

ASHESI UNIVERSITY COLLEGE

**THE IMPACT OF WORKSPACE DESIGN
ON SERVICE QUALITY**

LINDA OGBEDEI LARYEA

8th APRIL 2011

ASHESI UNIVERSITY COLLEGE

THE IMPACT OF WORKSPACE DESIGN

ON SERVICE QUALITY

BY

LINDA OGBEDEI LARYEA

Dissertation submitted to the Department of Business Administration,

Ashesi University College.

In partial fulfilment of the requirements for the award of a Bachelor of
Science degree in Business Administration

8th APRIL 2011

DECLARATION

I hereby declare that this dissertation is the result of my own original work and that no part of it has been presented for another degree in this university or elsewhere.

Candidate's Signature:.....

Candidate's Name: Linda Ogbedei Laryea

Date: 8th April, 2010

I hereby declare that the preparation and presentation of the thesis were supervised in accordance with the guidelines on supervision of thesis laid down by Ashesi University College.

Supervisor's Signature:

Supervisor's Name: Esi Ansah

Date 8th April, 2010

Acknowledgements

Saying thank you is not enough for a person like Dr. Esi Ansah, my supervisor for all encouragement, support and feedback given me throughout this whole study. The times where I was discouraged, you gave me the encouragement I needed. I am indeed grateful.

I am immensely grateful to my parents and family members for their support and all their encouragement. You have been a backbone for me. In my times of despair, you stood by me. Thank you!

Thank you to Mr. Essel Anderson for all your support and your continuous guidance during this project and your expert opinion on how things should be. Thank you to my parents who stood by me and sometimes even stayed awake with me through the sleepless nights. God bless you.

To students of Ashesi University who helped me collect my data, thank you for your help and unfailing support. To my friends Sophia Aryeetey, Akosua Antwiwaa Buabeng, Rosemond Adjei – Baah, Pedel Oppong Abebrese, Andara Kamara, Jacqueline Belba – Smith, Rachelle Konan, Afua Biney and Grace Essuman, thank you. You were great and of much help in guiding me through this study. You are the best.

The customers of Angel's Beauty Salon, Body Kitchen and Lily's Salon, this study will not have been possible without you. Thank you very much.

Abstract

This study was conducted to understand the relationship between workspace design and service quality and to find out whether the delivery of good quality service is affected by the design of a workspace. This was done by studying four salons; Angels Beauty Salon, Lily's Salon and Beauty Bank. The theoretical framework used in this study was adopted from Bitner's work, "A framework for Understanding Environment – User Relationships in Service Organisations," (1992).

Through observation and surveys the study showed that ambient conditions were rated averagely low in most case except for a few cases as compared to spatial layout and functionality factors which were generally rated high. However, the relationship between workspace design and service quality was not as strong as was expected and what had been discussed within literature. Most of the data collected was qualitative and sought to find the kind of relationship that exists between workspace design and service quality.

This study will be a blueprint for salons around Osu whose customers are usually students, to understand the factors to be considered when designing the workspace and to understand the relationship between workspace design and service quality. If all organisations especially in the services industry are paying attention to this, the companies can provide even better services to customers and also it will form as a competitive advantage to them unlike the organisations who know little about the subject area.

Contents

DECLARATION	iii
Acknowledgements	iv
Abstract	v
CHAPTER ONE.....	1
INTRODUCTION	1
1.1 Problem statement	5
1.2 Objectives.....	6
1.3 Methodology	7
1.4 Outline of the Dissertation	8
CHAPTER TWO.....	10
2.1 Workspace Design	11
2.2 Service Quality.....	17
2.3 Workspace design and Service Quality	22
2.4 Theoretical Framework.....	23
CHAPTER THREE	28
3.2 Research Sample and Data Source.....	28
3.3 Research Design.....	30
3.3.1 Sampling procedure	31
3.3.2 Operationalisation	31
3.3.3 Instruments	32
3.4 Data Collection Procedure.....	32
3.5 Data Analysis.....	32
CHAPTER FOUR	33
4.1 Demographic data for survey participants.....	33
4.2 Findings.....	35

CHAPTER FIVE	40
5.1 Introduction	40
5.1 Discussion	40
5.3 Limitations.....	52
5.4 Significance.....	53
5.5 Recommendations and Conclusion.....	54
Bibliography	57
Appendix	59

Table of figures

Figure 1.....	26
Figure 2.....	27
Table 1.....	34
Table 2.....	35
Table 3.....	35
Table 4.....	36
Table 5.....	36
Table 6.....	37
Table 7.....	37
Table 8.....	38
Table 9.....	38

CHAPTER ONE

INTRODUCTION

“One factor that affects knowledge worker performance that isn’t well understood is the physical work environment – the office, cubicles, buildings, and mobile workplaces in which knowledge workers do their jobs” (Davenport, 2005).

Employees of organisations are motivated by different factors to give off their best to the organisations in which they work. This motivation will in turn determine how employees do their work, especially where a service is involved. Some of the motivational factors range from the treatment received from employers and supervisors, compensation and benefits, the absence of conflicts, incentives, as well as the general working environment in the organisation. This study focused on the different factors considered in designing a workspace and how the design consequently affected service quality.

Workspace design is the design of the space or environment in which a particular job is performed. The physical work environment which includes the temperature of the room, humidity, ventilation, noise, light, and colour can have a negative impact on the design of jobs (Byars & Rue, 1991) and in fact how the job is performed. However, this negative influence may vary from individual to individual and may bring out different reactions from the employees in that environment. A good workspace design is said to have immense importance to how every job is performed.

A good workspace design also promotes employee satisfaction in various ways. In Herzberg's two factor model, working conditions is one of the hygiene factors. Hygiene factors in any job are needed to prevent the employee from being dissatisfied. However, their presence would not necessarily cause dissatisfaction. When employees are presented with an environment which makes them relaxed, it makes them feel important and hence allows them to increase the creativity needed for their jobs. The result of this is productivity (Zhang & Dran, 1999).

Productivity can come as a result of a good workspace design. This is because it allows employees to work hard for the organisation since they feel comfortable and well catered for. As a result of being well catered for, the employees do not find it difficult to work for the organisation whenever they were required to. A study conducted by a group of researchers showed that most of the employees of the organisations used mentioned that they will be willing to stay longer in the office to do more work if the design of the workspace was good (Hugo, 2008). 90% of the employees interviewed confirmed that an improved workspace design would positively influence their performance by 25% (Hugo, 2008). This is also due to the fact that the customers of that organisation enjoy being in that particular workspace and remain loyal to that organisation. These customers also tell other people about the organisation hence the organisation is able to retain their customer base and at the same time try to attract new customers. They therefore become ambassadors of the organisation and let other people know about how good the organisation is and how comfortable their workspace is.

A good workspace design in addition helps to reduce costs and thus saves money for the organisation. This is possible because a good workspace prevents a lot of accidents that could have occurred otherwise. There is also a reduction in the overheads used by the organisation in the case of accidents for the welfare of the employees. When this happens, it frees up more resources for the company such that the organisation can use it for something rather productive. "Businesses have a potential to make significant savings by making more efficient and more intelligent use of their work premises." (Hughes, 2011)

In certain organisations, the arrangement of the workspace has not been done well resulting in a good amount of space being used up. The redesign of these workspaces will help organisations to realise space that has not been utilised well. Some organisations have some equipment and other things that are not particularly useful in the workspace and this consumes a lot of space. When some of these things are eliminated from the workspace, it results in having more space for the organisation. When a good workspace is designed it helps use up space in the most efficient ways such that employees become more productive. During this process, unneeded space can be rented out to other people for revenue or used for some other productive work by the organisation.

A study was carried out by Byars & Rue on 23 basic office variables such as floor space per employee, temperature, lighting, windows, and work space privacy. The study concluded that companies can increase productivity

by up to \$1,674 per year for each professional and technical employee through improved design (Byars & Rue, 1991). There was another study in 2002 by Davenport involving the interview of 40 companies that had some initiative underway intended to improve the performance of high end – knowledge workers. It was revealed that most of the companies were able to achieve this by simply redesigning the workspace (Davenport, 2005).

All over the world, workspace design has been the major concern of many managers. Managers are concerned with how much money to spend on designing the workspace and giving employees and customers exactly what they want. The design of the workspace however is a major task because a lot of things have to be considered such as how many people share the space, how easy it will be for a person to move around the workspace and many other factors. In addition to this, workspace design can make the employee willing to work or disinterested in the work they are doing.

Workspace design is an important activity in human resources management. The ability of the physical environment to influence behaviours and to create an image is particularly apparent for service business such as hotels, banks, professional offices and hospitals (Bitner, 1992). For any organisation to be successful and be able to serve customers with the good quality that is acceptable by the customer, the employer must be careful in providing the right working environment for the employees. Just as some designs can discourage certain behaviour, “particular designs can encourage certain types of behaviour although they will never guarantee it” (Davenport,

2005). The physical surroundings are often more important service settings because customers as well as employees frequently experience the firm's facilities. Recently, the banks and restaurants have realised what it means to design the workspace and so have done a lot about their workspace to facilitate interactions between employees and customers.

1.1 Problem statement

In certain industries, set standards have forced the companies to use good workspace designs to a certain extent. For example, the banks have done well in designing the workspace to make interaction between the consumer and service provider smooth. A study conducted by a team of student researchers in 2011 discovered that banks have taken a lot of initiatives in designing the workspace environment to help with customer interaction. Abdulai mentioned that in Ghana, just like in other developing countries, the working environment is one of the biggest factors that is generally inimical to employee productivity and this is especially true in the public sector (Abdulai, 2000). A lot of organisations stand the chance of improving their productivity and service quality by fully understanding the impact that workspace design has on service quality. The impact of workspace design on service quality has not been explored to a large extent in a lot of fields. The main problem is therefore to find out the kind of relationship that exists between the design of a workspace and service quality. This study will therefore serve as a guide for organisation to

understand the importance of workspace design to achieving their organisational objectives.

Research Question

What is the impact of workspace design on service quality?

The aim of this study was to find out what the relationship between workspace design and service quality is. The ability to provide a good working environment for employees is a very good initiative by the organisations that do so. This research question was meant to help explore what the role of workspace design was in salons in Ghana and how it is affecting the quality of service that customers are getting from employees of the salons. This is because most Ghanaian organisations are still exploring workspace design and how it affects service quality. From conversations with a few heads of organisations, it was discovered that there are still a lot of options available to be explored in the design of workspaces.

1.2 Objectives

The main objective of this study was to

- Discuss the relationship between workspace design and service quality.

The specific objectives are to

- To find out how customers rate the workspace in which they receive a service

- To find out how customers would rate service quality in the given organisation
- Make recommendations regarding how the workspace can be redesigned to impact positively on service quality.

Significance of the study

There are a lot of researches conducted on the impact of workspace design on service quality outside Ghana especially in the United States. However, Ghana can be said to have just a few works being done relative to that of the United States. This study is therefore very important and significant to the local context because it will help organisations to understand the importance of workspace design in their organisations and how it can help them to give customers the quality of service that they require. This study will seek to provide a framework for organisations to provide a workspace that the employees will feel comfortable working in and thus motivate them to work diligently to produce maximum results. In addition it will add to current literature on the area of study and also help to make recommendations to the employees and management of the organisation as to how to design the workspace to encourage efficiency.

1.3 Methodology

This study will be conducted in three salons, Angels Beauty Salon, Body Kitchen and Lily's Salon. The study is qualitative and an exploratory one. Data collected will be analysed using the model proposed by Bitner (1992) which suggests that the physical environment in any workplace will

affect both employees and customers emotionally, cognitively and psychologically. The sample was chosen using snowball sampling procedure. The customers filled out the questionnaires on evaluating the workspace design and assessing the service quality being received from the service provider. The data analysis was mostly done by using Microsoft Excel and SPSS.

1.4 Outline of the Dissertation

Chapter 1: Introduction. Chapter 1 provides an introduction to the study and a detailed background of what the study will entail.

Chapter 2: Literature Review. This chapter will provide literature on the study and present evidence of what has been done so far on the subject area and the conclusions that were drawn on what was found. The literature review will be in the following areas: Workspace design, Quality Service and The relationship between Workspace design and service quality

Chapter 3: Methodology. The research design, methodology, sampling framework and procedures will be discussed in this chapter.

Chapter 4: Data Analysis. This chapter will present all data analyses. The presentation will be based on the objectives of the study as presented in chapter 1. It will include graphs, charts, tables and any relevant data needed to make a meaningful discussion.

Chapter 5: Discussion, Recommendation, Conclusion. This chapter will analyse all the data that has been presented and will discuss the findings. In addition, it will provide recommendations and conclude on the whole study.

CHAPTER TWO

LITERATURE REVIEW

It has become increasingly challenging to design new modern workspaces in a fast paced world (Johansson, Frost, Binder & Messeter, 2002). A pre – research survey revealed that workspace design still has a potential of developing in Ghana. A study by student researchers in Ashesi University College showed that some managers are still not very well informed about workspace design and its impact on service quality. “Spatial issues are seldom discussed when it comes to evaluating organisational performance. The buildings, of the premise, where the organisation performs its activities are often taken for granted” (Lindahl, 2004, pg. 253).

Most organisations have as their main concern their core business and do not seem to realise that workspace design can motivate and encourage employees to do very well at the work that they do and hence will be successful in the jobs that they perform in relation to the core business of the company.

Workspace design should be taken into consideration especially in service organisations where service is produced, purchased and consumed simultaneously (Bitner, 1992). This is because, usually, the interaction level between the customer and employee tends to be high and so any change or defect in the design of the workspace will be very evident and hence affect the service that is being received. Also, because services tend to be

intangible, a lot of emphasis is placed on the physical environment in which that service is performed. The dependency of both employees and customers on the physical environment to make the service delivery successful is becoming extensive. This chapter will discuss into detail the different studies that have been done shared in the area of workspace design and what kind of influence it has in different situations as well as what was concluded on each of them.

2.1 Workspace Design

Workspace design involves the arrangement of a workspace to facilitate the performance of jobs. The way in which the workspace is designed can affect the way in which work is done. A good workspace design can make a big difference in staff satisfaction, attraction, motivation and retention (Gutnick, 2007). Some of the most productive companies in the world are so because they realised the need to make their workspaces better such that employees will be able to relax and be creative in doing their work.

Some of these offices are SAS (Bankert, Lee, & Lange, 2000) and Google. SAS is a software developing firm which is known to take good care of its employees (Bankert, Lee, & Lange, 2000). In the study, it was mentioned that the “primary goal has been to create a workspace in which employees can produce real results because they are working in a fun, stimulating, and resource rich environment” (Bankert, Lee, & Lange, 2000, pg. 6). This was because the management wanted to increase productivity and effectiveness.

According to Bitner, workspace design considers a lot of factors such as lighting, colour, signage, texture, style of furnishing, layout, temperature and others. After reviewing a lot of works, she grouped them into three main factors which are

1. Ambient conditions
2. Spatial layouts and functionality and
3. Signs, symbols and artefacts.

Ambient conditions according to Bitner are factors that affect perception of, and human responses to the environment. Ambient conditions include characteristics such as temperature, lighting, noise, music and scent. Hundreds of decades spanning many decades have shown that lighting, temperature, noise, music and colour can all influence employee performance and job satisfaction (Sundstrom and Sundstrom 1986 as cited in Bitner, 1992). Most of the factors under the ambient conditions only mainly pose as a problem when they are at their worst such as when the music is too loud, the lighting is very low and the smell in the organisation is strong or unpleasant.

Spatial layout and functionality are factors that are very important in organisations especially when the main focus of the organisation is to provide a service. "Spatial layout refers to the way in which machinery, equipment, and furnishings are arranged, the size and shape of those items, and the spatial relationships among them" (Bitner, 1992). Functionality on the other hand refers to the ability of the same items to facilitate performance and the

accomplishment of goals (Bitner, 1992). In essence as spatial layout shows where to place what; functionality refers to how these things that have been arranged can facilitate performance. According to Bitner, little has been published about the effects of spatial layouts and functionality on customers in commercial service settings and lays emphasis on the fact that this is so because the spatial layout and functionality factors are highly salient to the customer in self-service environments where they must perform on their own and cannot rely on employees to assist them. This implies that if the service is in an organisation where the service is complex and reliant on the facilities in the organisation then the spatial layout and functionality will be of great relevance.

Signs, symbols and artefacts are some of the most abundant factors that you would find in any workspace. Most items in the physical environment serve as explicit or implicit signals that communicate with the users of the environment.

- Signs can be implicitly and explicitly displayed in an organisation for different purposes. When the signs are displaced on the exterior and interior of a structure they become examples of explicit communicators. These can be used in many forms for many purposes.

The typical functions are explained below.

- Labels: name of a department, name of personnel, etc.
- Directional purposes: entrance, exit, push, pull, etc.

- o Communication of rules and behaviours: no smoking, no phones, etc.

These are very important in communicating general information to customers without having to explain to every single one of the customers.

Unlike Bitner's work, this study will be focused on the ambient conditions and the spatial layout and functionality only and not the signs, symbols and artefacts. Also, Bitner considered how the physical environment was going to affect the interaction between an employee and a customer in the delivery of a service. This is where the focus of this study will change. This study will focus on how the design of the workspace affects the service quality given by the employees to customers. In addition, Bitner considered the impact on both employees and customers but this study will only concentrate on the customer and how they are affected by the design of the workspace.

In the article "Why Office Design Matters" (Davenport, 2000), Davenport discusses factors that needed to be considered when designing a workspace. This study was done on forty-one (41) employees of a company which had started taking initiatives to improve the performance of their knowledge workers. They particularly considered and addressed the issues of the physical work environment of the company. This study analysed how costly it is to design or redesign a workspace and some of the benefits that can be realised from it.

According to Davenport, workspace design in itself is not a clear concept because no one knows exactly what factors affect knowledge worker performance and how the factors interrelate. It was however discovered from the study that the even though knowledge workers prefer closed office, they communicate better in open ones. It was realised from the study that the more open the plan of the office environment was, the more conducive it was to overall work effectiveness in communication and interaction. This revealed that the people who are affected by workspace design themselves will not always know what makes them perform better.

In addition to this, he discovered that knowledge workers are drawn to and are made more productive by living in cities and regions where other knowledge workers reside. Examples from the study included Boston and Silicon Valley. The rationale behind this is that, if you know where you want to work and where they are located, it will be easier to relocate to that particular area to have an edge over the other people who are not within reach geographically.

In a lot of settings, it is common to see knowledge workers moving around the office intermittently to communicate and collaborate with their colleagues. This is what has also influence the decision of having an office that is fairly open to make it easier to move around to interact with other employees. This also includes making the environment outside of the office where work can be more conducive. Included in this is making facilities

readily available to workers to make work fruitful such as laptops access to books and other resources.

Knowledge workers should normally be provided with a quiet setting with only a few distractions if any at all. This is important because of the high level of concentration needed by knowledge workers to perform their jobs. Quiet environments would help the workers to think and be creative with whatever they are doing. It was mentioned that knowledge workers (programmers) spend 20 to 30% programming while devoting the rest of the time towards "quiet work" that is reflection and relaxing.

Davenport also found out that knowledge workers are not too concerned about the facilities that may be provided at the work place. For instance if a place was created for the workers to sit and relax when they want to take a break, the workers will hardly use this place. The reason which was revealed from this study is that the workers believe that if they seen there, it will create the impression that they are not working hard and are lazy.

These are a few of the factors discovered in Davenports' work. This work concentrates on how the physical surroundings affect knowledge worker and how they may respond to the changes. The gap to be filled in relation to Davenports' study will be to look at workers using their manual skills and not necessarily their knowledge. In addition it will look at how the customers rate service quality in relation to the design of the workspace.

2.2 Service Quality

Service quality is the customer's overall impression of the relative inferiority or superiority of the organisation and its services (Johnston, 1994). Service quality is determined by the person receiving the service and may differ from one customer to the other. Some of these determinants include friendliness of staff members providing the service, the amount of time it takes to receive a service, the way in which the service is packaged and other factors yet to be discussed. For any service to be well understood, they should first pass the test of being intangible, heterogeneous and inseparable. These are to help in understanding the quality of a service (Parasuraman, Zeithaml, & Berry, 1985).

Service quality in itself is more difficult to measure than the quality of goods that are provided for consumption (Parasuraman et al., 1985). When purchasing a service, there are only a limited number of factors to consider in judging quality unlike in goods. These include the physical facilities, equipment, and personnel (Parasuraman et al., 1985). In addition, Parasuraman et al. explained that quality is a comparison between expectation and performance.

In the work of Lehtinen and Lehtinen, 1982, they considered service quality in 3 dimensions. The first dimension is physical quality, the second one being corporate quality and the third one which is the interactive quality. Physical quality has to do with the physical aspects of the service. This stems from the fact that services are intangible and hence there will have to be an

emphasis on the physical aspect to make it easier for customers to evaluate. These physical factors include the equipment used, the building in which the service is delivered and also the arrangement of the environment.

Furthermore, they discussed the corporate quality which involves the company image or the company profile. This looks at the organisation as a whole and analyses the quality of management of that organisation and how others see the organisation mainly as a result of the kind and quality of service that is being offered. The third factor analyses interactive quality which is mainly derived from the interaction between the customer and the service provider or the employees of the service provider. It can also be as a result of the interaction between one customer of the service provider and another customer of that same service provider.

In terms of the outcome, Lehtinen and Lehtinen considered two approaches. They first of all considered the quality associated with the process of the service delivery and then considered the quality that is associated with the outcome of the service itself. This means that the end does not necessarily justify the means. Both have to be accurate such that the service would be said to be complete.

Unlike what was done by Lehtinen and Lehtinen, this study will focus on interactional quality and how that is affected by the design of the workspace and not concentrate on all the 3 factors. This is the gap that this study will fill in its analyses.

Service quality is determined by a number of factors. They determinants of service quality can be classified into 10 factors according to Johnston (Johnston, 1994). These same determinants were also proposed by another group of researchers as being the determinants of service quality (Parasuraman et al., 1985). Johnston in his study separated service quality determinants into two categories. These were satisfiers and dissatisfiers. Generally, the ten (10) determinants of success are access, communication, competence, courtesy, credibility, reliability, responsiveness, security, understanding and tangibles. These factors were also mentioned and discussed by Parasuraman et al., 1985. The relative importance of these factors will differ from one organisation to the other depending on the type of service industry.

Access describes how approachable and easy it is to gain access to management. This may be for various reasons. In some cases seeking access to management may be to make a complaint or a suggestion or sometimes to form stronger relationships with the management. Access also means how easy it is to encounter the service. It also addresses the issue of waiting time to encounter the service, convenient operating hours, convenient store location and other factors not mentioned. This study focused on accessibility in the light of how easy it is to interact with the management of the salons used.

Communication involves a process of providing the customer with effective information about a service. It could be in different languages to

overcome any barriers and varying the language depending on the type of consumer involved. It includes explaining the service itself, how much the service will cost, the trade off between the service and the cost, and communicating problems and suggestions or solution of problems to customers on time. For the purposes of this study, the concentration will be on how easy and convenient the interaction between the customer and the employee is.

Competence explains the possession of skills and knowledge to perform a particular activity or task. This entails the knowledge and skill of the contact person. This is how it was used in this study.

Courtesy involves friendliness of personnel, politeness, respect, consideration and the like. It may also involve the employees present themselves as in how they dress and look. In addition, it considers the property of an individual and gives enough room for making mistakes. This study will concentrate on courtesy in terms of how friendly and respectful the employees the organisation is.

Credibility means being trustworthy, believable, and honest. Other factors also affecting credibility is the brand that the organisation has, the physical appearance of the employees. Being trust worthy and honest were considered in this study.

Reliability involves consistency of performance and dependability. This implies that you can depend on the organisation to perform a particular job right irrespective of the number of times that they have tried it. Billing must

be accurate and so must records keeping. In addition to all these, the service must always be done at the time that it is supposed to. Reliability in this study was analysed using the consistency of performance and how dependable the service and service provider are.

Responsiveness is concerned with how willing and ready the employees are to perform services that are required of them. Included in this is the timeliness of a service. These may involve providing prompt services, ensuring that there as quick responses to all issues and problems that the customer could have. This study concentrates on how willing and ready that a service providers' employee is to perform a task or to assist a customer.

Security is being free from danger, risk, doubt and safety, financial security, and confidentiality. Security must be in three different phases. These include physical safety, financial security and confidentiality. This study will focus on the how safe the customer is in dealing with the employees of the service provider and the level to which the employees could be said to keep confidential information.

Understanding involves knowing the customer's needs and requirements. This means that the employee must be able to anticipate need of client and get the things needed. For the purposes of this study the focus will be on if the employee knows the service that they were asking.

Tangibles included the physical factors that are seen in the service. Physical evidence of servicescape, appearance of the personnel and tools needed to provide the best quality service. This study will concentrate on the

outcome of the service, the physical environment and the appearance of the personnel.

In Johnston's research, he asserted that there are some determinants which happen to be a primary source of dissatisfaction while there are others that are primary source of satisfaction (Johnston, 1994). After the study, the conclusion was that for the banks, the main sources of satisfaction were attentiveness, responsiveness, care and friendliness. The main sources of dissatisfaction are lack of integrity, reliability, responsiveness, availability and functionality (Johnston, 1994). Quality in a work done was defined as "zero defects – doing it right the first time" (Parasuraman, Zeithaml, & Berry, 1985).

2.3 Workspace design and Service Quality

Many studies have been done to link workspace design with service quality in many organisations and contexts (Bitner, 1992). The link that has been drawn so far is that, with a good workspace design, there is likely to be delivery of good service quality and with a bad workspace design, there is likely to be delivery of bad service quality (Bitner, 1992). In service organisations the same physical setting that communicates with and influences customers may affect employees of the firm. The creation of a stimulating workspace can increase employees' satisfaction and performance seriously (Australian School of Business, 2010). The model for services for the physical setting can aid or hinder the accomplishment of both internal organisations goals and external marketing goals (Bitner, 1992). The

importance of physical setting in any organisation will depend on the nature of the job that is being performed and the nature of the consumption experience (Bitner, 1992).

The physical surrounding in most service organisations tend to be more important because the customers as well as the employees often experience the firm's facilities (Bitner, 1992). Organisations such as banks, hotels, hospitals, restaurants, schools, airlines and others need to be very particular about the design of the workspace because it can make them a service organisation of choice. Environmental psychologists suggest that individuals react to places with two general and opposite forms of behaviour which are approach and avoidance (Mehrabian and Russell, 1974 as cited in (Bitner, 1992)). Mehrabian and Russell assert that the approach behaviour includes all positive behaviour that might be directed at a particular place, such as desire to stay, explore, work, and affiliate. Avoidance behaviour on the other hand includes a desire not to stay, explore, work, and affiliate (Mehrabian and Russell, 1974 as cited in (Bitner, 1992)).

2.4 Theoretical Framework

The diagram below explains how the environment in which a person interacts can result in the demonstration of a particular behaviour. The framework has been adopted to suit the area under discussion. The diagram depicts that the physical environment is made up of ambient conditions, spatial layout and functionality and signs symbols and artefacts. These three dimensions come together to form the servicescape in which a service will be

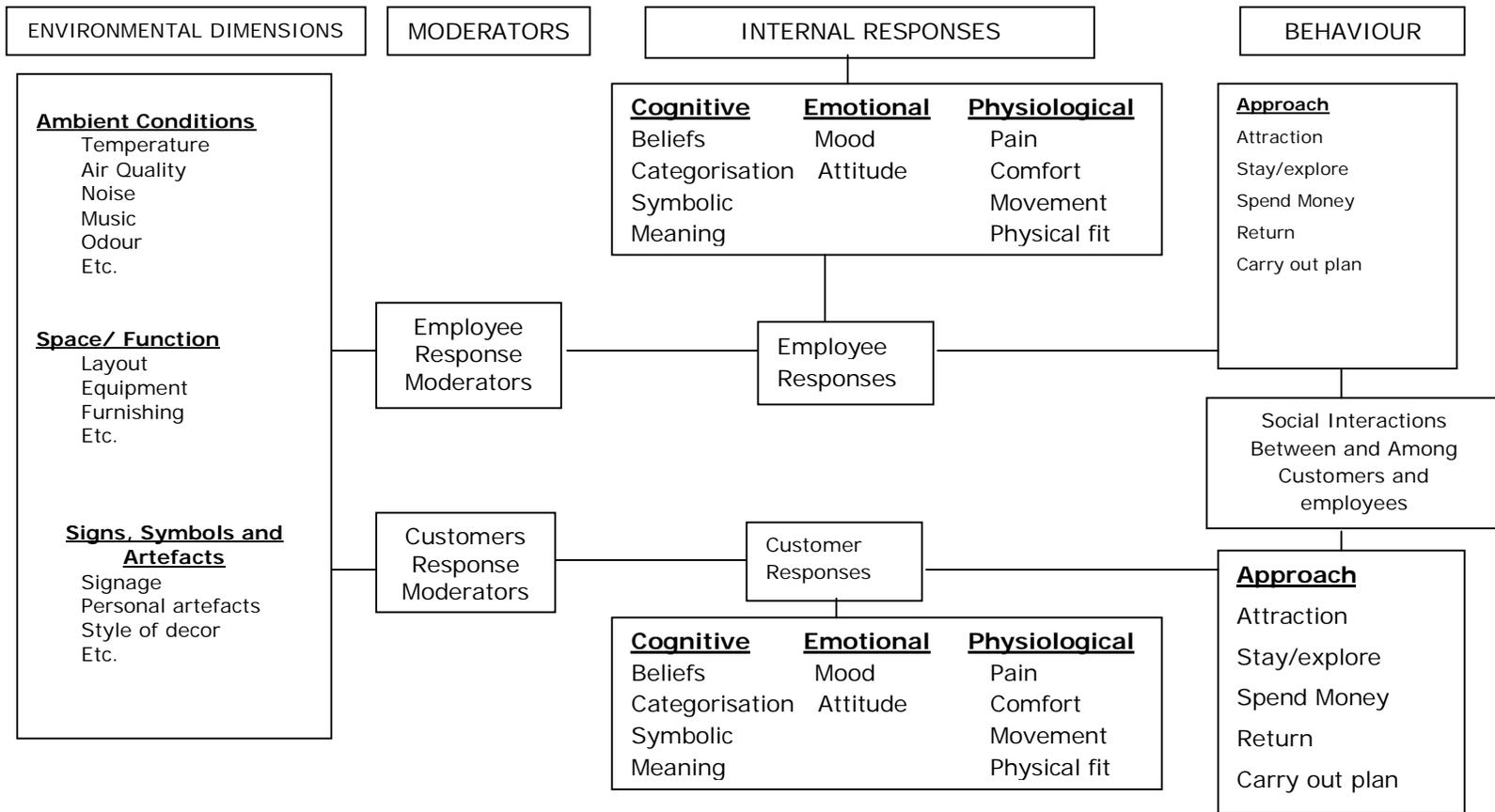
performed. A combination of this is experienced by the customers and employees who happen to be the moderators of the servicescape as mentioned in the framework. These then result in certain internal behaviours which may be cognitive, emotional and psychological. When a person is conversant with a particular workspace, they are mostly drawn to it and this is what has been described as approach in the framework. On the other hand, when the workspace is not appreciated there is avoidance of the workspace to a place where both the customer and the employee are more conversant. This will then show what kind of attitudes that customers and employees will have that is whether to continue working or not, whether to come back to the organisation or not.

Occasionally, a lot of customers end up spending more than what they had planned to because the environment actually encourages it. In addition, they tell others about the service of that organisation and encourage them to try it out resulting in a larger customer base for the organisation. The customers themselves tend to stay with the company and tolerate mistakes that are made occasionally. It is also beneficial to the organisation because the customers may still stay loyal to the company even if the core service is not too good only because the supplementary services and the workspace design are good.

The employees enjoy working in a good workspace. This will lead to reduced sabotage, higher productivity levels, better service delivery, low turnover rates because they feel comfortable working in that organisation. In

addition to this, they treat customers well and make sure that whatever they do, it is in the best interest of both the organisation and the customer

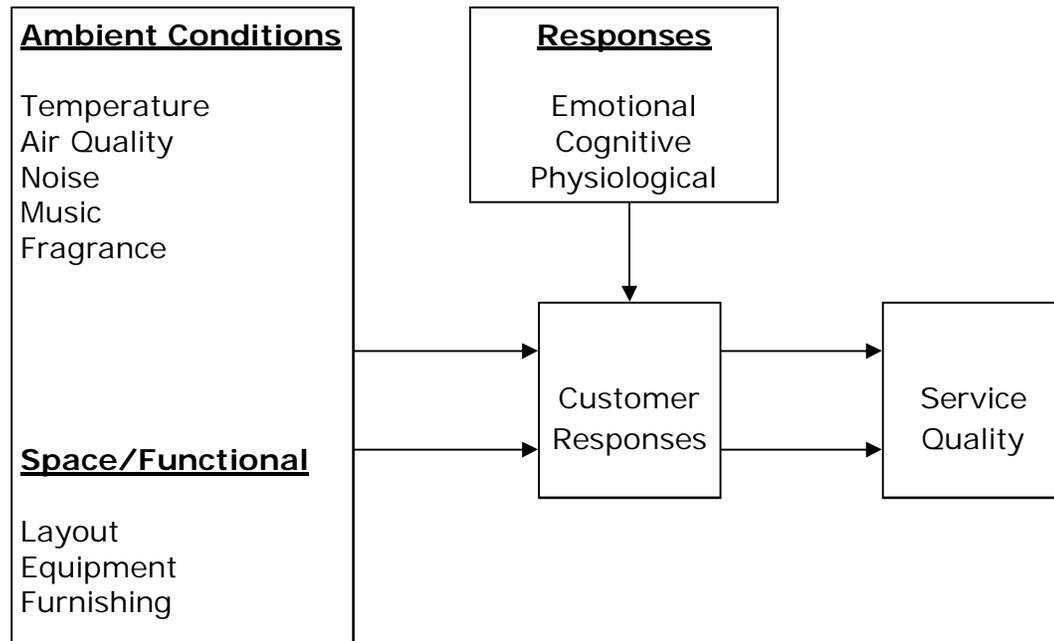
Figure 1: Showing the framework of Bitner’s work for understanding the impact of workspace design on interaction between customers and employees



Adopted from Bitner (1992)

Cognitive Map

Figure 2



Adopted from Bitner, 1992

This cognitive map illustrates how the different factors of workspace design made of ambient condition factors and spatial layout and functionality factors affect service quality for the purposes of this study. The employee and customer responses are a function of this environment which results in emotional, cognitive and physiological factors. These factors affect both customers and employees. The workspace design, together with all its factors, combine to give one effect which is the service quality received. The following paragraphs will use this cognitive map as the main frame work to understanding the factors of workspace design and how it will affect the customer in the receipt of a service.

CHAPTER THREE

METHODOLOGY

3.1 Research Proposition

This research focused on the impact of workspace design on service quality in salons. The research was based on a framework that suggests that “a variety of objective environmental factors are perceived by both customer and employees and that both groups may respond cognitively, emotionally, and physically to the environment” (Bitner, 1992). It goes on to explain that those internal responses in the environment influence the behaviour of individual customers and employees in the servicescape and affect social interactions between and among customers and employees (Bitner, 1992). The research was meant to be deductive in nature because it tried to make inferences from the general theory that was used in the work. This chapter outlines the research design, instruments, data collection and analysis techniques employed.

3.2 Research Sample and Data Source

Three salons will be used for this study. These three salons are Angels Beauty Salon, Body Kitchen and Lily's Salon. This is because:

- Salons are some of the organisations with consistency in terms of their customers. Most customers of the salons would have been with the salon for a while. The chances of getting meaningful feedback from a person who has been with the salon

and knows the salon very well will be high. Hence the information received from the respondents will be reliable.

- Salons are organisations with high interaction between customers and employees due to the kind of service rendered by the salon and the sensitivity requirements of each customer.
- The three salons chosen are close and have a number of customers that one can easily get access to. Some students of Ashesi University College are customers of these three salons.
- The three salons used will help to gain different perspective and representativeness for the study.

Angels Beauty Salon is a salon in Osu around the African market. This salon is fast becoming one of the most popular salons among the young people. Their services range from braiding, through weaving, manicure, pedicure, relaxing hair, setting and styling. The salon has about 10 employees and is owned by just one person.

Body Kitchen is a salon at Danquah Circle in the same building with McAshley driving school. It is mostly popular within students reside in the Ashesi University Danquah hostel and also offer the same services as Angels beauty Salon that is ranging from braiding through to styling. In addition to this however, they have a section in the salon as a barbering shop and a room for massaging. There are 6 employees in this salon and is also owned by one person.

Lily's salon is located in the South La Estates on the first street. This salon is particularly popular with people living in the South La Estate and particularly the hostels in that area. The services offered in this salon include braiding, setting, styling, cutting, weaving, manicure, pedicure and so on.

3.3 Research Design

Data used for this study was a combination of qualitative and quantitative data. Most of the quantitative data were used to rate the service quality and the qualitative data will be on the evaluation of workspace design. Observations were used to evaluate the workspace and mainly to observe the interactions between employees and customer and how comfortable the employee was in his or her workspace. Questionnaires were used to evaluate

1. How customers would felt about the workspace in which they received
2. The rating of service quality by the customer
3. What the customer would like to see changed about the workspace design.

Initially interviews were to be used for managers of the organisations to find out exactly what was considered into creating the workspace the way it is and to find out if recommendations can be made to make it more effective in impacting positively on service design. Interviews will be used for this purpose because it will facilitate for more in – depth analysis of what the company's considerations were in designing the workspace.

3.3.1 Sampling procedure

This study used snowball sampling to find all the information needed. Snowball sampling was used because it was easier and less costly as compared to the other methods. Also, it was faster since most of the respondents were referrals by people known to be with the salons being used for the survey. The sample size was initially 32 people with 24 being customers of the salons thus 6 in each case. The other 8 people will be the employees of the four various salons, two from each. However, as the data collection one salon was reluctant to provide information and all the employees were not ready to provide information. Hence the number of respondents was changed to 30 customers with 10 from each of the three salons.

3.3.2 Operationalisation

- **Workspace design**

Workspace design is the design of the space or environment in which a particular job is performed. In this case, workspace design will consider two factors out of the three. The two are the ambient conditions and the spatial layout and functionality.

- **Service quality**

Service quality is the customer's overall impression of the relative inferiority or superiority of the organisation and its services (Johnston, 1994). Service quality according to Johnston are ten in all and include access,

communication, competence, courtesy, credibility, reliability, responsiveness, security, understanding and tangibles

3.3.3 Instruments

Questionnaires were used as instruments to find out how customers feel about the service that they receive and also what they would like to see changed about the workspace design. Questionnaires were chosen because they will reach a larger population in a short time as compared to interviews.

Observations were used alongside the questionnaires to evaluate the interaction between the customers the employees of the organisation.

3.4 Data Collection Procedure

Surveys were available for customers on campus for a week. It was available between one Wednesday and the next one the following week. The observations were done on that weekend.

3.5 Data Analysis

The qualitative data was analysed using SPSS while the quantitative data was analysed using Microsoft Excel. The kind of questions asked were mainly be qualitative and will required answers that will be qualitative but the coding of the questions was quantitatively.

CHAPTER FOUR

DATA PRESENTATION

All the analyses of data for this study were made using the data collected from the 30 respondents. These respondents are the customers of the three salons used for the study. The responses for the study were acquired from the questionnaires filled by the customers of the salon. The data collected was to assist in answering the research questions posed in the first chapter of this study. These questions include,

- What is the impact of workspace design on service quality?
- How do customers feel about the workspace in which they receive the service?
- How do customers rate the service quality that is received from the organisations?

4.1 Demographic data for survey participants

Out of the 30 respondents, 44% had been customers of the salons for more than 2 years. Also, 30% of the respondents had been customers of the salon between 1 and 2 years. Majority of the respondents (73%) go to the salon just once a month. All respondents (100%) fell into the age bracket of 21 – 25 years. The same result was found in the case of gender with 100% being female and also educational lever with 100% being undergraduates.

Table 1: Showing the demographic data of the study

Question Asked	Factor	Percentage
Length of Time with the Salon	Less than 6 months	23%
	Between 6 months to 1 year	3%
	Between 1 and 2 years	30%
	More than 2 years	44%
Frequency of Going to the Salon	Once a month	73%
	Twice a month	10%
	Three times a month	10%
	No Response	7%
Age	15 -20 years	0%
	21 - 25 years	100%
	26 - 30 years	0%
	31 - 35 years	0%
	36 and Above	0%
Gender	Male	0%
	Female	100%
Highest Educational Level	JHS	0%
	SHS	0%
	Undergraduate	100%
	Post Graduate	0%
	HND/Polytechnic	0%

4.2 Findings

Objective One: Discuss the relationship between workspace design and service quality.

The table below shows the relationship between the overall workspace design and access as a service quality determinant. It was found out that 19 people agreed to the good design of the workspace. 68% out of these people also strongly agreed that they were easy access to management.

Table 2

Count		Crosstab					Total
		Easy of Access to Management - Access					
		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	
Overall Design	Strongly Disagree	1	0	0	1	0	2
	Disagree	0	2	0	0	0	2
	Neutral	1	2	1	1	1	6
	Agree	0	2	0	4	13	19
	Strongly Agree	0	1	0	0	0	1
Total		2	7	1	6	14	30

Table 3

Count		Crosstab				Total
		Always Courteous - Courtesy				
		Strongly Disagree	Disagree	Neutral	Agree	
Overall Design	Strongly Disagree	1	0	0	1	2
	Disagree	0	1	0	1	2
	Neutral	0	2	3	1	6
	Agree	0	2	1	16	19
	Strongly Agree	0	0	0	1	1
Total		1	5	4	20	30

The table above shows the relationship between workspace design and courtesy. 84.2% of the 19 customers who rated the workspace design as being good also agreed to the fact that the employees were courteous.

Table 4

		Crosstab					
Count							
		Friendly Employees - Courtesy					
		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Total
Overall Design	Strongly Disagree	1	0	0	1	0	2
	Disagree	0	1	0	1	0	2
	Neutral	0	1	4	1	0	6
	Agree	0	0	3	2	14	19
	Strongly Agree	0	0	0	1	0	1
Total		1	2	7	6	14	30

The table above represents the relationship between the overall design and courtesy of employees of a salon. Out of the 19 customers who agreed that the design of the workspace was good, 73.68% agreed that the employees were credible.

Table 5

		Crosstab				
Count						
		Consistent Performance - Reliability				
		Disagree	Neutral	Agree	Strongly Agree	Total
Overall Design	Strongly Disagree	0	0	1	1	2
	Disagree	1	0	1	0	2
	Neutral	1	3	2	0	6
	Agree	0	1	12	6	19
	Strongly Agree	1	0	0	0	1
Total		3	4	16	7	30

The table above describes the relationship between workspace design and reliability. It was found that 94% of the respondents who agreed to the workspace design being good also agreed to the employees being reliability.

Table 6

Count		Crosstab					Total
		Safety with Employees - Security					
		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	
Overall Design	Strongly Disagree	1	0	0	1	0	2
	Disagree	0	2	0	0	0	2
	Neutral	0	3	2	1	0	6
	Agree	0	0	3	11	5	19
	Strongly Agree	0	1	0	0	0	1
Total		1	6	5	13	5	30

The table above shows the relationship between workspace design and how secured the customers felt about the employees. 84% percent of the respondents who agreed to the good workspace design in the salons also agreed that they felt secured with the employees.

Table 7

Count		Crosstab				Total
		Employees know my needs and requirements well - Understanding				
		Disagree	Neutral	Agree	Strongly Agree	
Overall Design	Strongly Disagree	1	0	1	0	2
	Disagree	2	0	0	0	2
	Neutral	0	3	3	0	6
	Agree	1	2	15	1	19
	Strongly Agree	0	0	0	1	1
Total		4	5	19	2	30

The table above shows that there is a relationship between the overall workspace design and understanding the customers' needs. Out of the 19 respondents 84.2% who agreed that the workspace design was good also agreed that the employees understood the needs of the customer.

Objective two: To find out how customers rate the workspace in which they receive a service

Table 8

Factors	Agree	Strongly agree	Agree and Strongly agree	Percent age
Lighting Conditions	8	16	24	80%
Noise Level	15	6	21	70%
Appropriate Temperature	13	6	19	63%
Availability of equipment	8	15	23	77%
Air Quality	20	0	20	67%

The second objective of this study was to find out how customers felt about the design of the workspace in which they received the service. Customers were found to have rated the ambient conditions of the environment very highly. This can be confirmed by the observations made. The table above shows how the ambient conditions in the salons were rated.

Table 9

Factors	Agree	Strongly agree	Both	Percentage
Chair Arrangement	7	18	25	83%
Mirror Position	9	17	26	87%
Table positions	9	15	24	80%
Chair Positions	20	6	26	87%
Allocated space to employees	16	6	22	73%
Chair Types	18	8	26	87%
Furniture Sizes	18	4	22	73%
Creative furniture shapes	14	2	16	53%
General arrangement	19	1	20	67%
Overall Design	19	1	20	67%
Design V working fast	4	13	17	57%
Design V working effectively	4	15	19	63%
Design V Easy interaction	7	14	21	70%

spatial layout and functionality factors were also evaluated to find out exactly how the customers felt, generally, highest ratings came from chair

arrangement, mirror position, table position, chair positions and the chair types used in the salon. This table gives an overview of how the spatial layout and functionality measures were evaluated. A more detailed analysis has been provided in the discussion section in the next chapter.

Objective three: To find out how customers would rate service quality in the given organisation

The service quality determinants in this study were found to be good just a little above average. The table below shows what was found out by the customers responding to the questionnaires.

Factors	Agree	Strongly agree	Both	Percentage
Ease of Access to management	6	14	20	67%
Good knowledge to perform	20	4	24	80%
Courteous Employees	20	0	20	67%
Friendly Employees	6	14	20	67%
Take advice of employees	14	5	19	63%
Personal characteristics of employees	15	4	19	63%
Consistent performance	16	7	23	77%
Dependable employees	13	4	17	57%
Willingness to perform	13	5	18	60%
Safe with employees	13	5	18	60%
Know my needs	19	2	21	70%

CHAPTER FIVE

DISCUSSION, RECOMMENDATIONS AND CONCLUSION

5.1 Introduction

Workspace Design is the arrangement of the physical surroundings of a particular workspace. It normally had 3 different dimensions but two were concentrated on for this study which happens to be ambient condition and spatial layout and functionality. Service quality on the other hand is the overall assessment of how inferior or superior a service is. After the analysis of the data, it was concluded that, the factors of workspace design are related to service quality. The relationship however is a negative one which goes against all that literature has been trying to prove.

This study was based on the framework of Bitner in 1992 on the physical environment of any organisation. This would be the main theory for discussing the findings and for making recommendations for the salons.

5.1 Discussion

The factors of workspace design used to facilitate this discussion were adopted from the framework for Bitner, 1992. This theory asserts that the physical environment of the workspace especially for a service provider is very important and does affect both the customer and the employee for the service provider emotionally, cognitively and physiologically. This primary aim of this study was to establish a relationship between workspace design and service quality and to know what kind of impact the workspace design has on service quality. All literature provided for this study were not able to

look at the impact of workspace design on service quality but rather on other factors. This therefore implies that the data analyses to be done for this work will be done on a completely new basis.

It was understood from the data analysis, specifically, regression analysis that workspace design does have an impact on service quality. The main issue of concern is to find out how much of an impact that the workspace design has on the service quality. The relationship between these two factors was seen to be negative and not very strong. Basically, this goes against all studies that have been done that the workspace design impacts positively on workspace design. The theory suggests that workspace design will affect service quality and hence this discussion will focus on the factors of workspace design.

Cross tabulations as well as the Pearson chi square were used to analyse the relationship between the different factors used in the study. The Cramer's V coefficient was used to understand the strength of the relationships between the any of the two variables under review. All tables generated in relation to the Cramer's V can be found in the appendix from pages III – XV

5.2.1 Relationship between workspace Design and service quality: Access

Access to management looks at how easy it is to communicate with management of the salon and how available they are for any customer complaints and issues.

The cross tabulation analysis was run between the overall design of the workspace and how easily the customers have access to the management of the salons which is termed access as one of the determinants of service quality. Table 2 illustrates a relationship between the overall design of a workspace and the ease of access to management for the salons. 19 customers who rated the overall design of the workspace agreed to the fact that the overall design was good. However, 13 customers out of the 19 rated the ease of access to management as being very good.

The Pearson Chi square as indicated in the appendix A, has a value of 28.578, degree of freedom of 16 and is very significant (0.027) since it falls within the significance level of 0.05. The Cramer's V however is showing that there is a relationship between the two variables. Ever though it is not able to measure the direction of the relationship it shows the relationship is as strong as 0.488 (48.8%).

5.2.2 Relationship between workspace Design and service quality: Competence

A cross tabulation was run to assess the relationship between the overall design of a workspace and how it is correlated to how the employees work that is, competence. The appendix B table in the appendix shows that there is a relationship between the overall design of the workspace and the competence of employees. Competency is demonstrated when the employee has the necessary skills needed for a particular task to be performed and also having the required knowledge to work effectively.

In general 19 people representing 63.33% of the relationship agree to the fact that the workspace design had been done well. Out of these 19 people, 14 of them agreed that the employees had the knowledge that was required of them to perform their jobs. Also, 4 out of the 19 who agreed that the overall design of the workspace was good strongly agreed that the employees were competent in performing their jobs.

The Pearson's R chi square showed a value of 10.421, degree of freedom of 12 and a relationship between moderately strong. The strength is as high as 34% according to the Cramer's V. However, this positive relationship cannot be said to be significant because it does not fall within the significance level of 0.05.

5.2.3 Relationship between workspace Design and service quality: Courtesy

Courtesy is defined as the friendliness of personnel who deliver a service and how polite they are in interacting with customers. This analysis was done in two parts. When the employees of a particular service provider fail to interact properly with the customer, the customers sometimes feel insulted and not appreciated as observed in the salons. This shows how important courtesy is in any service setting. First of all to find out if the employees were consistently polite. Out of the 19 customers who agreed to the workspace design being good, 16 customers also indicated that the employees were courteous and friendly. This represents a little over half of the population who took part in the survey being 53.33%. Workspace design was found to have a positive relationship with courtesy as indicated by the

respondents of this study. This was indicated in the chi square analysis generated.

Crosstab						
Count		Always Courteous – Courtesy				Total
		Strongly Disagree	Disagree	Neutral	Agree	
Overall Design	Strongly Disagree	1	0	0	1	2
	Disagree	0	1	0	1	2
	Neutral	0	2	3	1	6
	Agree	0	2	1	16	19
	Strongly Agree	0	0	0	1	1
Total		1	5	4	20	30

The Pearson chi square has a value of 28.368 and degree of freedom of 12. There is however a relationship between the design of the workspace and courtesy as illustrated in the chi square tests. This relationship can be seen to be very significant because it has a significance value of 0.005 which falls within the significance level.

The second part of this measure was to look at how friendly the employees are. 46% of the population agreed to the fact that the salons had been designed well overall. In addition to this, the same 46% strongly agreed that the employees of the salon were friendly. This is illustrated in the table below.

Again, there was a relationship between the design of the workspace and how friendly employees were. The strength of the relationship between the two variables is 56.1% according to the Cramer's V. This is because as indicated in Bitner's work, the design of the workspace helps to motivate the employees because they feel well catered for and also because they feel as being part of the organisation and hence stay with the organisation. This

helps to improve the quality of service that the employees give to the customers of the salon.

Crosstab							
Count							
		Friendly Employees - Courtesy					Total
		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	
Overall Design	Strongly Disagree	1	0	0	1	0	2
	Disagree	0	1	0	1	0	2
	Neutral	0	1	4	1	0	6
	Agree	0	0	3	2	14	19
	Strongly Agree	0	0	0	1	0	1
Total		1	2	7	6	14	30

There is a relationship that was between the design of a workspace and how friendly the employees of a salon are. It was illustrated in the cross tabulations that the Pearson Chi square value is 42.450 and the degree of freedom being 16. This is a very significant at a significance level of 0.000. There is also a relationship between the two variables which is as strong as 59.5% as according to the Cramer's V.

5.2.4 Relationship between workspace Design and service quality: Credibility

The table in appendix cross tab 5 shows that out of 19 respondents that who agreed to the good design of workspace, 12 also agreed that the service quality in terms of credibility of employees was also good. In addition, 5 people strongly agreed that the employees were credible in what they did and said. There is a relationship as high as 58.2% with a Pearson Chi Value of 30.536 and significant at 0.002.

A similar result was arrived at in terms of taking the advice of the employees and the good personal characteristics of the personnel. The value of the Pearson Chi square in the second case is 24.009 respectively. They were all significant at the significance level of 0.020. The Cramer's V illustrates a relationship as strong as 51.6%.

This can be related to Lindahl's work that the design of the workspace can affect the organisational issues. Included in this is the fact that when a person walks into a service factory, the way it looks and feels and the way the employees are dressed affects the way in which the organisation is viewed. All the salons looked well arranged from observation. It is therefore logical that a person would find the employees of these organisations as being credible and will take their advice when the customers need it.

5.2.5 Relationship between workspace Design and service quality: Reliability

Reliability measures the extent to which the customers can rely on the employees of the salon to do exactly what they had asked them to do as well as the extent to which the employees could be relied on to produce consistent results. As illustrated in the appendix G, out of the 19 customers who agreed to have a good workspace design, 12 customers agreed that the employees were reliable while 6 strongly agreed that the employees were reliable. This is confirmed in literature in the work of Bitner indicating that the design of the workspace can affect the extent to which the customers rely on the service provider or the employees to produce the best results possible whether they are told or not.

There exist a positive relationship between workspace design and reliability of the service provider or the employees of the salon. Since reliability is one of the service quality determinants, it could be inferred that there is a relationship between workspace design and service quality. The Pearson Chi square has a coefficient of 45.881 and degree of freedom of 12. All these results are significant at a significance level of 0.000 as illustrated in Cross Tab 7 in the appendix. The Cramer's V shows a relationship of 71.4% between the two factors.

5.2.1 Relationship between workspace Design and service quality: Responsiveness

Responsiveness measures how willing and ready the employees are to perform or to render services that are required by the customer. It was realised that 11 out of the 19 who agreed that the workspace was good also agreed that the employees were responsive. In addition, another 5 respondents strongly agreed that the employees were responsive.

How quickly and effectively an employee goes about performing their duties can be affected by the way in which the workspace is designed (Bitner, 1992). The design of a workspace could be to help avoid or reduce accidents as much as possible and this stems from how easily both the customer and the employees can move around in the salon. Loud music could also serve as noise such that instructions given by the customer is not well heard or understood by the employee. This will reduce productivity and efficiency mainly because it will increase accidents in the salon and also encourage clumsiness.

It was not surprising that there is a relationship between the two variables as indicated by the generated chi square analysis. The Pearson Chi square had a value of 24.831 with a degree of freedom of 12 and a significance level of 0.016 which is very significant. There is a relationship between the two variables as indicated by the Cramer's V. This relationship is as strong as 52.5%.

Crosstab					
Count					
	Willingness and readiness to perform - Responsiveness				Total
	Disagree	Neutral	Agree	Strongly Agree	
Overall Design Strongly Disagree	1	0	1	0	2
Disagree	2	0	0	0	2
Neutral	2	3	1	0	6
Agree	0	3	11	5	19
Strongly Agree	1	0	0	0	1
Total	6	6	13	5	30

5.2.7 Relationship between workspace Design and service quality: Security

Crosstab						
Count						
	Safety with Employees - Security					Total
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	
Overall Design Strongly Disagree	1	0	0	1	0	2
Disagree	0	2	0	0	0	2
Neutral	0	3	2	1	0	6
Agree	0	0	3	11	5	19
Strongly Agree	0	1	0	0	0	1
Total	1	6	5	13	5	30

As seen in the table above, 11 customers out of the 19 who agreed by the fact that the design of the workspace design also agreed that they felt

secured with the employees of the organisations. In addition to this, another 5 customers strongly agreed to the fact that they felt secured in the salons. Security is defined as how safe, financially secured and confidential the customers of an organisation felt about a service and the service employees.

As suggested in Lindahl's work, the look of the organisation and the employees of the organisation can affect the way in which the customers will feel about a service. As the observation was done it was realised that the customers who came into the salon did so with confidence and felt comfortable with the employees of the salons. In one particular salon a person who was later on discovered to be new in the salon looked around before she finally came in to sit to do what she wanted to so.

There is a relationship between the two variables and this relationship is as strong as 52.5% and to also be very significant at a significance level of 0.001 with a Pearson value of 38.472 and degree of freedom of 16.

These are the relationships that are most significant for the purposes of measuring service quality in this study. On the whole it could be said that workspace design has an impact on service quality.

5.2.1 Ambient Conditions

The second objective of this study was to find out exactly how customers felt about the workspace in which they were receiving a service that is, the salons. The workspace design is divided into 2 factors for the purposes of this study. The analyses were done by first looking at the ambient conditions and then the spatial layout and functionality and then the

two factors put together. This was to find out if the results would be different if the two factors were put together as opposed to using them individually.

Factors	Agree	Strongly agree	Agree and Strongly agree	Percent age
Lighting Conditions	8	16	24	80%
Noise Level	15	6	21	70%
Appropriate Temperature	13	6	19	63%
Availability of equipment	8	15	23	77%
Air Quality	20	0	20	67%

Any factor above 50% was said to be of significance for this study. Of all the factors that were used to determine the ambient conditions, it was realised that the factors listed in the table above we said to be very good in the salons. This can be explained by the fact mentioned in the work of Bitner that ambient conditions will only pose as a problem when pushed the extreme in all situations. This would happen if the light was too low for reading and working, if the salon was too hot or if the noise level in the salon was more than what could be borne by the customers. Overall, when all the factors that were agreed to as being good are put together, it produces a result of approximately 72% demonstrating that 72% of the population actually agreed to the fact that the factors listed above were good in all the salons. From the observations made during the data collection period it can be confirmed that the factors listed above were indeed good for each of the salons.

5.2.9 Spatial Layout and Functionality

The table below shows the ratings of the spatial layout and functionality factors in the salon. On the whole, it could be seen that 73% of the total respondents agreed to the factors listed in the table below that they

were good in the salons. The highest rated factors in terms of spatial layout and functionality are the position of mirrors, chair positions and chair types. The lowest rated factors whether the furniture types used in the salon were creative or not and the others as indicated in the table below. Also, in line with the observations, these results could be relied upon to be accurate in terms of rating the workspace.

Factors	Agree	Strongly agree	Both	Percentage
Chair Arrangement	7	18	25	83%
Mirror Position	9	17	26	87%
Table positions	9	15	24	80%
Chair Positions	20	6	26	87%
Allocated space to employees	16	6	22	73%
Chair Types	18	8	26	87%
Furniture Sizes	18	4	22	73%
Creative furniture shapes	14	2	16	53%
General arrangement	19	1	20	67%
Overall Design	19	1	20	67%
Design V working fast	4	13	17	57%
Design V working effectively	4	15	19	63%
Design V Easy interaction	7	14	21	70%

In addition, three important factors (last three rows of the table above) show that 57% of the total respondents agreed to the fact that the design of the workspace helped employees to work fast. In the same vein, 63% agreed that the design of the workspace was helping the employees to work effectively while 70% agreed that it facilitated easy interaction between the customers and the employees of the salons. On the whole, 67% of the population believed that the overall design of the workspace was good. This is relevant to this study because this particular variable will be run against all

the determinants of service quality to find out what kind of relationship the overall design has with service quality.

5.2.10 Service Quality

Averagely, the factors determining service quality were found to be good by 66% of the population. The highest rated factor (80% of the population) in terms of service quality determinants happens to be that the employees have a good knowledge to perform whatever tasks that they had been assigned. Furthermore, factors including consistent performance and the employees being knowledgeable about what customers wanted were rated as being done well in the salon by more than 70% of the population of the survey.

Factors	Agree	Strongly agree	Both	Percentage
Ease of Access to management	6	14	20	67%
Good knowledge to perform	20	4	24	80%
Courteous Employees	20	0	20	67%
Friendly Employees	6	14	20	67%
Take advice of employees	14	5	19	63%
Personal characteristics of employees	15	4	19	63%
Consistent performance	16	7	23	77%
Dependable employees	13	4	17	57%
Willingness to perform	13	5	18	60%
Safe with employees	13	5	18	60%
Know my needs	19	2	21	70%

5.3 Limitations

The limitation of this study was that, quite a substantial number of the respondents were neutral about some factors. These factors were key to the answering of the questions posed for this research. This however did not render the research useless because the data remaining was used accurately.

If this had been different, there would have been a more accurate result as compared to what is presented now.

In addition, there is a limitation because of the sampling technique used for the study. This is because the snowball sampling technique uses recommendations or referral but other people. This became an issue because most of the respondents fell within the same age bracket, the same educational level and also the same gender. Another sampling technique such as simple random sampling would have been better because it would have been more representative and there would have been varies opinion.

The statistical tool used for this study was not able to accurately measure the direction of the impact of workspace design even though it showed the strength of the relationships in most cases. If all the assumption of a regression analysis were satisfied and there was enough data, then the regression analyses would have been possible to run and the result would have been more accurate and explanatory.

5.4 Significance

Firstly, this study has been able to establish that there is a relationship between workspace and service quality in the salons used under this study. It was also able to establish how customers felt about the workspace in which they were receiving a service by first considering the ambient condition and then the spatial layout and functionality of the various workspaces.

The findings of this study can be used but only in a limited way. It may only apply to people within the 21 – 25 years age bracket who happen to be in the university. Similar researches were found in other places but there was

a need to conduct one in Ghana to find out how it also applied to the societal context in which we found ourselves.

5.5 Recommendations and Conclusion

This study would have been more representative if a larger group of respondents were used. The recommendation is therefore that, the study should be conducted with a larger group of participants. This should be done and made sure that the observations are more intense so they could be more effective. This will help to give a more detailed analysis of the impact of workspace design on service quality.

There were some factors in ambient conditions that were problems clearly and have adversely impacted the ambient conditions in the salons. These factors must be concentrated on and then worked one to make the design of the workspace design. It was found out that there was unpleasant smell in all the salons at certain times. This was confirmed during the observations. In response it will be suggested that whenever there was going to be a use of any strong chemicals, the windows will be open to allow for fresh air to circulate. In addition to this the colour of paint used in the salon were not said to be good. This is because most of them had used colours that were too bright. It made it difficult to see whenever the bright lights were put on especially for people with light problems.

The spatial layout and functionality had only one clear problem. This has to do with chairs that are sued for relaxations. These chairs are not comfortable and instead of helping the customer to relax, it rather keeps the customer not relaxed and tensed. The chairs should be changed such that

they are more comfortable and this will enable customers to relax and reduce the wait time associated with the service.

Service quality had a number of problems that need to be fixed immediately. The first one includes the problem of communication. When a customer enters the salon, they should be provided with as much information as possible about the service and the offers. This will allow the customers to be at ease since they would know exactly how much to pay for a service and what it will entail. Also the noise levels in the salons should be reduced to avoid impedance with the communication in the salon so that the employees and customers will hear each other clearly leading to better understanding.

A lot of the respondents did not find the employees of the salon to be professional. This means that they were not applying standards to what they were doing but merely doing it just how they know it to be. The advice here is that, the personnel should be trained so that they will be able act professionally and treat customers like they ought to.

Most salons lately do not discourage the employees from talking while doing customers hair. Some in the process lose concentration while the others start to talk to other employees or sometimes even customers about other things or sometimes about other customers. This has been an issue of growing concern for a lot of customers of salon for fear of being talked about and ridiculed behind their backs. Due to this reason, customers do not trust the employees to a large extent. The suggestion therefore is that, the employees should have a no talking policy especially when there are

customers in the salon. The discussion of other customers should not be encouraged at all in any of the salons.

In another instance, customers are not happy with the outcome of going to the salon. This is because in many cases what the customers had required was different from what done for them. In other cases it had been overdone such that the customer could not go around in that particular style.

There is a somewhat strong relationship between workspace design and service quality as has been shown by this study. Even though some of the factors of workspace design have a stronger relationship with service quality, it all comes together and each has its own role to play to make the service quality better.

Workspace design is made of 3 factors but 2 were concentrated on for the purposes of this study. These 2 are ambient conditions and spatial layout and functionality. Among the two, spatial layout and functionality has a stronger relationship with workspace design as compared to ambient conditions.

This model as succeeded in establishing a relationship between workspace design and service quality in the Angel's Beauty Salon, Lily's Saloon and Body Kitchen. If the management of these places are able to apply these recommendations to the workspace of their salons, then they would be successful with the higher levels of service quality being offered to the customers of the salon.

Bibliography

- Abdulai, A. I. (2000). Human Resource Management in Ghana: Prescriptions and Issues Raised by the Fourth Republican Constitution. *International Journal of Public Sector Management*, 13(5), 447-466.
- Bankert, E., Lee, M. D., & Lange, C. (2000, September 4). Wharton Work/Life Integration Project—Case Studies. *Sloan Work and Family*. Retrieved December 8, 2010, from wfnetwork.bc.edu/pdfs/SASwharton.pdf
- Bitner, M. J. (1992). Servicescapes: The Impact of Physical Surroundings on Customers and Employees. *Journal of Marketing*, 56, 57-71.
- Brown, S. W., & Swartz, T. A. (1989). A Gap Analysis of Professional Service Quality. *Journal of Marketing*, 53, 92-98.
- Byars, L. L., & Rue, L. W. (1991). *Human Resource Management*. Homewood, IL: Irwin.
- Davenport, T. H. (2005, December 9). Why Office Design Matters - HBS Working Knowledge. *HBS Working Knowledge - Faculty Research at Harvard Business School*. Retrieved December 8, 2010, from <http://hbswk.hbs.edu/archive/4991.html>
- Ferris, G. R., Hochwater, W. A., Buckley, R. M., Harell-Cook, G., & Frink, D. D. (1999). Human Resource Management: Some New Directions. *Journal of Management*, 25(3), 385-415. Retrieved December 8, 2010.
- Gutnick, L. (2007, June 1). A workplace design that reduces employee stress and increases employee productivity using environmentally responsible materials. *Eastern Michigan University-Digital Commons @ EMU*. Retrieved December 10, 2010, from commons.emich.edu/cgi/viewcontent.cgi?article=1150&context=theses&sei-redir=1
- Hodges, J. (2008, March 3). Office Designs for Optimizing Collaboration | BNET. *BNET - The CBS Interactive Business Network*. Retrieved December 16, 2010, from <http://www.bnet.com/article/office-designs-for-optimizing-collaboration/190685>
- Hugo, J. (2008, October 22). Does your workplace design promote productivity? Retrieved April 5, 2011, from <http://www.careers24.com/Recruiter/Article.aspx?Article=359>
- Hughes, A. M. (2011, February 24). Glasgow Chamber of Commerce - The voice of business in Glasgow. *Glasgow Chamber of Commerce - The voice of business in Glasgow*. Retrieved March 15, 2011, from <http://www.glasgowchamberofcommerce.com/news/members.news/february-2011/reaping-the-benefits-of-good-workspace-design.aspx>

- Johansson, M., Frost, P., Brandt, E., Binder, T., & Messeter, J. (2002, June 25). CiteSeerX — Partner Engaged Design: New Challenges for Workplace Design. *CiteSeerX*. Retrieved December 10, 2010, from <http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.110.3067>
- Johnston, R. (1995). The determinants of service quality: satisfiers and dissatisfiers. *International of Service Industry Management*, 6(5), 53-71. Retrieved December 8, 2010.
- Lindahl, G. A. (2004). The Innovative Workplace: An Analytical Model Focusing on the Relationship Between Spatial and Organisational Issues. *Facilities*, 22(9/10), 253-258. Retrieved December 9, 2010.
- 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, 41-50.
- Quansah, R. (2005). Harmful Postures and Musculoskeletal Symptoms Among Sanitation Workers of a Fish Processing Factory in Ghan: A Preliminary Investigation . *International Journal of Occupational Safety and Ergonomics (JOSE)*, 11(2), 171-180.
- Australian School of Business. (2010, October 5). Will Aesthetics Give Your Business the Edge. *Australian School of Business Knowledge@Australian School of Business*. Retrieved December 13, 2010, from <http://knowledge.asb.unsw.edu.au/article.cfm?article=1240>
- Zhang, P. & Dran, G. M. V. (1999). Satisfiers and Dissatisfiers: A Two-Factor Model for Website Design and Evaluation. *Journal of The American Society for Information Science*, 51(14) 1-17.

Appendix

Cross Tabulation exploring the relationship between the overall design of the salon and the customers having easy access to the management of the salon.

Appendix A

Crosstab

Count

		Easy of Access to Management - Access					Total
		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	
Overall Design	Strongly Disagree	1	0	0	1	0	2
	Disagree	0	2	0	0	0	2
	Neutral	1	2	1	1	1	6
	Agree	0	2	0	4	13	19
	Strongly Agree	0	1	0	0	0	1
	Total	2	7	1	6	14	30

Cross Tabulation exploring the relationship between the overall design of the salon and the customers having accurate information provided about a particular service.

Appendix B

Crosstab

Count

		Provided with accurate info about service - Communication					Total
		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	
Overall Design	Strongly Disagree	0	0	1	0	1	2
	Disagree	0	0	0	2	0	2
	Neutral	0	1	1	4	0	6
	Agree	4	4	11	0	0	19
	Strongly Agree	0	0	1	0	0	1
	Total	4	5	14	6	1	30

Cross tabulation showing the strength of relationship between the workspace design and courtesy.

Appendix C

Crosstab						
Count		Always Courteous – Courtesy				Total
		Strongly Disagree	Disagree	Neutral	Agree	
Overall Design	Strongly Disagree	1	0	0	1	2
	Disagree	0	1	0	1	2
	Neutral	0	2	3	1	6
	Agree	0	2	1	16	19
	Strongly Agree	0	0	0	1	1
Total		1	5	4	20	30

Cross tabulation showing the strength of relationship between the workspace design and courtesy.

Appendix D

Crosstab							
Count		Friendly Employees - Courtesy					Total
		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	
Overall Design	Strongly Disagree	1	0	0	1	0	2
	Disagree	0	1	0	1	0	2
	Neutral	0	1	4	1	0	6
	Agree	0	0	3	2	14	19
	Strongly Agree	0	0	0	1	0	1
Total		1	2	7	6	14	30

Cross tabulation showing the strength of relationship between the workspace design and credibility.

Appendix E

Count		Crosstab				
		Advice of Personnel well taken - Credibility				Total
		Disagree	Neutral	Agree	Strongly Agree	
Overall Design	Strongly Disagree	1	1	0	0	2
	Disagree	2	0	0	0	2
	Neutral	4	0	2	0	6
	Agree	0	2	12	5	19
	Strongly Agree	0	1	0	0	1
Total		7	4	14	5	30

Cross tabulation showing the strength of relationship between the workspace design and credibility.

Appendix F

Count		Crosstab				
		Personal Characteristics of personnel good - Credibility				Total
		Disagree	Neutral	Agree	Strongly Agree	
Overall Design	Strongly Disagree	0	1	1	0	2
	Disagree	2	0	0	0	2
	Neutral	3	2	1	0	6
	Agree	0	3	12	4	19
	Strongly Agree	0	0	1	0	1
Total		5	6	15	4	30

Cross tabulation showing the strength of relationship between the workspace design and reliability.

Appendix G

Crosstab

Count						
		Consistent Performance - Reliability				
		Disagree	Neutral	Agree	Strongly Agree	Total
Overall Design	Strongly Disagree	0	0	1	1	2
	Disagree	1	0	1	0	2
	Neutral	1	3	2	0	6
	Agree	0	1	12	6	19
	Strongly Agree	1	0	0	0	1
Total		3	4	16	7	30

Cross Tabulation showing the relationship between the overall design of the workspace and reliability

Appendix H

Crosstab

Count						
		Dependable Employees - Reliability				
		Disagree	Neutral	Agree	Strongly Agree	Total
Overall Design	Strongly Disagree	0	1	1	0	2
	Disagree	2	0	0	0	2
	Neutral	0	6	0	0	6
	Agree	0	3	12	4	19
	Strongly Agree	1	0	0	0	1
Total		3	10	13	4	30

Cross Tabulation between the overall workspace design and responsiveness

Appendix I

Count		Crosstab					Total
		Willingness and readiness to perform - Responsiveness					
		Disagree	Neutral	Agree	Strongly Agree		
Overall Design	Strongly Disagree	1	0	1	0	2	
	Disagree	2	0	0	0	2	
	Neutral	2	3	1	0	6	
	Agree	0	3	11	5	19	
	Strongly Agree	1	0	0	0	1	
Total		6	6	13	5	30	

Cross Tabulation showing the relationship between overall design and Security

Appendix J

Count		Crosstab					Total
		Safety with Employees - Security					
		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	
Overall Design	Strongly Disagree	1	0	0	1	0	2
	Disagree	0	2	0	0	0	2
	Neutral	0	3	2	1	0	6
	Agree	0	0	3	11	5	19
	Strongly Agree	0	1	0	0	0	1
Total		1	6	5	13	5	30

Cross tabulation between overall workspace design and security

Appendix K

Count		Crosstab				Total
		Confidentiality in what I say and Do - Security				
		Disagree	Neutral	Agree	Strongly Agree	
Overall Design	Strongly Disagree	0	1	1	0	2
	Disagree	0	2	0	0	2
	Neutral	1	3	2	0	6
	Agree	9	2	3	5	19
	Strongly Agree	0	0	0	1	1
Total		10	8	6	6	30

Cross tabulation between overall workspace design and understanding

Appendix L

Count		Crosstab				Total
		Employees know my needs and requirements well - Understanding				
		Disagree	Neutral	Agree	Strongly Agree	
Overall Design	Strongly Disagree	1	0	1	0	2
	Disagree	2	0	0	0	2
	Neutral	0	3	3	0	6
	Agree	1	2	15	1	19
	Strongly Agree	0	0	0	1	1
Total		4	5	19	2	30

Cross Tabulation showing the relationship between overall design and Tangibles

Appendix M

Crosstab

Count						
		Always satisfied with outcome of service - Tangibles				
		Strongly Disagree	Disagree	Neutral	Agree	Total
Overall Design	Strongly Disagree	0	1	0	1	2
	Disagree	0	2	0	0	2
	Neutral	2	0	3	1	6
	Agree	0	2	6	10	18
	Strongly Agree	0	1	0	0	1
Total		2	6	9	12	29

Symmetric Measure - Cramer's V

	Value	Sig	Pearson Chi Square
Appendix A	0.488	0.027	28.578
Appendix B	0.562	0.002	37.920 ^a
Appendix C	0.561	0.005	28.368
Appendix D	0.595	0.000	42.450 ^a
Appendix E	0.582	0.002	30.536 ^a
Appendix F	0.516	0.02	24.009
Appendix G	0.537	0.011	25.910 ^a
Appendix H	0.714	0	45.881
Appendix I	0.525	0.016	24.831 ^a
Appendix J	0.566	0.001	38.472 ^a
Appendix K	0.458	0.092	18.860 ^a
Appendix L	0.642	0	37.053 ^a
Appendix M	0.536	0.015	24.972 ^a

Questionnaire No.....

This questionnaire seeks information for a study on the **design** of your **workspace** and also **service quality**. This questionnaire will be kept confidential and your identity and information given will not be used against you in anyway. Neither will it affect your current position. Thank you for your participation.

Please fill in the questionnaire by ticking the box in front of your most appropriate option like this.

1. How long have you been a customer of this salon?

- Less than 6 months Between 6 months to 1 year
 Between 1 and 2 years More than 2 years

2. Approximately how many times do you come here in a month?

- Once a month Twice times a month Three times a month
 Four times a month More than 4 times a month

On a scale of 1 – 5, indicate how well you agree or disagree with the following statements below with 1: strongly agree, 2: agree, 3: neutral, 4: disagree and 5: strongly disagree by ticking your best option such as

Ambient factors

Factors	1	2	3	4	5
3. Lighting Condition is appropriate for reading and working					
4. Noise in the salon is moderate					
5. Temperature is always at the most appropriate level					
6. Equipment to be used for work is always available					
7. Air quality is good most of the time (not stuffy)					
8. The salon always smells good and pleasant					
9. The colour of the paint used in the salon is suitable					

Spatial Layout and Functionality

Factors	1	2	3	4	5
10. Arrangement of chairs have been done well					
11. Mirrors in the salon have been placed at the right places					
12. The tables in the salon are positioned well					
13. Position of chairs in the salon are appropriate					
14. Space allocated to me to stand and work is enough					
15. Types of chairs used for working is good					
16. Size of furniture used is appropriate					
17. The type of chairs used for relaxation and waiting are good					
18. Shapes of furniture used are creative					
19. General arrangement of things in the workplace is appropriate					
20. The overall design of things in the workspace is good					
21. The design of this workspace allows me to work fast					
22. The design of this workspace allows me to work effectively					
23. The design of this workspace makes it easier to interact with the customer					

24. If you had a chance to change anything about the design of this salon, would you change anything?

Yes

No

25. If you answered yes to the above question, please list the first three (3) things that you will change in order of priority

.....

.....

.....

.....

26. Why would you change any of the things indicated above in question 25?

.....

.....

.....

Measuring service quality

Service Quality	1	2	3	4	5
27. It is easy for me to have access to management and employees					
28. I am always provided with accurate information about the service					
29. The employees of the salon are professional in their work					
30. The employees of the salon have good knowledge to perform					
31. Salon employees are always courteous					
32. Salon employees are always friendly					
33. I trust the employees					
34. I listen to the advice of the personnel					
35. The personal characteristics of the personnel are good					
36. Performance is always consistent					
37. The employees are always dependable					
38. Employees are always willing and ready to perform					
39. I feel safe with the employees of the salon					
40. I am assured of confidentiality in what I say and do					
41. The employees know my needs and requirements					
42. I am always satisfied with the outcome of the service					

43. Gender

Female

Male

44. I am..... Years old

15 – 20

21 – 25

26 – 30

31 – 35

35 – Above

45. Educational Level

JHS

SHS

HND/Polytechnic

Undergraduate

Post Graduate

46. If you have any other educational level apart from what has been listed above, please specify

Thank You for your time

Factors	1	2	3	4	5
10. Arrangement of chairs have been done well					
11. Mirrors in the salon have been placed at the right places					
12. The tables in the salon are positioned well					
13. Position of chairs in the salon are appropriate					
14. Space allocated to me to stand and work is enough					
15. Types of chairs used for working is good					
16. Size of furniture used is appropriate					
17. The type of chairs used for relaxation and waiting are good					
18. Shapes of furniture used are creative					
19. General arrangement of things in the workplace is appropriate					
20. The overall design of things in the workspace is good					
21. The design of this workspace allows me to work fast					
22. The design of this workspace allows me to work effectively					
23. The design of this workspace makes it easier to interact with the customer					

24. If you had a chance to change anything about the design of this salon, would you change anything?

Yes

No

25. If you answered yes to the above question, please list the first three (3) things that you will change in order of priority

.....

.....

.....

.....

26. Why would you change any of the things indicated above in question 25?

.....
.....
.....
.....

Knowing You

26. Gender

Female Male

27. I am..... Years old

15 – 20 21 – 25 26 – 30
 31 – 35 35 – Above

28. Educational Level

JHS SHS HND/Polytechnic
 Undergraduate Post Graduate

29. If you have any other educational level apart from what has been listed above, please specify

Thank You for your time