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KNUST

**Challenges in the Informal Construction Artisan Training System in the Ghanaian  
Construction Industry**

by

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College of Art and Built Environment in partial  
fulfilment of the requirement for the degree of

MASTER OF SCIENCE


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## DECLARATION

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

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## ABSTRACT

This research sought to find out the challenges confronting the informal artisan training system in the Ghanaian construction industry and provide available opportunities to help improve the system. The study was limited to two regions namely Greater Accra and Volta regions of Ghana. In all, two hundred and thirty-three (233) artisans comprising of one hundred and thirteen (113) apprentices and one hundred and twenty (120) master artisans were used for the study. Questionnaires were the main research instrument but personal observation was also used by the researcher. The sample of three hundred (300) was used in the data analysis. Qualitative research approach was used, employing the descriptive approach. Data from the field was analysed using percentages. From the findings, it was realized that two main modes of skill acquisition were in play pertaining to the informal sector, these are the traditional method (75%) and the attachment method (25%). Another finding was that, one shortcoming of the informal system appears to be a lack of consistency and adequate content in the training that apprentice receive. The study concludes that there is little external motivation or capability for the system's trainees to progress in performance or in improving their methods. More than 55% of the master artisans apply experimentation or trial and error in their work. It is recommended that, it will be essential to involve the master artisans in a reform process including efforts to provide them with opportunities to upgrade their own knowledge of construction skills.

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## **DEDICATION**

This work is dedicated to my parent, siblings and my beautiful wife for their invaluable support.



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Many thanks to Almighty God for His goodness and mercies; and for seeing me through this programme successfully.

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# **CHAPTER ONE**

## **INTRODUCTION**

### **1.1 Background to the study**

Since time immemorial, individuals have been exchanging skills from one era onto the next in some type of apprenticeship training. To work effectively as artisans in the informal sector youngsters require a scope of knowledge and skills. The informal sector of the construction business makes a noteworthy commitment to the vocation of unskilled labour. skills development strategies is regularly ignored in the informal sector regardless of the way that in developing nations, income-generating activities in the informal sector often far exceed those of the formal sector. The EFA Global Monitoring Report (UNESCO 2012) on youth skills development expresses that traditional apprenticeships are an imperative method for procuring transferable and job-specific skills. A broad audit of the literature of Ghana uncovers that the nation has long history of traditional apprenticeship and that this type of skills training reaches more youth than the formal specialized and professional training. All through sub-Saharan Africa, traditional apprenticeships between a Master Artisan and a trainee are a typical and central medium for skills advancement. The fundamental qualities of traditional apprenticeship are its practical orientation, its self-regulation, and self-financing., its adaptable and non-formal nature which obliges people who do not have the educational prerequisites for formal training. Human Resource advancement has been distinguished as the most critical component of economic development for any country (Osman-Gani, 2004). It may include an exchange of knowledge or skill inside of a family from father to child. It might likewise exist as an arrangement between an expert artisan and an apprentice in which the trainee goes into an agreement with the expert to learn particular skills or trade for an expressed span of time, normally between three to five years and for a predefined aggregate of cash as a training expense. Ahadzie, (2009: 261-275) presents that, now and again apprentice may get shelter and

food amid training. The artisan training is essentially on-the-job learning. This system of training is basic in North Africa, Sub-Saharan African nations and equally in India. By and large there is the unlucky deficiency of administrative system and institutionalized certification after the training. The master artisans may sometimes issue certificates to learners, but these certificates are not formally recognised by formal institutions (ILO, 2012; Werner et al., 2012: 2-7). Given the high cost of education and the abnormal state of neediness in numerous subSaharan African nations; evidence demonstrates that informal apprenticeships are estimated at between 50% to 90% of youngsters in nations, for example, Gambia, Ghana, Senegal, Madagascar, Zambia, Tanzania, Mali and Malawi (Fabienne & Jens, 2012: 7-15; Werner et al., 2012: 2-7). When compared with the school-based model, the informal training model has the benefit of being closer to the present needs of employers in the informal work market, in this way, making a significant commitment to the local economy (ILO, 2012). Development labourers are comprised of artisans, woodworkers, steel benders, small scale handymen, housewiring circuit testers, and craftsmen who are generally youthful guys, and are for the most part school drop-outs. Circuit testers regularly have some fundamental preparing, while the various gatherings experience years of apprenticeship.

### **1.2 Statement of the Problem**

Construction business in many nations, are portrayed by hazardous workplaces; broad outsourcing (sub-contracting), temporary and shaky jobs, poor working conditions and a high accident rate. In spite of the fact that the informal apprenticeship in construction provides crucial skills acquisition in a lot of nations, it is observed that a greater number of the artisans cannot understand and interprets drawings without the help of an expert on site. Some of them too do not have the right stuff needed to change in accordance with present day patterns in the business. The vast majority of the artisans do not understand the behaviour of some essential materials on site which influences the quality, reliability and security of utilizing the final



product. There is a restricted opportunity for learning to work effectively. This research therefore seeks to come out with the challenges confronting the informal artisan training system in the Ghanaian construction industry and provide available opportunities to help improve the system.

### **1.3 Aims and Objectives of the Study**

#### **1.3.1 Aim of the Study**

The aim of this study is to investigate the challenges confronting informal artisan training system in the Ghanaian construction industry.

#### **1.3.2 Objective of the Study**

The specific objectives formulated for this study:

- i. To ascertain the conditions provided by master artisans for conducive training.
- ii. To determine the Challenges faced by artisans in the informal sector.
- iii. To find out the methods of professional development employed by master artisans.

### **1.4 Research Questions**

1. What conditions are provided by master artisans for conducive training?
2. What are some of the challenges faced by artisans in the informal sector?
3. What are the methods of professional development employed by master artisans?

### **1.5 Justification for the Study**

It is trusted that the study will reveal more insight into the artisans' activities to help in the growth and expansion of the economy. The yield of this study will add to learning and writing in the branch of information under investigation. The backing of this study to the investigator joins the significance of data the scientist will get with respect to challenges in the artisan part. It will be a helpful wellspring of reference to specialists, the scholarly world, and approach creators in the informal system. The scientist is of the perspective that the study will be helpful to strategy creators since it will serve as a contribution for arrangement detailing to manage the

informal area. It will likewise be a valuable manual for master artisans in the pursuit of their work. They will get to know the perceptions of their subordinate on the job and how the industry is perceived by subordinates. To the University, the study tries to add to the assortment of information, as it would serve as the premise for consequent studies in related fields.

### **1.6 Delimitation of the Study**

The study is limited to artisans in the construction industry. The study was also limited to construction artisans in only two regions of Ghana.

### **1.7 Limitation of the Study**

The researcher confronted various difficulties in doing the study. These difficulties brought a few confinements in the study. Some of these difficulties are as per the following:

A bigger sample size would have given better results yet because of restricted time in presenting the research work, the research was constrained to Artisans in the construction sector in the Greater Accra and Volta Regions of Ghana. It is significant that bigger sample sizes influence the generalizability of a study absolutely, therefore picking that sample is some way or another risky.

Besides, penmanship styles of a portion of the respondents were not neat and in this way, they were excluded in the data analysis. This influenced the sample size of the study. For others the researcher needed to ad lib, thus, this influenced the conclusions of the study. Questionnaires with under 80% results rate were expelled from the data set.

### **1.8 Methodology**

De Vaus (2001) opined that the examination outline alludes to the general procedure that is coordinated the distinctive segments of the study in an intelligent and consistent way, in this way, guaranteeing the exploration issue is successfully tended to. The examination outline assumes the part of characterizing the study sort, theories, estimation of variables, information gathering techniques and investigation of information. De Vaus (2001) further noted that the

research issue for a study decides the sort of outline that ought to be utilized however not a different way.

The study, with the objective of trying to find out the challenges confronting the informal artisans training system in the Ghanaian construction industry, employed the **descriptive research design approach**. The study adopted the descriptive research design due to the fact that the study wanted to identify some phenomena as well as describe others. The descriptive research outlines give answers to the inquiries of who, what, when, where, and how connected with a specific exploration issue and in that capacity can't definitively determine answers to why a wonder exist (Anastas, 1999). Anastas, (1999) further explained that the descriptive exploration is utilized to get data concerning the present status of the marvels and to portray "what exists" as for variables or conditions in a circumstance and that it can yield a lot of rich information that prompt critical suggestions practically speaking.

### **1.9 Organisation of the Study**

This study is organized into five chapters. Chapter One introduces the study and it consists of background of the study, statement of the problem, purpose of the study, research questions, objectives of the study, significance of the study, delimitation of the study, limitation of the study. Chapter Two reviews related literature. Chapter Three which deals with research methodology includes research design, sources of data, sampling procedure, data collection and data analysis. Chapter Four presents the analysis and findings of the data collected. Chapter Five finally provides a Summary of the major findings, Conclusions and Recommendations offered based on the research findings.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This section gives a review of research into the environment in which the construction worker has worked in the course of recent decades. The historical backdrop of the informal workforce is traced and their present status characterized by the literature. Reviews on their chances for training and obtaining of skills are taking care of.

#### **2.2 An Overview of the Informal Sector**

The Concept of the informal workforce was initially considered in the mid 1970's. The expression "informal sector" alluded to those without consistent occupation, or the individuals who own businesses which are out of the formal sector. In studies on developing nations, the formal industrial sector was seen to have the capacity to ingest just a little rate of the workforce, but there was little evidence of unemployment (Wells, 2000). The informal sector, in this manner, initially incorporated the individuals who did not draw a regular wage from an established employer and yet were making a living. Wells (2000) mentions Hart (1973) as one of the earliest authors to use the term informal sector, a term that depict work relationships. He depicted the parallel labour systems in Ghana: some permanently employed waged workers, others not receiving a consistent remuneration or having a recognised boss. His definition is said to be in between employment and self-employment; however the ILO mission to Ghana (1972) described the qualities of the informal sector as: little scale; unregulated and focused markets; simplicity of section; aptitudes gained outside the formal educational system; work escalated advances; and dependence on indigenous assets and family responsibility for. Wells



(2000) adopted this definition, taking into account the role the informal enterprises play, but she was quick to add that the role the informal sector played has changed over the years.

The informal sector offers help to the financially and socially burdened sectors of the society. Advantages of the sector includes the simplicity of entry, little or no requirement for formal education, no paperwork, or capital. The informal sector also provides the artisan with skill or trade that are normally overlooked by the formal sector (Werna, 2001). The construction business is characterised by broad subcontracting; temporary and unstable jobs; and poor working conditions; this is particularly true for Ghana as well as most parts of Africa (Wells, 2000).

### **2.2.1 A Look at Some Specific Artisans and Requirements**

#### *Masons*

**Education;** this is not a major requirement for admission into the trade. Most of the artisans spoken to had little or no education at all.

**Age;** most artisans talked to range between the ages of 15 and 20, however master artisans were of the opinion that age was not a hindrance since some apprentice artisans enter the trade at very tender ages.

**Tools needed;** these included; trowel, float board, spirit level, concrete hammer, line, builders' square and these were pre-requisites for admission.

**Duration of training;** this had the shortest overall duration which was attributed to the ease of learning the trade.

**Mode of skill acquisition;** mostly carried out through the following means; apprentice observe master carrying out tasks, imitating the task, repetition of the task, master aids apprentice in time of difficulty. Mostly involves on-the-job training only.

#### *Carpenters*

**Education;** this is not a major requirement for admission into the trade. Most of the artisans spoken to had little or no education at all

**Age;** most artisans talked to range between the ages of 15 and 20, age was of importance here since the trade involved a lot of risks such as climbing, lifting up timber members and in most cases involved taking matured decision.

**Tools needed;** these included; saw, pencil, spirit level, tape measure, hammer, line and builders' square which were all pre-requisites for admission.

**Duration of training;** this had the longest overall duration which was attributed to the complexity of the trade, the minimum duration recorded was 3 years.

**Mode of skill acquisition;** mostly carried out through the following means; apprentice observe master carrying out tasks, master explains task to apprentice mostly using drawings, apprentice imitating the task, repetition of the task, master aids apprentice in time of difficulty.

#### *Steel Benders*

**Education;** this was of major importance to master artisans since most of the work they did involve reading of drawings and transferring them into the work. However it was realized that most artisans spoken to had no advanced education, the highest level being the secondary level.

**Age;** most artisans talked to range between the ages of 14 and 20, age was however not as important a consideration as education.

**Tools needed;** these included; cutter, hacksaw frames and blades, tape measure, hammer, and line, which were all pre-requisites for admission.

**Duration of training;** this had the longest overall duration which was attributed to the complexity of the trade, the minimum duration recorded was 3 years.

**Mode of skill acquisition;** mostly carried out through the following means; apprentice is taken through interpretation of drawings, apprentice observe master carrying out tasks, master

explains task to apprentice mostly using drawings, apprentice imitating the task, repetition of the task, master aids apprentice in time of difficult.

### **2.3 Skills Acquisition and Training in Developing Countries**

Differences can be drawn between the discoveries on the acquisition of skills and training of the informal sector in different parts of Africa. The level headed discussion encompassing the African versus European models for skills advancement echoes towards on-the-job training. A World Bank (1984) document on labour requirement for developing nations point out the problem of the formal education as raising expert who are not practical-inclined. The mode of graduation from the apprenticeship system is through consistence practice. The World Bank proposed that apprentices should follow high standards to avoid becoming cheap source of labour.

Wells (1986) in a study in the mid-1980s, on the labour market in Ghana portrayed the labour market as having minimal formal training and that skills used on-the-job were viewed as more significant. The post-independence slump in building in Ghana also saw an exodus of skilled construction labour from jobs as the workforce was attracted by foreign contractors which were working either locally or in other countries.

A document by the World Bank (1984) portrays the accomplishment of Training Production Units that were built up in Zaire, Brazil and the Dominican Republic. These were semiautonomous units that completed work while training personnel. The Bank offered aide to bolster apprenticeship, for example, the National Apprenticeship Board in Sri Lanka. A study in Ghana demonstrated that the numerous supervisory positions were held by volunteers who did not have formal training. Training for those in charge of labour-intensive construction is of a practical nature: it requires knowledge of local materials and needs. Thus it is best offered "*to natural leaders who have, preferably, secondary education*" (World Bank, 1984:71). A



recommendation of the research was that foremen and their equivalents should be promoted to positions of leadership. One can infer from this varied research that training on the job is an effective model.

Ofori's (1984) studies on the construction business in Ghana points to the fact that economic weights for survival were great to the point that attention was on what construction could do to work (whilst supporting training and skills acquisition) in a contracting economy. This was because the nation's economy couldn't support it. Ofori (1984) recommended that nations in Eastern and Southern Africa, which experienced deficiencies of skilled work force should initiate a manpower exchange programme between industries. This would create relationships in between organizations and affiliations, and would encourage plans for sharing assets. Training institution and research centres could be set up which would evade duplication and cost. This arrangement could be connected to Ghana since the nation does not have an adequate number of skilled operatives.

## **2.4 Training Approaches for the Informal Sector**

The informal sector in emerging nations signifies around half or a greater amount of around the clock workers and yields 40 to 60% of the national wage (Chickering and Salahadine 1991). In numerous African nations, a larger number of youngsters, mostly dropouts, go into the work environment looking for formalised employment and income.

In any case, they infrequently succeed in discovering occupations in the formal segment so they are much of the time constrained to make their own specific vocation as casual area specialists.

Individuals in the casual segment get their abilities at work through experimentation or by watching and helping other individuals. Numerous start as disciples to experienced business people effectively settled specifically exchanges. Family ties and connection are consistently more unequivocal than formal preparing in securing occupation. On the other hand, some



workers of the informal sector believes that it is unrealistic to obtain skills through formal training on the grounds that formal training foundations are constrained in a number ways in terms of administrations they render to general society.

Formal tutoring and professional schools in most African nations are situated towards the formal area. For instance, the instructive framework in Ghana is strongly uneven for the formal area, appropriating the entire spending plan or leaving for all intents and purposes nothing for casual instructive preparing. Formal preparing foundation by and large experience the evil impacts of unimportance and low nature of preparing and contact only couple of people. Assorted sorts of preparing methodologies are relied upon to get ready people viably in an extensive variety of abilities and to offer inspirations for independent work; and these have been insufficient.

Preparing may mean a lot of things. It may recommend formal, particular, and master get ready for post-vital understudy or school leavers without work history. Some arrangement programs associate particularly with the casual area work, while others constitute strange course to casual segment vocation and independent work. All the more genuinely, the term preparing applies to any trade of information, aptitudes or states of mind which is created to help people for generation exercises, or to change their working behaviour (Fluitman 1989). It covers professional, specialized, administrative, entrepreneurial, social and other valuable abilities. Basically, preparing could be divided into: (a) formal preparing which suggests the "logically" sorted out and consecutively assessed instructive framework; and (b) non-formal preparing which implies a differed collection of composed and semi-composed instructive exercises working outside the general structure and routine of the formal framework. The last is gone for serving an assortment of adapting needs of various sub-bunches (Coombs 1974). Non-formal preparing might be levelled towards people who never went to any school, school dropouts and school-leavers for whom there was no space at the following level, graduates who never gained

the job they looked for after, women only responsible for sustaining their family yet never arranged in light of the fact that men ought to do the securing, specialists pushed off their region by kindred men, populace weight or characteristic fiascos, repetitive government employees, disabled individuals, exiles et cetera. The formal division is portrayed by its private association with generation, and its conveyance of prompt results (Zaudneh, 1994).

#### **2.4.1 Traditional Apprenticeship**

Formal specialized schools request a base section capability, for example, two years of secondary school instruction or effective consummation of national auxiliary school exams. This does excludes most of the adolescent gathering in Africa who had no formal instruction or just a couple of years of it. Abilities important for business would need to be procured through a non-formal apprenticeship framework. In numerous African urban areas, one takes in an exchange by perception and through non-formal apprenticeship frameworks (Kishindo 1993).

Apprenticeship has for quite some time been sorted out as an imperative means through which the young enter the casual segment. It is, clearly, the most settled and the conventional technique for preparing. Few starting abilities and little experience are expected to select on apprenticeship.

Through their work, the students help the expert in delivering items or administrations. In time, the disciple will get abilities by watching and doing fundamental undertakings. Over the long haul, he/she will be required to finish complex assignments. The preparation is seriously useful, focussing on quick issues of the work itself.

Apprenticeship is frequently the main method for taking in an exchange for most youngsters in Africa. It is likewise more basic in West Africa than in eastern and southern Africa (Fluitman and Sangare 1989). Apprenticeship is administered by authorization in some African countries. Be it as it might, a few artisans have likewise battled for enactment to secure their privilege at

work environment. These disciples may get free load up and holding up and in some cases pocket cash or a periodic reward. The considerable number of understudies in the casual division, in any case, work under unfavorable conditions. Some compensation for their preparation while others renounce wage for the work they do. Artisans are for the most part youngsters. On the other hand, laborers over 20 years of age may similarly fill in as understudy. The term of apprenticeship may reach out from a few months to a few years (Fluitman and Sangare 1989).

Understudies in exceptionally specialized specialties for the most part have minimal hypothetical learning of the frameworks or procedures with which they work, aside from when their preparation is supplemented with a repair manual or individual course books (McLaughlin 1990). Kasliwal, (1995), contended that apprenticeship includes a component of "shoddy work" and it is here and there saw as "exploitative". Regardless, specialized aptitudes can best be redesigned by working inside the setting of the conventional apprenticeship framework, particularly in the art and workshop divisions (Herschbach 1989). Formal professional preparing focuses are routinely seen to be less compelling than casual division apprenticeship (Fluitman and Sangare 1989).

#### **2.4.2 Training through Formal Sector Firms**

Work in the formal area firms constitutes a vital aberrant wellspring of gifted work for the casual part. Numerous casual part specialists have beforehand worked in formal ventures. Such moves from formal area livelihood to casual segment independent work have been normal in the past and have turned out to be more prevalent as a consequence of the conservation of open segment representatives and/or denationalization of open endeavors under financial change programs.



Those with no preparation may have been given at work preparing and conceivably acquire a declaration from one of the formal exchange affirmation bodies. Such laborers, especially those from new exchanges, for instance, car or apparatus repair, might be depended upon to be compelling in the wake of entering the casual part. The individuals who experienced the formal arrangement of disciple preparing may consider themselves to be "experts" and have avidness to fire up a business all alone.

### **2.4.3 Formal Vocational Training Courses**

The formal institutional preparing methodology depends on building up pre-job specialized instruction and professional preparing establishments. It is equipped to the preparation needs of the formal area. The professional focuses fall generally under the locale of government services, for example, the Ministry of Education or Ministry of Labor. There are additionally case of formal preparing focuses in zones, for example, development or building which may go under immediate or circuitous government control. One can likewise discover extensive ventures, or in a few circumstances, gatherings of littler endeavors, overseeing free preparing foundations for themselves.

Formal professional preparing programs offer starting specialized courses to youthful work market contestants. As of not long ago, practically every graduate of formal work preparing programs in creating nations anticipated that would be assimilated into the formal part. On account of drowsy development in the economy and unseemliness of the preparation, the normal occupations have neglected to appear. Learners with confirmations were more intrigued by seeking after cushy vocation. Like some types of advanced education, preparing has not turn into a programmed visa to formal job (Kasliwal 1995, 157-159).

Formal preparing programs have been, with a few special cases, inadequate in making job in the casual part. Most national frameworks for specialized instruction and preparing have



encountered deficiency of financing, failure to overhaul preparing hardware, constrained useful and mechanical experience among teachers, unbending section prerequisites, and firm and obsolete educational module with little respect for the requirements of the work market. Also, most frameworks experience the ill effects of inner proficiency (i.e., low workshop usage, low showing load, high per-capita preparing expenses) and low outside wastefulness (i.e., challenges in setting graduates or long holding up periods, moderate procuring or efficiency picks up) (ILO/Vocational Training System Administration Branch 1994).

Despite these weaknesses, formal preparing may in any case yield some advantages to those searching for circumstances in the casual part. The principle issue in numerous African nations is the way that the preparation focuses are restricted in number and the level of enrolment for such preparing remains amazingly low (Herschbach 1989).

Numerous alumni of professional preparing focuses have been compelled to view self as occupation in the casual area as an option alternative. The powerlessness of the formal assembling, exchange and administrations areas to give an agreeable rate of development in vocation has put over the top weight on the casual division as of late.

#### **2.4.4 After-hours” Formal Vocational Programs**

Extraordinary 'twilight's projects are set up utilizing infrastructural assets of formal instructive and professional foundations for people who, due to their lower instructive evaluations, can't meet all requirements for the organization's general full-time courses. The point is to exploit a regularly empty time period toward the evening and nights when the organization's offices and gear are not being used. The courses are interested in any individual who can pay the required charges. Lower level endorsements are endless supply of the courses, which to a great extent coordinate the direction procedure of the customary courses yet are adjusted to the specific instructive level of the lower-qualified gathering. In such manner, African nations need to gain

from the fruitful experience of Asian nations, for example, Pakistan, where 'afterhour' instructional classes in car and aeration and cooling system repair, electrical wiring, dress outline, development, bookkeeping, and sustenance handling are offered (McLaughlin, 1990). The dependence on current research center hardware and reading material may restrain the adequacy of these exceptional projects in planning learners for handy issues in the casual area workshops. Regardless, the less taught members may think that its less demanding to make the move to "industrial" independently employed work than the all the more formally instructed students in the general authentication courses (McLaughlin, 1990).

#### **2.4.5 Backstreet Colleges**

Backstreet preparing structures have sprung up in metropolitan urban groups to fill preparing cleft not secured by other existing expertise conveyance frameworks. An arrangement of casual "backstreet" courses are available in various countries, especially in the greater urban groups. Preparing regularly includes specialized livelihood aptitudes and tends to be sorted out along the lines of formal school and professional universities instead of those of conventional apprenticeship. The way of preparing is exceedingly shifted, running from top notch bookkeeping to fourth-rate PC courses, from neighborhood offices of universal correspondence courses to carport schools blending preparing with generation (King, 1989).

Backstreet preparing organizations might be enlisted with the Ministry of Education or some other dependable body, yet this has not generally incited any kind of sponsorship. In Ethiopia, for instance, the amount of educational cost based schools in the territory of PCs, pieces of clothing, auto-mechanics, power, et cetera, has extended commandingly in the huge urban ranges, especially Addis Ababa, taking after the 1991/92 financial change measures.

Notwithstanding their essential importance, the try to progress or upgrade the administrations gave, consideration is not paid to (Dawit 1997). The fundamental issues of professional

principles, testing and accreditation, and the related issues of worth control have yet to be tended to in Ghana. Backstreet schools may not be all around furnished with the full extent of mechanical assemblies, machines, and testing contraptions found in government specialized universities and are sometimes dismissed as charge paying and exploitative. However, backstreet preparing framework are consistently more open than the formal preparing centers. Backstreet schools regularly open to any person who can deal with the expense of the charges, which varies depending upon the quality and period of time of the projects. They are accessible on occasion that suit all day laborers.

## **2.5 The NVTI System of Ghana**

In 1967, a tripartite National Manpower Board involving agents of the administration, businesses (Industry) and specialists (Labor) was set up so as to arrange powerful advancement and use of human asset as per the normal financial improvement of the nation. After an extensive investigation of the nation's labor needs and the current offices for expertise preparing, the Board asked for help from the United Nations improvement Program Special Fund (UNDP/SF) in building up a national professional preparing program. The main period of the task which was of four years span was endorsed in June 1968 with an aggregate UNDP contribution of seven hundred and five thousand , four hundred dollars (705,400) and Ghana government partner commitment of three hundred and seventy-four thousand cedis (374,000). The UNDP info accommodated 240 man-month of ability notwithstanding gear and partnerships. The arrangement of operation was marked on 23rd October, 1968 and initiation of operations was approved on 25th October, 1968, with the International Labor Organization (ILO) as the executing office and the Ministry of Labor, Social Welfare and Co-agents now Ministry of Manpower, Youth and Employment as the co-working office. An Act of Parliament 351 of twelfth January 1970 was gone to authorize the foundation of the Institute. The Institute



works thirty eight (38) professional focuses specked everywhere throughout the nation preparing the adolescent in some twenty-eight (28) aptitude regions (<http://www.nvtighana.org>, 2015)

## **2.6 The Nature of artisans in construction**

The construction industry plays a significance role in employment creation and economic growth of many countries. This is because a large amount of capital is constantly devoted to reduce the infrastructure deficit. Benefit from the improvement business is a foremost and key part of the national pay, speaking to a sizeable degree in the Gross Domestic Product (GDP) of both made and juvenile countries (Ganesan 1997, Crosthwaite, 2000). This was bolstered by Ogunsemi and Jagboro (2006) in Nigeria that development industry is noteworthiness to job era and financial development. Mitullah and Wachira (2003) additionally expressed that development exercises in Kenya assume a basic part during the time spent financial advancement, through its items (framework, structures) and through the occupation made during the time spent development itself. The level of this noteworthiness has been upheld internationally with measurements.

Crosthwaite (2000) reported that worldwide development makes commitment adding up to somewhere around 5 and 7 percent of GDP for most nations and records for a critical piece of worldwide gross capital arrangement which is somewhat under 33%. The United Nations Environment Program (UNEP, 1996) noticed that around one-tenth of the worldwide economy is devoted to building and working homes and workplaces. Lowe (2003) further expressed that the worth included through development is in the scope of 7% to 10% for very created economies and around 3% to 6% for immature economies. The quality included the creating nations could be higher in light of the fact that figures on the informal system are generally excluded (Ganesan 2000).



Sanni and Alabi (2008) expressed that accessibility of labor is exceptionally urgent and constitutes the second biggest single segment of asset information required in the development business. Labor required for development incorporates Architects, Masons, Engineers, Quantity Surveyors, Urban and Regional Planners, Estate Managers and building artisans like bricklayers/bricklayers, craftsmen, welders/iron drinking sprees, house painters, handymen, circuit repairmen and the preferences. As a rule, the sorts of labor generally required in huge amount for lodging development are artisans and workers (Sanni and Alabi, 2008) and this is appropriate comprehensively. This demonstrates there are two noteworthy classes of labor/players to the achievement of any country development industry; and both the experts and artisans/work.

Uwakweh (1999) depicted the informal area as "that section of firms or people that takes part in development or different exercises without acquiring the vital outlines, arranging and development archives". Casualness in development segment could subsequently be alluded to a circumstance where an individual is occupied with a development venture or on a development work and such individual has no consistent working hour and wages; no lasting business; no social wellbeing and welfare bundles, no benefits conspire, no professional stability and don't pay charge. In a development venture also, familiarity alludes to a circumstance when the engagement of development laborers don't obey business laws or take after due procedure.

Lowe (2003), expressed that most development parts the world over have a high rate of yield being created casually. Rogerson (2000) likewise depicted development industry as one of the biggest bosses of the informal segment workforce and Well (2001) confirmed that there is nonappearance of direction in the terms and states of occupation and in addition in the development procedure of informal system in creating economies. Mitullah and Wachira (2003) likewise reported that in some low-salary nations by far most of development workers

have dependably been utilized casually. Mlinga and Wells (2001) additionally contended that the informal part of the development business is by and large overlooked and gets little backing from the administration. They encourage withdrawal of approaches to build up the development commercial enterprises of creating nations ought to address the necessities of the informal area, where the main part of the work power is discovered (Mlinga and Wells, 2001).

Consequently, because of the level of occupation given by the informal area to the general economy and ILO (2002) further avowed that informal segment in Sub-Saharan Africa is the biggest grouping of familiarity all inclusive. This infers informal area (counting development) is noteworthy both in Africa and creating economies consequently require a requirement for its examination. Thus, exertion ought to be towards enhancing the informal segment exercises will add to better execution of the development business. Types of livelihood in the development business incorporate changeless, makeshift, easygoing, moving and so on. Lasting livelihood implies engagement for a drawn out stretch of time while transitory is for a restricted period. Easygoing or fleeting work implies that there will be incessant changes of employment. Most temporary contracts are for the duration of a project.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

The section talks about the examination philosophy utilized as a part of doing the exploration work. Information examination strategy utilized in assessing the gathered information, considering how the example populace and test size were touched base at, among other vital methodological methodologies utilized are laid out likewise under the section. In synopsis, it portrays the whole approach embraced to address the exploration point and destinations.

#### **3.2 Research Design**

Kothari (2004) characterized the expression "research plan" as the method of circumstances for social occasion and enquiry of information in a way that objectives to connection hugeness to the examination reason with economy in procedure. The explanation behind examination configuration is to make accessible a diagram for noting study issue, (LoBiondo-Wood and Haber, 1998). The exploration plan for the study is the subjective, utilizing the elucidating approach. The exploration portrayed a marvels and proposed conceivable answer for it. Clear studies investigates the trademark or the subject to comprehend their conduct.

#### **3.3 Sampling Techniques**

The purposive sampling technique was used. This is because the researcher had in mind the classes of respondents who were knowledgeable on the subject understudy. The artisans and their masters were sampled because they have the right requisite skills and knowledge to answer the questionnaire.

Notwithstanding the purposive testing system, the snowball Sampling method was utilized to test the size required for the study. Snowball testing is a non-likelihood inspecting method. This kind of testing procedure works like chain referral. In the wake of watching the underlying

subject, the scientist requests help from the subject to distinguish individuals with a comparable characteristic of interest. The system was utilized to test two hundred and thirty three respondents, made up of artisans and expert artisans.

### **3.4 Data Collection Instrument**

The data was obtained by means of a self-administered questionnaire. A questionnaire is a data collection tool by which people respond to a set of standard questions in a pre-determined way (Creswell, 2009). Questionnaire surveys help to characterize the features of the target population in relation to the identified variables and also ensure reliability. The principle instrument utilized as a part of the accumulation of the essential information from the respondents was a structured questionnaire. The respondents read the inquiries, translated its expected significance and gave the presumable reactions. The substance of the poll was clear and required straightforward answers. The poll looked for perspectives on demographics of respondents, to what extent they have worked under their lord artisans, the reasonableness of their work and whether artisans can work under practically no supervision. The organization of the overview was made easy to scrutinize and beguiling to the eye with a correctly laid out course of action that made it less requesting to take after. The substance of the survey was transcendently closed completed with spaces for respondents to demonstrate their favored choice by ticking the spaces gave that planned the ruling against the thing being measured.

### **3.5 Data Collection Procedure**

Information gathering was readied through essential sources. The essential information included the social occasion of the experiential information through study polls. The information extricated from literature shaped the theoretical basis for the research. The data collected on the field is classified as the primary data. The prepared questionnaires were administered personally by the researcher and offered assistance by explaining areas where the respondents had problems. The respondents who could neither read nor write were given



assistance by the researcher by explaining the question to them in the Akan and Ewe Languages and the answers provided were translated and written in the English Language. Respondents were given ample time to complete the questionnaire.

### **3.6 Population**

A population is a gathering of people who are all around characterized or protests known not the same or comparable attributes. The population adopted for the study is Artisans in the construction sector in the Greater Accra and Volta Regions of Ghana. Because there not an available data on the Artisans in the two regions (Greater Accra and Volta Regions of Ghana), the study adopted the purposive sampling technique.

### **3.7 Data Analysis**

The data from the questionnaires (113 responses from artisans and 120 responses from master artisans) after collection was sorted and edited. The data were then analysed using Statistical Package for Social Sciences (SPSS Version 20) and Microsoft Excel. The Statistical Package for Social Sciences (SPSS Version 20) was used to generate a database of responses and to conduct statistical analysis. The researcher analysed the data from the survey and presented the results using frequency tables and bar charts.

## CHAPTER FOUR

### ANALYSIS OF DATA AND DISCUSSION

#### 4.1 Introduction

This chapter basically contains all the data obtained from the field. In all, questionnaire totalling 300, comprising of 150 for apprentice artisans and the remainder for Master Artisans was sent out. However, the apprentice artisans returned 113 number of questionnaires amounting to 75% whilst the master artisans returned 120 resulting in 80%. The response rate was good.

#### 4.2 Analysis of Response from Artisans under Training

In this section, result were obtained from artisan who are under training. The results are analysed with the preceding tables.

**Table 4.1 Level of education**

Level Of Education	Number	Percentage
Basic	57	50.44
Secondary	26	23.01
Tertiary	0	0
No Education	30	26.55
<b>TOTAL</b>	<b>113</b>	<b>100</b>

*Source: Fieldwork, 2015*

Table 4.1 shows that when respondents were asked about their level of education, a portion, representing almost 51% had Basic education, followed by those who have not received any form of basic education amounting to about 27% and the remainder 23% had received Secondary school education. This result is not surprising as the results confirms research over the years that artisans do not require extensive formal education. In fact it is best offered "to

*natural leaders who have, preferably, secondary education"* (World Bank, 1984:71) and Osman-Gani, (2004) stated that being an artisan is more flexible and its non-formal nature accommodates individuals who lack the educational requirements for formal training. Apprentices in the informal system in Ghana are for the most part youngsters with a normal age of 16.5 years toward the beginning of their apprenticeship, this affirms the study by Fluitman and Sangare (1989), that most disciple are adolescents. Most of whom are males. Levels of instructive fulfillment among understudies in the informal part in Ghana are very differing. While the examined found that a majority of students (around 50.44%) reported having had essential instruction, the following gathering (around 23.01%) had gotten some optional training with the rest (26.55%) not having any instruction by any stretch of the imagination. Level of family relationship amongst understudies and age is additionally of extensive interest. It is that apparent that, exclusive 11.67% had no past association with the expert. The substantial greater part was relatives of some portrayal – 35% being close relations and 47.5% more inaccessible relatives (thus in any event individuals from the same ethnic gathering and topographical area). Another 5.83% was from the groups of companions. Numerous disciples invest a generally broadened energy finishing their apprenticeship and this is because of the way that after graduation they don't discover anything doing promptly and thus simply return to help their lord while obtaining extra abilities they couldn't accomplish amid their stipulated time of apprenticeship. By and large, the disciples appeared to put significantly more significance on preparing needs than did their lords. Furthermore, they needed government direction of apprenticeships. Preparing with another expert skilled worker is a method for supplementing or expanding an apprenticeship experience, a dominant part of bosses addressed never urge students. This finding is demonstrative of the segment's absence of chances for learning and also proof of an oppressed methodology where expert artisans for

the most part prepare the way they themselves were prepared, in a way to a great extent cut off from outside impacts.

**Table 4.2: Conditions provided by the Master Artisan that makes the Trainee**

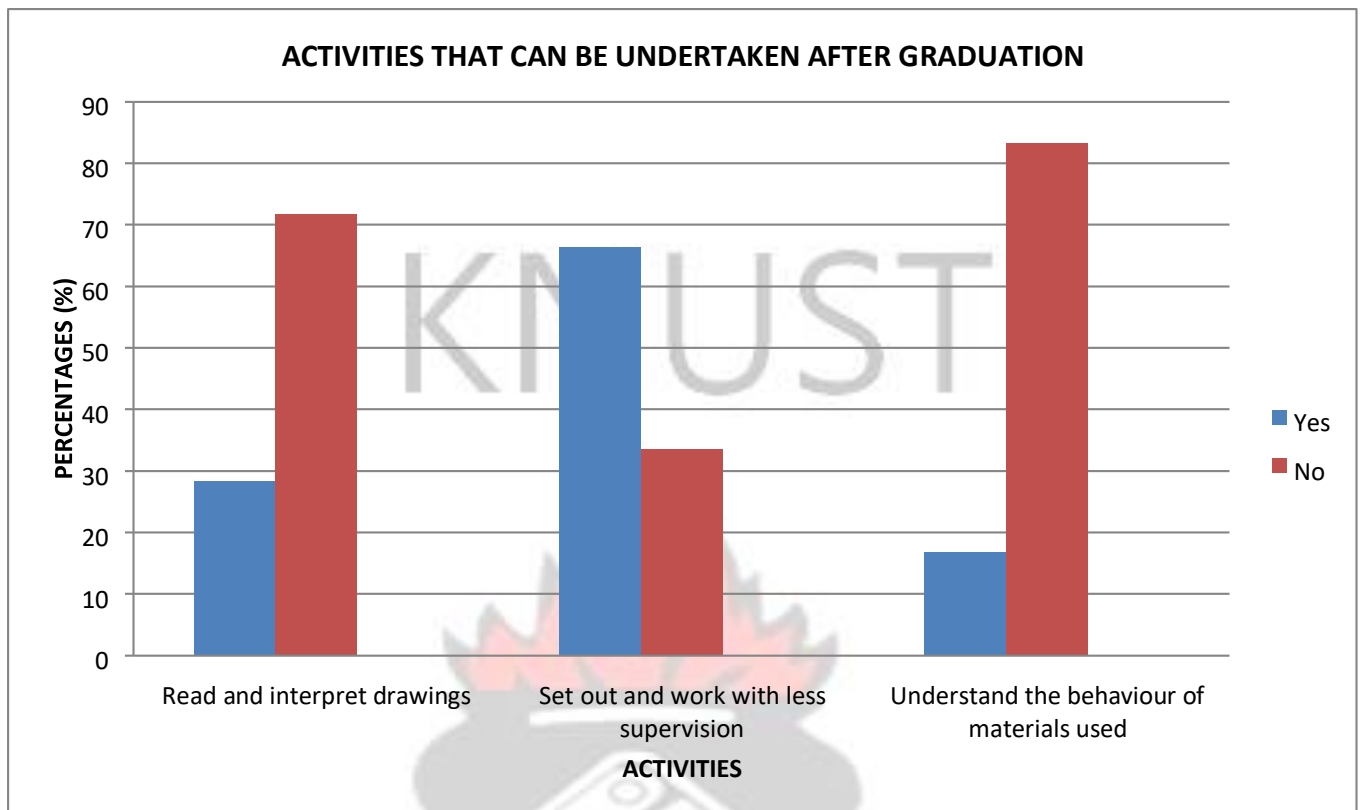
**Comfortable to Work under Him**

Conditions	Number	Percentage
Good master-apprentice relationship	23	20.35
Dispute resolution method	21	18.58
Occasional tips	46	40.71
Permanent workshop	15	13.27
Family relations	8	7.09
<b>TOTAL</b>	<b>113</b>	<b>100</b>

*Source: fieldwork, 2015*

Observations from Table 4.2 indicate that surprisingly occasional tips from supervisors make apprentice artisan wants to work under the master. This received a percentage of about 41%. Twenty-one (21%) rated good master-apprentice relationship as a factor or motivator for staying under a particular Master Artisan whilst 12.27% rated permanent workshop as a motivator or factor for staying under a particular master. This analysis indicate that apprentice artisans have one or two reasons for cleaving to a particular master artisan.





**Figure 4.1: Activities that can be undertaken after graduation from training**

**Source: Fieldwork, 2015**

From Figure 4.1, when respondents were asked whether they can be able to read and interpret drawings after graduating from their masters, more than 73 percent responded in the negative whilst the remainder who are in the minority responded affirmatively. This results means that most of the artisans in the construction sector cannot read and interpret drawings. When they were further whether they can work with little or no supervision, majority (68%) responded in the affirmative. This means that the artisans have acquired enough training to be able to work on their own without adequate supervision. The remainder responded negatively, meaning they still need some level of supervision to accomplish a task well. When respondents were again asked whether they understand the materials they work with, a whopping majority (85%)

indicated 'no'. the result is quite strange as the researcher finds it hard to understand how respondents' work with materials they are not mastery of.

#### 4.3 Analysis of Response from Master Artisans

In this section, views of master artisans were sought how they impact their knowledge and skill to trainee artisans. The data is analysis with the tables below. In table 4.3, master artisans were asked the mode of impacting knowledge to the trainees or the apprentice artisans.

**Table 4.3 Mode of Training**

<b>Mode</b>	<b>Number</b>	<b>Percentage</b>
<b>Theoretical</b>	0	0
<b>On the job/Practical</b>	67	55.83
<b>All the above</b>	53	44.17
<b>TOTAL</b>	<b>120</b>	<b>100</b>

*Source: Fieldwork, 2015*

It was realized from the study that 55% concentrate solely on giving practical skills to the trainee whilst 44% give both theory as well as practical skills to trainees. It is not surprising since it is perceived that, the work of the artisan requires little or no training as the focus is to get the work done. This confirms the assertion that artisans work are purely practical in nature and it is best gained on the job, with little or no discussions. While considering the customary apprenticeship which prevails in Ghana, one inadequacy gives off an impression of being absence of consistency and sufficient substance in the preparation that disciple get. Little consideration is paid to conveyance of guideline and to thought of learning styles and instructive hypothesis in the preparation of understudies in the casual framework of training in Ghana.

From the field investigations carried out, it came to bare that the traditional apprenticeship modes of training described above are the most common means of skill acquisition for workers in the construction industry in Ghana, and since those trained through this system form the majority of artisans in the construction industry, the need to systematically document the exact procedure for their training, examine and probably make some recommendations for improvement cannot be overemphasized as per Table 4.3.

Terms of apprenticeships such as cost, duration, physical working conditions, and substance of the training vary significantly from the master to master and are also dependent on the kind of trade, depending upon such factors as the relative supply and demand for such trade in the given locality, and on whether or not the master is a relative. In the case of the attachment system, it may also be dependent on the arrangements made by the company concerning such trainings or the individual arrangement between the master and the apprentice. There are, nonetheless, some common features in traditional informal sector apprenticeships training in Ghana which cuts across the trades and are outlined below;

Apprenticeship emphasizes a predominantly hands-on, practical approach to training and every apprentice (prospective master) had to go through the following phases of training before eventually becoming a master artisan;

- i. Apprentices learn their craft by first observing and then imitating the master craftsman at work for the early stages of their training.
- ii. Apprentices begin working on simple tasks and move on to more complex tasks when basic skills are mastered.
- iii. Trainees work with a master craftsman for an often specified length of time that can vary, depending on the content of the agreement one signed with the master

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because many trainees do not learn a craft completely, they are considered semi-skilled at best after completing traditional apprenticeships and hence the highest level of promotion they can gain is trades foreman.

- iv. Apprentices receive little or no remuneration (some, in fact, pay fees to the masters), although some do get meals and shelter.

The last item brings to bare the question of whether master trainers sometimes take advantage of their trainees by not paying them for work or increasing the period of apprenticeship. The cheap labour of apprentices and the frequent prolongation of the duration of apprenticeship certainly contribute to the high incomes of some informal sector masters which are sometimes seen in the urban areas.

In a few circumstances, students constitute an essential yet defenseless portion of the workforce, without any administration insurance, and the learners' yield some of the time advantages the ace more than the students themselves. The absence of a wide preparing point of view, seen above, where a hands-on preparing approach rules and where numerous apprenticeship framework that produces chiefly semi-gifted laborers who need general competency in perusing and composing, math, and so on prompting their not being promptly advanced as contrasted and their partners in the formal division.

**Table 4.4: Relation of Master Artisan to Apprentices in the Informal Sector in Ghana**

Relationship to master artisan	Percentage
Family relation (nuclear)	35
Other familial relationship	47.5
Friend of family	5.83
No previous relationship	11.67

*Source: Fieldwork, 2015*

Table 4.4 takes a cursory look at the Master-Trainee relationship at the work place. It can be seen from the table that an astounding 82.5 Percent of the Mater Artisan have their relatives (both atomic and outside) as students. This infers aptitudes are being exchanged starting with one era then onto the next in the same family. It is a method for saving family exchange. This was trailed by Artisans who don't have any past connection with the learner (11.67%); and Friends of family bookkeeping to 5.83 percent.

From table 4.5, Master Artisans were gotten some information about their strategy for expert improvement utilized in their work. From the study, it was understood that experimentation bested the rundown. Adding up to 55.84 percent. This implies experimentation is the overwhelming way Artisans create themselves. They gain from the experience at work. Another 23.33 for every penny said they counsel with different artisans, another 15% counsel specialized archive, whilst the rest (5.83%) counsel specialized master. From the study, Master artisans in the informalsegment were for the most part entirely poor and in fact denied. The division's destitution is apparent in the state of foundation, materials and hardware, and

additionally in the nature of items and administrations advertised. Low levels of training was an overwhelming perception, which was apparent in the way that the most elevated amount of instruction accomplished from the field studies is the auxiliary level of which just 23.01% those met had achieved.

Appraisals of preparing needs additionally vary forcefully amongst onlookers and expert artisans themselves. While most informalsegment artisans can disclose what they have to do, they are considerably less eloquent about what they have to know keeping in mind the end goal to complete such things successfully. Their activities subsequently have all the earmarks of being directed by a blend of routine reiteration and experimentation instead of by any theoretical dominance of the calling.

Among expert artisans, this circumstance has all the earmarks of being expected to some degree to the criticalness of those material concerns and to a limited extent to the way that these informalskilled workers themselves took in their exchange through dreary practice and never had event to ponder or assess what they did. As an outcome, "specialized preparing" is truly not secured in the range for the examination of their circumstance.

As outcome, the mentality of informalexpert artisans appears somewhat indeterminate, from one perspective, when addressed about their enthusiasm for experiencing preparing, they affirm that it is a need 82.5% wanting extra preparing, while deciding on brief span assortments), and 67.5% even communicated an ability to pay for good quality offerings. Then again, when preparing is positioned nearby other squeezing business needs, Training turns out dead rearward in this stock. Since preparing for these artisans is a subject important to this study, the inquiries outlined tried to distinguish territories of specialized shortcoming and preparing need. In particular, the study watched the diverse activities, strategies, apparatuses, hardware and items connected with every exchange to determine a more satisfactory rundown of the aptitudes, information and mentality important for authority of every exchange. The outcome

was an illustrative count of what ought to be aspired for commendable professional execution, without particular reference to particular exchange. The most conspicuous determined needs were the accompanying: Fundamental materials theory

- a. Elements of basic design
- b. Knowledge of the range of properties of materials and other inputs
- c. Organization of production operations

The most widely recognized methodology for expert progression and discovering that was watched is the utilization of experimentation technique. The exchange of expert improvement for business people is additionally found in the following area on need needs.

The expert artisans were gotten some information about what they do to enhance their expert learning. Their reaction uncover halfway for experimentation strategies, additionally an eagerness to counsel others and infrequent specialized reports. The modalities of learning appear to be positioned as much by availability for an occupied and asset strapped individual as by whatever else.

**Table 4.5: Methods of Professional Development employed by master artisans in Ghana**

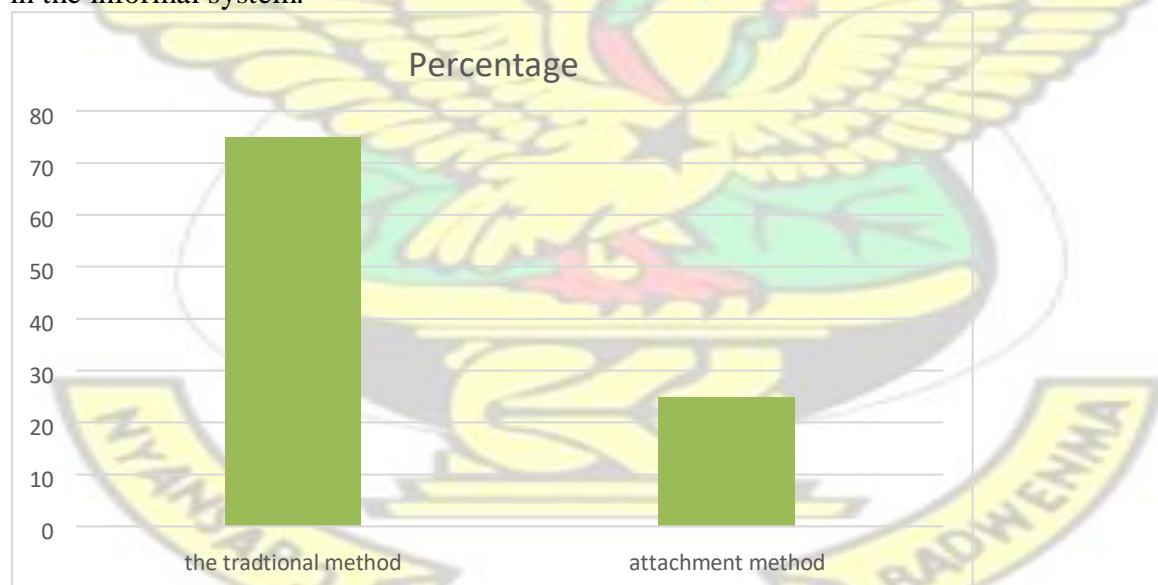
Methods Employed by master artisans	Percentage
Experimentation/Trial and Error	55.84
Consult with other artisans	23.33
Consult Technical Documents	15.0
Consult Technical Experts	5.83

*Source: Fieldwork, 2015*



Some essential inquiries emerge: is the fundamental instructional system utilized by expert specialists (perception, impersonation, reiteration, redundancy, redundancy, and so forth.) a deliberate and great decision to accentuate method of preparing over hypothesis? On the other hand it is somewhat a measure of the expert artisans' powerlessness to give much else besides handy preparing given the way that they themselves were prepared and/or the absence of specialized authority in their art? The confirmation focuses to the last clarification as the undoubtedly situation.

In any occasion, these inquiries raise the issue for consideration in the exchanges on learning hypothesis when considering changes in customary apprenticeship frameworks or in preparing through the informal framework. The idea of experiential realizing; where the learner is effectively required in building information, expertise and quality from direct encounters might be a valuable beginning stage in exchanges on concocting new preparing programs for students in the informal system.



*Figure 4.2 Current Methods of Training Artisans in the Informal Sector*

From the field investigation carried out, it was realized that two main modes of skill acquisition were in play pertaining to the informal sector were; the typical traditional system (75%) and the attachment system (25%).

Under this framework (the average conventional framework), the understudy is taken to an expert artisan who enters a concurrence with whoever brought the disciple (i.e. either the guardians or the watchman). Under the understanding the student might be required to stay with the expert and serve him in return for which the expert shows him the exchange or pay some predetermined sum running amongst GH¢250.00 and GH¢400.00 together with a few things, for example, schnapps, sodas, and so on in view of the bearing of the expert and fluctuating from exchange to exchange.

It merits nothing that the understanding went into by and large is just verbal and has no composed part to confirm it for family; under this framework likewise the student is for the most part restricted to just the exchange of his lord and consequently has little chance to learn different exchanges. Another real wellspring of contrast between the genuine customary and the connection methods of preparing is the way that the understudy under the genuine conventional modes as a rule happen to be relatives of the expert artisan which on account of the connection framework is for the most part not the situation. Under this framework it merits nothing additionally that, what a man learns amid apprenticeship is to a great extent reliant on the requests for work that the "expert" gets; therefore if the "expert" is occupied and gets numerous requests the disciple is presented to a ton of learning boulevards.

Under the connection framework the student might be a worker with a development firm who communicates the yearning to take in an exchange consequently the choice is more often than not from the disciple himself. It merits nothing however that the expert tradesmen from whom these workers take in the exchange are themselves representatives of the firm. Additionally the

disciple may take in more than one exchange since he is presented to a boundless number of exchange "experts".

The money related part of this method of preparing however is more costly than what relates in the genuine customary framework and varies from firm to firm furthermore from the people included. Therefore though in some organizations it might be the strategy to prepare their workers to gain some calling (exchange) while deducting some measure of cash from their compensation to cover for the expense of their preparation others have no such plan with an expert artisan. Basically the cost required in the obtaining of ability under this mode is consequently exchanged to the firm included. The theory behind this method of preparing is the way that each development firm would like to contract particularly prepared staff for every art and supervisory position and since neighborhood professional and specialized instruction program occasional gave faculty fit to the modern requests the organizations took it upon themselves to prepare their work force by this implies.

Hence the organizations trust that worker improvement is more quick when preparing is 'handson' and execution related.

## CHAPTER FIVE

### SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

#### 5.1 Introduction

This chapter concentrates on the summary, major findings, conclusion drawn from the results and recommendations based on the findings.

#### 5.2 Summary of Findings

The research seeks to investigate the challenges confronting informal artisan training system in the Ghanaian construction industry. To achieve the aim of the research, the following objectives were formulated for the study:

- i. To ascertain the conditions provided by master artisans for conducive training.
- ii. To determine the Challenges faced by artisans in the informal sector.
- iii. To find out the methods of professional development employed by master artisans

The research came out with the following findings;

- From the field investigation carried out, it was realized that two main modes of skill acquisition were in play pertaining to the informal sector were; the typical traditional system (75%) and the attachment system (25%).
- Another finding was that one shortcoming of the informal system seems, by all accounts, to be an absence of consistency and sufficient substance in the preparation that understudy get. There is therefore the need for structured continuous hands-on training at all levels to re-position the construction artisan for the increasing challenging needs of national development.
- The research also identified that the master artisans face inadequate access to re-training to upgrade and update their level of service



From the investigations carried out it became evident that a “reformed” apprenticeship programme is a potential method for tending to the crevices between the ways artisans are prepared in the informal framework and enhancing the framework in general as far as the apparent needs in abilities and preparing for the development business.

Given that essential part that apprenticeship plays in the preparation of specialists for the development business, through the fundamental technique for perception and impersonation of the expert artisan, this “conventional” way to deal with apprenticeship is viewed as inadequate and needing change. A transformed apprenticeship would supplement the conventional apprenticeship techniques by acquiring from non-formal and informal training procedures. It would look for as a matter of first importance to address, in a participatory manner, the general needs of the disciples, including the requirement for fundamental proficiency aptitudes and a general foundation in all the specialized regions that they would experience in their work.

This new sort of apprenticeship would give disciples the chance to take in the exchange a handy setting and ideally furnish them with more aptitudes (both work-based and education) and more applicable work experience than conventional apprenticeships.

Due to the truth that the informal artisan preparing framework is the significant method of aptitude securing in the development business in Ghana combined with the agreement found in the writing and approved by this study the informal segment ought to be helped upheld and furnished with proper change projects, and permitted to develop if any progressions are to be made in the apprenticeship framework, plainly the expert artisans ought to be required in the exertion.

### **5.3 Conclusion**

The study concludes that the apprenticeship framework in Ghana is overwhelmed by a hands-on, commonsense methodology, favored by the expert artisans who for the most part claim full

obligation regarding preparing and were prepared similarly. The dull and still nature of this sort of preparing has been noted, and in addition the absence of experiential techniques underscoring disclosure and experimentation results. The uncommonness of outside, reciprocal preparing and the fundamental procedure of perception and impersonation likely will decipher into a lack of engagement and/or failure to learn or enhance in the working environment. This study conceives a more grounded part for the Ghanaian government, which incorporates the accompanying;

1. encouraging private associations to dispatch activities in specialized and expert preparing;
2. actuating expert artisans to arrange themselves, in terms of professional career or calling, into unions or affiliation;
3. sponsoring new directions in conjunction with existing exchange unions or relationship to assess the current conventional apprenticeship framework, particularly in the territories of:
  - i. Duration of apprenticeships and working states of apprenticeships,
  - ii. Upgrading apprenticeship preparing educational program, with the likelihood of expert artisans allowing testaments on fruition.
  - iii. Support for expert preparing focuses to take sorted out gatherings or unions of artisans through refresher courses at times.

#### **5.4 Recommendations**

The customary apprenticeship framework remains the most well-known establishment for instructing specialists in the informalsegment. There are conceivable advantages to changing the apprenticeship framework to make it more receptive to the requirements of present and future students in the development business. Any progressions, in any case, ought to be painstakingly considered the solid social part that apprenticeship plays in the Ghanaian culture.

Apprenticeship preparing serves significantly more than simply financial strengthening for the person in the development business in Ghana. The unmistakable quality of family tied between the expert and their students, the shortage of expenses charged, and the basic inclination of disciples to stay well past the time that may sensibly be important to ace a livelihood, demonstrate obviously the degree of the social part the customary apprenticeship framework plays.

As insinuated above, it will be key to include the expert artisans in the change procedure including endeavors to give them chances to redesign their own particular learning of development abilities. As present expert artisans will most likely be dynamic in the informal arrangement of artisan preparing for a long time to come, it would be rash to overlook them, for this could exacerbate imbalances and also make obstacles to changes in execution and proficiency in the framework. There is additionally the likelihood that ace mentors may restrict the propelled preparing of their understudies and workers unless they are given the chance to enhance their insight and abilities.

These two variables referred to above mean more prominent coordination and participation inside the informal framework and in addition in the individual exchanges should be set up. There is likewise a reasonable need of including administrative and nongovernmental offices in supporting the informal framework's proposed change; the inputs of the above offices might be vital in the association of these artisans (both experts and disciples) into national, territorial and region bunches with well set down structures and checking their exercises.

There is hence the call for government to get required in informal part preparing keeping in mind the end goal to dispense with the incidental misuse of specialists and learners that occasionally emerges, and additionally the conceivable establishment of government controls with regards to the span of apprenticeship, its preparation substance and modes, compensation among others.



At last, there are a few activities to enhance preparing for individual in the informal system as an approach to enhance the execution of the part. One method for enhancing the execution of casually prepared artisans would be to keep on providing help to the framework's members, and in addition to related exchange affiliations and the administration, in the appraisal and displaying of specific preparing needs. This help ought to keep on addressing the natural inquiry: What are the particular aptitudes, capacities, information and innovative skill required in the particular exchange and on individual levels? The inquiry stays as how to enhance the nature of apprenticeship preparing. This would mean giving a sound hypothetical establishment to students and guaranteeing a general dominance of the information, know-how and powerful measurements of the specific exchange. One recommendation that ought to be considered as a method for tending to the quality inquiry would be the selection of a "double" arrangement of preparing that would consolidate down to earth work-based preparing (the more conventional methodology) with formal preparing in principle and more present day innovations through refresher courses to be sorted out for the "assembled" artisans as proposed above . Another method for enhancing the informalartisan preparing framework would be to bring some way of formal direction and backing to the conveyance of apprenticeship preparing. This methodology would present drizzling in the informalframework ought to take after a generally acknowledged arrangement of aptitudes, learning and general abilities. This direction of preparing may include:

- i. Basic preparing substance and techniques to be utilized by the expert artisans
- ii. Materials and hardware with which students must figure out how to function
- iii. The scope of items, administrations and others aptitudes that ought to be aquired by a disciple toward the end of the stipulated time of apprenticeship



iv. Criteria by which to affirm that a disciple has finished preparing. This report could likewise incorporate standards or tenets identified with the length of preparing, the accreditation of an expert artisan to give the approved preparing, the official confirmation of a finished apprenticeship.

# KNUST



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## APPENDIX I

### QUESTIONNAIRES FOR ARTISANS UNDER TRAINING

1. WHAT ARE YOU TRAINING TO BECOME?

(a) Carpenter ☐

(b) Mason ☐

(c) Steel Bender ☐

2. HAVE YOU EVER HAD ANY FORMAL EDUCATION?

(a) Yes ☐

(b) No ☐

3. IF YES, WHAT LEVEL DID YOU GET TO?

(a) Basic ☐

(b) Secondary ☐

(c) Tertiary ☐

4. HOW LONG IS THE TRAINING SUPPOSED TO LAST?

.....

5. HOW LONG HAVE YOU BEEN TRAINING UNDER YOUR MASTER?

(a) 6months ☐

(b) 6-12months ☐

(c) 12-18months ☐

(d) 18-24months ☐

(e) 24-30months ☐

(f) 30-36months ☐

6. CAN YOU WORK INDEPENDENTLY AFTER GRADUATION

(a) Yes ☐

(b) No ☐

7. (a) IS THE DURATION FOR THE TRAINING ENOUGH FOR ACQUIRING ALL THERE IS TO KNOW IN YOUR CHOSEN FIELD OF APPRENTICESHIP?

(a) Yes ☐

(b) No ☐

(b) IF NO, WHY?

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

8. WHAT ARE THE CONDITIONS PROVIDED BY YOUR MASTER THAT MAKES TRAINING UNDER HIM CONDUCIVE FOR YOU?

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

9. HOW WOULD YOU DESCRIBE THE TRAINING YOU ARE RECEIVING UNDER YOUR MASTER?

- a) Very concise ..... 1
- b) Too broad in scope ..... 2
- c) Limited in scope ..... 3

d) Not relevant to my ambitions ..... 4

10. (a) IS THERE ANYTHING ABOUT THE MODE OF TRAINING YOU RECEIVE UNDER YOUR MASTER THAT NEEDS TO CHANGE?

(a) Yes ☐

(b) No ☐

(b) IF YES WHAT ARE THEY?

.....

.....

.....

11. (a) IN YOUR OPINION, HAS THE INFORMAL ARTISAN TRAINING SYSTEM HAD AN EFFECT ON THE CONSTRUCTION INDUSTRY?

(a) Yes ☐

(b) No ☐

(b) IF YES, WHAT SPECIFIC EFFECTS HAS IT HAD ON THE INDUSTRY?

.....

.....

.....

(c) IF NO, WHY HAS IT NOT HAD ANY EFFECT ON THE INDUSTRY?

.....

.....

.....



12. WHAT IMPACT WOULD YOU SAY TRAINING IN THE INFORMAL SECTOR  
HAS HAD ON YOUR KNOWLEDGE OF CONSTRUCTION?

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

13. AFTER GRADUATING WHICH OF THE FOLLOWING CAN YOU DO?

a) READ AND INTERPRET DRAWINGS

a. Yes ☐

b. No ☐

b) SET OUT AND WORK WITH LESS SUPERVISION

a. Yes ☐

b. No ☐

(C) UNDERSTAND AND SUPERVISOR'S INSTRUCTION WITH EASE

a. Yes ☐

b. NO ☐

(D) KNOWLEDGE AND USE OF SOME BASIC TOOLS AND EQUIPMENTS

(a.) Yes ☐

(b.) No ☐

(E) UNDERSTAND THE BEHAVIOUR OF VARIOUS MATERIALS USED

(a.) Yes ☐

(b.) No ☐

14. WHAT RECOMMENDATION WOULD YOU MAKE FOR EFFICIENT TRAINING OF ARTISANS BY THIS SYSTEM

APPENDIX II

QUESTIONNAIRE FOR MASTER ARTISANS

1. WHAT IS YOUR AREA OF SPECIALIZATION?

(a) Carpenter ☐

(b) Mason ☐

(c) Steel Bender ☐

2. HOW LONG HAVE YOU BEEN OPERATING?

.....

3. WHAT ARE THE ENTRY REQUIREMENTS FOR APPRENTICESHIP?

a) Age

.....

b) Financial commitment

.....

c) Tools needed

.....

d) Any other (specify)

.....

4. HOW IS THE MODE OF YOUR TRAINING?

a) THEORETICAL ..... ( )

b) ON THE JOB LEARNING/PRACTICAL ..... ( )

c) ALL THE ABOVE ..... ( )

5. WILL YOU OPT FOR FURTHER TRAINING SHOULD YOU HAVE THE OPPORTUNITY?

(a.) Yes ☐

(b.) No ☐

6. WILL YOU BE READY TO PAY IF ASKED TO?

(a.) Yes ☐

(b.) No ☐

7. WHICH OF THE FOLLOWING DO YOU DO TO GAIN ADDITIONAL KNOWLEDGE IN YOUR TRADE?

- (a) Experimentation (trial/error)
- (b) Consult other master artisans
- (c) Consult Technical documents
- (d) Consult experts
- (e) Others

8. HOW MANY ARTISANS DO YOU HAVE?.....

9. WHAT IS THE TOTAL DURATION FOR THE TRAINING

.....

10. AT WHAT TIME IS ONE EXPECTED TO HAVE ACQUIRED ALL THE NECESSARY KNOWLEDGE TO BE INDEPENDENT

.....

11. (i) DO SOME ARTISANS WHO LEAVE HERE COME BACK TO PERFECT SOME ASPECT THEY DID NOT MASTER WHILE IN TRAINING?

(a.) Yes ☐

(b.) No ☐

(ii) IF YES, HOW OFTEN DOES THIS HAPPEN?

.....

12. (i) DO THE APPRENTICE WHO COMES TO YOU ACQUIRE OTHER KNOWLEDGE IN CONSTRUCTION?

(a.) Yes ☐

(b.) No ☐

(ii) IF YES, WHAT OTHER FIELDS DO THEY ACQUIRE KNOWLEDGE IN?

.....

.....

13. (i) DO YOU HAVE RECORDS OF APPRENTICES YOU TRAINED?

(a.) Yes ☐

(b.) No ☐

(ii) IF YES, HOW MANY ARE THEY? .....

