level of the company will boost significantly . However , even the fact there a certain standard for measuring the quality of cleaning service , company can ‘t run from the fact that different customer perceive quality from a different point of view (Kyengo, 2007)

As i was told by Madam Yusmaliza, staff that in charge for cleaning service in UMP Gambang that cleaning area in UMP campus Gambang is divided into different zones for cleaning purpose .

The easiest way for a company to track factors that most influence quality of cleaning service is by a company is to make their own quality control systems . By this method , the company themselves can determined their own levels of cleaning quality refers to the quality determinants for cleaning service . By referring to this determinants , can quality of cleaning service in Ump Gambang improved ? The service quality is very crucial for service based company as it will determine the future of the company . Therefore , it is very important to know the quality determinants of cleaning service in UMP campus Gambang in order to find what are the factors that most influence cleaning quality in UMP campus.

### **1.3 PROBLEM STATEMENT**

Quality of cleaning service is very important because cleaning services is evaluate from the cleaning quality. According to (Bound,2002) quality from customers perspective is more than

just proper execution of the quality work. Other than work undertaken, quality expectations is also in relation to matters such as :

- a) Additional Services
- b) Attention
- c) Being addressed by receptionist or telephonist
- d) Flexibility
- e) Accessibility
- f) Responsiveness
- g) Communication
- h) Safety
- i) Company dress code
- j) Fulfilling promises
- k) Staffs
- l) Recruitment, selection, training and supervision
- m) Empathy
- n) Right price or quality ratio
- o) Responding to requirements
- p) “Partnership or co-maker ship”- collaboration towards joint objectives which have been laid down
- q) Continuity
- r) Legitimization

Quality expectation list above show that cleaning services are more than just cleaning rooms and take the trash out. Does this service quality determinants really affect the quality of the cleaning services? So I proposed to study what are the relationship of service quality determinants with the quality of cleaning services and find the dominant factor out of all the service quality determinants.



## **1.4 RESEARCH OBJECTIVE**

This research have two objectives. The objectives are :

- i. To determine the relationship between service quality determinants with the of quality in cleaning service
- ii. To identify the dominant factor in quality of cleaning service.

## **1.5 RESEARCH QUESTIONS**

To conduct a good research , the research questions have been develop . The research questions as below :

- iii. What are the relationship between service quality determinants with the of quality in cleaning service ?
- i. What is the dominant factor in quality of cleaning service ?

## **1.6 SCOPE OF STUDY**

This research is conducted to identify the relationship of service quality determinants with the quality of cleaning services as well as to see the most dominant factor among all the factors available to get a good quality of cleaning services. The scope of study is quality management. How quality management been interpreted in cleaning service field.

Therefore, this study is focused in UMP campus Gambang. The reason for focusing on these location is to see the what are the perception about quality of cleaning service as both location supervise by different people and divided into several zones.

The respondents of this study will be the staffs and st of UMP campus Gambang.

## 1.7 SIGNIFICANCE OF STUDY

### *From Public Perspective*

The benefits that public can get from this study is awareness about the quality of cleaning service that they deserved and give them the knowledge on how to analyse the quality that cleaning service provider deliver. This is because public as the end consumer deserved the best quality service that they invest on.

### *From Company Perspective*

Company can see from the customer's point of view and review their weaknesses in giving service to their customers. The point of view is very important as they are the one who will paying and hiring the cleaning service provider so they have the right to evaluate as well as choose the company that serving their best . So, company should get advantges from this research as they can know the interpretation of quality determinants in cleaning service from customer's point of view and set up their effort to be the best.

### *From Knowledge Perspective*

Quality of cleaning service is very important to sustain a good environment regardless any place in the world. This good environment is especially need in the working place as we spend most of our time in our workplace. This study will express the importance of cleaning service so that more people will make more research on how to improve quality in cleaning service in the future.

## **1.8 EXPECTED RESULT**

The result that expected from this research is to answer all the objectives questions. Which are :

Expected result One : To see the relationship of service quality determinants and the quality of cleaning services.

Expected result Two : To find the dominant factor of quality of cleaning services.

## **1.9 CONCLUSION**

The purpose of conducting this study is to see the relationship between service quality determinants and the quality of cleaning services as well as to find the dominant factor of the service quality determinants that affect the quality of cleaning service.

## **CHAPTER 2**

### **LITERATURE REVIEW**

#### **2.1 INTRODUCTION**

This chapter discuss the evidence for independent variable and dependent variable Literature review involve about quality management and cleaning service.

#### **2.2 CLLEANING DEFINITION**

According to (Stephens, 1997) clean is defined as looking new appearance. Cleanliness or tidiness is defined as the neat, tidy and clean appearance of the tangible component of the service package, including the service environment and facilities ( Johnston, 1995). According to (Dictionary) clean is free from dirt, pollution, foreign or extraneous where cleaning is the act or instance of making clean.

Cleaning is a process that is systematic in nature and intended to remove unwanted matter from the environment. To ensure that the unwanted matter is cleaned and maintained to a certain level of safe zone to decrease the risk of human health. By using the highest degree of monitoring system or any standard that available at the time, the service implementation will be conducted effectively and achieved the desired quality in cleaning (Kyengo,2007)

## **2.3 SERVICE DEFINITION**

According to (Business Dictionary) service is an intangible product such as cleaning, consultancy, education, banking, insurance, expertise, medical treatment, transportation, or accounting. Service is closely related with goods so, sometimes it is difficult to identify the differences. According to (Investor Words) service is type of economic activities that is intangible and does not stored as well as does not result in ownership. Service are one of two components of economics that related to goods. For example, posting service is intangible that related to goods.

## **2.4 PURPOSE OF CLEANING SERVICE**

According to (Allen, 1993) in order to understand the quality of cleaning, the reason and purpose of cleaning must be clear. This is because both factors comprehend each other and cannot function without each other. The five major reasons for cleaning are dust control, prevention the spread of diseases and infection, preservation of fixtures, fabric, furnishing and fitting, provision of a socially acceptable environment as well as safety.

### **2.4.1 DUST CONTROL**

Dust is a collection of particles in the atmosphere that come from various sources (Wikipedia). Dust and fumes are very dangerous towards human and a high level of dust and fumes in the environment may cause harmful to human health. In order to avoid reduce this harms, dust level must be controlled to certain acceptable level through cleaning. This is not just apply to industrial working conditions but apply to all places (Kyengo, 2007).

#### **2.4.2 FURNISHING, FIXTURE, FITTING, AND FABRIC PRESERVATION**

Deterioration of buildings and their furnishing are normally caused by the accumulation of grease, dust, and other types of soils. The damages process accelerates if there is not cleaning process and may lead to costs of repairs that are normally higher and the methods apply to restore can cause further damages. (Kyengo, 2007).

#### **2.4.3 PROVISION OF SOCIALLY ACCEPTABLE ENVIRONMENT**

Socially acceptable environment refers to a comfortable and attractive working environment as it can enhance the productivity. People that are working in clean environment tend to give a higher productivity than their counterparts (Kyengo, 2007)

#### **2.4.4 PREVENTION OF THE SPREAD OF DISEASES AND INFECTION**

Different spaces requires different standards of hygiene and different methods of cleaning. Prevention of the spread of diseases and infection is one of the major reasons why cleaning process is very crucial to keep human health in check. During this process, simultaneously, it can make the environment cleaner. Example of high risk area that need attention during cleaning process are hospitals, clinics, operating theatres, kitchens, and sanitary accommodations

#### **2.4.5 SAFETY**

Cleaning process also include the removal of obstacle and substances that tends to obstruct and it will reduce the risk of minor and major accidents. Cleaning standards must be up the expectations in order to meet the health and safety at work requirements ( Kyengo, 2007)

## **2.5 QUALITY DEFINITION**

According ( Doherty, 2008) there is no simple answer for quality because like the word beauty, it is very subjective and it is depends on one personal judgement. Quality in most cases signifies excellence and reliability that also can be differs from each customer's point of view.

According to ( Business dictionary ) in manufacturing perspective, quality is a measure of excellence or a state of being no defect. This state is the result of consistent commitment to achieved certain standards in order to satisfy customer's need and expectations. The degree of excellent and standard that measure against similar kind of things ( Oxford Dictionaries ).

### **2.5.1 SERVICE QUALITY DEFINITION**

The quality is good if the person that will be used the room or area in the question are satisfied. This applies only when the cleaning is under normal conditions and the cleaning process is carried out properly (Kyengo, 2007).

According to ( Huilaja, 1998) cleaning service quality according to the cleaning industry is the ability meet the customer's needs and expectations. If the customer's experiences a good quality of cleaning service correspond with their assumptions, it is consider as the overall quality.

## **2.6 QUALITY DETERMINANTS IN CLEANING SERVICE**

According to (Bound, 2002) the overall quality of cleaning service is determined by cost or the price of the service, the reliability of the service provider, how the service provider responding to disasters and resolving complaints, cleaning quality, customer's needs and expectations as well as the organization's principles and working mechanism.

In a customer's mind, cost bears heavily as it is used to gauge the level of the quality desired. When defining the level of quality, one should compare the cost with the various quality level. A continuous and consistent provided by the service provider give the customers as sense of reliability.

Cleaning company need to offers guarantees so that customers are assured of good quality and the delivery system they provided. Responding to disaster and resolving complaints or any other crisis caused while the process of cleaning as well as any customer's emergency is the cleaning service obligation. To provide satisfaction both parties, the cleaning quality and affordable price must meet the expectation that both parties agree. At the beginning of the agreement, cleaning service provider should avail the need to tailor service according to the customer's needs, expectations as well as assumptions. Once the agreement is finalize, cleaning service provider need to take full responsibilities of the cleaning quality. At this point, cleaning service provider need to maintain their performance and their professionalism (Kyengo, 2007).

Result from (Parasuraman et al, 1985) focus group study with service providers and access, they produce a list of ten determinants of service quality. The ten determinants are : access, courtesy, communication, competence, credibility, responsiveness, reliability, security, understanding, and tangibles.(Berry et al, 1985) five basis of the quality measurement that they used are : reliability, tangibles, assurance, empathy, and responsiveness. (Parasuraman, 1988) Reliability the most important and followed by dimension, responsiveness, empathy and assurance and the least important is intangible.

## **2.7 CLASSIFICATION OF SERVICE DETERMINANTS**

The determinants of the quality is classify into four main quality determinants. The determinants can be classify into technical quality, functional quality, process quality and aesthetic quality (Kyengo, 2007)



### **2.7.1 TECHNICAL QUALITY**

Technical quality is the quality that is resulted from the actual cleaning process that agreed by the provider and the customer. The quality cleanliness that promised is affected by the application of technology, the frequency of the cleaning process, the control system and the follow up, the service organization and the technical and professional skills of the worker (Eija Huilaja, 1998).

According to ( Parasuraman et al, 1985, Hedvall et al, 1991 ) in the ten quality determinants, tangible is a physical evidence of the service. The physical of the facilities, the personnel appearance, the equipment and tools to provide the service as well as the physical representation of the service such as bank statements . Competence on the other hand, is a possession of a knowledge or skills to performed the service. The knowledge and skills that mention above is including knowledge and skills on contact personnel, operational support personnel as well as research capability of the organization.

### **2.7.2 FUNCTIONAL QUALITY**

Functional quality is the way of the cleaning service is performed. Customers expect that the cleaning service provider will provide and display a friendly behaviour and flexibility accustomed to the cleaning service. The experience that customer felt during the cleaning service is consider as functional quality which play an important point of how the customers perceives about the cleaning service provider. The example of elements in the functional quality are the service speed, personnel attitudes and flexibility ( Kyengo,2007)

Courtesy is the respect, consideration, friendliness and politeness shown by the service provider towards the customers. For example, consideration for customer's property by not stepping on the carpet with muddy shoes as well as neat and clean appearance in contact personnel. Reliability is the dependability and consistency of performance. It also include the ability of performing the service right at the first time as well as it is also consider as the

honours that already made. For example, by keeping all the record correctly, the accuracy in billing and performing the job at the fixed schedule. ( Parasuraman et al, 1985, Hedvall et al, 1991) .

Communication is updating and informing customers about the service in a way that easy to understand by the customers. Communication is best delivered in the language that easy to understand and it may mean that the company need to adjust its language for different customers. For example, communicate by explaining the service itself, how much the service cost, the trade-offs between cost and service as well as assuring customers that all the problems will be handle( Parasuraman et al, 1985).

### **2.7.3 AESTHETIC QUALITY**

Aesthetic quality include the aspect of care in the service approach as well as in the setup the of the service supplied ( Kyengo,2007). Credibility is the quality of honesty, trustworthiness, and believability and always have customer's best interest at heart. The example credibility contribution is company name, reputation, personal characteristic of the contact personnel as well as the level of hard sell involved in interactions with the customer. ( Parasuraman et al, 1985)

Understanding or knowing the customer needs is by making efforts to know the customer's needs and their specific requirements. Other than that, by providing individualized attention and recognizing regular customers is one of the ways to understand customers need. (Security is the freedom from any type of danger, harm, doubt, or risk. Safety include the safety in terms of physical safety and confidentiality. Physical safety is low chance of getting hurt during the service implementation. For confidentiality is protecting the customers possession during the implementation process. ( Parasuraman et al, 1985, Hedvall et al, 1991)

#### **2.7.4 PROCESS QUALITY**

Process quality is about how well the cleaning service provider fitting in with an existing organization. It is indicate how the cleaning service provider deals with disasters and emergencies as well as how they adapting to the organization working hours ( Kyengo,2007).

Responsiveness is the ability of respond promptly to customers as well as the readiness or willingness of the employee to provide service with minimal waiting or queuing time. For example, calling the customers back quickly and giving prompt services . Accessibility is the ability to be approach and contact easily especially in terms of location where one can find the way to the location easily ( Parasuraman et al, 1985, Hedvall et al, 1991 )

## **CHAPTER 3**

### **RESEARCH METHODOLOGY**

#### **3.1 INTRODUCTION**

This chapter is very important to achieve the research objectives. By conducting a comprehensive literature review, the concept principles of knowledge area are related to the research topic were explored. This chapter included the technique and procedures for conducting a study. This chapter consist of a few section that will explained and elaborate in detail. Research participation, how the research is conducted, and the data collection method as well as the data analysis method. The methodology used to complete the this research uses the following method : literature review related to the research title and objectives, developing a questionnaire for the data gathering based on literature review and data analysis. This chapter explained the information about the research design, research population and samples, data analysis method, data collection technique as well as the design of questionnaires.

### 3.2 THEORITCAL FRAMEWORK

As stated in Chapter One, the objective of this research is to identify the relationship between the service quality determinants with the quality of cleaning service. Besides that, to identify which quality determinants is the dominant factor in influencing the quality of cleaning services.

The independent variable for this research are : the Technical quality, Functional quality, Process quality and lastly is the Aesthetic quality. For the dependent variable in this relationship is the quality of cleaning service.

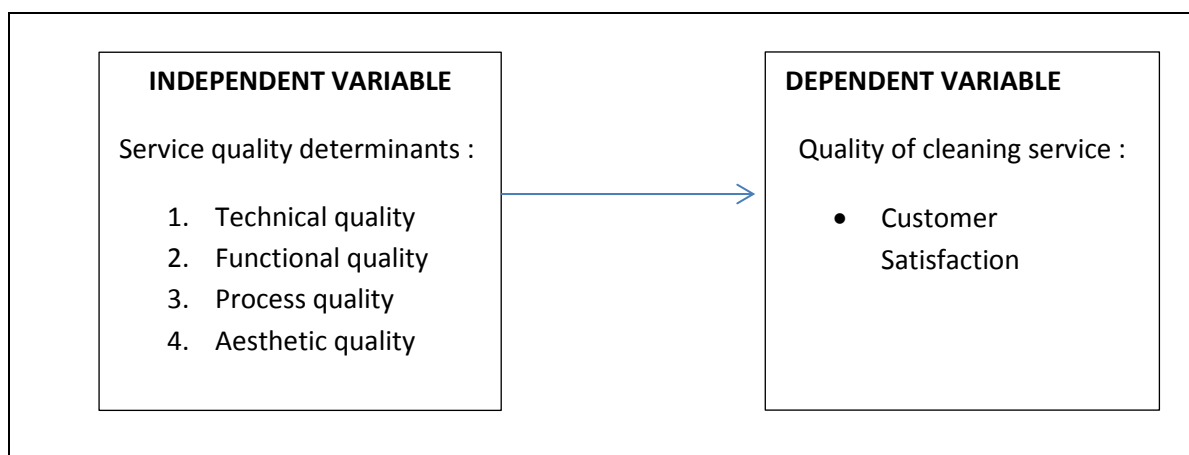


Figure 3.1 : Theoretical Framework

### 3.3 HYPOTHESIS STATEMENT

There is a relationship between service quality determinant with the quality of cleaning service. Hypothesis can be showed following :

H : There is a significant positive relationship between technical quality with customer satisfaction

H : There is a significant positive relationship between functional quality with customer satisfaction

H : There is a significant positive relationship between process quality with customer satisfaction

H : There is a significant positive relationship between aesthetic quality with customer satisfaction

### 3.4 RESEARCH DESIGN

A research design is a procedural plan that the researcher adapt to get questions answer objectively, validly, economically and accurately (Kumar, 2005). Design of this study is descriptive study. Descriptive study is used to describe the characteristic of the study variables of interest in the situation. It is also used to understand characteristics of organisation that follow certain common practices. The purpose of descriptive study is to help to describe relevant aspect of the research from organizational, individual, industry-oriented or other perspective ( Sukaran,2003)

This study is focused on the identification factors that most influence quality in cleaning services among cleaning service supervisor in UMP Gombang.

There are three types of approaches that can be used in a research which are quantitative, qualitative, and mixed methods. To differentiate these three approaches, refer to the tables below ( Creswell, 2003) :

Table 3.1 : Quantitative, Qualitative, and Mixed Method Approaches

Typically or Tend to	Qualitative Approaches	Quantitative Approaches	Mixed Method Approaches
Uses these philosophical assumptions	Constructivist / Advocacy/ Participatory	Postpositivist knowledge claims	Pragmatic knowledge claims

	knowledge claims		
	Phenomenology, grounded theory, ethnography, case study, and narrative	Survey and experiments	Sequential, concurrent, and transformative
Employ these methods	Open ended questions, emerging approaches text or image data	Closed ended questions, predetermined approaches, numeric data	Both opened-ended and closed-ended questions, both emerging and predetermined approached, and both quantitative and qualitative data and analysis
Uses these practices of research, as the researcher	<ul style="list-style-type: none"> <li>- Positions himself or herself</li> <li>- Collect participant meanings</li> <li>- Focuses on a single concept or phenomenon</li> <li>- Brings personal values into the study</li> <li>- Studies the context or setting of participants</li> <li>- Validates the accuracy of findings</li> <li>- Make interpretations of the data</li> <li>- Creates an agenda for change or reform</li> </ul>	<ul style="list-style-type: none"> <li>- Tests or verifies theories or explanations</li> <li>- Identifies variables to study</li> <li>- Relates variables in questions or hypothesis</li> <li>- Uses standards of validity and reliability</li> <li>- Observe and measures information numerically</li> <li>-Uses unbiased approaches</li> <li>-Employs statistical procedures</li> </ul>	<ul style="list-style-type: none"> <li>- Collects both quantitative and qualitative data</li> <li>- Develops a rationale for mixing</li> <li>- Integrates the data at different stage of inquiry</li> <li>- Present visual pictures of the procedures in the study</li> <li>- Employs the practices of both qualitative and quantitative research</li> </ul>

	- Collaborates with the participants		
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Table 3.2 : Four Alternatives Combinations of Knowledge claims, Strategies of inquiry and Methods.

Research Approaches	Knowledge claims	Strategy of Inquiry	Methods
Quantitative	Postpositivist assumptions	Experimental design	Measuring attitudes, rating behaviours
Qualitative	Constructivist assumptions	Ethnographic design	Field observations
	Emancipatory assumptions	Narrative design	Opened-ended interviewing
Mixed Method	Pragmatic assumptions	Mixed Method design	Closed-ended measures, opened-ended observations

For this research, quantitative approaches is adopted. As you can see from the table above, qualitative approaches is used when the investigator uses post positivist claims for developing knowledge employs strategies of data collection such as survey as well as predetermined instrument that yield statistical data. Survey research is used as the strategy of inquiry which use close-ended questions (Creswell, 2003). Closed-ended questions are a form of questions that are the answers were set out. Respondent only have to tick the answer that they feel right according to the answers choices given in the questionnaires ( Kumar ,2005) .



### 3.5 POPULATION AND SAMPLING

According to (Sekaran, 2003) population is defined as events, entire group of people or things of interest that the researcher want to investigate. The population of this study are the Supervisors of Cleaning service in UMP Gombang.

Subset of a population is called sample. It include some members selected from it but not all. So, that elements of population would form the sample (Sekaran, 2003). According to (Kumar, 2005) sampling is a process of selecting a few from a bigger group where a few is refer to sample and the bigger group is refer to population. The figure below will illustrated the concept of sampling .

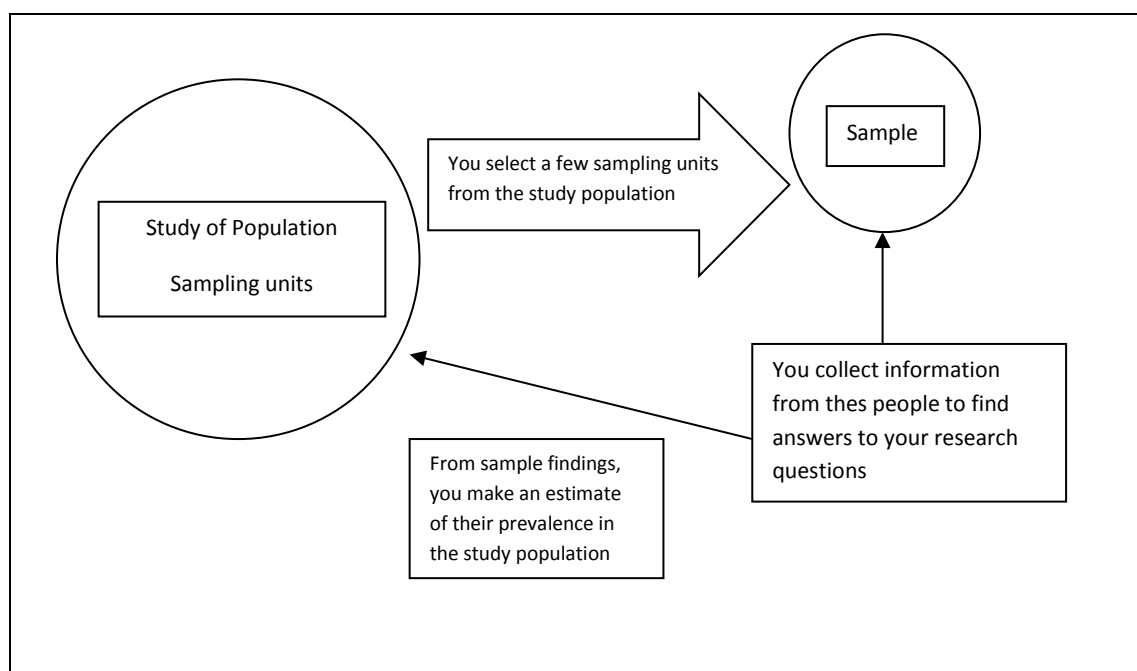


Figure 3.2 : The concept of sampling

### 3.5.1 DETERMINING SAMPLING SIZE

Sample size is important in order to establish the representativeness of the sample generalization. It is very important to determine a sample size as it will indicate the accuracy of the sample. Too many samples may cause waste of resource, money, and time but if the sample is too small, the result may be inaccurate (Sekaran, 2003).

According to (Kumar, 2005) selecting sample is used to achieved the maximum precision in the estimation within the given sample size and during the selection of the samples it will avoid bias. There are various sampling strategies that can be categorised as figure below :

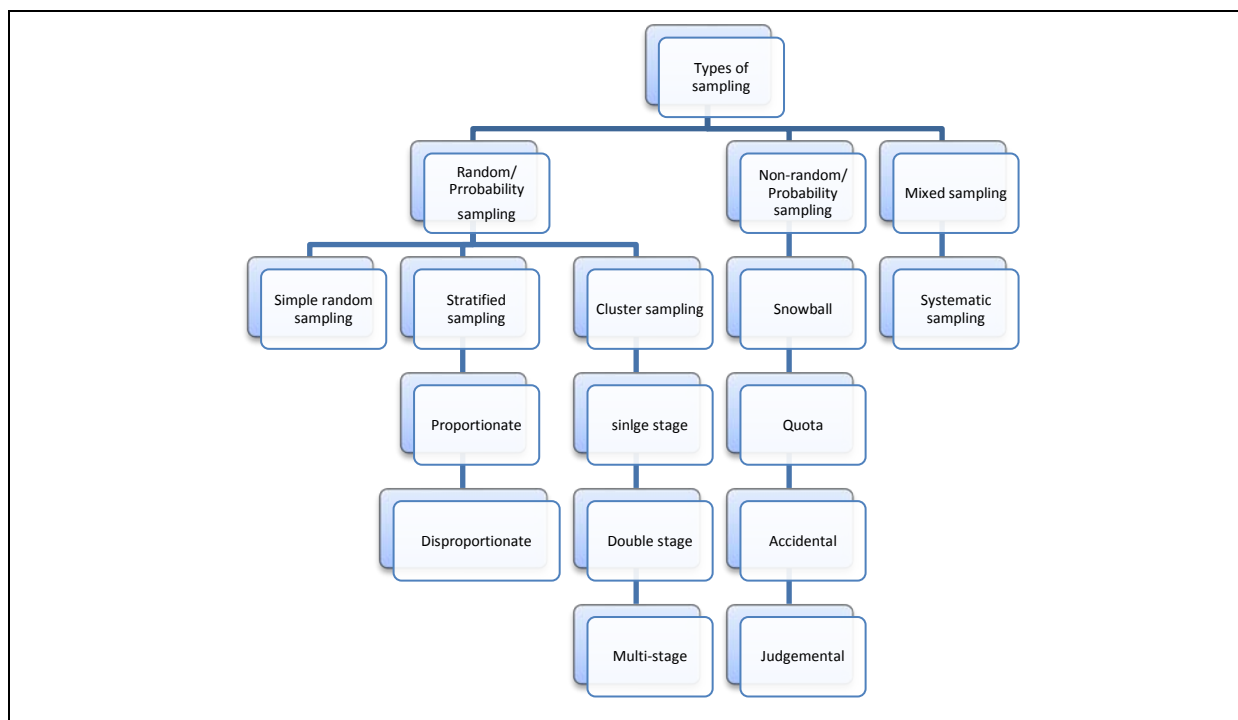


Figure 3.3 : Types of Sampling

The type of sampling used in this research is the random or probability sampling designs. Random sampling is defined by the imperative that each element in the population has an independent and equal chance to be selected. Equal means that the probability of selection of each element is not influenced by other considerations such as personal preference and the

probability of selection of each element is the same (Kumar,2005). So, the random sampling is chosen according to the (Sekaran, 2003) sampling table such as follows :

Table 3.3: Sampling Table

<i>N</i>	<i>S</i>	<i>N</i>	<i>S</i>	<i>N</i>	<i>S</i>
10	10	220	140	1200	291
15	14	230	144	1300	297
20	19	240	148	1400	302
25	24	250	152	1500	306
30	28	260	155	1600	310
35	32	270	159	1700	313
40	36	280	162	1800	317
45	40	290	165	1900	320
50	44	300	169	2000	322
55	48	320	175	2200	327
60	52	340	181	2400	331
65	56	360	186	2600	335
70	59	380	191	2800	338
75	63	400	196	3000	341
80	66	420	201	3500	346
85	70	440	205	4000	351
90	73	460	210	4500	354
95	76	480	214	5000	357
100	80	500	217	6000	361
110	86	550	226	7000	364
120	92	600	234	8000	367
130	97	650	242	9000	368
140	103	700	248	10000	370
150	108	750	254	15000	375
160	113	800	260	20000	377
170	118	850	265	30000	379
180	123	900	269	40000	380
190	127	950	274	50000	381
200	132	1000	278	75000	382
210	136	1100	285	1000000	384

### 3.6 RESEARCH METHOD

Research method used for this study is survey method. According to (Cresswell, 2003) a survey provides a quantitative or description of attitudes, trends or opinion of a population by studying a sample of that population. Claim about the population can be made after the researcher generalize the results.

In this research, the sources of data is obtained by two major data collection method which is primary and secondary data. According to (Sekaran,2003) primary data refer to first-hand information that obtained by the researcher on the variables of interest. First-hand information is called primary data and secondary data is second hand information.

### **3.7 DATA COLLECTION TECHNIQUES**

Before choosing data collection technique, a researcher must considered the purpose of the study, the resources available, as well as the skill of the researcher. Beside that, make sure that techniques that used can help respondent clearly understand the purpose as well as the relevance of study (Kumar, 2008)

For this research, personally administering questionnaire to groups of individuals is chosen. The advantages using this method are establish rapport with the respondents while introducing the survey, can give further explanation and clarification sought by the respondents on the spot and lastly can collect the data immediately as soon as they complete it. In a sense, hundred percent respondent rate can be achieved (Sekaran,2003). According to (Kumar, 2005) this technique is the quickest way to collect data, get high response rate, and save money on postage if the respondents is near you.

On the other hand , there are negative side to this technique as it is quite expensive. This technique is consider as expensive because we have to personally meet the respondent at the location that both parties agree on. The cost will be higher if the location of the respondents is geographically dispersed.

This is why this technique is the most suitable for this research as the scope of this study is among UMP campus Gambang. According to (Sekaran,2003) personally administrative questionnaires are best suited when data are collected close proximity with each other.

### 3.8 DESIGN OF QUESTIONNAIRES

Closed-ended questionnaire is chosen for this study. This is because, closed-ended questionnaire is a question that are all the possible answer or the responds column is prewritten in category an respondent only have to decide which answer they want to choose among the answer provided. According to (Kumar,2005), who give a similar definition which is the closed-ended question is a possible answer are set out in the questionnaire in closed-ended question and the respondent ticks the best answers category that best describe the respondent's answer. Closed-ended questions help respondent to make quick decision as the alternatives is already given.

The questionnaire design is comprised of two main sections to achieved the research objectives as below :

Section One : General Information about the population

Section Two : Cleaning Service Determinants . The purposed of this questions is to achieved the objectives of the study to identify the relationship of service quality determinants and the cleaning service quality and identify the most dominant factors among the other determinants.

In the Section Two,:

1. Technical quality
2. Functional quality
3. Process quality
4. Aesthetic quality

In Section One, scale of measurement for the questionnaire are nominal scale. Section Two on the other hand, is using an interval scale. Nominal scale is a variable scale enables the classification of responses, individuals, or object into subgroups based on a characteristic or common property. Furthermore, this scale may have more than one subcategories depending on the extent of variation while interval scale helps compute the means and standard

deviation of the responses on the variable. Other than that, interval scale also is used to measure the service quality determinants.

Interval scale or rating scale that used to designs the questions in Section Two is the Likert Scale. This scale is used because it is easier to read and easier to fulfil so it can ease the respondents. According to ( Kumar, 2005) Likert Scale is based on assumption that each statement on the scale has equal importance in terms of weight of reflecting the attitude towards the questions issues. In this study, it is design to examine the degree of importance with statement. There several types of Likert Scale which normally have an odd total of possible response that have a midpoint or what we called passing level. For example there are five-point likert scale, seven-point likert scale and there are nine-point likert scale.

This study is implementing the five-point likert scale to all sections on questionnaire which ranging from 1(Strongly Agree) to 5(Strongly disagree) which the anchors chow below :

Table 3.4: Sampling Table

Degree of Agreement				
1	2	3	4	5

### 3.9 DATA ANALYSIS METHOD

After data obtained through questionnaires or any other method, it need to go through some preliminary steps to ensure that the data are reasonably good and quality for further analysis. Figure below will show the flow diagram for data analysis ( Sekaran, 2003)

The analysis of this survey result is used Statistical Package for Social Science ( SPSS). According to (Sekaran,2003) SPSS has software programs that can create questionnaires design through SPSS Data Entry Builder, collect data over the intranet or internet through the SPSS Data Entry Enterprises Server, enter the collected data through the SPSS data Entry Station and lastly SPSS 11.0 to analyze the collected data.

For testing the goodness of data reliability of a measure is establish by testing stability and consistency. Consistency indicate how well the item measure for the concept completing each other as a set. Cronbach's Alpha can indicates how well the items in a set by producing a reliability coefficient. If the correlation is positively correlated to one another, that's mean it is getting along well together. Among the items measure the concept , Cronbach's Alpha is computed in terms of the average inter-correlations.

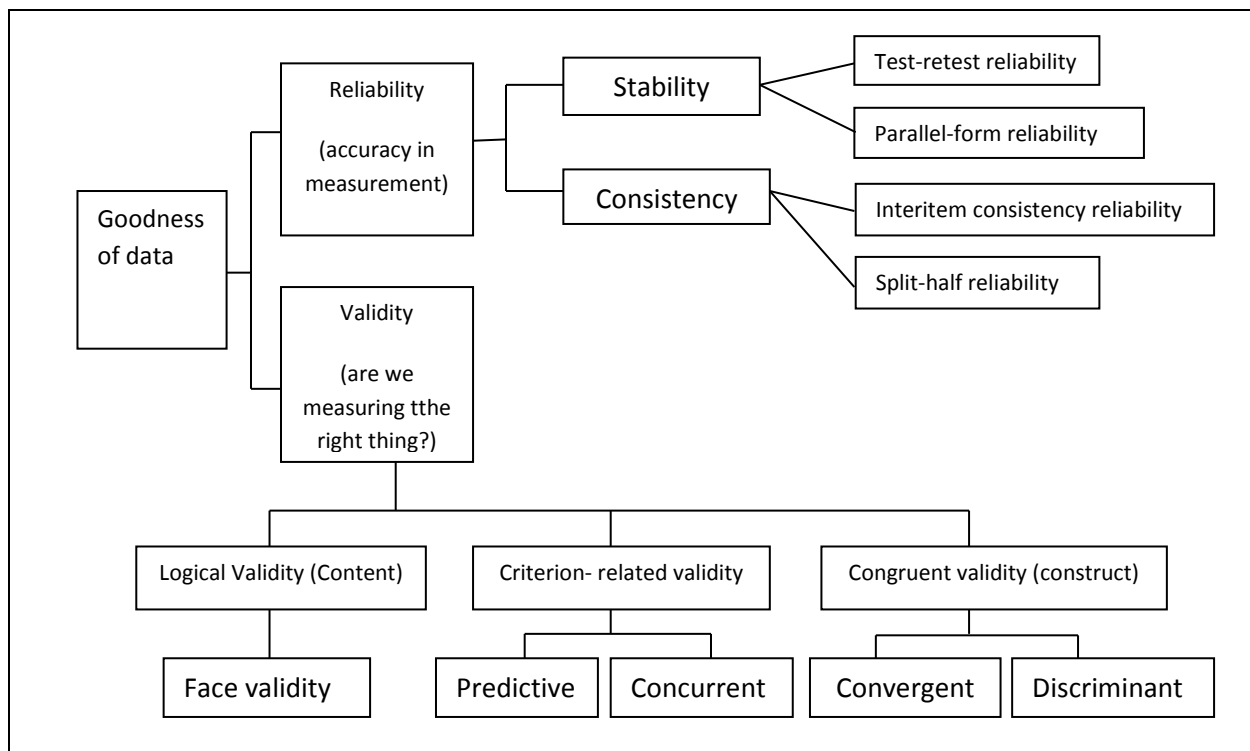


Figure 3. 5 : Testing Goodness of measures : Forms of Reliability and Validity

After that, descriptive analysis is used to analyzed the data. Descriptive statistic is already included in the SPSS which provided by mean, median, frequencies, mode, range variance and standard deviation. According to (Moslim et al, 2013) mean is sum of values that divided by the number of observation or average. The value that occur the most in a set of data is called Mode. Positive square root of variance is called standard deviation where variance is the total of squared deviations of each value from them mean divided by observation number.

For the Section One of the questionnaires, Descriptive analysis is conducted to obtain the respondent's general information. The percentage and frequency of all the items in the section is being clarified. In addition to that, the degree of importance of the factors influencing the factors that most influence quality in cleaning service in the objective two is also determined by descriptive analysis.

The relationship between the dependent and independent variable is find by the Pearson Correlation Analysis. Positive values indicate that both variables a positively correlated ,while negative value shows a negative correlation .The absolute value of the coefficient proves how strong the correlation of both variables. Data R squire, Durbin-Watson, standard coefficient and the significance of variable were generated.



## **CHAPTER 4**

### **DATA ANALYSIS**

#### **4.1 INTRODUCTION**

This chapter is all about data analysis and data interpretation . This chapter also breakdown all the element of the questionnaire and analyse how these questions related to each other and how the results fulfil the objective of the study.

#### **4.2 QUESTIONNAIRES RESPONDS**

This chapter covers the result of analysis of this study where the results obtained from SPSS. The results are, coded, and analysed .

Number of respondents identified :

Table 4.1 Questionnaires Responds

Department	Total of Questionnaire
Jabatan Bendahari	15
BPA	21
JHEAA	16
<b>TOTAL</b>	<b>52</b>

The methods used is through direct distribution. The questionnaires are distributes by hand to the respondent. Concluded the result that the data distribution by hand is successful .

#### 4.3 DESCRIPTIVE ANALYSIS

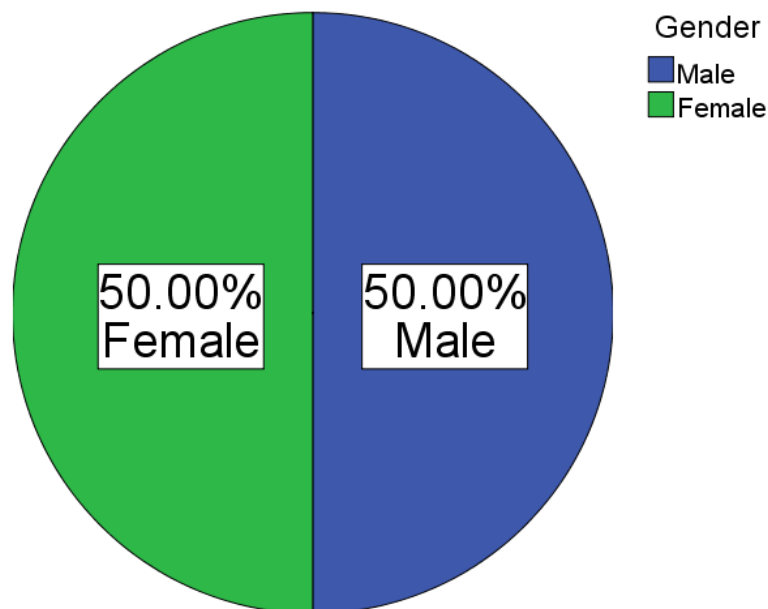


Figure 4.1 Percentage of Gender

For the percentage of the respondents, both gender is equally devided which is 50% for male and 50% for female.

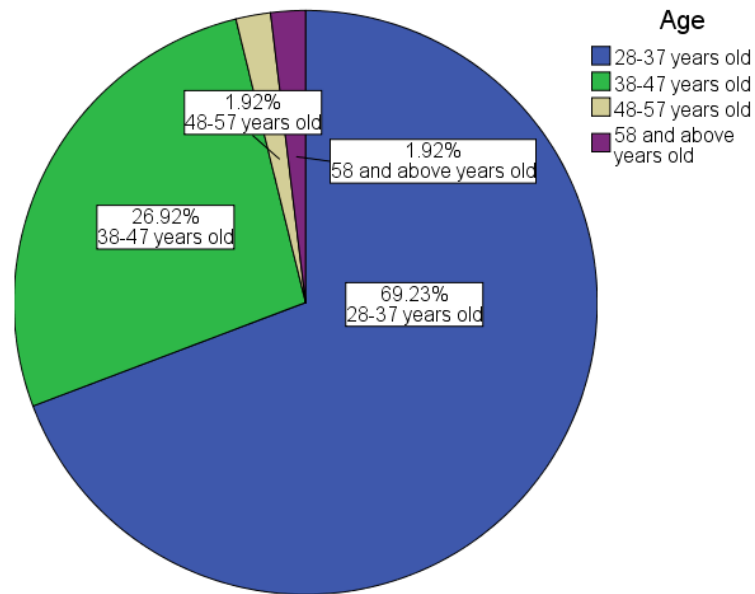


Figure 4.2 Percentage of Age

Majority of the respondent are in the range of age 28 until 37 years old as the percentage is 69.23%. Second highest percentage is the age range of 38 until 47 years old with the percentage of 26.92%. And lastly is the range of 48 until 57 years old and 58 and above only score 1.92% respectively.

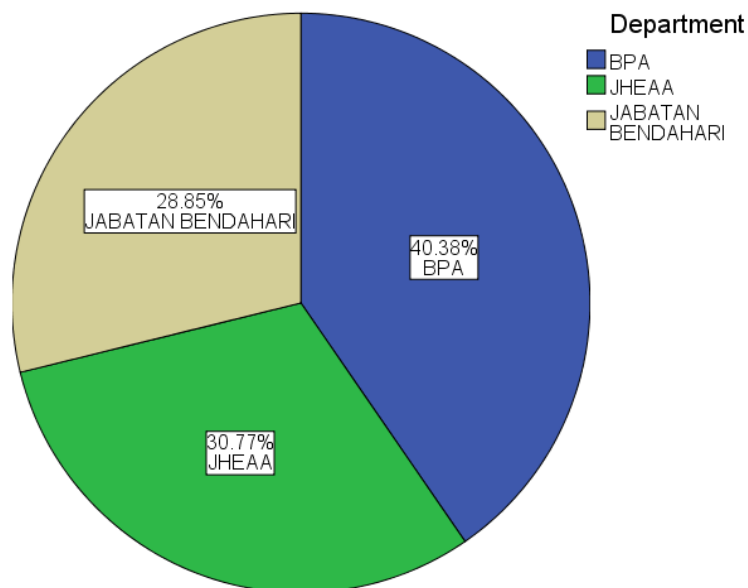


Figure 4.3 Percentage of Staff locations

For the staff locations, 40.38% is the highest percentage which belongs to BPA. Next is JHEAA with 30.77% and lastly Jabatan Bendahari with 28.85%.

#### 4.2 Mean and Standard Deviation

	Mean	Std. Deviation	N
SumCustomers	4.0038	.45588	52
SumProcess	3.7747	.44851	52
SumAesthetic	3.7912	.38837	52
SumTechnical	3.8221	.41668	52
SumFunctional	3.7115	.40848	52

The table above shown that for the independent variable, Technical Quality have the highest mean at 3.8221 compare to other determinants. The lowest mean score is Functional Quality which only score 3.7115. As for the dependent variable, the mean of customers satisfaction is 4.0038.

For standard deviation, the lowest standard deviation for independent variable is 0.38837 which is for the Functional Quality. The highest standard deviation value is for the Process quality with the value of 0.44851. The dependent variable standard deviation is 0.45588.

To get the dominant factor out of four determinants , all the determinants will be rank. Ranking method is done by selecting the highest value of mean and the lowest value of standard deviation as the most dominant factor or number one in the ranking.

As shown in the table below, determinants that score the highest mean value is Technical Quality with a score of 3.8221. For standard deviation, Technical Quality score is 0.4166.

Therefore, because Functional Quality have the highest mean value and the one of the lowest standard deviation value. So, it can be conclude that Technical Quality is the most dominant factor out of the four determinants.

#### 4.4 RELIABILITY OF MEASUREMENT

Reliability test is important to prove whether the questionnaire constructed is reliable or not. The questions reliability will be represent by the data. George and Mallery (2003) provide the following reliability statistics that follows the rules of thumb which are :

- i. 0.9 – Excellent
- ii. > 0.8 – Good
- iii. > 0.7 – Acceptable
- iv. >0.6 - Questionable
- v. >0.5 – Poor
- vi. < 0.5 – Unacceptable

The internal consistency or the average correlation of items in the survey instrument is determines by the Cronbach's Alpha to gauge its reliability. As the scale shown above, the generated scale reliability is stronger if the score is high. The table below shows the score of Cronbach's Alpha for this study.

#### 4.3 Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.874	.871	34

This study overall reliability test is 0.874. It is above benchmark of 0.7 therefore, the questionnaire is reliable.

#### 4.5 PEARSON CORRELATION ANALYSIS

##### 4.4 Pearson Correlation Analysis

		Sum Process	Sum Aesthetic	Sum Technical	Sum Functional
SumCustomers	Pearson Correlation	.303*	-.242	.295*	.223
	Sig. (2-tailed)				
	N				
SumProcess	Pearson Correlation		-.174	.979**	.947**
	Sig. (2-tailed)				
	N				
SumAesthetic	Pearson Correlation			-.180	-.216
	Sig. (2-tailed)				
	N				
SumTechnical	Pearson Correlation				.929**
	Sig. (2-tailed)				
	N				

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

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

Table 4.5 Strength of Correlation Coefficient

Value of (r)	Comment
$r = 0.0$	No correlation between the two variable
$0.0 < r < 0.5$	Weak Correlation
$0.5 < r < 0.7$	Moderate Correlation
$0.7 < r < 1.0$	Strong Correlation

Table 4.12 : Strength of Correlation Coefficient

Moslim, N., Misni, F., Muhammad, N., Zakaria, R., Yaziz, S. and Satari, S. (2013). *Applied Statistic Module*. 1st ed. Malaysia: Universiti Malaysia Pahang.

Pearson Correlation Analysis table above shows that Technical Quality, Process Quality, and Functional Quality are positively correlated with dependent variable and on the other hand Aesthetic Quality is negatively related. Positive Pearson value with significant of  $p < 0.01$  proved that there is a positive relationship between independent variable and dependent variable..

The highest correlation is between Aesthetic Quality with the Technical Quality ( $0.979; p < 0.01$ ). Second highest is between Functional Quality with Aesthetic Quality ( $0.947; p < 0.01$ ) and followed by Functional and Technical Quality ( $0.929; p < 0.01$ ).

As for the correlation between independent variable and dependent variable, Technical Quality have negative correlation with the customer satisfaction on service delivery because the value of coefficient correlation is  $-0.242$ . Next, there is weak correlation between Functional, Process and Aesthetic Quality it have weak correlation as their score are respectively.

## 4.6 MULTIPLE REGRESSION

**Table 4.13 : Model Summary for Multiple Regression**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.428 <sup>a</sup>	.183	.113	.42923	1.802

a. Predictors: (Constant), SumFunctional, SumAesthetic, SumTechnical, SumProcess

b. Dependent Variable: SumCustomers

Table above shows the model summary of regression analysis for the independent variable and quality. We can see the value of  $R^2$  is 0.183 which means that Functional, Technical, Process and Aesthetic Quality explain 18.3% of various in the. The Durbin-Watson statistic,  $D=1.802$  is within the acceptable range of  $(1.5 < D < 2.5)$  conclude that there was no autocorrelation problem in the data.

**Table 4.7 : Multiple Regression Coefficients<sup>a</sup>**

z

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.427	.959		4.614	.000
	SumProcess	1.006	.752	.990	1.339	.187
	SumAesthetic	-.274	.159	-.234	-1.723	.092
	SumTechnical	-.040	.702	-.036	-.057	.955
	SumFunctional	-.816	.463	-.731	-1.763	.084

a. Dependent Variable: SumCustomers



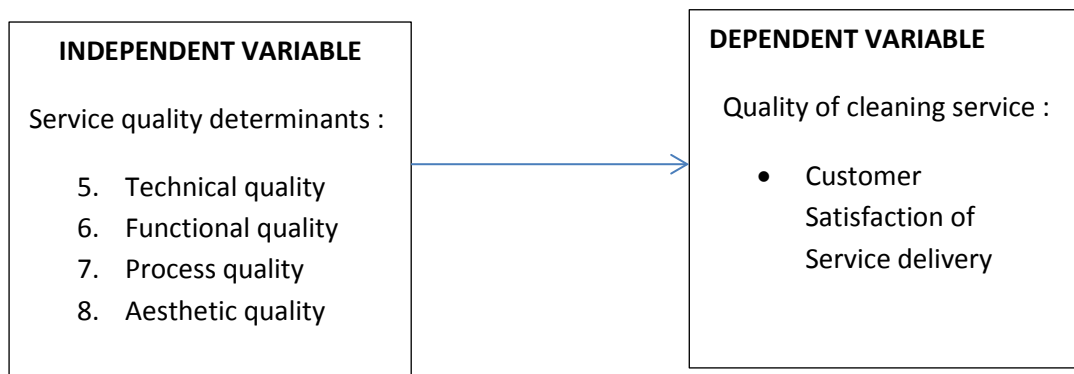
Regression Coefficient,  $b$  is defined as the value of change amount of independent variable changes that can affect the dependent variable. The value of  $b$  coefficient for Functional Quality is -0.816, if the respondents changes the scale by 1 point, the quality performance will advance by -0.816 points which represent corresponding to -0.816%. For Technical Quality, the  $b$  coefficient is -0.040. If the respondent changes the answer by 1 point, the value will move by -0.040%. The difference values between scales for Process Quality is 1.006 therefore, the value will change by 1.006%. Lastly is for Aesthetic Quality, the  $b$  coefficient value is -0.274 and the changes that will be affected if the answers change is -0.274%.

To compare the effect of variable measured on different scales by using the Beta which is standardized regression coefficient. From the result in the table above shows that Aesthetic Quality is predictor of quality performance which is 0.092. Follows by the Functional Quality which is 0.084, Process Quality is 0.187 and the weakness predictor of quality is Technical Quality which is 0.955 . the conclusion is the higher the value of Beta, the bigger the impact of predictor variable on the criterion variable.

In addition to that, the  $p$ -value or the sig symbol is indicator of statistical significance and to determine the relationship between the service quality determinants and the quality of cleaning service related to one another or not which indicate by  $p$ -value( $p < 0.01$ ).

## 4.7 HYPOTHESIS TESTING

### 4.4 Theoretical Framework



H1 : There is a significant positive relationship between technical quality with customer satisfaction of Service delivery

H2 : There is a significant positive relationship between functional quality with customer satisfaction of Service delivery

H3 : There is a significant positive relationship between process quality with customer satisfaction of Service delivery

H4 : There is a significant positive relationship between aesthetic quality with customer satisfaction of Service delivery

#### 4.7.1 HYPOTHESIS 1

There is a significant positive relationship between technical quality with customer satisfaction of service delivery

#### 4.8 Multiple Regression Coefficients for Technical Quality

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	4.427	.959		4.614	.000
SumProcess	1.006	.752	.990	1.339	.187

a. Dependent Variable: SumCustomers

For hypothesis one, we want to know the relationship between Process Quality and Customer Satisfaction. The significant value for this relationship is 0.187, ( $p < 0.1$ ) which means there is no significant relationship between Process Quality and Customer Satisfaction on Service Delivery at  $t=1.339$ .

#### 4.7.2 HYPOTHESIS 2

There is a significant positive relationship between functional quality with customer satisfaction

#### 4.9 Multiple Regression Coefficients for Functional Quality

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.427	.959		4.614	.000
	SumAesthetic	-.274	.159	-.234	-1.723	.092

a. Dependent Variable: SumCustomers

For hypothesis one, we want to know the relationship between Aesthetic Quality and Customer Satisfaction. The significant value for this relationship is 0.292, ( $p < 0.1$ ) which means there is no significant relationship between Aesthetic Quality and Customer Satisfaction at  $t = -1.723$ .

### 4.7.3 HYPOTHESIS 3

There is a significant positive relationship between process quality with customer satisfaction.

#### 4.10 Multiple Regression Coefficients for Process Quality

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	4.427	.959		4.614	.000
SumTechnical	-.040	.702	-.036	-.057	.955

a. Dependent Variable: SumCustomers

For hypothesis one, we want to know the relationship between Technical Quality and Customer Satisfaction on Service delivery. The significant value for this relationship is 0.955, ( $p < 0.1$ ) which means there is no significant relationship between Technical Quality and Customer Satisfaction on Service Delivery at  $t = -0.057$ .

#### 4.7.4 HYPOTHESIS 4

There is a significant positive relationship between aesthetic quality with customer satisfaction

#### 4.11 Multiple Regression Coefficients for Aesthetic Quality

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	4.427	.959		4.614	.000
SumFunctional	-.816	.463	-.731	-1.763	.084

a. Dependent Variable: SumCustomers

For hypothesis one, we want to know the relationship between Functional Quality and Customer Satisfaction. The significant value for this relationship is 0.084, ( $p < 0.1$ ) which means there is no significant relationship between Technical Quality and Customer Satisfaction on Service Delivery at  $t = -1.763$ .

**Table 4.12 : Results**

Hypothesis	Final result
There is a significant positive relationship between technical quality with customer satisfaction	Not Accepted because $p=0.955$ which is should be $p<0.01$
There is a significant positive relationship between functional quality with customer satisfaction	Not Accepted because $p=0.084$ which is should be $p<0.01$
There is a significant positive relationship between process quality with customer satisfaction	Not Accepted because $p=0.187$ which is should be $p<0.01$
There is a significant positive relationship between aesthetic quality with customer satisfaction	Not Accepted because $p=0.092$ which is should be $p<0.01$

## **CHAPTER 5**

### **CONCLUSION AND RECOMMENDATIONS**

#### **5.1 INTRODUCTION**

This chapter concludes the study by discussion of the results that was done in Chapter 4 and suggest recommendation based on the literature review in Chapter 2 as well as exposed the limitation of the study.

#### **5.2 DISCUSSION**

Objective 1

All the hypothesis regarding the strong relationship between both variable is rejected because the r square is only 18.8%. The conclusion is, both of the variables are weakly correlate and no positive significant relationship.



As for the mean for all the variables is average 3. 3 is represent neutral or not so sure or neither agree or disagree . The reasons why the average mean of this study is 3 will be discussed in the study limitations.

## Objective 2

Second objective is to identify the dominant factor. From the descriptive analysis among the four determinants, Functional Quality is consider as the main factor as it have the highest score of mean value and lowest score of standard deviation.

### **5.3 LIMITATION OF STUDY**

Limitation of this reliability responds of in questionnaires . According to (N.Borgers), there are three factors that can affect questions answering process which are difficulty of the task, the respondent's motivation to answer the questions and respondent's cognitive ability to perform task. All these factors is closely related to optimal questions answering process. The process consists of uunderstanding and interpreting the questions. Respondents need to understand the questions and interprete the questions correctly in order to get the desired answer that will help the study. Secondly is retrieving the relevant information from memory. All the memory that respondents remember about the relevant information will highly affect their answer as the next step is to integrate and summarized it into answers. Lastly step is how respondents apply the integrated information in the response scale format.

### **5.4 RECOMMENDATION**

This study is focused on (Kyengo, 2007) 4 general determinants of quality of cleaning service. I personally recommend that next study could use different model of quality determinants that is more specific and detailed. For example, according to (Parasuraman et al, 1985) there and 10 element of determinants. On the other hand, (Berry et al, 1985) said that there are five

basis of the quality measurement. Therefore, to see and compare the results between all these model hopefully can improved the quality of cleaning service in general.

## **5.5 CONCLUSION**

Conclusion is this chapter summarise the whole project and suggest recommendation and exposed the limitation of the study.

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**APPENDIXES****APPENDIX A****COVER LETTER****QUESTIONNAIRE SURVEY FORM**

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**Dear Sir/Madam**

I am a student of University Malaysia Pahang undertaking Bachelor of Project Management. Currently, I am doing a research in order to fulfil the graduation requirements of Bachelor of Project Management. The topic of my research is a study on the relationship between service quality determinants with the quality of cleaning service.

Your assistance in completing the attached questionnaire is highly appreciated. All information given will be kept strictly confidential and used for the purpose of this research only. Kindly contact me if you have any inquiries pertaining to this questionnaire.

Thank you.

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**DEMOGRAPHIC**

## Section One : Respondent's general information

Instruction : Please read and tick (√) an answer from the options.

## 1. Gender :

Male		Female	
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## 2. Age :

28-37 years old	
38-47 years old	
48-57 years old	
58 and above years old	

## 3. Staff at :

BPA		COAIC	
JHEAA			

## QUESTIONNAIRES

Section Two : Relationship between Service Quality Determinants with the Quality of Cleaning Services.

Instruction : Please express your opinion on the service quality determinants that most influence the quality of cleaning service.

1. Strongly Disagree
2. Disagree
3. Not sure
4. Agree
5. Strongly Agree

Determinant 1 : Functional Quality

No	Items	1	2	3	4	5
1	Perform service according to schedule.					
2	Cleaning service provider earnestly solve problem that occur.					
3	Perform their work right for the first time and according to agreement					
4	Explain what are the area that their service covers					
5	Have a consideration towards customer's property during the service implementation.					
6	Assuring the customers that any problem arise will be handled					
7	The service implementation speed is suitable					

## Determinant 2 : Technical Quality

No	Items	1	2	3	4	5
1	Using modern looking cleaning service equipment.					
2	The employee looking like expert while doing their job.					
3	Cleaning service material ( such as detergent, soap, sponge) looking new and safe to use.					
4	The employee appearance is neat.					
5	Use the cleaning service equipment correctly					
6	Use the right chemicals correctly					
7	Cleaning service improve the working environment					
8	Systematic monitoring system					

## Determinant 3 : Process quality

No	Items	1	2	3	4	5
1	Respond to customer's requirements immediately					
2	Convenient operation hours					
3	Convenient location of the service facility					
4	The service is easily accessible by telephone					
5	Able to give prompt services when needed					
6	If customers have to wait for the service, the waiting duration is suitable and appropriate.					
7	Served customers with concept of "First come, First Served"					



Determinant 4 : Aesthetic quality

No	Items	1	2	3	4	5
1	Survey customer's need specific requirements					
2	Provide individualized attention to customers					
3	Recognizing regular customers					
4	The cleaning service provider is trustworthy					
5	Cleaning service provider have a good company reputation.					
6	Doesn't exposed any customer's confidentiality					
7	Cleaning service provider does not cause any situation that can affect customer's safety					

Dependent variable : Quality of cleaning service

Customers satisfaction

No	Items	1	2	3	4	5
1	Work execution is up to expectation					
2	Satisfied with all work performance					
3	Satisfied with the service received					
4	Satisfied with all the material used during the execution.					
5	Satisfied with the work scheduling					

**APPENDIX B****GHANTT CHART****FINAL YEAR PROJECT 1**

TASK \ WEEK	1	2	3	4	5	6	7	8	9	10	11	12	13	14
FYP 1 Briefing														
Supervisor Confirmation and Approved Title														
Introduction														
Problem Background/Issues, Problem Statement, Research Objectives.														
Literature Review														
Research Methodology														
References and Appendices														
Submit Report and Log book														
Presentation														

