

**AN INVESTIGATION INTO THE REQUIREMENTS FOR A  
RESOURCE CENTER FOR DESIGN PROFESSIONALS IN GHANA**

by

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## DECLARATION

I declare that I have that this submission is my own work towards the M.Arch and that , to the best of my knowledge, it contains no material published by another person nor material which has been accepted for the award of any other degree of the University, except where due acknowledge has been made in the text.

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## **ABSTRACT**

Ghana has come to an intersection of construction boom, which coincides with her 50<sup>th</sup> Anniversary. So many infrastructures are going on, initiated by private developers and governmental agencies. One issue being failed to be addressed is the quality of construction work being produced, in terms of buildings especially. There is also a major challenge that designers and contractors face in the execution of their profession, that is, the location of well- manufactured finishing products. There is generally a lack of information on them making them inaccessible to the public. Additionally, there are few or no guiding policy programmes for the design and construction industry and inadequate infrastructure and human resource skills in the retail and education of design. It is the aim that this study will bring out the key issues affecting the design and construction industry and the aim to find out practical solutions that will resolve aid in resolving these issues.

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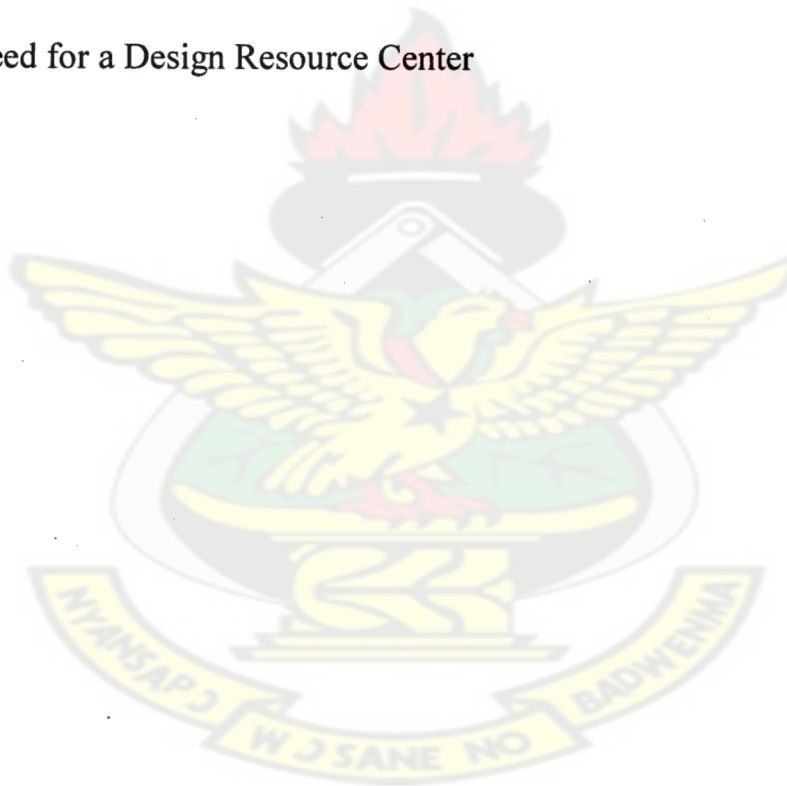
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## **LIST OF ABBREVIATIONS**

BBC - British Broadcasting Corporation

WAHL - West African Hardware Limited

ATA - Aid to Artisans

ATAG - Aid to Artisans Ghana

B2B – Business to business

B2C - Business to consumers

BDA – Business Development Assistance

GIA – Ghana Institute of Architects

IIID Institute of Indian Interior Designers

KNUST – Kwame Nkrumah University of Science and Technology

MSME - micro, small and medium scale enterprises

NEPAD - New Economic Partnerships for African Development

RIBA - Royal Institute of British Architects

TDC - Tema Development Cooperation

SME- Small and medium scale enterprises

SMEDA- Small and Medium scale enterprises development authority

USA - United States of America

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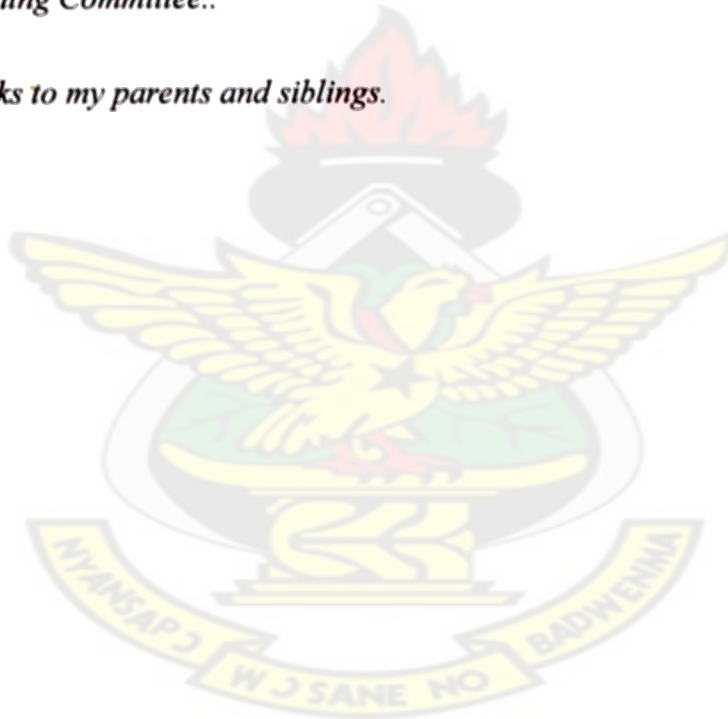
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## CHAPTER 1

### INTRODUCTION

#### 1.0 OVERVIEW

Small scale enterprises, commonly referred to as SMEs or Micro Small and Medium Scale Enterprises (MSMEs), have varying definitions and the common yardsticks used are the number of employees and total investment turnover (Chris Hall, 1995). For example, in Australia, SMEs are categorised into two areas: manufacturing industries which employ less than 100 employees and service industries which employ less than 20 employees, and they use employment as their yardstick. In the United States of America (U.S.A.), SMEs refer to businesses that have less than 500 employees on their payroll and they also use employment as their yardstick. Singapore however uses fixed assets as the yardstick to categorise SMEs (Chris Hall, 1995).

Economies worldwide recognise the importance of SMEs in their development as major employers and job creators (Audretsch, 2004). In Pakistan, the Census of Establishments of the Federal Bureau of Statistics showed that SMEs form 90 percent of the existing 3.2 million enterprises, 30 per cent of the Gross Product (GP) and contribute 25% of the (country) export earnings. In the European Union, 99% of businesses are small and medium-sized enterprises and they provide 75 million jobs (European Commission, 2007).

Due to their importance, economies see the need to draw policies that prioritise SMEs and that will sustain enterprises, especially the less efficient ones, through creating an enabling environment for business (Audretsch, 2004). Two examples will be

highlighted. In 2006, the Small and Medium Scale Enterprise Development Authority (SMEDA) formulated the SME policy 2006 which includes programmes that will create a business enabling environment (Nasir Jamal, 2006). For example, in the policy, industrial estates are required to provide lands at discounted rates and adequate infrastructure which include roads and utilities (Nasir Jamal, 2006). In Malaysia, a National SME Development Blueprint was drawn in 2006 that incorporated a one-year action plan with three aims which includes strengthening and enabling infrastructure to support SME development. Actions comprise improvement in physical infrastructure, development of database and directories, enhancements in on-line infrastructure and setting up of accreditation systems. Public policies were drawn to preserve and halt the extinction of weak scale enterprises (Audretsch, 2004).

Recently, entrepreneurship policy has been formed to encompass not only SMEs and their activities but also to include potential entrepreneurs to encourage entrepreneurship which encourages innovation and subsequently facilitates economic development (Audretsch, 2004). Entrepreneurship policy is a function of SME policy and considers multiple units of organisations and individual setups (Audretsch, 2004).

Economies require infrastructure to work efficiently; they act as centers of diffusion of skills in the environments they are placed in to enhance technological knowledge (Juma, 2007). Calestous Juma states the strategies fast emerging economies have adopted as creating environments that sustain the growth of SMEs through incentives and support systems. Thus infrastructure is an important element to properly establish and sustain SMEs.

Other policy programmes include human resource development (Jamal, 2006) because without the right skills, businesses will not respond to the needs of their customers nor attract them and they will disappear. In Pakistan, the policy recommends the institution of SMEs and entrepreneurial development in selected business schools in addition to upgrading selected technical training institutions in major SME clusters and the establishment of new institutions in areas where they are nonexistent (Jamal, 2006). It is important to form links between knowledge generation and business development and for any business activity to succeed, the faces behind it need adequate and up-to-date knowledge to manage it (Juma, 2007). The importance of an education and resource center within business clusters geared at enhancing the business management skills of the workforce projects itself.

Clusters are becoming more important in the business field. Schmitz (1995) stated the benefits of business clusters as facilitating growth and competitiveness among SMEs through joint efficiency (Uzor, 2004). Formal examples of clusters began with the Bauhaus; as early as 1913, Walter Gropius saw the need for collaboration among design professionals and established the Bauhaus in Weimar in 1939. The importance of this concept has surfaced again in the form of interdisciplinary collaborations (Abrams, 2004). Now professionals in the retail business are developing new strategies to enhance business; currently, there are Business-to-Business (B2B) and Business-to-Consumer (B2C) concepts for retail environments. B2B refers to businesses that offer services to trading partners (Oracle Technology Network, 2007) and B2C refer to those that offer services to consumers.

Modern concepts of the Bauhaus are the design centers and speciality malls, which began in the USA and UK and have spread to India and South Africa. These centers ensure that high standard products, services and ideas are marketed to design professionals and those in the allied professions. In 2002, India designed and constructed its first design center and speciality mall, Ishanya located in Pune to service architects, interior designers, contractors and the non-professionals interested in designing and decorating their homes and offices. Design centers and speciality malls fall within the categories of B2B and B2C enterprises and are a form of clusters.

A cluster is a group of firms engaged in similar activities or related activities within a national economy (Porter, 1990). Business clusters reduce transaction costs of business ventures and aid learning and technical innovation through shared resources, information, technical expertise and knowledge (Uzor, 2004); enterprises are limited by isolation and not their size (Sengenberger and Pyke, 1995). It is important to draw businesses that offer similar services and their allied professions together to share their resources and knowledge, create healthy competition and make retailing easy and comfortable for their trade partners and customers within an architecture that projects compliance, security, visibility, scalability, and standards (Oracle technology network, 2007).

Retail trends are changing. A number of architects and firms were interviewed for their views on the direction retail designs were heading. The Principal of Omniplan Architects, Tipton Housewright stated that successful retail must connect with the community, the setting and the needs of the customer and create an environment that

encourages the customers and makes them feel safe. The objectives in retail design are to eliminate clutter and create simple designs that are legible (Groeber, 2002). Retail points, thus need to be well designed in context of the activities that will take place within them, the needs and comfort of the consumers and also be attractive.

The field and business of design (architecture, art, craftwork, etc) together with its allied professions and service providers fall within SMEs and innovation which is a function of SMEs is a vital component of design. Innovation implies change and is vital for the development of economies. SME and entrepreneurship policies apply to the design professions and their allied professions; it is important to design policy programmes that will lead to their development and in turn enhance economies of countries. Design centers are physical infrastructure that have been developed to house retailers of interior and exterior products, service providers in the design and construction fields as well as the allied professionals of the design field.

A design center is an organisation devoted to the public promotion of design, emphasising its economical, social and/or cultural value, through workshops, seminars, publications, awards or exhibitions<sup>2</sup> and is also referred to as a specialised mall<sup>3</sup> because it focuses on one area of consumer needs-interior design.

Within the Ghanaian society and specifically our city center the researcher has noted the following key issues:

- Lack of networking among design professionals.
- Absence of a database on Design Professionals

- Difficulties in access to up-to-date Design-based information (Products and Application Techniques).
- Lack of guiding policy programmes for the Design and Construction industry (Exhibitions, Products launches, Awards and Standards)
- Dispersal of Retail Points of furnishings
- Lack of a database on Retailers
- Inadequate human resource skills in the retail of design.
- Absence of infrastructure dedicated towards the design profession.

These situations have created problems which have stirred up the researcher's interest.

### 1.3 PROBLEM STATEMENT

“Enterprise and business-thinking is the key to creating the economic growth that will pull Africa out of poverty and it requires two things: Improving and enabling an environment for doing business in Africa and relying on the insights of business to tell what needs to be done” (Hoffmann, 2007). Paul Wolfowitz, the former head of World Bank, states that entrepreneurs are the potential engine of economic growth and job creation in Africa (NEPAD Business Guide, vol. 3, 2007).

In Europe and America, small and medium-sized enterprises provide more than 50% of jobs (Hoffmann, 2007); in Africa, SMEs provide 10% of jobs and the relatively low figure is attributable to a lack of skills and the lack of capital (Hoffmann, 2007). This scale of employment offered by SMEs shown above reflects their importance to economies and their development.

For any economy to develop, three of some of the important areas to concentrate on are the design, construction and manufacturing industries. As stated in the introduction, retailers of interior and exterior products, service providers in the design and construction industry and their allied professionals all form part of SMEs and they face the problems of poor or non-existent infrastructure, poorly structured regulatory bodies and isolation in Ghana (Baidoe-Ansah, 2007).

On the Saturday August 25, 2007 issue of the Daily Graphic, the then Minister of Trade and Industry stated that 90% of registered businesses were in the small and medium scale category and provided the bulk of private sector employment. This analysis exhibits that SMEs play a crucial role in economic growth and poverty reduction of Ghana. However, SMEs in Ghana face problems of inadequate access to finance, obsolete technology, regulatory bottlenecks and lack of a database of businesses (Baidoe-Ansah, 2007).

Resolving these issues requires that regulatory systems and policies are put in place. Fugah (2007) in an interview stated that these are no regulatory systems and policies in place to ensure proper practices by entrepreneurs and retailers; the required infrastructure, which includes the physical, are non-existent or in paltry conditions. Consequently, personnel with no technical background are offering design and technical solutions to consumers; retailers are left to extend their shops into pavements. In spite of the decongestion exercise that took place in the Kumasi Metropolis in July 2007 to rid the streets and pavements of unauthorised structures and hawkers and make the city center easily accessible to pedestrians, shoppers and workers, the problem has

insidiously reinstated itself. The streets of our city centers are flanked by furniture and other wares, with shops being used as warehouses; craftwork and furniture are left to the elements (sunshine and rains) and then sold to consumers. Anloga, a cluster of woodworkers and carpenters in Kumasi, is predominant in this problem; with no access and through roads, no showrooms and well designed workshops, products sit outside or have to be carried in an out of workshops daily (Fugah, 2007). Additionally key retailers of furnishings are scattered across our city centers making it difficult to locate them.

As a result of the issued noted in the introduction, the following problems have arisen:

- Growth of design construction industry is slowed down
- Difficulties in accessing up-to-date design-based information and products.
- Low level of growth and competitiveness.
- Time-wastage in locating products.
- Wrong advice to consumers.

As the director of the Shell foundation stated in his speech, we need to improve the enabling environment for doing business by relying on the insight of business to tell us what needs to be done. Are the pavements the best environments for business? Businesses require well-designed setups that offer comfort, pleasure and safety to clients (Principal of Omni Architects, 2002).

The annual Building Exhibition and Seminars by Image Consortium and Aid to Artisans Organisation seek to address some of the problems of the design and construction industry in locating furnishings and design services and high quality

craftsmanship. It also organizes seminars to create dialogue among design professionals and the public on issues affecting the industry. However, more effort is required in the area of exhibition and marketing of products, as well as educating design professionals and the public on design. As stated by Juma (2007), resolving these issues requires a facility and establishment dedicated to their cause and interests.

To conclude, Ghana's Golden Jubilee should mark a revival in the design and construction industry and it starts from how design is packaged by artisans, design professionals, retailers and service providers in the design and construction fields. Design professionals within Ghana need to solder the disconnection among them and be proactive in the organisation of programmes geared towards the development of their professions because they are mutually dependent. This is because marketing and promotion of SME products is an important element in improving their competitiveness (National SME Development Blueprint, 2006). These activities need to be done in environments that are attractive, provide comfort, ensure safety and consider the needs of the customer and consumer (Principal of Omni Architects, 2002). The benefits gained from these actions will have a ripple effect on our local artisans and societies and their sense of style and design.

#### **1.4 JUSTIFICATION**

This study is aimed at drawing out the following results:

- To establish the importance of interaction among trade professionals, manufacturers, suppliers and design professionals.
- To establish the needs of retailers, Design Professionals and Consumers in the field of design and investigate into the features that will constitute a design-based information environment.
- To establish the importance of making retail in design easy, pleasurable and informative.
- To investigate on methods to portray good design standards and enhance the dissemination of information on it.
- To investigate into methods of enhancing the Technical Knowledge of personnel within the Retail of Design to offer right advice to consumers
- To project the importance of a Database within the industry.

## 1.5 SCOPE

To facilitate a successful study the researcher will conduct studies in the following areas:

- Design-its definition and philosophy.
- International Design Centers
- Retail shops and Showrooms for interior furnishings within North Industrial Area and Spintex road in Accra with particular reference to Axxess, Batimat, Kimo, Orca Deco, and Furniture city/ Palace Shopping Mall Accra; and Apimpua Street-Adum and Anloga in Kumasi. The aim is to study their

showrooms, ancillary spaces, organizational structure, and how the customers who visit them are handled to help them arrive at solutions that meet the criteria of good design.

- Annual Building Exhibition and Seminars and its organizing committee.
- Aid to Artisans Ghana



## Chapter 2

### **LITERATURE REVIEW**

#### **2.0 OVERVIEW**

Designers' Gallery is centered on design and thus the topic will be out of context if the word design with its concepts and philosophies are not dissected. Researchers have proposed several definitions for the word because the word design holds several meanings and implications for many people. This chapter will look at some of these definitions as well as the connotations it has held from the past to the present.

#### **2.1 DESIGN**

Design, according to the BBC dictionary, has dual personalities in terms of its syntax: it is both a noun and a verb, that is a design and to design. In our modern society, it is expressed in varying ways: through drawings, sketches, models and other simulation methods and these are to guide the manufacturers or builders who will execute them (Lawson, 1990). Essentially aimed at solving a problem, some people find it more appropriate to define design by the resultant product of the activity; hence, architecture is so called because the end products are buildings or structures and interior design because it creates spaces (Lawson, 1990). This notion is reflected in Lawson's (1990) book, "How Designers Think", as he highlights the thoughts of some writers, including his on the subject of what design is. In this book, Lawson (1990) expresses the importance of trying to understand the nature of design over trying to define it because of the complexities of trying to define it.

He states that in the past, people did not consciously design but created things or made them out of necessity and this was described as vernacular or craft design. The phenomenon of the professionalisation of design is not of the far past but happened fairly recently in the 19<sup>th</sup> century and Lawson also writes that prior to the nineteenth century, craftsmen were responding to varying circumstances and that no principles were involved, neither was there a design problem that they were solving when they created objects of use. This was the traditional form of solutions to circumstances and we can find examples in the igloo of the Eskimos and the grinding stone in the traditional kitchens of Ghanaian homes. According to Lawson (1990) the artisans did not engage in discussions about anthropometrics, ergonomics or the dynamics of their creations or produce any drawings to guide them in their productions. It was as if they moved by instinct because they had no understanding of theoretical background of the circumstances and what they were creating.

In our modern society, a higher percentage of the clients who commission the designers are not the users (Lawson, 1990) as is explicitly displayed in commercial adverts which are geared towards consumers and commissioned by commercial businesses. To some extent, the designer is required to utilise his creativity and at that moment becomes an artist. However, the imagination and creativity must be brought to earth and rationalised to ensure that the end-solution meets the demands of the real world. This is especially so when building regulations must be met in spite of however out-of-this world a design might be and Lawson sites the issue of fire safety as an example; building regulations pose restrictions on designers which cannot be compromised. He states that the variables lie within the clients own desires and

preferences and the designer has the task of drawing out these, and with feedback from the client, prioritise them.

It has been a heated debate among professionals in the creative fields as to what makes a piece of creation design and another art. Henry van de Velden was quoted by Houvio (2003) in his article on Bauhaus as saying, 'In his inner the artist is a glowing individualist, a free spontaneous creator'. Lawson (1990) states that apart from a few works that are commissioned from an artist, most pieces of art are produced at the artist's own will; he sets the design problem himself, defining his constraints and advantages and in the course of the production can change it to suit his interests at any point in time. Outside the piece of work, the artist cannot define the problem because it cannot relate to reality. The designer on the other hand is, almost always, representing the needs of a client and /or user. He is commissioned by the client to resolve a problem which sometimes is not fully apparent to the client and so the designer has the task of drawing out the full nature of the problem.

A controversial subject indeed, the topic of what constitutes a work of art and design set up a thought-provoking discussion on the graphic design forum website between the months of December 2004 and August 2005. An anonymous commenter stated that art is a complete visual freedom and design is restricted. The restriction is attributed to requirements of the clients, legislations, statutory laws, rules of functionality and the end-users the designer has to factor into the end product; there are a number of stakeholders in the end-product of design. The words functionality and aesthetics have been the two distinguishing words for design and art. Another commenter expressed the need for design to be attractive but perform a function having

in mind the target audience most importantly. Yet another one stated that art is intended to satisfy the artist whilst design is to satisfy the client who has a message or a need and requires the services of the designer to create that medium of communication.

For the designer to get the design right, it is vital for the right information to be carried across and the right solution delivered. Vergette (2004), the head of design and architecture of British Council in London, reinforced this need when she wrote that, “Both client and architect have the joint responsibility for making a building successful.....If the brief does not cover all aspects of the client’s requirements, the building will never be satisfactory”. She went on to highlight how clients are not explicit in describing the users’ needs and architects are guilty of not inquiring enough into the details of the clients requirements. This can explain why certain buildings have failed to serve their purpose and relating to the general design society, why products fail.

Perna (2006), an architecture student, wrote in an article that designs are aimed at giving the user satisfaction and not just meant to be functional. He believes that a designer has responsibility tagged to it; responsibility to the client who commissions the designer and the end-user. Art on the other hand is an expression of the artist and he does not care what the viewer thinks about it. Most of the time it carries a question which the artist is asking and can incite emotions in the viewer.

Elimeliah (2006) in his article ‘Art vs. Design’ stated that design to him is a premeditated and defined process which is executed after careful deliberation between more than one persons to ensure that the objectives are met and the designer is required to do this. To him the word design suggests something done under careful thought.

There is freedom in art with no imposition of external rules; the artist is his own master choosing his own rules and the medium to work in. Elimeliah (2006) stated that, there are crossovers between designers and artists. He however argues that art becomes design when the artist is copying or following a technique already established by a known artist and believes that most of what is produced now as art is infact design. Art is and should be an expression of passion and emotions but when a style or method is established then it fails to be art. He writes that design is mostly influenced by trends and influences. It his suggestion that designers sometime give themselves to creating art by releasing their emotions and passions and applying them to their designs by working them into their functionality; only then will they give birth to original designs and set new trends.

It can be inferred from the ongoing argument that there is thin line between art and design because art can at certain stages be design and vice versa.

## **PHILOSOPHY OF DESIGN**

There have been many thoughts and theories proposed on what design should be and apart from the established ones each designer has the philosophy he or she works by. User-centered design is one design philosophy very common in the field of design and Norman (2004) among other designers and design educationists have championed its cause for an extended period now.

Maguire (1971) expressed that the main objective “of the creative design process...” is to produce a solution as close to the client’s needs as possible. Denys Lasdun of Denys Lasdun, Peter Softley and Associates stated that the job of designers

“is to give the client ... not what he wants but what he never dreamt he wanted”. It can be inferred from these two quotes recalled in Lawson’s book that, one philosophy is to center the design on the client and his or her needs and to involve them totally in the design process. Another view is for the designer to monopolise on the design solution and give a solution that will impose its ideals on the users, a characteristic Lawson (1990) describes as being prevalent among most designers. He describes it as a feeling of “possessiveness” the designer has over the final outcome.

There is a third view in which the designer places a lot of importance on how users will relate to the design solution. Therefore there is a complete involvement of the users from the inception to the beginning. Habraken (1972), who wrote an article in volume 79 of the R. I. B. A. Journal in 1972, holds this view and believes that even though the architect of a building must provide the technical solution, he cannot do so without the involvement of the user. This, he believes would make the solution successful or, as the writer will say, near successful.

Stoytchev (2005) wrote about Norman’s (1990) philosophy on design of everyday interaction which is applicable to architectural design. He begins the paper by quoting Norman’s (2004) person-centered motto for the 21st century which says "People Propose, Science Studies, and Technology Conforms". This presents a paradox to what follows because Stoytchev (2005) then writes that Norman (2004) clearly states that people are adapting to technology instead of technology being designed to suit the needs of people. He expresses the need for designs to be simple and easy to use (user-friendly designs) and not incite technophobia as most equipment of today does. People are afraid

to try the varying functions on their computers for fear of destroying them. It then seems that this call for simplistic designs he is making is for designs to be more people-centered.

Norman (2004) proposes some features a good design should have and blames errors people make with technology on the designers who created them. The proposed principles are visibility, feedback, natural mapping, constraints and design for error. The first two go hand-in-hand and refer to the need for primary aspects of design to be clearly visible and a response given back to reflect the triggered action. Natural mapping refers to the need for intentions of the user to tally with actions and actions to tally with effect through indicators for example. Constraints should be used to prevent the occurrence of errors and lastly, with reference to design for error, errors should be factored in. Designers should foresee the possibilities of errors being made and so make them easily detectible and their effects reversible.

To Norman (2004), any simple design such as a door which needs signage to guide the user is a flaw. Stoytchev supports Norman's philosophy, even though he sees some of these statements as overcritical, and adds that people should boycott the bad designs that are dominating our market and cause time wastage in figuring out; such actions would counteract manufacturers producing such items.

## **THE DESIGN PROCESS**

In his book 'How designer's think', Lawson (1990) drew out some of the maps of the design process that have been proposed by methodology researchers over the years. He states that it is better to understand the nature of design than to try and define

it because in the end it will be defined according to the background of the person doing the analysis. For example, the engineer will define it in such a way that suggests that the end product is quantifiable. Matchet (1961) said ‘design is the optimum solution to the sum of true needs of a particular set of circumstances. Gregory (1966) however, said the process of design is the same whether it deals with the design of a new oil refinery, the construction of a cathedral or.... Lawson however rebuffed this saying that this view suggested an abrupt end and denies differences among design fields. Jones (1966) seeing the difficulty in arriving at a satisfactory definition defined design as the performing of a very complicated act of faith and in 1970 he described design as initiating change in man-made things.

Like many creative fields it is difficult to have a totally satisfactory definition for design and its associated activities. It has been proposed that one way of understanding design is by using a chart of the route of processes from the beginning to the end and these maps or charts are called maps of the design process. To do this the activities of the designer’s activities must be observed and documented.

A number of maps have been drawn by researchers and methodologists and among the most frequently used is the RIBA Plan of Works found in the RIBA practice and management handbook. In here the design process is divided into four phases.

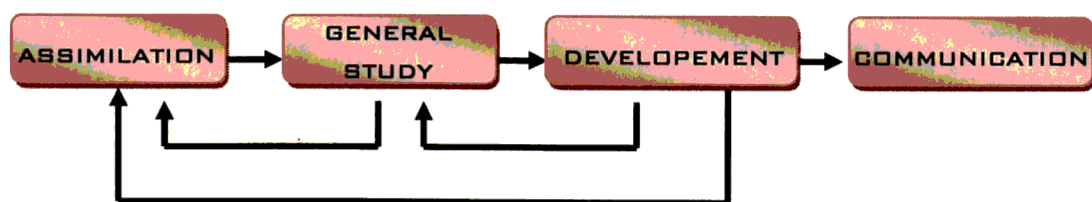


Diagram 2.1: RIBA Plan of Works  
Source: How Designers Think (Lawson, 1990)

- I. At the Assimilation stage accumulation and general ordering of information related specifically to the design problem are undertaken.
- II. During the general study stage, investigations into nature of the problem and the possible solutions are done:
- III. Then one or more of the tentative solutions identified at stage ii are developed
- IV. Finally the developed solution(s) is communicated for feedback to those within or outside the design team.

As the arrows on the chart indicate in Fig 2.1, it is an unstable process because the designer goes back and forth between stages. There can never be standardized mode of designing and designing is really an individualistic activity. Several maps have been proposed but are they really followed? The maps have been drawn not only by methodologist but also by designers who have tracked the stages designers go through when designing. Through the experiments done using designers and non-designers, specifically, as subjects it has been deduced that the consistent approach is acquired during the education the designer goes through.

First and sixth years took part in the experiment and none of these groups showed a consistent approach to design. However, the postgraduate students showed a different trait. By coming up with solutions to a design problem, they learnt about the problems' nature. Lawson (1990) stated that briefing goes hand in hand with designing; when a designer encounters a problem for the first time he/ she designs roughly for it and this informs the brief for the next time the designer encounters a similar design problem. Lawson (1990) correctly puts it when he states that most clients cannot

explicitly express what they want and can only relate to a proposed design by reacting to or criticising a proposed design.

Cross (2004), in his paper 'The Expertise of Exceptional Designers', outlines three studies he did, one protocol and the other two retrospective, to draw out the processes involved in design. His subjects are highly experienced and successful designers and this aspect differentiates his study from others which use novices in the creative fields, particularly, design students. In this paper he draws out similarities among the creative strategies adopted by the three subjects and states that there are three key processes common to all three which are as follows:

- Taking a broad systems approach to the problem
- Framing the problem in distinctive and sometimes personal way to help in arriving at modes of solutions to the problem.
- Designing from first principles.

He differentiates his theory from that of methodologists and theorists who proposed all three approaches separately, calling up Jones (1981) who proposed the systems approach, Schon (1983) who proposed problem framing and lastly French (1985), Park and Beitz (1984) who proposed first principles as design guides in engineering. In addition he argues that these theories were not based on much obvious evidence or empirical study.

Although there is a difference in fields of all three subjects, there are similarities in their approach to design. However it does not mean they can easily switch between fields because as Lehmann (1996) said...."superior performance of experts is usually

domain specific”; extensive training within a domain still seems crucial to professional expertise.

## **THE DESIGN PROBLEM**

The creative process may be likened to the design process however there is a differentiating factor which is the source of the problem. The artist sets the task or the design problem. He defines it according to what seems important to him and on very few occasions is he commissioned to produce a work. Outside the work of art, the design problem cannot be defined because it is not real. Lawson (1990) cites the example of a composer asked to explain one of his composition to which he said, “...it is the explanation”.

The designer is commissioned by a client or user who is in need or unable to solve a problem. Sometimes the client cannot fully comprehend or explain the problem and thus requires the expertise of the designer to do this. The role of the designer becomes then, partly interpretive. The designer at certain stages becomes an artist and thus like many design professions the difference becomes blurred. After drawing out the brief, the designer has to put them together to give an end product that falls within the social, emotional and physical needs of the clients and/ or users.

Lawson (1990) describes the tense relationship between the client and designer due to the anxiety of the client for the designer to correctly interpret his/ her needs and the designer’s wish to fully express himself in his design. The designer thinks that his

present reputation has been based on his past commissions and works and so desires the freedom to express himself, therefore advertise himself and maintain his reputation. It would be wiser, then, for a client to choose a designer who is like minded and has similar interests in the design problem. Lawson mentions how the client/designer relationship poses part of the design problem.

In modern society now designers are hardly in touch with the users of their products and this is apparent in public architecture and media and advertising projects. In the designing of public facilities such as schools, hospitals and libraries the architect has little or no access to the final users which makes it difficult to fully comprehend the design problem. The aim is for the organisation commissioning the project to remain dominant and to prevent as Lawson (1990) describes it 'disruptive feedback' from the users. This notion is understandable to an extent because there will inevitably be a whole of preferences to consider, which give rise to the following questions:

1. Just how many of these needs should be factored into the design? and
2. Which ones are the priorities?

Getting all the preferences of the final users of the outcome could prove to be a laborious task for the architects and disrupt the design process. The need for 'user-requirement studies' has as a result of this complication arisen and architects use the services of professionals such as architectural psychologists, social and human scientists to draw out the needs of the final users of the end product and to fully comprehend the design problem.

Apart from the client and user who contribute to the design problem, the designer also contributes to it. He/she has the task of putting together as mentioned before the brief in a way that meets the social, emotional and physical needs of the end users as well as fit into his design style. There are certain criteria the designer would like to achieve in the design of house. For example, after getting whatever spaces should constitute a house, he then has the task of relating those spaces to one another. Most architects turn to the use of bubble diagrams or functional diagrams to aid them at this stage.

Another generator of design problems is Legislations in the form of laws, codes of practice (guidelines and recommendations). These govern issues such as safety, utility and appearance of designs. The design must meet requirements of the Building Inspector, Town Planner, Fire Officer, Health Inspector and the Electrical Authorities. Unlike the constraints posed by the clients, user and designer those posed by the Legislators cannot be compromised; they are valueless. Lawson (1990) draws out a table showing the degree of flexibility of the contributors of design problems displayed in Fig 2.2.

There is no end to the design solution so one can go on proposing several alternatives or go on detailing a solution. One of the qualities of a good designer is knowing when to stop designing.

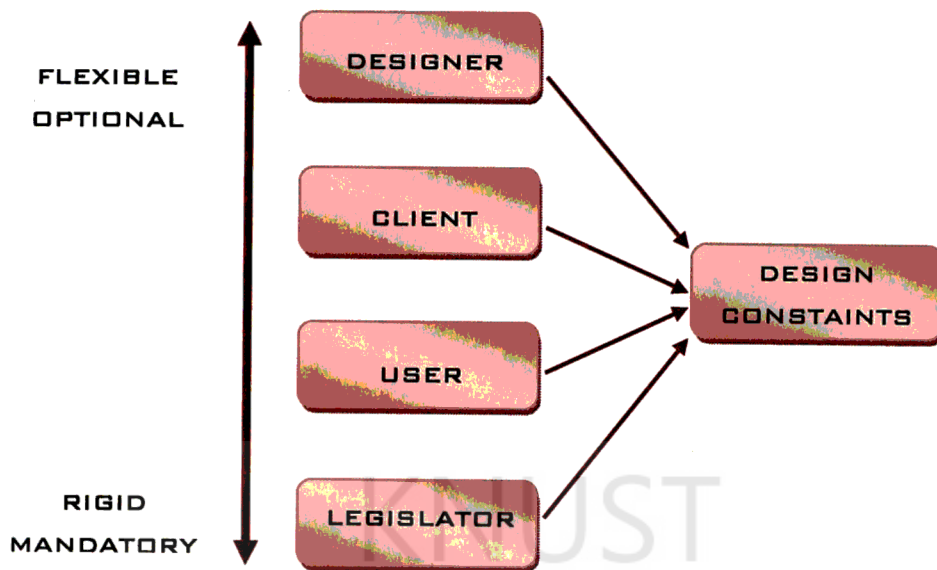


Diagram 2.2: Generators of design problems  
Source: How Designers Think (Lawson, 1990)

Designers either stop when they have run out of time or they feel it is not worth pursuing the matter. Designers, as mentioned in the previous paragraphs, are categorised by the solutions they provide. However, it is not very rigid as there are crossovers of professions most of the time as what happens when an architect doubles as a furniture designer. This can rightly describe Alvar Aalto and Frank Lloyd Wright. Alvar Aalto made his international breakthrough as a furniture designer. Aalto wished to learn "the language of wood fibres" and believed that there is a positive effect when our skin comes into contact with natural materials. In 1935, Aino and Alvar Aalto founded the Finnish company *Artek* to manufacture their designs some of which are shown in Fig 2.3.

Today, *Artek* remains faithful to the Aalto's' basic values as their master craftspeople continue to produce Aalto designs in Finland with high quality natural

materials. Finnstyle, being an authorized *Artek* retailer, is able to offer his designs to you at very competitive prices.



Figure 2.1: Alva Aalto's furniture designs  
Source: [www.finnstyle.com](http://www.finnstyle.com)

Alvar Aalto also made a deep impression on the design world with his glass ware and lighting fixtures (Fig 2.4). These pieces together with the furniture pieces have become classics which are still sought after.

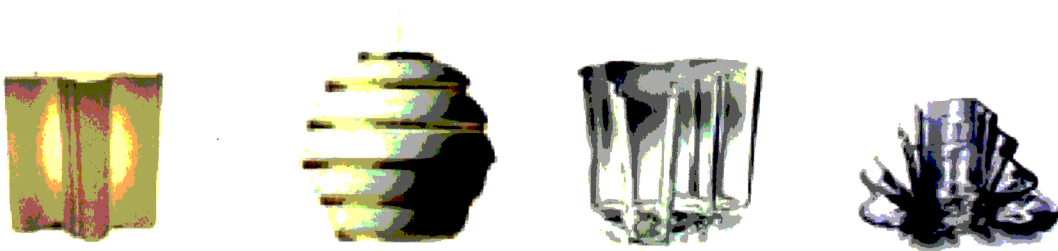


Figure 2.2: Alvar Aalto's glass ware and lighting fixtures  
Source: [www.finnstyle.com](http://www.finnstyle.com)

Frank Lloyd Wright was also known to always design furniture to fit into the buildings he designed. This was a brilliant idea and contributed to making his design unique; all the elements fitted together so well that there was harmony in his designs. Other architects such as Le Corbusier, Mies Van der Rohe (Fig 2.5) and Philip Johnson also made their mark in the furniture design world.



Figure 2.3: Designs by Mies Van der Rohe  
Source: [www.encarta.com](http://www.encarta.com)

Some industrial designers, however, claim that they can tell furniture designed by architects because architects are used to handling materials at different scales. Designers are not versatile because they are trained to understand certain types of technology. In spite of these opinions, a lot of furniture designed by architects has been very successful on the market, as the above examples show. However, this paper is not about refuting the opinions of some industrial designers but to look at what design is and the need to have a center for design within Ghana.

Lawson (1990) states that we learn about design problems by trying to solve them. It is difficult to completely define a design problem and it could be underestimated or overestimated or both. He also says that goals and obstacles of a design are found as

the designer works at solving the design problem. Sometimes, he says, the designer could end up escalating the problem or bring it down and these two situations are referred to as escalation and regression simultaneously. It is difficult to know which aspects of a design problem are relevant, which ones to downplay and what information or data collected is germane to the issue and useful to the solution.

Design is often a repair job, what writers refer to as providing a fix; design problems center partly on what exists; there are few situations when there is totally new problem that needs to be solved. As quoted before, design solutions now are to solve problems created by previously designed solutions. Another way of designing is the cumulative strategy for design in a situation that requires a number of varying criteria to be met. To this the designer goes through the following steps (Lawson, 1990):

1. Set carefully design objectives and criteria on all dimensions of the design solution or problem.
2. Gather sub-solutions for each criterion.
3. Discern solutions which do not satisfy criteria.

Lawson (1990) describes the multi-dimensional nature of design problems saying that it is this quality that makes them highly interactive. This statement means that there are varying factors involved in the design solution such that if one variable is changed all the others need to be changed as well.

## **MEASUREMENT CRITERIA AND JUDGEMENT IN DESIGN**

Measurements in design have two dimensions:

- **Qualitative** and
- **Quantitative**

Lawson (1990) says a skilled designer should be able to combine both in the design decision-making process. The following are the two main types of measurement criteria:

**Ratio:** this deals with proportions; and it is the most commonly used.

**Ordinal Scale:** is used where intervals are not consistent and elements only represent a sequence or order. Lawson uses the example of a car race where runners are described as first, second, third, etc but these positions are not reflections of the length of gaps between them.

Other Measurement Criteria are the Interval Scale and the Nominal Scale.

## 2.2 DESIGN STYLES

In one of his first year lectures in History of Cultures in 2001, Professor Intsiful of the Kwame Nkrumah University of Science and Technology (KNUST) Department of Architecture described the various styles that have occurred throughout the world's history as reactions towards what was going on in the design society. It was more of a quest to express distaste for then current trends and one comment on Elimeliah (2006) articles, expressed in the 1900s artist and architects alike, created the new bout of reactions against styles and trends.

\*Design like all other things of this world has undergone changes and trends due to the factors mentioned previously and also through contact with more sophisticated societies, technology and education. The Renaissance period, the Industrial Revolution,

Bauhaus period, Modern architecture were all as a result of one of more of the mentioned causes. However, more often than not, they were reactions or actions against certain changes the proponents found unpleasant; the industrial revolution or the machine age was against the 'unnecessary embellishments' of the Renaissance, the Arts and Crafts Movements was a reaction against the machine age. All these periods were named after they had occurred by historians, critics and analysts after studying characteristics of those periods in the world's history. No other movement made an impact world-wide like the Bauhaus movement did, the highest of influences felt in the United States.

\*In 1919, the Bauhaus was founded in Weimar by Walter Gropius, an architect. Prior to this period, Germany was feeling the shocks of World War 1 and was trying to recover. Life had drastically changed for the Germans from riches to poverty. Walter Gropius had attended a conference by a collaboration of a hundred architects, designers, factory owner and friends to deliberate on the need to improve quality of utility wares where the Deutsche Werkbund was born. This movement based its ideas on the Arts of Crafts movement of William Morris who believed that society needed to move away from the machination of artefacts to the more rustic ways of producing them and be more sensitive to the users. However the movement believed in machines to facilitate this ideal. In 1914, they organised a fair in Cologne which bordered on being the same as all other fairs because nothing new was displayed.

\*Gropius seeing this problem set up Bauhaus in search for new forms of utility wares and housing designs that fitted the new social life of Germany. Designs, in reaction to the machine age, were on the one hand moving more towards the ascetic and

on the other hand bright colours could be combined with softer materials. There was a need to tackle education in art and the applied arts.

Gropius built the Bauhaus on the principles of Form following function, and this theory has been widespread since. It requested for the pure and unadulterated, removing all that was deemed unnecessary. Gropius invited professionals from varying backgrounds and fields and the training incorporated theoretical and practical courses to produce a new breed of craftsmen who were well equipped in their chosen areas of specialisation. The training included a preliminary course introduced by Johannes Itten, a painter, which aimed at removing the 'limitations of professionalisation'. This implies that designers needed to be in manner of speaking all rounded, acquiring the basic skills of design before branching out. This ideology has been adopted by schools of design the world over where students begin their education with training.

Quoting Walter Gropius, 'Bauhaus wishes to... educate a new type of worker for industry and handicrafts, so far missing, who simultaneously has the command over techniques as well as form...' he expressed the core ideals of Bauhaus. It thrived on theoretical and practical training and students were taught painting, model drawing and the use of tools under the Preliminary course. Houvio (2003) stated that 'the Bauhaus system allowed for a work practice built on varied social, technical, and methodical basic knowledge.

\*In 1925, Bauhaus moved to Dessau because of political pressures and in 1928 it lost Walter Gropius as a leader. However, it was to thrive for another five years under the leaderships of Hannes Meyer and Mies van der Rohe successively. In 1933,

unfortunately, it got closed by the Nazis as it was changed to become a more private institution.

\*In spite of the opposition, the ideologies of the Bauhaus had spread wide to the United States and Finland, however the latter was to harness on them fully after World War II.

In his essay about his philosophy of architecture, Luebke (1995) states that each style of architecture was based on the availability of particular building materials and knowledge in this will help provide the basis for future innovations by studying our current environment. He bases his philosophy on the changing trends in architecture which he alluded to five principal factors. There is an increase in accessibility to information and technology, coupled with an increase in the use of cars with reference to the United States of America. The former has led to a change in the office space which now ranges from buildings to tents to a room in the home. Standardization and modularization have raised the importance of cost efficient design without removing the importance of a site's characteristics for the design professional but making him aware of the need to be innovative and resource-efficient. People are more environmentally conscious and this has led to a reduction in buildable spaces. The repercussive effect has been an increase in the densities of cities and suburban sprawl and an increase in the demand on housing. In addition, people have an interest in issues that affect design such as the use of renewable materials that will not pollute the environment. These points have led to an increase in building regulations which could be seen as hampering creativity but are mandatory for a safe future.

The last factor is more of a suggestion in which Luebke (1995) suggests the need for designers to consider the historical context of their designs. This would help to design more sensitive structures that relate to the users and their environment.

### **2.3 DESIGN AS A SYSTEM OF COMMUNICATION**

In his essay "Design as Communication", Norman (2004) writes about the importance of viewing design as a communication tool. He writes that each component of a design is both for utility and communication and sometimes the communication is accidental but with a good design it is calculated. Design is a conversation between the user and designer and refers to Clarisse De Souza's book *Semiotic Engineering* (2009).

In this book, De Souza (2009) states that interaction between a user and a piece of technology, such as when a computer mouse is telling you to click, is actually an interaction between the user and the designer; so whatever action the system is instigating the user to take is actually the designer talking and the mode of communication is via the system or piece of technology.

Norman (2004) stated that, when design is thought of as a system of communication, it alters the design philosophy. In a previous paper, he employed the word affordance (proposed by Gibson 1977 and 1979, which means possible actions between our environment and people or animals) to design. Norman (2004) writes that instead of making obvious affordances to the user, the designer's work is rather to make easily visible the perceived affordances to the user of their systems, that is, what the user sees as possible actions with the system. This means that the designer is factoring the

user's perception into the design and this is the core philosophy of user-centered design, a cause which Don Norman has championed for a long time.

He believes that components of a system need a story to make sense out of them; in other words they need to be placed in a conceptual model which provides a context for the system and to connect the various components. This helps the users to relate to the system and learn to use them properly because in the event that errors occur, which is inevitable, the absence of a story makes it impossible to find recovery strategies, new sequences and escape mechanisms to resolve the problem. He states that as humans, we use stories to explain our surroundings to enable us understand them better, so a system devoid of one makes it a set of learned actions. In reality the perceived affordances become important tools of communication between the designer and user and each one is deliberately placed to instigate an action from the user to create a specific response; they thus show the designer's intent whether the user should pull, push, click or grab.

Norman (2004) sees this interaction between user and designer as a triad consisting of the designer's conceptual model, the user's mental model and the system image and this is illustrated in Figure 2.6.

For a design to be successful, Norman (2004) proposes that the user's mental image should be the same as the designer's conceptual model with the mode of interaction being the system's image, that is the artefact plus any auxiliary materials such as manuals and help systems.

## Conceptual Models

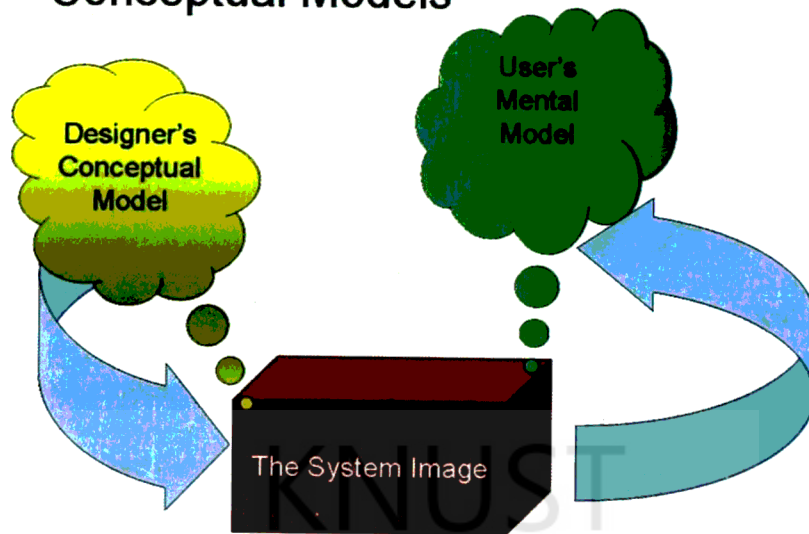


Diagram 2.3: Donald Norman's conceptual models for design  
Source: [www.jnd.org](http://www.jnd.org)

Don Norman's concept of design as communication tools can be related to a chapter contributed by John Rheinfrank and Shelley Evanson in Terry Winograd's book "Bringing Design to Software" in which they explain how a design language can aid in the development of design as communication. Design can then be seen as language that communicates to us daily suggesting an action of some sort to be taken.

### 2.4 SUSTAINABILITY IN DESIGN

Luebke (1995) expresses his philosophy of design for the 21<sup>st</sup> century stating that contemporary design should embody resource efficient-materials literally which would pave the way for the development of more environmentally-friendly, cost-efficient and healthy structures and he says they way to do this is to have a basic understanding of architectonics, architectural design and the historical development of

construction materials and process. This, he states, will help develop the basic idea for 21<sup>st</sup> century architecture.

Eli Bevis (2007) in his paper 'Sustainable Interaction Design: Invention & Disposal, Renewal & Reuse' defines design as an act of choosing among or informing choices of future ways of being. He distinguishes between design criticism and critical design, two perspectives he views as being central to this issue. He states that sustainability should be at the core of interactive design and that acts of choosing among or informing choices of future ways of being should be based on an understanding and an interpretation of ways of being. These two phrases, design criticism, which is an understanding and interpretation of ways of being, and critical design, which is what is needed to facilitate a sustainable future give rise to two definitions of design. From the perspective of design criticism, design is acts of understanding the potential effects of present ways of being or future ways of being and a critical design perspective of sustainability is the one in which design is defined as acts of choosing among or informing choices of future ways of being. This implies that the future trends in design rely on an understanding people, their culture and their present states, which will inform what is to come or what the trend ought to be.

## 2.5 THE DESIGN PROFESSIONAL

Before proceeding to who a design professional is we need to first know what professional is and who a professional is. A person who has a job that requires special and advanced education and training is what the BBC dictionary describes as a

professional. It also states that professional means relating to the work of someone who is qualified for a particular job. This is a common word in our present societies and that is the aim of any person seeking a higher education- to become a professional. The professionalisation of design and the professions which exist now are new concepts and began to grow to their present scales in the nineteenth century (Lawson, 1988).

Christopher Alexander (1964) refers to professionalisation as a shift from unconscious craft-based approach to a self-conscious professionalized process. The main reason for this shift is because societies are exposed to technological advances which are irreversible like cultural changes. The change in turn is instigated by contact with more advanced societies through invasion, colonisation, and the insidious infiltration by overseas aid to underdeveloped countries and education. Sometimes the question is whether these under-developed nations are ready for such changes because they come with their added requirements of maintenance, as well as periodical and even sometimes rapid upgrade.

The Design process has not occurred as a predetermined or premeditated act due to the social and cultural context design is practiced. In our present day the accepted form of designing is the designer producing drawings which guides the manufacturer and in the case of architecture the builder.

Within the professionalisation of design, there are four main professionals, namely the architect, interior designer, landscape designer and graphic designer.

## **THE ARCHITECT**

The role of the architect as the head of the design team has come under scrutiny for generations; however, this issue is not within the scope of this research paper. Architecture is one of the oldest professions of this world because shelters have always been of prime importance to the existence of man. U.S. Department of Labor's Bureau of Labor Statistics states in their Occupational Outlook Handbook (2006) that an architect is one who designs buildings which include residences, hospitals, and schools and sometimes are involved in the planning of neighbourhoods.

## **THE INTERIOR DESIGNER**

An interior designer is responsible for the interior design, decoration, and functionality of a client's space, whether the space is commercial, industrial, or residential. Interior designers work closely with architects and clients to determine the structure of a space, the needs of the occupants, and the style that best suits both. The position is a combination of engineer and artist, and it takes a unique type of mind to handle both of those concepts well.

## **THE LANDSCAPE DESIGNER**

Currently, a lot of emphasis is placed on green architecture and environmentally-friendly designs of buildings and neighbourhoods. Parks, gardens, and trees have a way of cooling our environments, including providing psychological relief in our fast paced world if they are delightfully designed. Landscape designers/architects have the job of planning residential area parks, green spaces, walkways and roads, including their

locations, within urban and residential areas. Sometimes they work hand-in-hand with architects, real estate companies or are free-lance.

## **THE GRAPHIC DESIGNER**

Graphic designers or graphic artists plan, analyze, and create visual solutions to communications problems. They decide the most effective way of getting a message across in print, electronic, and film media using a variety of methods such as colour, type, illustration, photography, animation, and various print and layout techniques. The Princeton Review describes Graphic designers as professionals who generate the visual presentation and design of goods, including websites, detergent boxes, album covers, and dog food cans. They also develop signs and signage systems—called environmental graphics—for business and government.

## **COLLABORATION IN THE DESIGN**

The design field involves the professionals whose roles have been described as well as fashion and product designers. All of these work together on projects at one time or the other. With respect to architects, engineers, landscape designers, interior designers and graphic designers, they invariably work together on large scale projects particularly. John Seely Brown and Paul Duguid (2000) in their book, 'The Social Life of Information' expressed innovation as a social process in their book and they believe that continuous interactions in societies 'build trust, lower transaction costs and reinforce speed of processes'. The first of such collaboration was when Deutsche Werkbund was formed and the aim was to influence design and quality standard of utility wares (Houvio, 2003).

Stone (2004) emphasises the need for interdisciplinary collaborations to be able to handle the present complex design problems which entail issues of culture, sustainability and technology.

Rosenberg (2004) looks at how architects and designers collaborate in our urban centers, taking particular note of the fact that architects have always worked closely with graphic designers. Her view is that there are more collaborations taking place among design professionals gradually fading out the boundaries that existed. Making reference to Robert Venturi's comment in an interview he was given in 2000 who stated that the relationship between architects and the urban environment was about communication and not spaces now, Rosenberg saw this as a challenge thrown to design professionals particularly architects. She cited a brilliant example of such good collaboration with the recently built Seattle Public library which was jointly designed by Rem Koolhaas, a renowned architect and Richard Mau, a graphic designer. Stating that now, for designers, the urban setting required architectural literacy and critical users who could comprehend the cultural meaning of form and function, Rosenberg (2004) suggested that this new collaboration spirit forming among design professionals be worked into design curricula to groom students to be environmentally literate.

Abrams (2007) quotes the CEO of Vitra, a furniture company, who noted the demand of contemporary work for collaborations, creativity, and speed among others. The trend now indeed is more practices working as teams of design professionals coming from varying backgrounds and examples are Vitra cited by Abrams and Pentagram and Ideo cited by Rosenberg (2004). Abrams comment that interdisciplinary

features are being worked into major design courses parallels Rosenberg's suggestion above emphasising the need to groom the next generation of designers to handle collaborations that draw various strengths together and positive criticisms, enhance designs and effect speed in execution of projects. Abrams (2007) states that the collaboration occurring in professional practices, is radiating to the educational level and redefining creativity: now the creative work implies understanding and directing the whole as much as crafting the individual elements.

With a lot of considerations to be made in projects, especially as most projects are now commissioned by clients who are not themselves the users, the need for more collaborations among design professionals is raised.

## 2.6 WHAT IS A DESIGN CENTER?

A design center is a location where architects, builders and designers display their interior design products<sup>1</sup> as well as a one-stop source for interior and exterior products (finishes, furnishings, furniture and fixtures). It is an organisation devoted to the public promotion of design, emphasising its economical, social and/or cultural value, through workshops, seminars, publications, awards or exhibitions<sup>2</sup> and is also referred to as a specialised mall<sup>3</sup> because it focuses on one area of consumer needs-interior design. The best example of a design center is one that entails an information center, which is highly essential to cater for the education and dissemination of information on the products being retailed in it as well design-based knowledge. Design centers offer all kinds of design solutions in all aspects of the home and buildings in general, in atmospheres that are creatively stimulating, cater to the needs of home buyers and it is

the place to go for upgrades and selections which can run the spectrum from floor space in corporate headquarters to freestanding facilities and everything in between. They are therefore sometimes referred to as incubators since they nurture ideas, explore possible design solutions and sometimes even manufacture them.

## **COMPONENTS OF DESIGN CENTERS**

Covering spaces between 10,000 square feet to 150,000 square feet your typical design center comprises state of the art showrooms, which facilitate the rousing and impressive display of products and room set-ups to stimulate ideas and inspirations for people who tour them. Linked to the showrooms as mentioned afore are information desks and sometimes a mock design room, an important section in any design center because it facilitates the simulation of products chosen by design professionals into their designs either physically or graphically (via computer generations), thus helping them to explain their design solutions to their clients.

Most design centers are established by real estate companies who recognise the need of the general public, designers and real estate developers for a specialised mall which will serve most, if not all their needs, in the practice of their professions and like any new concept which is developed upon, recent design centers have incorporated educational centers in their setup which constitute libraries and seminar rooms.

## **ACTIVITIES OF DESIGN CENTERS**

A lot of interesting, professionally unbiased activities are organised by design centers the world over to project the objectives they represent, which are: to promote

design, to facilitate the ease of location of building resources and to educate designers and the general public. Some of these activities are:

- Product launches geared towards the design and construction professionals
- Seminars and Conferences about design in business
- National Design Prizes in collaboration with the Ministry of Industry, Commerce and Tourism such as in Ishanya)
- Organisation of design competitions
- Partnership in design and design management projects
- Providing information about designers, companies and events to the international design media.

## **CASE STUDY**

This study is about the need for a design center in Ghana and requires an in-depth study on similar facilities based on the concepts of exhibitions and malls concurrently, and the various design professions and their allied professions.

Ishanya, in India, is a beautiful example of the design-center-concept that has spread to India.

### **ISHANYA, PUNE, INDIA**

The Hindu Business Line on January 23, 2006 informed the public of the opening of Ishanya, India's first design center, in July, 2006. The management of Ishanya, located in the city of Pune, referred to it as a speciality mall in their January 23 press release since it was geared at professionals and manufacturers in the design field.

The inventors and managers of Ishanya, prior its birth, also identified with the problem United States of America and the Europe faced in their design industry of finding interior design products with ease. They realised the need of separating the retail of such products from consumables which are otherwise thrown together in general malls. The Chief Executive Officer (CEO) of Ishanya stated that furniture and cars did not sell well when juxtaposed with other products such as food and drinks. He commented that these products required careful consideration and an environment that encourages serious buyers; it does not need the distractions of the usual mall environment with children running around, people coming in to watch movies and shopping for clothes or food. Such activities of choosing furniture, paints, etcetera, require a business-like environment, much as it should be pleasurable. So Ishanya, India's first Design Center and her first Speciality Mall, was born.

Of its 5, 50,000 square feet of leasable area, Ishanya will be offering just 25 percent of its balance space to speciality and niche designer brands from across India. It will be uniquely positioned since it would offer walk-in customers the additional advantage of a knowledge centre that is managed by the Institute of Indian Interior Designers (IIID) with special facilities for computer-based simulations and will be the venue for the latest in world-class design inspirations, ideas and solutions whether product or service-based, making it an integral part of the Indian interiors and exteriors customers lifestyle and a part of the architects and interior designer's business decision making process.<sup>3</sup>

Ishanya's campus-like spread over a 10 acre plot will, besides retail spaces, will offer a convention center, exhibition halls, an amphitheater, a building center, art

galleries, business center, ample parking, and etcetera as shown in Fig. 2.7. Fine dining restaurant options will also be available through the day.

In the evening, the design centre and speciality mall will convert into Pune's cultural hub with the facilities being used as a centre for social and cultural activity. All these facilities, will be marketed through intensive events and other direct marketing activity in order to ensure the right quality and quantity of footfalls to provide both consumers and its business partners with an unmatched value for money proposition.

Ishanya is beautiful in its simplicity of form, structure and finishes yet striking, stimulating and expressive even without exhibits.



Figure 2.4: Layout of Ishanya, India  
Source: [www.ishanya.com](http://www.ishanya.com)

The structures and spaces are expressive of materials utilised in the design and acts as medium of information on exterior and interior design applications and the following images display these qualities.



Figures 2.5, from left to right: Exterior views of The Building, Ishanya, India  
Source: [www.ishanya.com](http://www.ishanya.com)

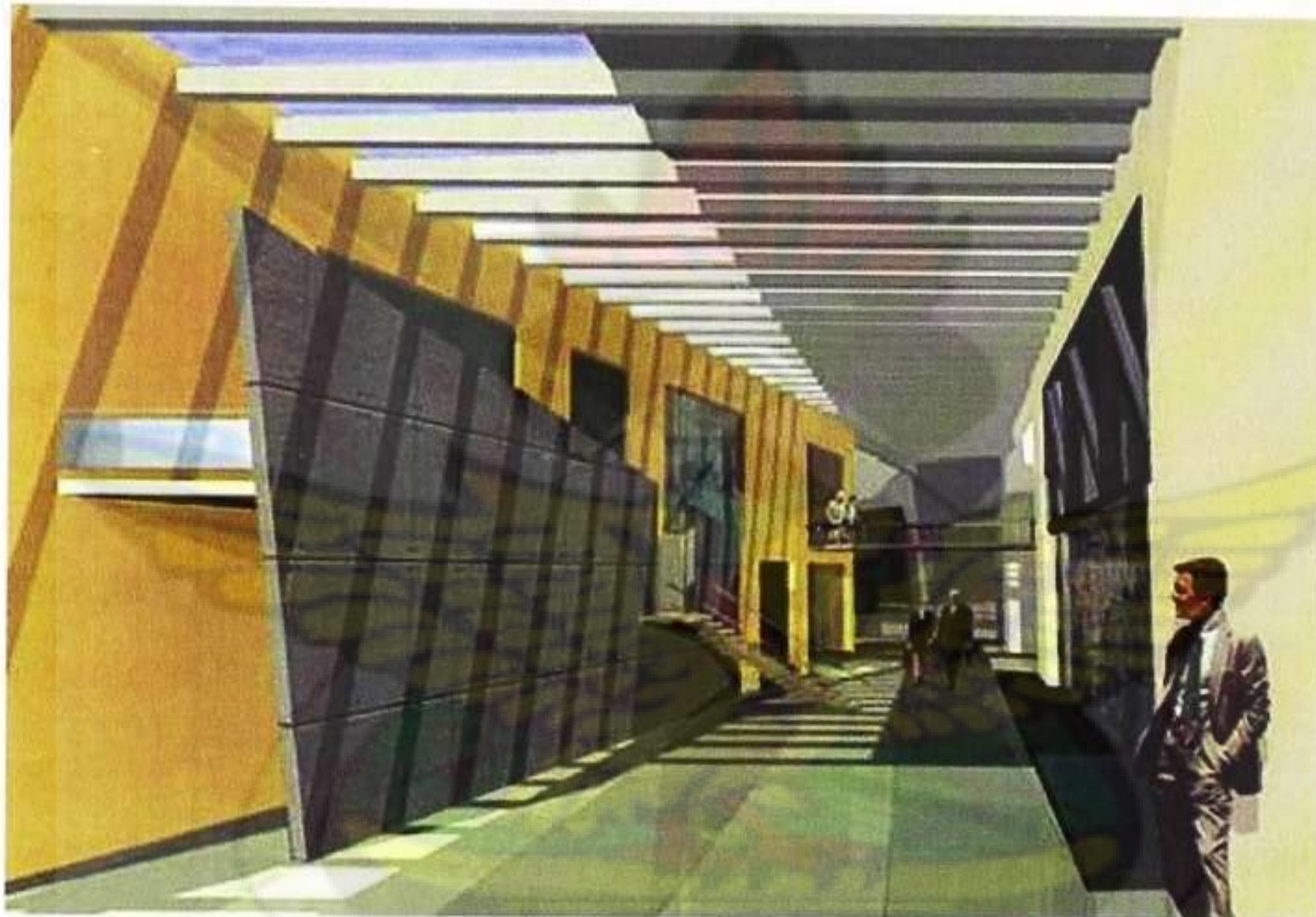


Figure 2.6: Interior of The Building, Ishanya, India  
Source: [www.ishanya.com](http://www.ishanya.com)

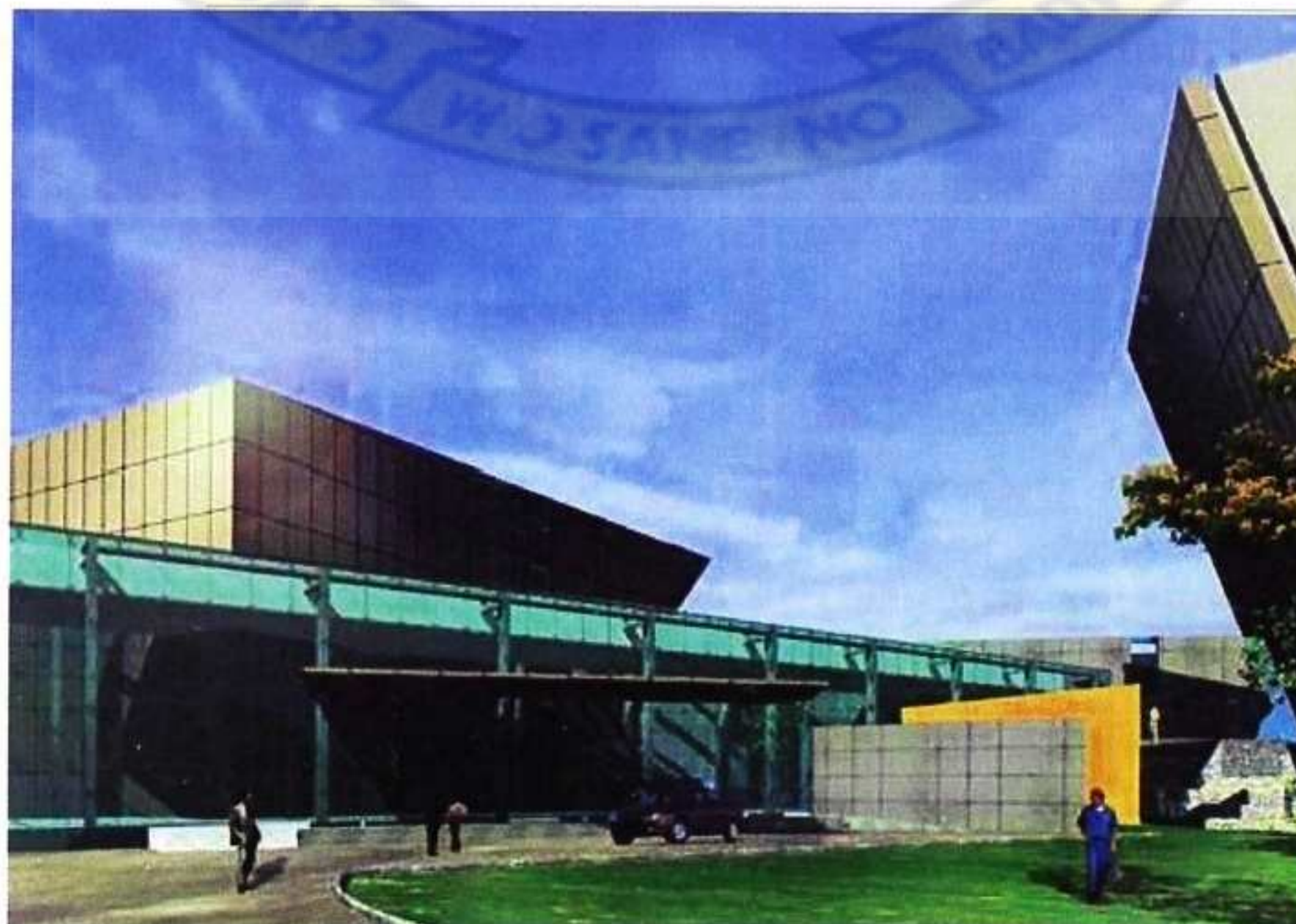


Figure 2.7. The Convention Center  
Source: [www.ishanya.com](http://www.ishanya.com)

The IID and Ishanya entered into a unique agreement to promote design in India to set up and run a Knowledge Centre, which will be manned by the IID. This 1,500 square feet Knowledge Centre includes an information centre, a library, mock-up areas and an area for computer simulations will be open to the public once Ishanya opens.

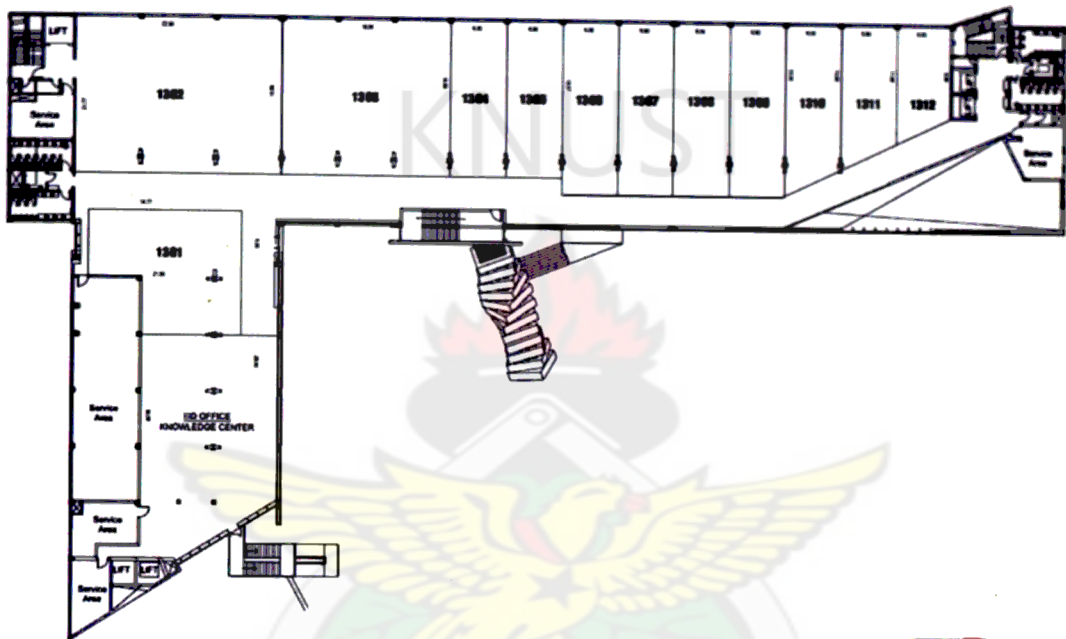


Figure 2.8: Arcade 1, Third level plan, which houses the Knowledge Center  
Source: [www.ishanya.com](http://www.ishanya.com)

Ishanya is targeted both at retail customers who could take decisions concerning their home, and its decorator, and professionals in the architecture, interior architecture and construction industries, for whom this could be a centre for project decisions.

## 2.7 CONCLUSION

Lawson (1990) stated that the definition of design is ambiguous nature because of its multi-applications and suggested that it was better to understand the word than to try and define it. Indeed, trying to define design and describe what design is has created controversies for many years such as what differentiates art from design. Van de Velden

described the artist as an individualistic creator and thus described the artist as his own master with no governing rules to heed to but his/hers. One particular differentiating factor between art and design, as Lawson (1990) stated, is the fact that most design projects are commissioned by a client/ user. Mark Perna (2006), an architecture student, places functionality as the differentiating factor between art and design stating that design is aimed at giving the user satisfaction. This ending statement is very ambiguous because art can provide some satisfaction. Elimeliah (2006) stated that art became design when the artist followed already-established principle of another artist. He suggested that designers would only be able to make innovations when they unleashed the artists in them and applied the results to their design, a very thought-provoking suggestion.

Denys Lasdun stated that the architects job was to give the client what he never expected but Maguire (1971) description of the client/designer relationship was more user-centered as he saw the work of the designer as providing a solution as close to the client's requirements as possible. Norman's philosophy described by Stoytchev (2005) is user-centered and he states that designed systems should not induce technophobia (fear of using the system) in the user but be simple, legible and allow for error which are inevitable and recoveries to be made.

Luebke (1995) stated that modern projects have to meet many requirements of technology, sustainability and culture among others and therefore required expertise from varying professional backgrounds. In our present society, interdisciplinary collaboration now plays a major role in modern practices and Stone (2004) and Rosenberg (2004) emphasised the need to work this into the curricula of design schools

so that students are trained to better understand modern design problems. Abrams (2007) in her paper mentioned cost reduction, efficiency in work, positive feedback and speed in execution of projects as the benefits of such collaborations. Even though more practices and schools are currently adopting this theory, it is a concept that formed part of the guiding principles of Bauhaus (1913) and began in the early part of the 20<sup>th</sup> century with the Deutsche Werkbund.

To the researcher there is an artistic dimension to the design process because that is required to bring out the uniqueness in each work. Without it then, every work will look the same. Design should be also more user-inclined to meet the needs of the end-user but pay respect to environmental and sustainable issues. Interdisciplinary collaboration is going to be the core principle of Designers Gallery. The idea is to choose simple forms that will make the retail environment as natural as possible and to incorporate features that will harness on the energies prevalent on the site. The principles of user-centered design will play a role here too because of the importance of involving clients in the design process to get positive feedback from them. Reactions from clients and/or users are vital in creating successful end products and this, as Walter Gropius stated, is the social responsibility of any designer.

## Chapter 3

### METHODOLOGY

Due to the subjective nature of the topic, the researcher used 3 approaches under Qualitative Methodology in this study. They are outlined as follows:

#### METHOD 1:

- Survey Approach
- Qualitative Interviews using Purposive Sampling
- Semi-structured face-to-face interviews
- A Combination of closed and open questions.
- Key questions with follow up questions

The researcher conducted interviews with the proprietor of Orca Déco, the Building Exhibition Committee and some of the participants of the exhibition to draw out their responses to the questionnaire. The responses informed the design proposal on what activities, and subsequently spaces should be incorporated into Designers' Gallery.

To make the Designers Gallery more user-friendly, the researcher conducted interviews with selected groups of professionals who included design professionals, personnel from the Ministry of Works and Housing and selected non-professionals. The aim was to gain an insight into their views on design, issues facing the design and construction industry, their needs and how these could be channelled into an optimum solution to the research question. The end-solution factored should factor in the culture and needs of the end users to make it successful, so the interviews are to draw out these from the stakeholders as much far as possible.

## **METHOD 2:**

- Documentary Research:
  - Reading materials (Books, Journals Research Papers) focused on the topic of design:

The researcher explored web-based information and published research papers on design, design centers and similar establishments geared towards the design industry to study their components and how these solutions could be adapted and/or improved based on the needs expressed by the stakeholders.

## **METHOD 3:**

- Non Participant Observation: Located Retail Points within the North Industrial Area, Spintex and Kantamanto in Accra and Adum and Anloga in Kumasi

The researcher observed and recorded activities in shops that retail buildings materials and products within the city centers with respect to North Industrial area and Spintex road in Accra. Additional areas studied were artisans and craftsmen along the main spine between K.N.U.S.T. and Adum, Anloga and Apimpua Street in Adum which has a concentration of hardware shops. The results informed the components of the solution to facilitate the right packaging of design and to meet the objectives of the research work.

## Chapter 4

### **FINDINGS**

#### **4.0 INTRODUCTION**

The research will begin with an insight into the design professions in Ghana, both the old and 'new' and a look at what collaborations are occurring in the design and construction societies of in the country.

#### **4.1 INSIGHT INTO THE DESIGN PROFESSIONS OF GHANA**

The design profession of Ghana has four main categories, which are architecture, interior design/ architecture, art and industrial arts. The profession of interior design/ architecture is in its nascent stage, where as the educational side of it on a small scale. The Department of Architecture is currently the only formal accredited institution with a curriculum in Interior design. Students of architecture and art at a point in their program study it because it is an important component in the design of spaces. As mentioned in the previous chapter, successful spaces are those whose interiors merge seamlessly with their exteriors. This is to say that in the design of spaces, the interiors play an equal and vital role as the exteriors and must not be ignored.

Sometimes, being quite new, the profession of Interior design is overlooked in small projects especially. However, there is gradual and growing awareness on the importance of having good interior finishes in making spaces pleasurable. This is because there are more large and complex structures with specialised functions being constructed. These require special attention in the handling of their finishes. Sometimes, settling on the finishes alone becomes an involving process because issues of

maintenance and practicality contend with aesthetics. It is therefore necessary to harness on the services and knowledge of a professional focussed on this field.

#### **4.2 INTERVIEWS WITH DESIGN PROFESSIONALS & STAKEHOLDERS**

The stakeholders of Designer's Gallery are architects, landscape designers, contractors, government organisation particularly the ones that handle building and development projects and the public. Their opinion is relevant to this topic as the the success of the proposals depends on them. Refer to Chapter 5 for results from interviews and surveys conducted with stakeholders.

#### **4.3 EVENTS AND ORGANISATIONS WITHIN THE DESIGN INDUSTRY**

##### **BUILDING EXHIBITION AND SEMINARS**

Image Consortium, an events organising firm, invented the annual International Building Exhibition and Seminars which draws together manufactures, both local and international of high grade building products, brand companies, franchise partners, design professionals and the general public together under one roof for a week. During this time, the companies and manufactures get the rare opportunity to exhibit their building products. Seminars and conferences centered on the design and construction industry form part of that special week.

The Manageress of Image Consortium, Marilyn Houadgetor, identified with the weaknesses in the design and building industry and thought it necessary to organise such an event. It offers a beautiful opportunity for manufacturers to sell their products and direct consumers to their points of retail. Mrs. Houadgetor made an important comment

that where the exhibition is held in Accra in the International conference center is prestigious enough but is not designed for such a specialised exhibition; there is therefore a need for a facility dedicated to the retail of building resources with departments devoted to the various categories of building products.

As part of the organising team, she invites Prodesign, a commercial interior design firm, the Ghana Institute of Architects (G.I.A.) and contractors to assist in the organisation of the exhibition setups and the educative seminars. The seminars take place within the main auditorium of the conference center and the exhibition stands are set up around the circulation areas flanking the hall.

#### **AID TO ARTISANS**

Aid to Artisans (ATA) is a non profit organisation which works with artisans to develop their products, gives them training in business skills and aids them in marketing their products world-wide. It does this in an environmentally sensitive and culturally sensitive manner, factoring in the life and traditions and social context of the artisans and maintaining the uniqueness of their products.

ATA works through international trade shows showcasing the products of the artisans they work with. Among such shows are the New York International Gift Fair, the International Home Furnishings Market (High Point, North Carolina), and Ambiente and Tendence in Frankfurt, Germany. The organisation organises seminars as well as training programmes for artisans in marketing and product development.

Aid to Artisans Ghana (ATAG) supports the cause of training human resources for the design field at the tertiary level and so is involved in programmes with stake holders in the design industry to teach students of the Department of Rural Art and Industry of the College of Art at the K.N.U.S.T, Kumasi to design, develop, produce and market their handicraft products.

#### 4.4 THE FORMAL RETAIL SECTOR

Literally retail shops of building materials are scattered all over the city center of Accra. From the researcher's observation and experience, a trip to the retail points within the north industrial area takes between 45 minutes to an hour. Kantamanto in Accra and Adum in Kumasi seem to be among the few areas that have a concentration of shops retailing building materials and products. However, the settings and decor of these shops leave much to be desired, with no comfortable seating, poor lighting and little information being delivered by the retailers on the products they are selling, Figure 4.1. Most crucial is the fact that all these shops are literally selling the same brand of products and so offer very little variety to the consumers who sometimes cannot visualise how their choices of products are even going to fit into their designs. The following pictures show how the bulk of these retailers market their products and materials.



Figure 4.1: Display of goods along street, Adum

This problem is not peculiar to those in the design and building professions and to the ordinary person putting up any size of structure. Exterior and Interior finishes require careful consideration before purchase, especially in an environment where there is the generally accepted policy of ‘Goods sold are not returnable’. Local retail shops offer very little variety and choice and do not have the capacity to cater for the product requirements of large projects that cover an area of 5,000 square feet and over. Thirdly, the issue of maintenance becomes a hard task as these establishments keep changing their consignments; it is therefore possible to purchase a particular tile design and not find it on the market the following year or even month, in which case replacements of these becomes impossible. This is not to say they are not useful but that they are inadequate for larger scale projects and maintenance projects as well. Design professionals need sources that can cater to their needs.

There are good establishments which have grasped the importance of well-designed showrooms and have a variety of home décor products in the category of floor, walls, kitchen and sanitary ware and decorating accessories. Some of these are Orca

Déco, Palace Shopping Mall/ Furniture City, West African Hardware Limited, Batimat, Kanarian Ventures and Arrital. Orca Déco and Palace Shopping Mall/ Furniture City are retailers of furniture and home décor products; West African Hardware Limited, Kanarian Ventures and Batimat are focussed on the tile and sanitary areas and Arrital specialises in the retail, design and installation of kitchens and kitchen ware.

### **ORCA DECO, Toku Street, Accra, Ghana**

Orca Deco was the sole retailer of furniture and interior decor accessories up to 2005. Orca Deco has everything to do with the decor of homes and offices. It originated from Senegal and spread through several African countries to Ghana about ten years ago. Presently, there are several branches all over Africa. In December 2006, its management opened its second branch within Ghana in Kumasi, Ghana.

Toku house, in which the main branch in Ghana is housed, is approximately 60x40 meters in area and two stories high. Inside, it is an open plan space sectioned into departments of residential furnishings, office furnishings and accessories.

Orca has competent personnel and staff to advice its customers, with interior designers as part of their outfit who assist customers in making choices and also offer decoration services. In addition, they offer delivery and installation services to their clients.

The ground floor is divided into four main sections: one houses soft furnishing which includes carpets, rugs, upholstery materials, household linen and accessories

which go with these in one; another features dinner and kitchen ware and the other two have toys and children's furniture and residential and commercial furniture respectively.



Figure 4.2: Ground floor section of Orca Deco-Accra, clockwise from top left: Living and outdoor furniture, new living room furniture section, soft furnishings and accessories

The retail space extends upstairs to sections that sell sanitary ware, lighting and lighting accessories, bedroom furniture and sanitary ware.



Figure 4.3: First floor section of Orca Deco-Accra, from left to right: Lighting section, sanitary ware section



Figure 4.4: First floor sections, from left to right:  
Bedroom furniture section, flower section,

Orca deco has a 20 car capacity parking lot for its customers and five for its staff, located adjacent to it is the warehouse which covers approximately the same floor area as the showroom/shop.



Figure 4.5: Parking Lot of Orca Deco

## GARDEN CENTERS

Apart from Department of Parks and Gardens which has centers all over Ghana, there are smaller private centers which retail plant materials and offer landscaping services. The department consults on government works which involve urban landscaping and offer services to private clients as well. The department runs the Aburi

Gardens in Aburi which is arboretum located in the Akwapim Mountains. At all their centers there are plant and tree species available to consumers. There are resident landscape designers who offer advice to clients.

The smaller garden centers with nurseries are sprawled mostly along major streets. Some add pottery and paving materials to their stock.

From observation, most of these centers are not capable of handling large scale landscaping project. There is the need for large scale turf growers who can conveniently make available rolled-up turf ready to be laid out.

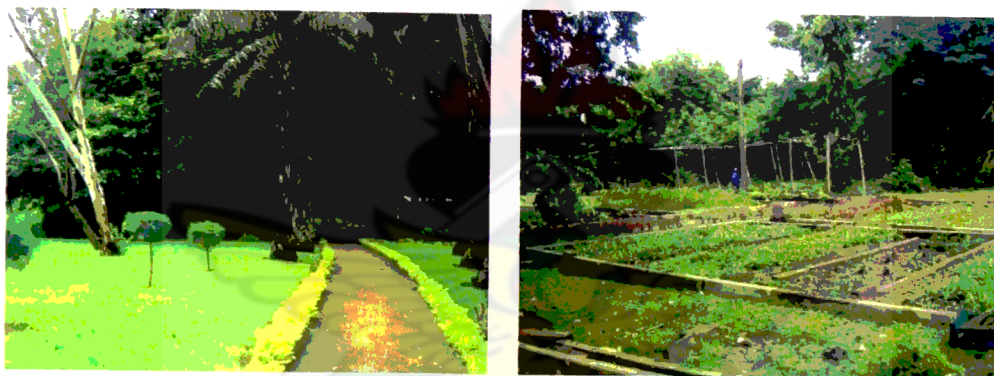


Figure 4.6 from left to right: Tree Plantation, Nursery  
Department of Parks & Gardens, Head Office

#### 4.5 THE PROPOSAL-DESIGNERS' GALLERY

From the studies undertaken by the researcher/ designer, conclusions were drawn which were subject to change throughout the design stage. Deductions and additions had to be made to enhance the client's brief. The developed brief follows.

## **TECHNICALITIES**

### **DEVELOPED BRIEF**

The entire facility was categorized into activities which are the resource center, three showroom blocks which will feature building materials and office furniture, interior products and home furnishings in that order and then finally a garden center. The hierarchy was drawn on from the study of customers shopping for building products. Sometimes customers know what they want but do not know where to source for them. Others have an idea of what is available on the market. Hence the resource center needed to be the first point of call. For the visitor who knows his or her way around it serves to inform of events and programmes that will be taking place within Designers Gallery. The order of the showrooms came from the normal sequence of an adult person's life—from work through to the home with the homes section being the last point of call.

### **PHILOSOPHY**

Designers Gallery is both an exhibition center and a one-stop point for all building and interior decor products. It is also a design incubator, in that it nurtures ideas through mock design rooms and simulation rooms.

### **CONCEPT**

- The catwalk which becomes the center of attention, thus pushing the objects on it into the limelight.
- Minimalist architecture with its elements of clean lines and aesthetics. Therefore, the employment of steel and glass.

- Curves to show the dynamism of design.
- Interactive design: use of surfaces to advertise and engage visitors.
- Continuity of interior with exterior

The art of display is employed in the design of designers Gallery because it is an exhibition center. The exhibition should not be only within the showrooms and exhibition spaces but as mentioned earlier should begin with the structures themselves.

The designer also intends the design to be interactive using display screens. The arrangements of the various buildings are based on the sequence of an adult person's life from work to the home. The entire design in terms of finishes is employing industrial materials in a friendly way.

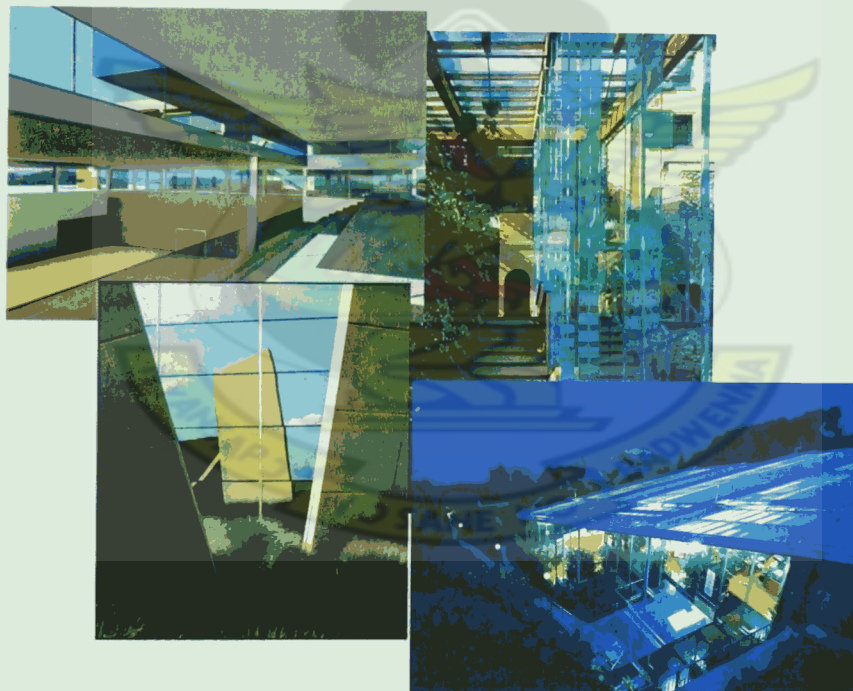


Figure 4.7: Materials and modernist concept to achieve clean look and design philosophy of Designers Gallery

## **HOUSES OF DESIGNERS GALLERY**

Designers Gallery comprises four “houses” which are as follows:

### **THE RESOURCE CENTER**

As mentioned afore, the resource center is to disseminate information to the general public and be responsible for the education programmes of the design center. It will have an information center that will the database unit with contact details of design professionals, service providers and artisans. There will also be a design encyclopaedia which will exhibit works or design professionals. Other spaces will be seminar rooms, an administration unit, lettable office spaces, and an education center with a library and internet café.

### **THE CORPORATES (COMMERCIAL INTERIOR PRODUCTS)**

Here, corporate furnishings and services for corporate bodies will be retailed. This building unit will include a designer’s lounge where designers and their clients can have discussions. It will also feature showrooms retailing office furniture, security systems, industrial flooring applications, acoustic materials.

### **THE BRIDGE**

The Bridge will showcase products that fall between corporate and residential furnishing. Firms that offer cleaning services can be found here. Additionally, The Bridge will have a 1000-persons capacity conference room where conferences and events on design and construction can be held.

## **THE HAVEN**

The focus for the haven is the retail of residential interior products. Special features include spa, a gift center and a shopping center apart from the showrooms displaying furniture and fixtures for living, dining rooms, bathrooms and kitchens and home electronics.

The following spaces are part of the extended brief:

## **THE ORBIT**

This is a revolving platform strategically placed to draw the passer-by. It features unique designs and furniture pieces which will be changed periodically giving the gallery a changing face each time the visitor comes there.

## **NATURE'S WALK (GARDEN CENTER)**

Interiors and exteriors are not mutually exclusive. One cannot design the interior of a structure without considering the exterior features as they go hand-in-hand. They must in effect tie together to form a uniform whole so that there is a seamless transition from the outside of a structure to its inside, hence the inclusion of a garden center, dubbed Nature Walk. Here plant materials, including tree species, outdoor furniture and exterior application such as paving materials will be retailed here. It will create a pleasant transition into the entire facility and will also be the last point of call as one leaves the facility. There is also a play area to cater to the needs of children who visit the facility with their parents, making it child friendly.

## **PARKING**

Ample parking spaces have been provided for customers and staff who work within Designer's Gallery. There is also a public transport section for buses and taxis to aid those who visit the facility without their own cars. There is also designated parking for delivery and cargo trucks. The physically challenged have also been considered with comfortable parking spaces allocated to them.

## **TECHNICAL STUDIES**

### **STRUCTURE**

The basic structural frame is steel borrowing elements from the industrial setting of Tema and the immediate surroundings of the site. Because of the flexibility of the design, the showrooms require free, uninterrupted spaces. The average showroom occupies a space of 100 square meters, which is the minimum size adequate for furniture showrooms.

### **FREE STANDS**

The free stands, majority of which are located on the ground floors of the various homes of Designers gallery occupy an average area of 3 square meters (m<sup>2</sup>) each. The free stands are to feature sample products. It is for companies which do not require showrooms for display of their products.

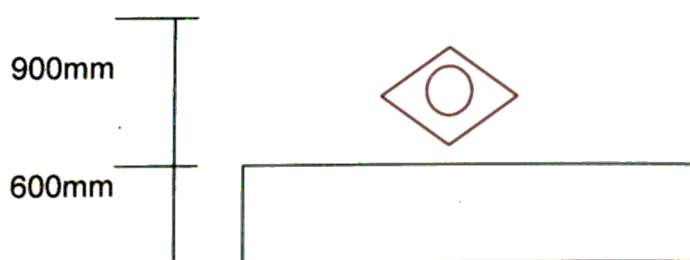


Diagram 4.1: Space requirements for free stands

## **REVOLVING FLOOR**

This is located along the entrance promenade and will feature unique designs, including art pieces produced locally weekly. The purpose is to encourage innovation among design professionals, artists and artisans. The revolving platform uses a rotor system which facilitates its revolution.

## **THE SITE**

Designers Gallery is to be located in Tema within the commercial zone of Tema Development Cooperation's (T.D.C) Community 25 neighbourhood. The idea was to choose a well suited and spacious area with a large catchment group who will benefit from Designers' Gallery and patronise its services.

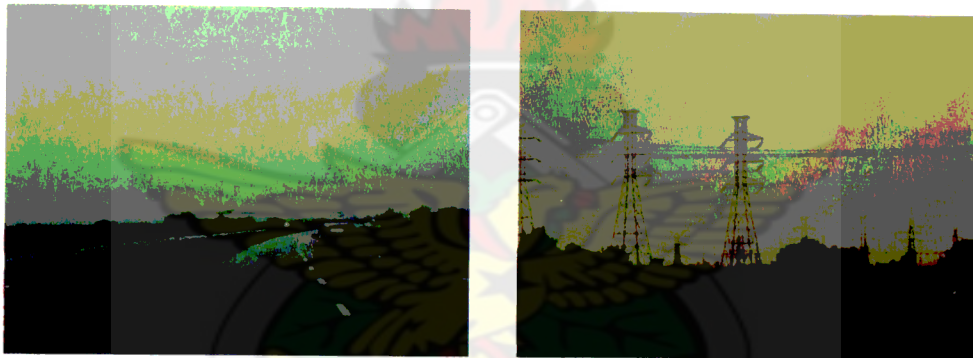
## **SITE SELECTION**

A comparison was made between locations in Accra and Tema and Tema proved to be the ideal location for Designers Gallery. Two main reasons governing the choice are that firstly, Accra is choked and has high vehicular traffic which would make journeying to the Gallery uncomfortable; secondly, Tema boasts of most of the best industries producing building materials and the intention was to capitalise on that advantage and create a mutually beneficial relationship between the gallery and these industries by providing a marketing medium for their products. Other equally important reasons are outlined as follows:

- Tema houses the nation's best equipped port in close proximity which will ease the cost of transportation of imported goods to the point of consumption and

distribution that would otherwise have doubled in transporting them to Accra had the gallery been sited there.

- Designers Gallery is within a town that boasts of some of the best industries in the nation and is about 5 kilometres from the free zones area. Presently there are approximately ten operating industries with more coming up and this creates a beautiful opportunity to offer a marketing medium for their products.
- Tema has a better organized system of services (water and electricity) and well laid-out infrastructure, and thus most individuals and companies are finding it as a better location for their homes and industries.



Figures 4.8 from left to right): High class infrastructure within Tema

- Within a ten kilometre radius, there are approximately ten housing estates, some of which are, Devtraco, T.D.C.'s Community 25 and Lovehill estates. All these require a well-equipped resource center, which will serve their material needs in terms of building and furnishing both for the real estate companies and for individuals who will dwell in these neighbourhoods.

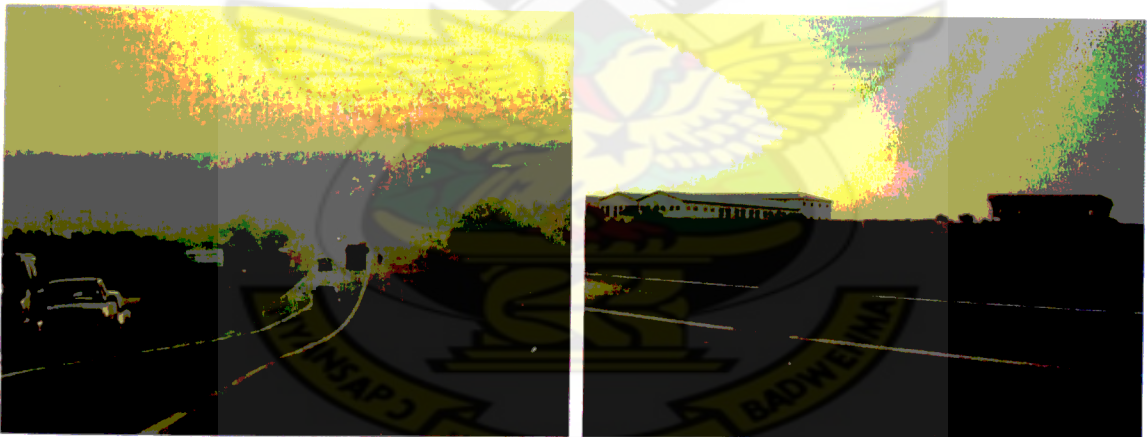
## **SITE ANALYSIS**

A comprehensive site and graphically represented analysis of the site can be found in appendix 2. The prime location of Designers Gallery set within the commercial area of Tema Development Corporation's Community 25 has beautiful views towards the free zones area as well as the golf course.

## CHARACTERISTICS

Designers Gallery is designed to fit the 430 meters by 200 meter site, taking advantage of the attractive views offered by the location which rises to a height of six meters on the broader side.

Windy conditions prevail on the location and make it a prime candidate for the harnessing of wind energy through windmills.



Figures 4.9 From left to right: Views of Tema at sunset, factories flanking site

## THE PROPOSAL

With an information center that could be run in collaboration with the G.I.A. and recognised interior design companies, Designers Gallery will serve to disseminate information on products and services that are required by their contemporaries and the general public as well as give general education on architecture and its related subject of

design. As part of their job description, the G.I.A., Organisations of interior designers and contractors will be able to organise seminars and workshops and organise competitions that will be informative and mind-stimulating. The incorporation of the G.I.A. will mutually benefit the design industry as well as the tenants and management of the Designers Gallery establishment. Designer's Gallery is to be a design center that inspires ideas, educates and informs. It will serve as a cohesive force between design professionals and contractors and essentially be a place where they can share, give and receive ideas. It is supposed to be a place where they can finalise their design decision, gain more insight into them and possibly meet up with manufacturers to realise their design concepts.

The idea is to have a collection of stores which are not just retailers of interior products but are primarily focussed on design or offering design solutions for consumers.

The center is to be designed with adequate free spaces and open areas at the ground floors of each building unit to allow for product launches and exhibitions of all kinds. This will allow for such programs by not only design professionals but their allied professions and service providers.

### **TARGET GROUP**

Designers Gallery has been created for the discerning designer and general public to offer comfort, pleasure and education in shopping for building materials.

Designers Gallery creates a win-win situation for designers and companies within it. Designers and consumers are easily located; consumers also get what they want easily without cutting across the city centers. Designers Gallery will showcase the premium in furniture, fabric, lighting, kitchens, bath, rugs, ceramic tiles, paints, and wall coverings.

Apart from featuring profiles on designers, the resource center will offer product samples of leading manufacturers and distributors representing flooring, fabric, carpet, paint, architectural building, laminate, tile, lighting and furnishings.



Diagram 4.2: Target group of Designers Gallery

## BLOCK PLAN

The positioning and orientation of the entire facility is done strategically to embrace the passer-by either on foot or driving. The idea for the orientation also stems from the desire to create varying experiences as one walks though Designers gallery. At one section you could be enjoying the morning sun and at another the setting sun. Because Designers Gallery showcases design, the facility itself is designed to be a

showpiece not detracting from the exhibits but creating a stimulating backdrop for them. It is supposed to set the mind wondering what to expect. The facility itself speaks about design right from the entrance to the Resource center. The walk through the Garden Center when one enters by car or through the promenade if one enters by foot is a learning experience as well as most importantly a pleasurable experience. Therefore, the designer has employed elements such as water, planting, lighting and furniture in a breath-taking and refreshing way. It also maximizes on the remarkable views of the lush vegetation of Tema and its surround. The orientation is also to maximize on the North and south orientation. Either by foot or car the visitor is given an unwinding but educative approach through natures walk where one learns about plants and landscaping materials such as paving materials, terracing and garden furniture.

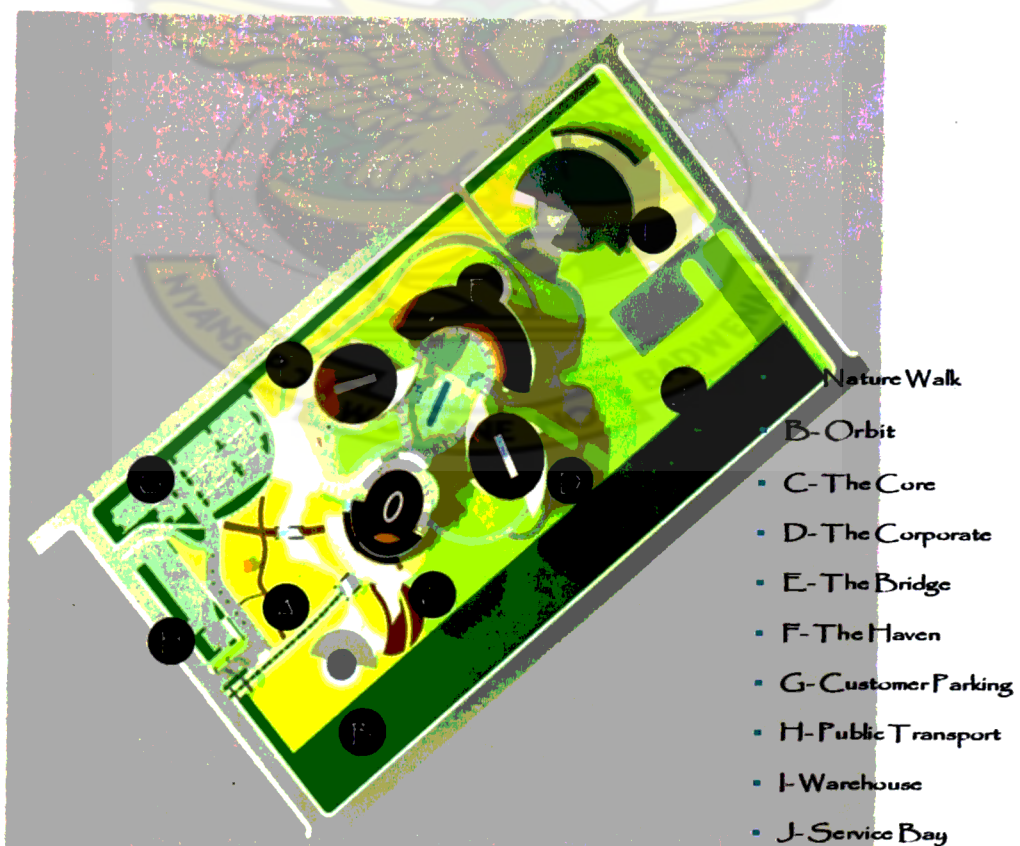


Figure 4.10: Block Plan of Designer's Gallery

## PLANS AND ELEVATIONS

For the visitor who is new to Designers Gallery it sets the stage for a sequential journey through the activities of the average working person's life from work to the home.

## STRUCTURAL FORM

The structural framework is a steel grid system of stanchions and beams that span the showrooms and meeting lounges.

## MATERIALS

To enable the designer to span the spaces required for the showrooms to create uninterrupted spaces, the designer has employed steel in the design of the Designers Gallery. Steel was also chosen to reflect the industrial context of Tema, but to give it a warm touch there are splashes of hot colours which create a design statement, drawing the curious visitor.

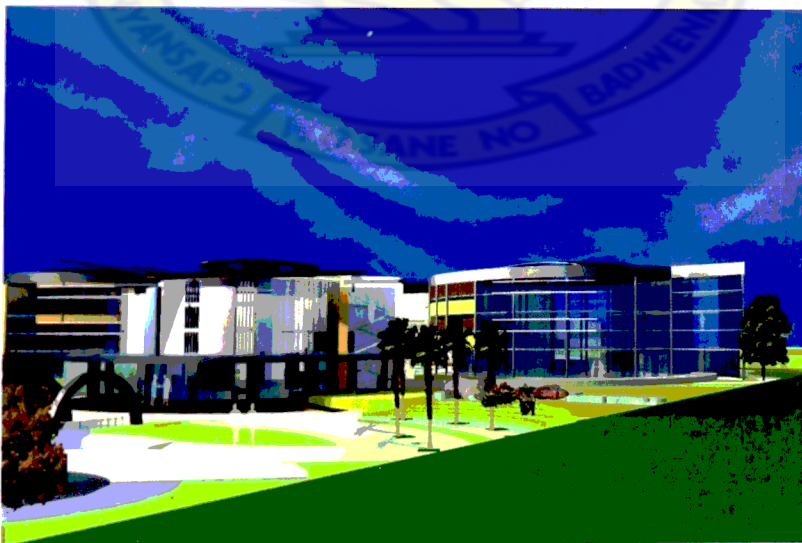


Figure 4.11: Materials used in the design of Designers Gallery

## **CLADDING**

Glass, Creative Weave (a perforated galvanised steel mesh) and Alucobond have been employed in the cladding of the columns and structures except in the fire escapes where concrete has been employed to ensure fire safety.

Glass has been employed in the interior for visual enhancement of showrooms to the visitor. Since the idea is to exhibit, there should be uninterrupted visual contact between the various showrooms and the visitor. The use of glass and steel together sets up a modern and clean look which facilitate the realization of the designer's concept mentioned earlier as shown in Figure 4.13.

## **LANDSCAPING**

The landscaping offsets the austere look of the steel materials so it is a play of the cold and warm, hard and soft. The visitor goes through or by Nature Walk which sets the stage for what is to be expected within the Gallery. Nature walk is designed to unwind the visitor as well as teach about the benefits of good landscaping within our environment and plant materials. Materials and elements employed in the landscape design of the Designers Gallery to achieve this are cobble, water, glass, light and of course shade trees, grass and shrubs.

Essentially, Nature Walk is to be the Garden Center of Designers' Gallery where plant materials and exterior products such as paving blocks are retailed. Nature Walk is intended to house an arboretum where a variety of trees, plants both flowering and non-flowering can be found.

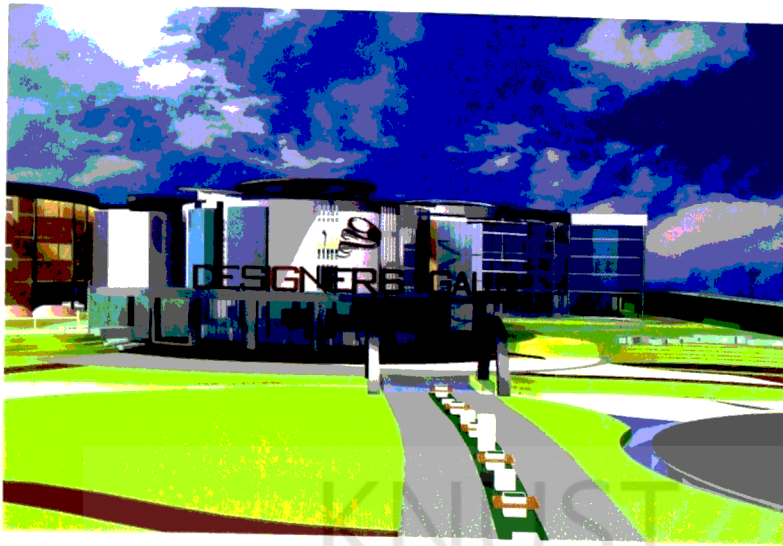


Figure 4.12: Entrance walk into Designers Gallery

## **MANAGEMENT SYSTEM**

### **INTERIOR DÉCOR**

To ensure an organized, uniform and attractive look within the various 'houses' all shop frontages are to have even sizes of signage and a colour scheme which blends with the entire facility from which the tenants will choose from.

### **INTERACTIVE AND TOUCH SCREENS**

To facilitate easy dissemination of information, lounges have been designed to incorporate touch-sensitive screens and display screens that will provide information on upcoming events and new products available at the center.

## CHAPTER 5

### DISCUSSION

#### 5.0 INTRODUCTION

The stakeholders of the design resource center, being architects, landscape designers, interior designers, engineers, contractors, government organisations, real estate developers and the public, play a major role in this research work and their views are very important. Subsequent paragraphs will highlight results of key questions asked in the survey conducted by the researcher. Refer to the Appendix for questionnaires and detailed analysis of survey.

#### 5.1 INTERVIEWS WITH DESIGN PROFESSIONALS AND STAKEHOLDERS

From the interviews, the general agreement among professional designers is that there is not enough interaction among themselves and between the ordinary person and them. 33% believed certainly that there was enough interaction; 66% believed the interaction was moderate. 16.7% of the surveyed group highlighted the isolation of firms and their being focussed on their projects more than the issues that affect them, with few events that bring them together. It is important to note that, a high level of discourse is required to share ideas and experiences for growth to occur, Table 5.1.

			Percent	Valid Percent	Cumulative Percent
Valid	Yes	2	33.3	33.3	33.3
	Moderately	4	66.7	66.7	100.0
	Total	6	100.0	100.0	

Table 5.1: Views on level of interaction among design professionals

Within the public sphere, design professionals are not easily accessible because of a lack of database on them and limitations of some rules of their organisations which do not allow for advertisements. So there is a lot of unawareness about them and the public impression is that the cost of their services is very high, Table 5.2.

		Percent	Valid Percent	Cumulative Percent
Easily Accessible	1	12.5	12.5	12.5
Moderately Accessible	4	50.0	50.0	62.5
Not Accessible	3	37.5	37.5	100.0
<b>Total</b>	<b>8</b>	<b>100.0</b>	<b>100.0</b>	

Table 5.2: Ease of accessibility to design professionals for the public

Asked about the ease in accessing furnishings and building materials, 66% and 62% of the professionals and the public respectively said they were moderately accessible (Table 5.3).

Professionals			Public		
		Percent			Percent
Easily accessible	1	16.7	1	12.5	12.5
Moderately accessible	4	66.7	5	62.5	62.5
Not accessible	1	16.7	1	12.5	12.5
<b>Total</b>	<b>6</b>	<b>100.0</b>	<b>1</b>	<b>12.5</b>	<b>12.5</b>

Table 5.3: Ease of accessibility to furnishings for professionals and public

37% of the public considered the technical knowledge of personnel in retail shops moderate, Table 5.4. Sale of building materials and furnishings is specialised and requires people who are equipped to advice their customers to make the right choices.

There is an increasing growth in the use of tiles in buildings and most of time the wrong

types are used especially in high human traffic zones. For example, one can find very smooth tiles used in stairwells which pose a health hazard because they are extremely slippery.

		Percent	Valid Percent	Cumulative Percent
	Yes	2	25.0	25.0
	No	3	37.5	62.5
	Moderate	2	25.0	87.5
	N/A	1	12.5	100.0
	<b>Total</b>	<b>8</b>	<b>100.0</b>	

Table 5.4: Views on Technical knowledge of personnel in retail shops

100% of the public supported the idea of a permanent structure for design activities and for ease of access to design-based information, particularly furnishings. 83% of the professionals supported the idea and there was a 50-50 split among the retailers of furnishings and building materials on the idea, Figure 5.1. One member of the public highlighted very important issues, saying that other areas within our environment are zoned, such as the industrial areas, harbours and ministries. However, within the retail of building and design products, shops are scattered across the city centers. There is a lot of time-wastage in finding products of ones choice.

Professionals		Percent	Retailers		Percent	Public		Percent
	Good	83.3			50.0			100.0
	Not good	16.7			50.0			0
	<b>Total</b>	<b>100.0</b>			<b>100.0</b>			<b>100.0</b>

Table 5.5: Views on need for a Design Resource Center

Asked on how conditions within the design and construction industry could be enhanced with respect to accessibility to design information and products, 66.7% of the surveyed group of professionals opted for seminars and conferences and yet again 66.7% of the same group opted for a resource center. 83% believed that physical infrastructure could play a key role in solving this issue, specifically zoning of retail shops in a particular area. Within the public domain, 62.5% supported the ideas of seminars and conferences in improving the design industry; 100% of that group opted for a resource center and also infrastructure.

One member of the public suggested that artisans be made to undergo apprenticeship for at least three years with a master artisan and given a certificate to practise as it is done in the Francophone countries. This would ensure that high quality craftsmanship and workmanship is produced by our local workforce.

It is clear the importance of educational seminars to create a positive outlook on design and emphasise the need to high quality product and services on the market. For this to be possible, it requires a resource center with design as its focal point where exhibitions and conferences, and other educational programs can be held in a non-biased setting.

## CHAPTER 6

### CONCLUSION & RECOMMENDATIONS

#### 6.1 CONCLUSION

Design is vital in the development of any nation because that is what they thrive on; the buildings they sleep and work in, the utility wares they use, the chairs they sit on are all design-inclined and if a large percentage of these are imported it creates a strain on the economy.

Design, for the researcher, does have an artistic component in it. Without that all buildings and objects would look the same. Designers, in this respect architects, work around the restrictions imposed by clients, users and legislators and factor them into the expressions of their passions to make them functional. This is what design and the design process is about. Design cannot be done away with or ignored and this paper has emphasised that. Interdisciplinary programmes need to be worked into the curricula of design departments of education institutions to groom a new breed of professionals who will better understand the environments they live in, work in and imperatively design for.

Success comes from shared learning because there is an abundance of knowledge; with it comes so many conditions that innovations need to meet and this makes it impossible for one-man organisations to survive. It starts from the grass roots, when students are being nurtured so 'when they grow they shall not depart from it'. This is what the Designers Gallery is about.

## 6.2 RECOMMENDATIONS

Based on the survey conducted and the results obtained, the researcher deduced that a design center is required in the country to:

- Embody Design
- Disseminate Information on design
- Market high-quality products in an enabling environment
- Enhance interaction amongst Design Professionals and consequently aid in their growth.
- Offer easy access to Design Professionals

There is the need to incorporate interdisciplinary programmes and industrial design into the curricula of design schools. Additionally, more articles, publications and research work in the area of design, which factor in our culture as Ghanaians and Africans, are required. Incorporating other disciplines into the curricula of design curricula will help produce professionals who are better able to understand modern design problems and thus provide solutions that work. Industrial design is one area of specialisation that needs to be factored into all design curricula (architecture, art, and engineering). Students under this program will learn how to produce their ideas and reduce importation of products into the country.

Referring to Table 5.3, more publications and papers need to be made by way of research papers, articles and design magazines. All these have an influence on the design sense of people. If these written materials factor in the Ghanaian culture, the readers will relate better to the ideas and suggestions. At the root of design is culture, the culture of

the end-users and the success of a design lies in the users understanding and relating to it.

The design center would be a prototype replicated across the country and could be a venture financed by insurance companies in collaboration with the Ghana Institute of Architects, Ghana Institute of Engineers and bodies of the allied professions-Interior Design and Construction societies, who would man the resource center. A resource center is required to handle product launches, awards, seminars and conferences and the proposed design center will serve this function. The activities mentioned will promote good design culture among the artisans, design professionals and emphasise the benefits of excellent workmanship.

The researcher proposes that the design resource center be user – friendly, focussing on the needs of the users and incorporating them into the design. It should have interactive features in the form of Interactive spaces and Simulation rooms, Interactive Screens to provide information on upcoming events and products, Showrooms and Database rooms. The database rooms will offer information on design professionals, service providers and retailers to make them more accessible to the public. The center should have both outdoor and indoor free spaces, where exhibitions and products launches can be held to update users on new design methods and new products on the market. These spaces will double as spaces where areas where designers and clients can hold meetings. The objective of this study to bring more interaction among design professionals and the public will then be achieved

The design center must have sustainable design, featuring green generous spaces and harnessing on natural resources prevalent in Ghana being wind and solar.

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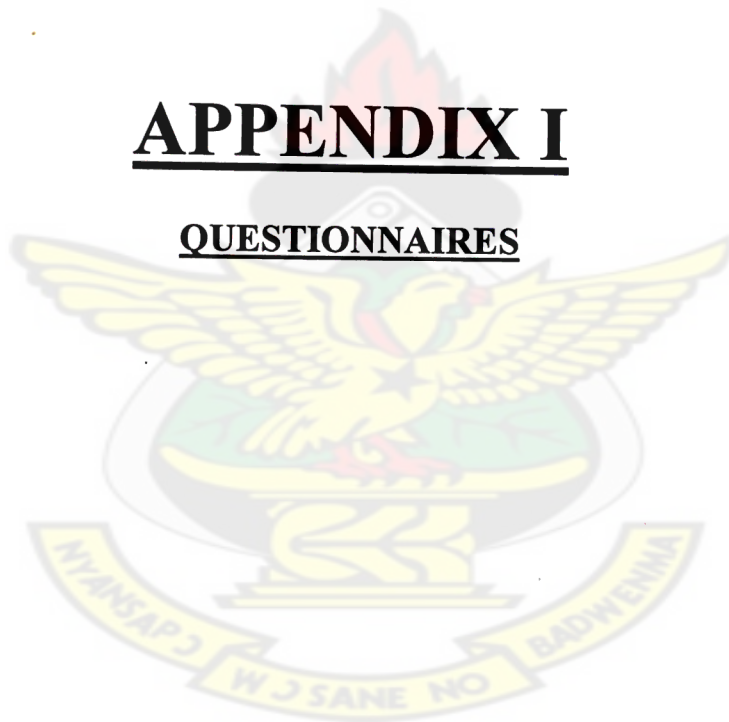
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**APPENDIX I**

**QUESTIONNAIRES**





11. How accessible are building materials and furnishings?  
 .....EASILY ACCESSIBLE .....MODERATELY ACCESSIBLE  
 .....NOT AT ALL ACCESSIBLE
12. How can accessibility to design-based products and information be improved?  
 .....MORE ADVERTS  
 .....IMPROVEMENT IN YELLOW PAGES  
 .....RESTRUCTURING OF PHYSICAL INFRASTRUCTURE
13. Do you have any design or technical background to be able to advise your customers?  
 .....YES .....NO
14. Do you have adequate design-based information on what is going on locally and internationally?  
 .....YES .....NO
15. If not how do you source for design-based information you do not have?  
 .....FROM OTHER PROFESSIONALS .....INTERNET  
 .....TELEVISION .....JOURNALS
16. Do you come into contact with other design & construction professionals?  
 .....YES .....NO
17. If yes which kind?  
 ....ARCHITECTS .....CONTRACTORS .....ENGINEERS  
 ....LANDSCAPE DESIGNERS  
 ....INTERIOR DESIGNERS
18. Do you seek professional advice from design professionals?  
 .....YES .....NO
19. Is there enough interaction among professionals within the industry?  
 .....YES .....NO
20. Do you know what a design center is?  
 .....YES .....NO
21. What would your views be on a structure that permanently houses a Building Fair?  
 .....GOOD .....NOT GOOD
22. Do you advertise your services?  
 .....YES .....NO
23. Reasons given  
 .....VERY USEFUL .....NOT USEFUL
24. How can conditions within the industry be enhanced?  
 .....MORE PUBLICATIONS .....TV PROGRAMS  
 .....SEMINARS & CONFERENCES .....EXHIBITIONS  
 .....INFRASTRUCTURE .....RESOURCE CENTER  
 .....EDUCATIONAL PROGRAMS  
 .....POLICIES & REGULATIONS

.....DATABASE (PROFESSIONALS, ARTISANS, RETAILERS & SERVICE PROVIDERS

25. How can the knowledge gap between local artisans and design professionals be bridged?

.....SEMINARS & CONFERENCES

.....TELEVISION & CONFERENCES

.....INFRASTRUCTURE

.....POLICIES & REGULATIONS

.....EDUCATIONAL PROGRAMS

## **II B**

### **QUESTIONNAIRE - RETAILERS OF FURNISHINGS**

**NAME OF BUSINESS:** .....

**TYPE OF BUSINESS:** .....

**LOCATION:** .....

1. When did you set up this establishment?
2. What led you to go into this business?  
....PASSION/ INTEREST                      ....TO SERVE A NEED  
....MOST SUCCESSFUL BUSINESS AT THE TIME
3. Have you ever taken part in the Building Exhibition?  
....YES    ....NO
4. If Yes/No, Why?  
....VERY USEFUL                                      ....NOT USEFUL
5. What are your impressions about the Building Exhibition?  
....HIGHLY INFORMATIVE  
....QUITE INFORMATIVE  
....SOMEWHAT INFORMATIVE  
....NOT AT ALL INFORMATIVE
6. What would your views be on a structure that permanently houses such a fair?  
....VERY GOOD                                      ....NOT GOOD
7. Do you know what a design center is?  
....YES    ....NO
8. How would you view the idea of a Design center?  
....YES    ....NO
9. Would you like to have your wares displayed there?  
....YES    ....NO
10. If Yes/ No, Why?

- ....COST BENEFICIAL                      ....NOT COST BENEFICIAL  
 ....UNCERTAIN OF SUCCESS
11. Do you have any design or technical background to be able to advise your customers?  
 ....YES                                      ....NO
12. Do you come into contact with design professionals of any kind?  
 ....YES                                      ....NO
13. If yes which kind?  
 ....ARCHITECTS                      ...INTERIOR DESIGNERS                      ....CONTRACTORS  
 ....OTHERS (Please Specify)
14. On what basis do you choose the products for your showrooms?  
 ....COMMON ON THE MARKET                      ....PERSONAL PREFERENCE  
 ....PERSONAL OBSERVATION                      ....ADVICE FROM CLIENTS  
 ....ADVICE FROM DESIGN PROFESSIONALS
15. How do you handle customers when you do not have what they are looking for?  
 ....SUGGEST ALTERNATIVE                      ....REFER TO OTHER SHOPS  
 ....PLACE ORDER
16. Do you advertise your wares and/or services?  
 ....YES                                      ....NO
17. If no, reasons given  
 ....NOT USEFUL                      ....EXPENSIVE

## **IIC**

### **QUESTIONNAIRE FOR THE PUBLIC**

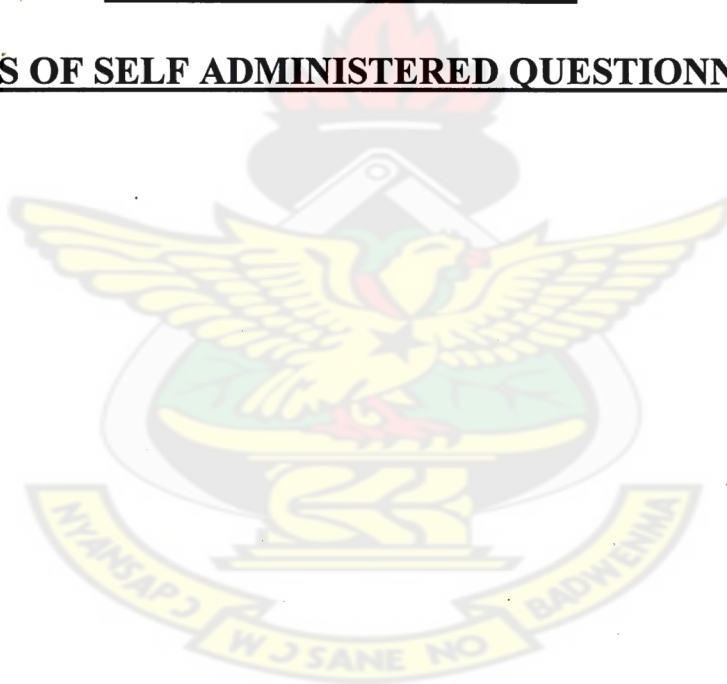
1. Have you done a building/ decorating project before?  
 .....YES                                      .....NO
2. Have you used the services of a design professional?  
 .....YES                                      .....NO
3. Is YES which one?  
 ....ARCHITECTS                      .....CONTRACTORS .....ENGINEERS  
 ....LANDSCAPE DESIGNERS                      .....INTERIOR DESIGNERS
4. Was it easy locating one?  
 .....YES                                      .....NO
5. Have you purchased any furnishings/ building materials before?  
 .....YES                                      .....NO
6. How did you know which shop to go to?  
 .....YELLOW PAGES                      .....REFERRALS

- .....INTERNET  
 .....SCOUTING
- .....TELEVESION ADVERTS
7. How accessible were your choice of products?  
 .....EASILY ACCESSIBLE .....MODERATELY ACCESSIBLE  
 .....NOT AT ALL ACCESSIBLE
8. Did the personnel have adequate technical knowledge to advice you?  
 .....YES .....NO
9. Were the shop displays attractive?  
 .....YES .....MODERATE .....NO
10. Was the shop setting comfortable and attractive?  
 .....YES .....MODERATE .....NO
11. Have you ever attended the Building Exhibition and/ or any such fairs?  
 .....YES .....NO
12. What are your reasons for attending?  
 .....TO SOURCE FOR PRODUCTS  
 .....TO MEET OTHER PROFESSIONALS  
 .....FOR EDUCATIONAL SEMINARS
13. Did you meet professionals in the design and construction industry?  
 .....YES .....NO
14. Did it improve your knowledge?  
 .....YES .....MODERATELY .....NO
15. In what area?  
 .....PRODUCTS AND THEIR APPLICATIONS  
 .....LOCATION OF DESIGN AND CONSTRUCTION PROFESSIONALS  
 .....LOCATION OF RETAILERS  
 .....DESIGN & CONSTRUCTION  
 .....NEEDS OF THE SOCIETY
16. How would you rate the event?  
 ...HIGHLY INFORMATIVE  
 ...QUITE INFORMATIVE  
 ...SOMEWHAT INFORMATIVE  
 ...NOT AT ALL INFORMATIVE
17. How do you source for building materials and furnishings?  
 .....YELLOW PAGES .....REFERRALS  
 .....INTERNET .....TELEVESION  
 .....ADVERTS .....SCOUTING
18. How accessible are building materials and furnishings?  
 .....EASILY ACCESSIBLE .....MODERATELY ACCESSIBLE  
 .....NOT AT ALL ACCESSIBLE
19. How can accessibility to design-based products and information be improved?  
 .....MORE ADVERTS

- .....IMPROVEMENT IN YELLOW PAGES  
 .....RESTRUCTURING OF PHYSICAL INFRASTRUCTURE
20. Do you have adequate design-based information on what is going on locally and internationally?  
 .....YES .....NO
21. If not how do you source for design-based information you do not have?  
 .....FROM PROFESSIONALS .....INTERNET  
 .....TELEVISION .....JOURNALS
22. Would you use the services of design & construction professionals?  
 .....YES .....NO
23. If yes which kind?  
 ....ARCHITECTS .....CONTRACTORS .....ENGINEERS  
 ....LANDSCAPE DESIGNERS .....INTERIOR DESIGNERS
24. If not why?  
 .....TOO EXPENSIVE .....UNAWARENESS  
 .....NOT EASILY ACCESSIBLE
25. How accessible are professionals within the industry?  
 ....VERY ACCESSIBLE .....MODERATELY ACCESSIBLE  
 ....NOT AT ALL ACCESSIBLE
26. Do you know what a design center is?  
 .....YES .....NO
27. What would your views be on a structure that permanently houses a Building Fair?  
 .....GOOD .....NOT GOOD
28. How can conditions within the industry be enhanced?  
 ....MORE PUBLICATIONS .....TV PROGRAMS  
 ....SEMINARS & CONFERENCES .....EXHIBITIONS  
 ....INFRASTRUCTURE ....RESOURCE CENTER  
 ....EDUCATIONAL PROGRAMS.....POLICIES & REGULATIONS  
 ....DATABASE (PROFESSIONALS, ARTISANS, RETAILERS &  
 SERVICE PROVIDERS
29. How can the knowledge gap between local artisans and design professionals be bridged?  
 ....SEMINARS & CONFERENCES .....INFRASTRUCTURE  
 ....POLICIES & REGULATIONS ....TELEVISION  
 ....EDUCATIONAL PROGRAMS

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**APPENDIX II**

**ANALYSIS OF SELF ADMINISTERED QUESTIONNAIRES**



**APPENDIX II A**  
**DESIGN & CONSTRUCTION PROFESSIONALS**  
**Analysis of Sample Questions**

1. What led you to open this business?

			Percent	Valid Percent	Cumulative Percent
	Passion/Interest	1	16.7	16.7	16.7
	To serve a need	5	83.3	83.3	100.0
	<b>Total</b>	<b>6</b>	<b>100.0</b>	<b>100.0</b>	

2. Have you ever taken part in or attended a Building Exhibition and or any such fairs?

			Percent	Valid Percent	Cumulative Percent
	Yes	6	100.0	100.0	100.0

3. Reasons for taking part/attending.

			Percent
	To advertise	3	16.7
	To source for products	3	16.7
	To meet clients	3	16.7
	To meet other professionals	4	22.2
	For educational seminars	5	27.7
	<b>Total</b>	<b>18</b>	<b>100.0</b>

4. Did you meet other professionals in the industry?

			Percent	Valid Percent	Cumulative Percent
	Yes	5	83.3	83.3	83.3
	No	1	16.7	16.7	100.0
	<b>Total</b>	<b>6</b>	<b>100.0</b>	<b>100.0</b>	

5. Did it bring you into contact with more clients?

			Percent	Valid Percent	Cumulative Percent
	Yes	4	66.7	66.7	66.7
	No	2	33.3	33.3	100.0
	<b>Total</b>	<b>6</b>	<b>100.0</b>	<b>100.0</b>	

6. Did it improve your knowledge?

			Percent	Valid Percent	Cumulative Percent
Valid	Yes	6	100.0	100.0	100.0

7. In what area?

			Percent
Valid	Products and their applications	4	33.3
	Design and construction	4	33.3
	Needs of society	4	33.3
	Location of retailers	0	0
	<b>Total</b>	<b>12</b>	<b>100.0</b>

8. How would rate the event?

			Percent	Valid Percent	Cumulative Percent
Valid	Highly informative	4	66.7	66.7	66.7
	Quite informative	1	16.7	16.7	83.3
	Somewhat informative	1	16.7	16.7	100.0
	<b>Total</b>	<b>6</b>	<b>100.0</b>	<b>100.0</b>	

9. How do you source for building materials and furnishings locally?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yellow pages	0	0	0	0
	Referrals	2	25.0	25.0	25.0
	Internet	2	25.0	25.0	50.0
	Television adverts	2	25.0	25.0	75.0
	Scouting	2	25.0	25.0	100.0
	<b>Total</b>	<b>8</b>	<b>100.0</b>	<b>100.0</b>	

10. Ease in assessing building materials and furnishings

			Percent	Valid Percent	Cumulative Percent
Valid	Easily accessible	1	16.7	16.7	16.7
	Moderately accessible	4	66.7	66.7	83.3
	Not accessible	1	16.7	16.7	100.0
	<b>Total</b>	<b>6</b>	<b>100.0</b>	<b>100.0</b>	

11. How accessibility to design-based products and information can be improved

			Percent
	More adverts		33
	Improvement in Yellow Pages	3	22
	Restructuring of physical infrastructure	2	45
	<b>Total</b>	<b>9</b>	<b>100.0</b>

12. Do you have any design or technical background to be able to advise your customers?

			Percent	Valid Percent	Cumulative Percent
Valid	Yes	6	100.0	100.0	100.0

14. Do you have adequate design-based information on what is going on locally and internationally?

			Percent	Valid Percent	Cumulative Percent
Valid	Yes	4	66.7	66.7	66.7
	No	0	0	0	66.7
	Moderately	2	33.3	33.3	100.0
	<b>Total</b>	<b>6</b>	<b>100.0</b>	<b>100.0</b>	

15. If No, how do you source for design-based information you do not have?

			Percent
	From other professionals	4	26.7
	Internet	5	33.3
	Journals	5	33.3
	Television	1	6.7
	<b>Total</b>	<b>15</b>	<b>100.0</b>

16. Do you come into contact with other design and construction professionals?

			Percent	Valid Percent	Cumulative Percent
Valid	Yes	6	100.0	100.0	100.0

17. If Yes, which kind?

			Percent
Valid	Architects	6	27.3
	Contractors	4	18.2
	Engineers	5	22.7
	Landscape designers	3	13.6
	Interior designers	4	18.2
	<b>Total</b>	<b>22</b>	<b>100.0</b>

18. Do you seek professional advice from design professionals?

			Percent	Valid Percent	Cumulative Percent
Valid	Yes	6	100.0	100.0	100.0

19. Is there enough interaction among professionals within the industry?

			Percent	Valid Percent	Cumulative Percent
Valid	Yes	2	33.3	33.3	33.3
	Moderately	4	66.7	66.7	100.0
	<b>Total</b>	<b>6</b>	<b>100.0</b>	<b>100.0</b>	

20. Do you know what a Design Centre is?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	3	50.0	50.0	50.0
	No	3	50.0	50.0	100.0
	<b>Total</b>	<b>6</b>	<b>100.0</b>	<b>100.0</b>	

21. Views on a structure that permanently houses a Building Exhibition Fair.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Good	5	83.3	83.3	83.3
	Not good	1	16.7	16.7	100.0
	<b>Total</b>	<b>6</b>	<b>100.0</b>	<b>100.0</b>	

22. Do you advertise your services?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	4	66.7	66.7	66.7
	No	2	33.3	33.3	100.0
	Total	6	100.0	100.0	

23. Reasons given

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very useful	4	66.7	66.7	66.7
	Not useful	2	33.3	33.3	100.0
	Total	6	100.0	100.0	

24. Views on how conditions within the industry can be enhanced.

		Frequency	Percent
	More Publications	4	9.8
	TV Programs	3	7.3
	Seminars and conference	4	9.8
	Exhibitions	4	9.8
	Infrastructure	5	12.2
	Resource centre	4	9.8
	Educational programmes	6	14.6
	Policies and regulations	5	12.2
	Database (Professionals, Artisans, Retailers and Service Providers)	6	14.6
	<b>Total</b>	<b>41</b>	<b>100</b>

25. How knowledge gap between local artisans and design professionals can be bridged.

		Frequency	Percent
	Seminars and Conferences	4	26.67
	Television	3	20.00
	Infrastructure	1	6.67
	Policies and Regulations	2	13.33
	Educational Programs	5	33.33
	<b>Total</b>	<b>15</b>	<b>100</b>

**APPENDIX II B**  
**RETAILERS OF FURNISHINGS & BUILDING MATERIALS**  
**Analysis of Sample Questions**

1. What led you to go into this business?

			Percent	Valid Percent	Cumulative Percent
Valid	Passion/Interest	3	75.0	75.0	75.0
	To serve a need	1	25.0	25.0	100.0
	<b>Total</b>	<b>4</b>	<b>100.0</b>	<b>100.0</b>	

2. Have you ever taken part in a Building Exhibition?

			Percent	Valid Percent	Cumulative Percent
Valid	Yes	2	50.0	50.0	50.0
	No	2	50.0	50.0	100.0
	<b>Total</b>	<b>4</b>	<b>100.0</b>	<b>100.0</b>	

3. If Yes or No, why?

			Percent	Valid Percent	Cumulative Percent
Valid	Useful	2	50.0	50.0	50.0
	Not Useful	2	50.0	50.0	100.0
	<b>Total</b>	<b>4</b>	<b>100.0</b>	<b>100.0</b>	

4. What are your impressions about the Building Exhibition?

			Percent	Valid Percent	Cumulative Percent
Valid	N/A	1	25.0	25.0	25.0
	Quite informative	3	75.0	75.0	100.0
	<b>Total</b>	<b>4</b>	<b>100.0</b>	<b>100.0</b>	

5. Is it a laudable fair?

			Percent	Valid Percent	Cumulative Percent
Valid	Yes	3	75.0	75.0	75.0
	N/A	1	25.0	25.0	100.0
	<b>Total</b>	<b>4</b>	<b>100.0</b>	<b>100.0</b>	

6. Views about a structure that permanently houses such fair.

			Percent	Valid Percent	Cumulative Percent
Valid	Very Good	1	25.0	25.0	25.0
	Not Good	2	50.0	75.0	75.0
	N/A	1	25.0	25.0	100.0
	<b>Total</b>	<b>4</b>	<b>100.0</b>	<b>100.0</b>	

7. Do you know what a Design Centre is?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	3	100.0	100.0	100.0

8. How would you view the idea of a Design Centre?

			Percent	Valid Percent	Cumulative Percent
Valid	Beneficial	2	50.0	50.0	50.0
	Not beneficial	2	50.0	50.0	100.0
	<b>Total</b>	<b>4</b>	<b>100.0</b>	<b>100.0</b>	

9. Would you display your wares there?

			Percent	Valid Percent	Cumulative Percent
Valid	No	3	75.0	75.0	75.0
	N/A	1	25.0	25.0	100
	<b>Total</b>	<b>4</b>	<b>100</b>	<b>100</b>	

10. If Yes/No, why?

			Percent	Valid Percent	Cumulative Percent
Valid	Not cost effective	2	50.0	50.0	50.0
	N/A	2	50.0	50.0	100.0
	<b>Total</b>	<b>4</b>	<b>100.0</b>	<b>100.0</b>	

11. Do you have any design or technical background to be able to advise your customers?

			Percent	Valid Percent	Cumulative Percent
Valid	Yes	4	100.0	100.0	100.0

12. Do you come into contact with design professionals of any kind?

			Percent	Valid Percent	Cumulative Percent
Valid	Yes	4	100.0	100.0	100.0

13. If Yes, which kind?

			Percent
Valid	Architects		
	Interior designers	4	33.3
	Contractors	4	33.3
	Others	3	25.0
	<b>Total</b>	<b>12</b>	<b>100.0</b>

14. On what basis do you choose the products for your showroom?

			Percent
Valid	Personal preference	4	36.3
	Personal observation	3	27.3
	Advice from design professionals	1	9.1
	Advice from clients	3	27.3
	<b>Total</b>	<b>11</b>	<b>100.0</b>

15. How do you handle customers when you do not have what they are looking for?

			Percent	Valid Percent	Cumulative Percent
Valid	Suggest alternative	1	25.0	25.0	25.0
	Referrer client to other shops	1	25.0	25.0	50.0
	Place an order	2	50.0	50.0	100.0
	<b>Total</b>	<b>4</b>	<b>100.0</b>	<b>100.0</b>	

16. Do you advertise your wares and/or services?

			Percent	Valid Percent	Cumulative Percent
Valid	Yes	4	100.0	100.0	100.0

17. If No, reasons given.

			Percent	Valid Percent	Cumulative Percent
Valid	N/A	4	100.0	100.0	100.0

**APPENDIX II C**  
**PUBLIC**  
**Analysis of Sample Questions**

1. Done a building/decorating project before?

			Percent	Valid Percent	Cumulative Percent
Valid	Yes	8	100.0	100.0	100.0

2. Used the services of a design professional?

			Percent	Valid Percent	Cumulative Percent
Valid	Yes	6	75.0	75.0	75.0
	No	2	25.0	25.0	100.0
	<b>Total</b>	<b>8</b>	<b>100.0</b>	<b>100.0</b>	

3. If Yes, which professional?

			Percent
Valid	N/A		
	Architects	2	15.4
	Contractors	6	46.2
	Engineers	1	7.7
	Interior Designers	2	15.4
	Landscape Designers	1	7.7
	<b>Total</b>	<b>13</b>	<b>100</b>

4. Was it easy locating one?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	5	62.5	62.5	62.5
	No	1	12.5	12.5	75.0
	N/A	2	25.0	25.0	100.0
	<b>Total</b>	<b>8</b>	<b>100.0</b>	<b>100.0</b>	

5. Have you purchased any furnishings/building materials before?

			Percent	Valid Percent	Cumulative Percent
Valid	Yes	7	87.5	87.5	87.5
	No	1	12.5	12.5	100.0
	<b>Total</b>	<b>8</b>	<b>100.0</b>	<b>100.0</b>	

6. How respondents knew which shop to go.

Valid	Yellow Pages		Percent	Cumulative Percent
	Referrals	0	0	0
	Internet	6	54.5	54.5
	Scouting	2	18.2	72.7
	Television	2	18.2	90.9
	N/A	0	0	90.9
	<b>Total</b>	1	9.1	100
		<b>11</b>	<b>100</b>	

7. Ease of accessibility to choice of products.

Valid		Frequency	Percent	Valid Percent	Cumulative Percent
	Easily Accessible	1	12.5	12.5	12.5
	Moderately Accessible	5	62.5	62.5	75.0
	Not Accessible	1	12.5	12.5	87.5
	N/A	1	12.5	12.5	100.0
	<b>Total</b>	<b>8</b>	<b>100.0</b>	<b>100.0</b>	

8. Personnel have adequate technical knowledge to advice you

Valid			Percent	Valid Percent	Cumulative Percent
	Yes	2	25.0	25.0	25.0
	No	3	37.5	37.5	62.5
	Moderately	2	25.0	25.0	87.5
	N/A	1	12.5	12.5	100.0
	<b>Total</b>	<b>8</b>	<b>100.0</b>	<b>100.0</b>	

9. Shop displays attractive?

Valid			Percent	Valid Percent	Cumulative Percent
	Yes	4	50.0	50.0	50.0
	No	3	37.5	37.5	87.5
	N/A	1	12.5	12.5	100.0
	<b>Total</b>	<b>8</b>	<b>100.0</b>	<b>100.0</b>	

10. Shop setting comfortable and attractive?

			Percent	Valid Percent	Cumulative Percent
Valid	Yes	1	12.5	12.5	12.5
	Moderately	2	25.0	25.0	37.5
	No	4	50.0	50.0	87.5
	N/A	1	12.5	12.5	100.0
	<b>Total</b>	<b>8</b>	<b>100.0</b>	<b>100.0</b>	

11. Ever attended a Building Exhibition and/or any such fairs?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	4	50.0	50.0	50.0
	No	4	50.0	50.0	100.0
	<b>Total</b>	<b>8</b>	<b>100.0</b>	<b>100.0</b>	

12. Reasons for attending fairs/exhibitions

			Percent	Valid Percent	Cumulative Percent
Valid	To source for products	3	30.0	30.0	30.0
	To meet other professionals	1	10.0	10.0	40.0
	For educational purposes	2	20	20.0	60.0
	N/A	4	40	40.0	100.0
	<b>Total</b>	<b>10</b>	<b>100</b>		

13. Did you meet professionals in the design and construction industry?

			Percent	Valid Percent	Cumulative Percent
Valid	Yes	4	50.0	50.0	50.0
	N/A	4	50.0	50.0	100.0
	No	0	0	0	0
	<b>Total</b>	<b>8</b>	<b>100.0</b>	<b>100.0</b>	

14. Improvement in knowledge?

			Percent	Valid Percent	Cumulative Percent
Valid	Yes	4	50.0	50.0	50.0
	No	0	0	0	50.0
	N/A	4	50.0	50.0	100.0
	<b>Total</b>	<b>8</b>	<b>100</b>	<b>100.0</b>	

15. Area of improvement in knowledge?

			Percent	Valid Percent	Cumulative Percent
Valid	N/A	4	28.6	28.6	28.6
	Products & their applications	2	14.3	14.3	42.9
	Location of professionals	2	14.3	14.3	57.2
	Location of retailers	3	21.4	21.4	78.6
	Design & construction	2	14.3	14.3	92.1
	Needs of society	1	7.1	7.1	100.0
	<b>Total</b>	<b>14</b>	<b>100</b>	<b>100</b>	

16. How would you rate the event?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	N/A	4	50.0	50.0	50.0
	Highly informative	1	12.5	12.5	62.5
	Quite informative	3	37.5	37.5	100.0
	<b>Total</b>	<b>8</b>	<b>100.0</b>	<b>100.0</b>	

17. Sourcing for building materials and furnishings

			Percent	Valid Percent	Cumulative Percent
Yellow Pages		0	0	0	0
Referrals		5	50.0	50.0	50.0
Internet		2	20.0	20.0	70.0
Television adverts		1	10.0	10.0	80.0
Scouting		1	10.0	10.0	90.0
N/A		1	10.0	10.0	100.0
<b>Totals</b>		<b>10</b>	<b>100</b>	<b>100</b>	

18. How accessible are building materials and furnishings?

			Percent	Valid Percent	Cumulative Percent
Valid	Easily Accessible	2	25.0	25.0	25.0
	Moderately Accessible	4	50.0	50.0	75.0
	Not Accessible	2	25.0	25.0	100.0
	<b>Total</b>	<b>8</b>	<b>100.0</b>	<b>100.0</b>	

19. How accessibility to design-based products and information can be improved?

			Percent
Valid	More adverts		6
	Improvement in Yellow Pages		4
	Restructuring of physical infrastructure		7
	<b>Total</b>		<b>17</b>
			<b>100.0</b>

20. Do you have adequate design-based information on what is going on locally and internationally?

			Percent	Valid Percent	Cumulative Percent
Valid	Yes	3	37.5	37.5	37.5
	No	5	62.5	62.5	100.0
	<b>Total</b>	<b>8</b>	<b>100.0</b>	<b>100.0</b>	

21. If No, how do you source for design-based information you do not have?

			Percent	Valid Percent	Cumulative Percent
	From professionals	6	60.0	60.0	60.0
	Internet	3	30.0	30.0	90.0
	Television	0	0	0	90.0
	Journals	1	10	10	100.0
	<b>Total</b>	<b>10</b>	<b>100</b>		

22. Would you use the services of a design and construction professionals?

			Percent	Valid Percent	Cumulative Percent
Valid	Yes	8	100.0	100.0	100.0

23. If Yes, which kind?

			Percent
Valid	Architects	8	22.2
	Contractors	6	16.8
	Engineers	7	19.4
	Landscape Designers	8	22.2
	Interior Designers	7	19.4
	<b>Total</b>	<b>36</b>	<b>100</b>

24. If No, why?

			Percent	Valid Percent	Cumulative Percent
Valid	N/A				
	Too expensive	7	87.5	87.5	87.5
	<b>Total</b>	<b>8</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

25. Ease of access to professionals in the industry

			Percent	Valid Percent	Cumulative Percent
Valid	Easily Accessible	1	12.5	12.5	12.5
	Moderately Accessible	4	50.0	50.0	62.5
	Not Accessible	3	37.5	37.5	100.0
	<b>Total</b>	<b>8</b>	<b>100.0</b>	<b>100.0</b>	

26. Do you know what a Design Centre is?

			Percent	Valid Percent	Cumulative Percent
Valid	Yes	5	62.5	62.5	62.5
	No	3	37.5	37.5	100.0
	<b>Total</b>	<b>8</b>	<b>100.0</b>	<b>100.0</b>	

27. Views on a structure that permanently houses a Building Exhibition Fair.

			Percent
Valid	Good	8	100.0
	Not good	0	0

28. Views on how conditions within the industry can be enhanced.

		Percent
	More Publications	10.8
	TV Programs	12.3
	Seminars and conference	7.7
	Exhibitions	12.3
	Infrastructure	12.3
	Resource centre	12.3
	Educational programmes	9.2
	Policies and regulations	10.8
	Database (Professionals, Artisans, Retailers and Service Providers)	12.3
	<b>Total</b>	<b>100</b>

29. How knowledge gap between local artisans and design professionals can be bridged.

			Percent
	Seminars and Conferences	7	23.3
	Infrastructure	4	13.3
	Television and Conferences	4	13.3
	Policies and Regulations	7	23.3
	Educational Programs	8	26.8
	<b>Total</b>	<b>30</b>	<b>100</b>

