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INFORMAL MECHANIC APPRENTICESHIP AS ALTERNATIVE PATHWAY FOR SCHOOL LEAVERS IN THE DADE-KOTOPON MUNICIPALITY

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BY

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DECLARATION

I hereby declare that this submission is my own work and that it contains no material previously published for an award of any degree in this university or any other university. All references made to other studies have duly been acknowledged.

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ABSTRACT

Apprenticeships play a key role in providing a qualified workforce. In Ghana's informal apprenticeships have a wider reach to those who need work skills than formal apprenticeships. However, due to non-regulation and lack of supervision, informal apprenticeship is plagued with numerous challenges. This study explored the activities of informal mechanic apprenticeships in the La Dade Kotopon Municipality and reviewed apprenticeship models in other countries that can be adapted to improve them as alternative livelihood pathways for school leavers. This qualitative study conducted 20 in-depth interviews and two focus group discussions with informal mechanic apprentices and masters. The apprenticeship models of Germany, England and Australia were reviewed because literature suggest that they are among the most successful models globally. The data were manually analysed. The study found that unlike Germany, Australia and England, where government finance apprenticeship, self-financing, parents/guardian financing and non-governmental organizations' support were the main financing mechanisms among mechanic apprenticeships in the Municipality. Additionally, their main challenges included unfavourable learning environment, bad relationship between the master mechanics and apprentices and unavailability of learning and working tools. The apprentices said they planned to establish their own shops, to work in their master's shop upon completion or work as freelance mechanics. These career plans of the apprentices could be considered as potential skill utilisation strategies. The study concludes that with adequate funding and policy regulation informal mechanic apprenticeship has the potential of playing a major role of an alternative pathway to sustainable livelihood for school leavers in the Municipality. The study, thus recommends that Ghana Government enact policies to standardise informal mechanic apprenticeships, fund their trainings, give grants and flexible loans to start-ups and standardise the terms and conditions for employment of trained informal mechanic apprentices in the municipality.

DEDICATION

I wish to dedicate this work to the Almighty God for his guidance and grace through the period. I also would want to dedicate this study to my wife Esther Azasi and our daughters Awoniami and Awonalim for their patience and support throughout the study.

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LIST OF ACRONYMS

AAC	Australian Apprenticeship Centres
AFT	American Federation of Teachers
AQF	Australian Qualifications Framework
ASCL	Apprenticeships, Skills, Children and Learning
BECE	Basic Education Certificate Examination
BIBB	Vocational Training Development Institute
CAEP	Council for Accreditation of Educator Preparation
CBT	Competency Based Training
CDC	Community Development Centres
CEDEFOP	Course of Vocational Higher Education
COTVET	Council for Technical Vocational Education and Training
EMIS	Education Management Information System
ERR	Employee Rights and Responsibilities
FGD	Focus Group Discussion
GDP	Gross Domestic Product
GER	Gross Enrolment Ratio
GES	Ghana Education Service
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
GLH	Guided Learning Hours
GLSS	Ghana Living Standard Survey
GoG	Government of Ghana
GPRS	Ghana Poverty Reduction Strategy
GRATIS	Ghana Regional Appropriate Technology and Industrial Service
GSDI	Ghana Skills Development Initiative
GSS	Ghana Statistical Service
IAT	Informal Apprenticeship Training
ICCES	Integrated Community Centre for Employable Skills
ILO	International Labour Organization
JHS	Junior High School
LDKM	La Dade Kotopon Municipality

LTI	Leadership Training Institute
MC	Master Craft Persons
MoE	Ministry of Education
NAB	National Accreditation Board
NACVET	National Co-ordination Committee for Technical and Vocational Education and Training
NAP	National Apprenticeship Policy
NCVER	National Centre for Vocational Education Research
NGO	Non-Governmental Organization
NQF	National Qualification Framework
NVTI	National Vocation Training Institute
OECD	Organization for Economic Co-operation and Development
PISA	Programme for International Student Assessment
PLTS	Personal Learning and Thinking Skills
RECP	Renewable Energy Cooperation Program
SASE	Apprenticeship Standards for England
SHS	Senior High School
STEP	Skills Training and Entrepreneurship Programme
TVET	Technical Vocational Education and Training

CHAPTER ONE

INTRODUCTION

1 Introduction

This chapter introduces the reader to informal sector mechanic apprenticeship and its importance in providing school leavers with employable skills and decent livelihood. The chapter also contains the problem statement, the objectives of the study and the research questions. The organization of the study is also outlined in this chapter.

1.1 Background of the study

Literature shows that a majority of school leavers from Junior High Schools (JHS) are unable to enter second-cycle institutions. Most of the school leavers end up either working or acquiring skills through informal apprenticeship (Akplu & Amankrah, 2008). Traditional apprenticeship training is the most accessible source of training for the poor and an important source of technical skills for those who cannot access formal training opportunities (Robert, 2007). Informal apprenticeship systems exist and dominate the vocational and technical training structure in Ghana due to the fact that it is generally entrenched in a set of customs, norms and traditions that are shared in the community and among people of a trade. This system of customs and rules creates the right conditions for informal apprenticeships to make economic sense, for both the trainer – the master craftsperson – and the learner/apprentice (Nubler, Hofmann, & Greiner, 2009). According to the Organization for Economic Cooperation and Development (OECD), 60% of school leavers from JHS enter into apprenticeship training. Presently, informal apprenticeship training accounts for 80% to 90% of all skills training in Ghana, while public training institutes train 5%-10% and NGOs train 10%-15% (Palmer, 2009). The focus of documented information about apprenticeship has been very dynamic. In

the 1970s, the information focus was on apprenticeship as a tool for socialization (Goody, 1982). However, apprenticeship lately is seen to have a much wider scope due to economic and technological development. These factors have widened apprentices' recruitment. According to the International Labour Organization (ILO), informal apprenticeship model is a system by which a young apprentice obtains skills for a trade or craft in a small enterprise, learning and working under the supervision of an experienced practitioner (ILO, 2012a). Abban and Quarshie (1993) identified four broad informal apprenticeship models, namely woodworkers; auto mechanics; textile and apparel; and beauticians and hairdressers. They further noted that the informal apprenticeship training model generally occurs in different stages. For example, most apprentices start with an introductory phase during which the new learner is taught and made to do jobs such as cleaning the shop and running errands for senior apprentices. The second phase is where the apprentice is taught the use of appropriate tools for the right job and the spare parts for the job. Apprentices are usually put in the hands of the experienced practitioners who are popularly referred to in Ghana as "master" or "madam" to learn the fundamentals of the trade. The master prepares the apprentice for more complex tasks and gradually, the apprentice is introduced to more complex tasks and given increased responsibility such as supervising other apprentices, dealing directly with customers, and from time to time, looking after the shop in the absence of the master/madam (Abban & Quarshie, 1993). Fundamentally, the apprentice in the informal training sector acquires skills, knowledge and attitudes through observation, imitation and on-the-job experience.

Informal apprenticeship in Ghana includes trades in automotive, garment, cosmetology, electronics, carpentry and woodwork, masonry, welding and fabrication. The automotive sector has apprentices learning specialized skills on how to service and repair vehicles, mechanical agricultural equipment and motorcycles. The informal garment apprenticeship in Ghana specialises in kaba (local skirt and blouse dresses), traditional dress and kaftan, wedding

dresses, shroud garments, office apparel, uniforms and suits. The cosmetology sector in Ghana is made up of individuals who work across the hair and beauty industry. Barbers and nail technicians are usually included in the cosmetology trade. Apprenticeships also take place within the electronics sector where the youth acquire the skills to service and repair selected appliances such as television sets, radio sets, cell phones, fridges, fans and air conditioners. Apprentices involved in the welding and fabrication trade acquire skills in metal construction (especially gates and doors), rust removing and provision of anti-corrosive coating. Some youth apprentices are also involved in carpentry and masonry where they learn to make furniture, roofing works and house construction (GIZ, 2013).

There is evidence that suggests that some types of apprenticeships, including carpentry and tailoring, have become less popular among the youth (Darvas & Palmer, Demand and Supply of Skills in Ghana: How can Training Programs Improve Employment and Productivity, 2014). The large importation of Chinese-made plastic furniture, tables and ceiling sheets as well as ready-made garments from China, has impacted on the demand for carpenters and tailors in Ghana negatively (Darvas & Palmer, 2014). This has likely contributed to job losses for Ghanaians and further suggests the need for Ghana's young population to be prepared in modern technical production processes to be able to meet the demands of the future. Moreover, to prevent other apprenticeships from suffering the fate of carpentry and other now less popular trade, they must be modernised and strengthened to compete in the global market. This could also help sustain the interest of the school leavers in the sector.

One important feature of the informal apprenticeship model is that there is hardly any entry requirement. Although the means of entry are many and varied for a new entrant into the apprenticeship system, many authors have presented closely related yet different descriptions of the entry requirements. For instance, Donkor and Mallet (2006) argue that the modalities regarding apprenticeship in the informal sector vary. Middleton, Ziderman and Van Adams

(1993) states that entry is for the most part open for anyone who can pay the training fee. Minimum education requirements or other qualifications besides ethnic or clan identity are uncommon. Another key attribute of the informal apprenticeship system is that it is very much perceived as a socialization process as much as it is training. The expressions of authors such as Anokye and Afrane (2014) that the apprenticeship system offered parents an effective way of transferring skills or education directly or from a master to an adolescent explains this view. This makes the informal mechanic apprenticeships a favourable source of skills for school leavers because most of them either have basic education or have not passed their examinations.

In most cases, the master receives a fee, but other times the apprentice works for a reduced (or no) wages. The reduction or forfeited wages compensate for the training cost. Other apprentices are fortunate to receive free boarding and lodging, some pocket money and/or occasional bonuses. The economic consequences of doing an apprenticeship are twofold: apprenticeships raise one's potential earnings and improve one's chances of having a job. In addition, apprenticeship is a social as well as an economic undertaking for many young Ghanaians. As apprentices, young people mature while developing job-oriented skills (Monk, Sandefur, & Teal, 2008).

In Ghana mechanics are almost exclusively informal, making learning opportunity in the sector restricted to the informal sector. Secondly, the informal sector absorbs most out of school youth, thus mechanic apprenticeships present out of school youth the opportunity to gain employable skills. An informal mechanic apprentice, for the purpose of this study, denotes a technician who acquires skills and knowledge of building and/or repairing machinery from a master craftsman in an informal training setting. Like all other informal apprenticeships, mechanic apprenticeship is unregulated by the government in terms of providing entry requirements for apprentices and giving certification to apprentices upon successful completion of programmes.

Informal apprenticeship is widespread in Ghana than the formal apprenticeship training model. Informal apprenticeship is considered by far the most common source of skills training in Africa (Ahadzie, 2009). In Ghana, Informal apprenticeship contributes more to the Gross Domestic Product (GDP) and job creation than the formal apprenticeship (Osei-Boateng & Ampratwum, 2011). Relative to more formal vocational training, informal apprenticeships are much more flexible and cost-effective for individuals and families to provide financial support. Informal apprenticeship also provides more relevant skills because they do hands-on work as opposed to classroom training, a feature that sets the informal apprenticeship system apart from the formal apprenticeship or vocational training (Ahadzie, 2009). This means that school leavers with poor academic background can overcome the barrier of the need to pass Mathematics, English and Science which is required in Ghana in order to gain practical skills in formal institutions.

1.1.2 The informal economy of Ghana

The informal economy in Ghana is generally not taxed and unmonitored by the government agency (Haug, 2014). Its operations and earnings are also excluded from any form of gross national product built up and estimations. Despite the fact that informal economic activities may not be included in the officially calculated gross national product, they certainly contribute to economic growth (Haug, 2014). Whereas Smith (2005) contend that the informal economy signifies "Market-based production of goods and services, whether legal or illegal, that escapes detection in the official estimates of the gross domestic product". The World Bank and the ILO have provided two contradicting definitions of the informal sector concept. The World Bank defines it as the activities and income that are partially or fully outside government regulation, taxation and observation. The main attraction of the undeclared economy is financial. The World Bank sees the processes of getting involved in the informal economy intentional in order to avoid taxes and pay low wages to employees in order to benefit financially (Thuronyi, 1996).

The ILO, however, defines the informal economy in an entirely different perspective. The term informal economy, refers to all economic activities by workers and economic units that are – in law or in practice – not covered or insufficiently covered by formal arrangements. Their activities are not included in the law, which means that they are operating outside the formal reach of the law; or they are not covered in practice, which means that although they are operating within the formal reach of the law, the law is not applied or not enforced; or the law discourages compliance because it is inappropriate, burdensome, or imposes excessive costs (ILO, 2007).

The ILO provides a much wider perspective in looking at the informal economy when it reckons that the nature of the informal sector cannot be blamed on a single group or their attitudes towards it but that it is caused by a wide variety of problems and structures.

The sector is characterized by underemployment, bad working conditions, uncertain work relationships and low wages. The majority of people in the informal sector are living with high-income insecurity (Osei-Boateng, 2010). The most dominant economic model at the time of independence, in 1957 through to the declaration of the country as a republic, was mainly state driven (Haug, 2014). The state was mandated to ensure economic development. However, the economic truth after the Nkrumah era was not in favour of this state-sponsored economic development model. The external debt of the country rose from £20 million in 1957 to £400 million in 1966 (Haug, 2014). With the failing of the state-centred economy, the private sector came into the focus. Poverty reduction and internal growth were supposed to be achieved by the informal sector (Obeng-Odoom, 2012).

The Ghana Living Standard Survey (2008) shows that more than 80% of Ghanaians are employed in the informal sector. More than half of the employed (55.9%) of the informal sector workers are self-employed, 20.4% are employed in family enterprises and 17.6% are wage

employees. About 80% of the employed in the informal sector operate in three main occupational categories, including agriculture/fishery workers (55.1%), craft and related trades workers (13.4%) and services/sales workers (13%). About 43% of urban workers are engaged in non-agricultural activities whereas 75% of their rural counterparts work mainly in agriculture with majority of them (30.5%) being self-employed peasant farmers (GSS, 2008).

The informal sector in Ghana can broadly be grouped into rural and urban informal sectors (Osei-Boateng, 2010). The rural informal sector is made up of agricultural activities in rural and semi-rural areas. Farming is usually on small scale basis and farming skills are usually acquired through apprenticeship (Osei-Boateng, 2010). It also includes fishing and fish processing activities and rural agro-processing activities. The fishing involves learning how to swim from early childhood through to smoking as a form of value addition and preservation. The rural agro-processing activities involve local soap making, cassava processing into gari (a local food), cassava dough, palm kernel, groundnut and copra oils, palm wine tapping, local pito brewery and local gin distillery (Osei-Boateng, 2010).

In Ghana, there are different forms of labour in the informal rural sector including, apprenticeship where young men and women undertake sector-specific private training, which yields skills used primarily in the informal sector (Osei-Boateng, 2010). Apprentices make up nearly 25% of working-age Ghanaians (Monk, Sandefur, & Teal, 2008). In the rural informal economy, systems of apprenticeship occur essentially in every sector – especially within the fisheries and the agro-processing, oil palm extraction, coconut oil extraction and shea-butter processing sub-sectors. Apprentices are normally not paid, but they may receive cash as pocket money or, as in fishing, be provided for in kind (mainly fish). One advantage of the laxity of policy enforcement in the informal sector is the flexibility of engaging labour including communal and family labour, which contribute to the reduction of unemployment. That also means that informal employers often do not worry about compliance with national minimum

daily wage or other official legal rules of labour engagement. However, the leniency in enforcement may have led to the engagement of child labour and other engagement of workers in unfavourable and unsafe working condition (ILO, 1997)

In urban areas, the informal sector is very different. In urban areas the sector is characterized by heterogeneity and variety (ILO, 1993). The sector in the urban centres is engaged in services, manufacturing and construction (Osei-Boateng, 2010). The services provided include urban food traders and processors, health and sanitation workers, domestic workers, repairers, auto mechanics, sprayers, welders, vulcanizers, auto electricians, hairdresser, barbers and private security. Typically, the workers have had at least some basic education or are school leavers, but among it is not uncommon to find workers whose skills are largely acquired through years of apprenticeship (Osei-Boateng, 2010).

1.2 Problem statement

Ghana performed remarkably in the 1950s regarding access to basic education. However, the economic decline, which began in the 1970s impacted negatively on basic education provision by the early 1980s. From the 1980s onwards the transition from JHS to SHS stagnated between 33% and 32.8% leaving the over 60% of school leavers with no formal means of knowledge or skill acquisition, except through informal apprenticeship (Little, 2010). Although the informal training methods used by master craftsmen in Ghana lack theoretical foundation to meet modern technical demands of the formal sector, the sector is efficient in absorbing a large number of young people (Frazer, 2006). Breyer (2007) observes that the efficiency of the informal apprenticeship in Ghana is as a result of its informality. He notes that this offers an opportunity to enhance apprenticeships in their informal state by integrating them into government policy.

However, governments over the years have either neglected the sector or actively discouraged the growth of the informal sector (King, 1996). Technical Vocational Education and Training (TVET) does not receive enough investment from government. Roberts (2007) asserts that budgetary allocation to the TVET sector is so little that even doubling the current amount would neither meet its financial requirements nor make any meaningful impact. Moreover, Government's TVET policy interventions have concentrated on formalising pre-employment skills training at the expense of skills utilisation of informally trained workers (Robert, 2007; Palmer, 2009). Cattelaens and Fromme (2014) explain that the employment rates of TVET graduates are very low in Ghana because Government's emphasis has only been on the supply side of technical education at the expense of the demand for its graduates. Government's quest to formalise informal apprenticeship is almost oblivious of the fact that informal architecture is partly responsible for the sector's apparent success. This may have contributed to government's failure in transforming the sector (Palmer, 2009).

Informal mechanic apprenticeships absorb a large number of young people in Ghana (ILO, 2012b). Liberal policies that allow the huge influx of Chinese-made goods to the Ghanaian market has resulted in a fall in demand for some skills such as tailoring and carpentry (Darvas & Palmer, 2012). However, inadequate public transportation, increasing wealth and mechanisation of agriculture have led to a rapid increase in per capita vehicle ownership in Ghana (Obeng-Oddom, 2013). Unlike most crafts, the increasing vehicle ownership likely gave rise to a sustained demand for mechanics as they are needed to keep the vehicles in working condition. But, the labour market has been unable to meet the demand for skilled mechanics. The few under-resourced TVET institutions and the almost neglected informal sector are to unable to attract young people despite the availability of a large unemployed youth (Darvas & Palmer, 2012; 2014). Although the bulk of mechanics in Ghana come from the informal sector, available literature suggest that most young people do not find informal mechanic

apprenticeships attractive, thus enrol as a last resort (Omari, 2018). Besides the dearth of literature on informal mechanic apprenticeships in Ghana, majority of the available studies are quantitative; thus, they do not provide sufficient contextual explanations that can help change government's policy outlook from formalising the sector to helping improve the sector in its informal state. Moreover, most of the available literature are dated, which suggest that they may not accurately reflect the current status of informal mechanic apprenticeships in Ghana.

This study, thus, sought to explore the operations of informal mechanic apprenticeships in the La Dade Kotopon Municipality (LDKM); including their financing arrangements, the job expectations of the apprentices and their unique challenges, which could inform government to create policies to improve them.

Unlike other parts of Ghana where agriculture predominate other occupations, majority of LDKM population are engaged in transportation and informal mechanic activities, which makes it suitable for this study (GSS, 2014a).

1.3 Justification for the study

This study is particularly necessary at this time because the Government of Ghana is seeking to reduce youth unemployment, including the launching of the Coordinated Programme of Economic and Social Development (2017-2024). This 7-year development plan is being used as a vehicle for job creation. The findings of this study could be used to improve apprenticeships in the LDKM, which could provide skills for alternative livelihoods.

The LDKM was selected for this study partly because it has an unusually high percentage of vehicle and transportation-related activities (25%). Unlike the rest of Ghana where majority of the population is engaged in agriculture, more than half of the population of LDKM are self-employed; most in transportation, vehicle trading, mechanic work and craft (GSS, 2014a). This suggests that with sufficient government support informal mechanic apprenticeship can

become a key alternative source of livelihood skills for school leavers. Currently, there is no known study among those in the LDKM. Secondly, it was chosen because the researcher had easy access to most of the mechanic workshops. The exact number of mechanic workshops in the area is not known because the shops in the area are not organized and have no association.

1.4 Main objectives of the study

The objective of this study is to explore the activities of informal mechanic apprenticeships in La Dade Kotopon Municipality and to identify interventions that may be adapted to improve it as an alternative skills acquisition system and a livelihood development pathway for school leavers.

1.5 Specific objectives

1. To describe the financing mechanisms of informal mechanic apprenticeships in LDKM.
2. To explore the challenges facing informal mechanic apprenticeships in LDKM.
3. To explore the employment expectations of trainee apprentices in LDKM upon completion, to facilitate the creation of an enabling environment for their skill utilisation.
4. To review apprenticeship models/policies in other countries that can be adapted by Government to improve informal mechanic apprenticeships in LDKM.

1.6 Organization of the study

This dissertation has been organized into five chapters. Chapter one presents a general introduction comprising the discussion of the background of the study, statement of the problem, research and the objectives of the study. Chapter two focuses on literature review and the theoretical framework. Chapter three gives a detailed description of the study methodology. It includes the sampling techniques, the sample size, data collection and analysis. Chapter four

presents the results of the study and discussions of the findings in line with the study objectives. The research summary, conclusion and recommendations are made in Chapter five.

CHAPTER TWO

LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK

2. Introduction

This chapter contains an overview of both the grey and empirical literature on informal apprenticeships and the conceptual framework of this study. It is organized around three themes – empirical literature, policy review and theoretical literature respectively. The empirical literature section entails a description of both formal and informal skills acquisition in Ghana before narrowing to mechanic apprenticeship. In addition, the motives for engagement, entry requirements, contracts, financial mechanisms, apprentices career expectations and challenges of informal mechanic apprenticeships in Ghana are discussed under the empirical literature theme. Literature defining school leavers is also presented under this section. The literature reviewed under policy review theme include the nature of apprenticeships in other countries, policies on apprenticeship in Ghana, standardisation and certification, skills and entrepreneurship development, institutions that provide vocational skill trainings and some major national apprenticeship programmes since the year 2000. Finally, the theoretical framework for this study is explained under the theoretical literature section.

EMPIRICAL LITERATURE

2.1 Skills acquisition in Ghana

In Ghana, skills can be acquired formally or informally. Formally acquired skill is one achieved from a registered institution with structured syllabus. Informal acquisition of skill, on the other hand, is done under institutions/person who may not be accredited nor regulated (Johanson & Adams, 2004). The details of both systems are discussed below.

2.1.1 Formal acquisition of skills

Formal apprenticeship occurs in a formal environment where the apprentice acquires the skill in an enterprise, learning and working side by side with an experienced craftsperson, usually complemented by classroom-based instructions (ILO, 2012a). The apprentice and master craftsman conclude a training agreement that is regulated by formal laws and acts. In such formal training environment, the costs of training are shared between apprentice, master and the government. In addition, the ILO posits that government regulations tend to guide the operations of apprenticeships in the formal setting, unlike informal apprenticeships.

In the formal sector in Ghana, there is a parallel system of vocational technical institutions alongside the senior high school system where skill training can be obtained (RECP & euei, 2013). Formal TVET in Ghana requires a minimum level of education – Basic Education Certificate Examination (Robert, 2007). Skills training in the formal vocational institutes are more theoretical and designed more towards formal employment and the attainment of a formal certificate that can serve as basis to further studies. School fees, uniform fees, practical fees, books and other fees are the direct costs associated with formal apprenticeship in Ghana.

2.1.2 Informal acquisition skills in Ghana

Informal apprenticeship in Ghana is characterized by self-financed practical training with little or no regulation. Informal apprenticeships in Ghana have proven to be able to accommodate individuals with low educational level and formal training (Sonnenberg, 2012). Anecdotal evidence from Ghana suggests individuals who could not cope with school work are able to undergo informal apprenticeship. The only requirement that usually made up for this qualification deficiency is that the training takes a very long time to complete with low pay and lacks certification (Sonnenberg, 2012). Literature on informal apprenticeship show that the focus is on its characteristics and functioning, especially in urban areas. In Ghana, an aspiring apprentice is attached to a master craftsman for a training period of about three years (Palmer,

2007). The training periods usually vary from one master craftsman to another. The potential apprentice is usually charged a fee before recruitment (Ahadzie, 2009). Payment of fees is quite flexible as it is sometimes waived, especially, in fostering apprenticeships (Anokye & Afrane, 2014). Additionally, some apprentices sometimes are accepted without an outright payment of the fees but are made to work to cover the cost of the training (Ahadzie, 2009).

Usually, there are no formal contract agreements between the apprentice and the master (Palmer, 2009). The transactions are to a large extent verbal exchanges between the master and the apprentice in the presence of a witness who in most cases is the parent or guardian of the apprentice. The agreement may be written or oral (Breyer, 2007). A new mechanic apprentice learns initially through observation. The apprentice is often given simple tasks, which are unrelated to the program to carry out. He is made to carry water, clean, run errands and do odd jobs at the initial stage (McLaughlin, 1979). Afterwards, the mechanic apprentice is given basic trade related tasks to perform. He is asked to loosen bolts, drain oil and learn the names of vehicle parts. He is also shown tools required for his trade. As the apprentice gains more experience, he is progressively introduced to complex task with the guidance of the master craftsperson and other senior apprentices until he learns all the rudiments of the trade and ready to graduate. Similar practices take place with other forms of informal apprenticeship such as tailoring, carpentry and masonry.

Certification is one important problem that faces the informal apprenticeships. The Council for Technical and Vocational Education and Training (COTVET) provides two pathways that informal mechanic apprentices can explore in order to be certified. The informal skill association (ISA), which is a strong element of the institutional framework of the informal apprenticeship training (IAT) can award its members with certification. The national vocation training institute (NVTI) also awards proficiency certificates, which is a non-written competence-based skill test. However, many informal apprentices do not register for this exam

because they are either not aware of its availability or they do not feel these certificates are important (Harrison, 1997). Informal apprenticeships co-exist with formal apprenticeship practices in Ghana just as in many other developing countries.

Acquah (1997) identified the two main modes of informal skill transfer – (a) fostering apprenticeship and (b.) vocational apprenticeship. According to Kwame (1991) foster apprenticeship occurred among kin, where there is blood relation between the master craftsman and the apprentice. In this apprenticeship, there is little or no cash required before training. It rather involves long periods of staying and learning with the master craftsman, usually five to seven years. On the contrary, vocational apprenticeship requires shorter time periods of training. Mostly, the apprentice, in this case, is not related to the master craftsman and they usually do not live together. Fees are usually required for the training. These two methods are still being used to recruit apprentices in Ghana. It is common to find the various mechanic shops inundated with apprentices who are related to the master craftsman while others are not related to him (Torrence, 1973).

2.2 Historical overview of mechanic apprenticeships

With the introduction of motor vehicles and equipment, there has been the need to have skilled individuals to build and fix them whenever there are faults. In America for example, it was a normal practice for Americans to buy a new car every three years (Streek, 1991). That was because the American economy was strong and robust enough to support such practices. However, with time consumer's purchasing power became weak and associated cost of owning a new vehicle rose drastically, compelling consumers to change how long they keep their vehicles. On average, Americans now keep their cars for eight years (Streek, 1991). This compelled vehicle owner to take better care of their cars in terms by repairing and servicing them regularly. As a result, demand for auto mechanics rose because they became the pivot that ensures vehicles last and function throughout their longer lifetime (Streek, 1991). In a

developing nation like Ghana, consumers mostly purchase used vehicles making the need for mechanics more pressing than in the developed nations.

In Ghana, it is observed that most auto mechanics do not have the right technology, tools and skill to undertake quick and precise fault diagnosis and repairs. The lack of scientific methods to do vehicle diagnosis has led to the destruction of people's vehicles because wrong diagnosis leads to wrong prescriptions, which in the long run damages the vehicle.

2.2.1 Informal mechanic apprentices in Ghana

Informal mechanic apprentices in Ghana are mostly found in wayside mechanics workshops (McLaughlin, 1979). In most West African nations, much of the maintenance and repair of motor vehicles is done in small private garages known commonly as wayside mechanics (or wayside fitting) workshops. These workshops take their name and derive their business from their convenient location along the waysides of village, town and city streets across West Africa. Mechanics usually specialize in one or more specific models of cars or trucks, which they become quite proficient in repairing (McLaughlin, 1979). These wayside mechanic workshops are classified as part of the informal sector.

In the apprenticeship system of the informal mechanic workshops, young boys and girls are inducted into the workshop for a more or less specified period of time, during which they expect to learn all of the skills of the trade and come out at the end as full-fledged masters. The apprentices learn the skill of the trade through full participation. McLaughlin calls the informal mechanic apprenticeship a binding training experience.

2.2.2.1 Motivation for engaging in informal mechanic apprenticeship

Literature show that the motives for engaging in apprenticeship are varied and different for apprentices and master craftsmen. According to Forkuoh, Osei, Emmanuel and Osei (2014), most master craftsmen recruit apprentices in order to benefit from cheap labour. They argue

that this could, however, lead to conflict as the needs of the apprentices may be given lower priority. Other masters engage in apprenticeship because the more apprentices they train the higher they are regarded in their communities. Having many apprentices also implies the availability of more hands to serve clients faster, which is a motivation for existing clients to stay and an attraction to potential customers (Omari, 2018). Among apprentices, however, the desire to acquire the necessary skills for their trade is their main motivation for engaging in apprenticeship. Others are forced by their parents to enrol into mechanic apprenticeship (Omari, 2018).

2.2.2.2 Entry Requirement of the informal mechanic apprentice

The entry requirements for the new informal mechanic apprentices are varied. Different authors found different systems by which new entrants are admitted as apprentices. Donkor and Mallet (2006) observed for example that the arrangements about entry regarding apprenticeship in the informal sector vary. Middleton, Ziderman and Van Adams (1993) concurs by stating that entry is really to a great extent open to anyone who can pay the training fee. They go further to observe that minimum education requirements are non-existent, and that qualification mostly does not have anything to do with ethnic or clan identity. The ILO brings a new perspective when it asserts that entry requirements into the informal mechanic apprenticeship if any exist, are generally low and not restricted by age, ethnicity or proof of literacy (ILO, 1997). Analysing the views above shows that entry into informal mechanic apprenticeships in Ghana is fairly easier when compared to the formal apprenticeship where basic education is required.

Sometimes entry of the apprentice may be predicated only on a trial basis (McLaughlin, 1979). This period is usually for a brief period. The master will use this time period to assess the apprentice's seriousness, intelligence and the quality of his work. The master will also try to determine the moral character of the apprentice during this period to be sure the potential apprentice can be trusted with the expensive tools and vehicles in the workshop. The decision

of the master to accept the apprentice will be determined by how satisfied he will be with the results of the trial period.

2.2.2.3 Contract of the informal mechanic apprentice

When the master is satisfied to accept the person as an apprentice (either when the young person first presents himself or after an initial trial period), the master will ask him to bring one of his parents or the adult who will assume responsibility for his apprenticeship. It is at the meeting of the two responsible parties-the master and the guarantor of the apprentice-that the specific terms and conditions of the apprenticeship are discussed and agreed upon (McLaughlin, 1979). Anokye and Afrane (2014) highlight that anecdotal evidence suggests that a written or oral agreement is made between the "master" or "mistress" and the parents/guardians of the potential apprentice.

The contract of the informal mechanic apprentice will be the formal agreement between the apprentices' parent and the master that defines the conditions under which the master is accepting the young man into training. This agreement is usually put in writing or agreed verbally between the two parties in the presence of witnesses. These agreements are legal documents clearly specifying the duties of each party including the financial obligations of the apprentice's guarantor, the behavioural requirements of the apprentice and the master's responsibilities to the apprentice (McLaughlin, 1979). McLaughlin notes that the master will be expected to train the apprentice to become a mechanic. The exact nature of that training and the specific skills and knowledge that the apprentice is to acquire are not spelt out in the contract. Competence of the apprentice is thus left to the individual master's judgement to determine at the end of the training.

2.2.2.4 Financial arrangements of informal apprenticeships

Usually, fees are charged from apprentices to help finance the training. However, as indicated earlier the fees may be reduced to enable the apprentices to enrol. Anokye & Afrane (2014) found that the average commitment fee (admission fee) paid by mechanics apprentices was GH¢76 (US$ 15). In other cases, the apprenticeship is financed by the labour, especially if the apprentice is a family member. This is possible largely apprenticeship is a form of on-the-job training. In this case, the apprentice may be given a daily stipend (often called pocket money) by the master mechanic. Mechanic apprentices also paid about GH¢73 as graduation fees. Majority of mechanic apprentices finance their own training. Other costs such as clothes, tools may be charged on the apprentices (Anokye & Afrane, 2014).

2.2.2.5 Career expectations/future plans of mechanic apprentices

The career expectations or future plans of mechanic apprentices could provide relevant direction for policies aimed at utilising their skills. Anokye and Afrane (2014) found that most apprentices wanted to stay with their masters for a while, but eventually intend to start their own shops. Others wanted to start their own shops after completion of their training. Usually, their ambitions are limited by lack of start-up capital and other inputs such as land and tools.

McLaughlin (1979) noted that graduating apprentices are often required by their masters to stay in the workshop and work for the master as a paid journeyman or "senior", as they are commonly called in the workshop. This additional period of work in the workshop is meant to enable the senior express appreciation to the master for training him and help him pick up additional experience in dealing with the array of repair problems that a fitter face on a daily basis. This is also the time the young journeyman is often given greater responsibilities and learns new things including customer relations, supervision of younger apprentices and the responsibilities of purchasing spare parts for the master. Most apprentices plan to start their own shops, however, the difficulties of raising start-up capital or finding a job in a firm or with

another mechanical workshop usually lead to delayed departure from the masters (Anokye & Afrane, 2014). In reality, journeymen often remain with their masters two or more years beyond their normal apprenticeship (McLaughlin, 1979).

2.2.2.6 Challenges of informal mechanic apprenticeships

Literature suggest that the some of the challenges of informal mechanic apprenticeships include obsolete and inadequate training equipment and tools, lack of training materials, inadequate number of qualified instructors with requisite industrial practical experience, lack of linkage between training institutions and industry and lack of relevance of institutional training to the needs of industry (Anokye & Afrane, 2014).

Omar (2018) found that the skill of teaching apprentices is one of the greatest challenges facing master craftsmen. A master craftsman may have excellent skill and knowledge of the trade, yet lack teaching skills, especially, when the apprentice is a slow learner. Studies also suggest that feeding is a challenge, especially for those who do not receive stipends from their masters or financial support from their family. Inadequate learning tools and modern equipment is also a challenge for apprentices as apprentices often have to wait till the tools are not being used to be able to practice, which slows down the pace at which they acquire the necessary skills.

At the policy level, besides poor coordination resulting partly from fragmented ministerial oversight and inadequate resource allocation to TVET and there has been no national policy to guide its management and implementation (Asare-Danso, 2014; Akyeampong, 2010). Akyeampong (2010) also suggest that a mismatch between the quality of apprentices trained and the demand of the labour market has led to low employment of TVET graduates in Ghana. Anther crosscutting challenge is lack of funds, which is partly the results of inadequate government support and partly due to the relatively low commitment fees charged apprentices.

2.3 School leavers

The United Nation Children Fund (UNICEF) Ghana outlined a wide range of realities that encompass the definition of 'school leavers' in Ghana. School leavers in according to UNICEF (2005) refer to children who:

- Do not have access to a school in their community
- Do not enrol despite the availability of a school
- Enrol but later than they should have
- Enrol in schools that have poor facilities/no teachers
- Drop out of the education system.
- Enrol but do not attend school.

For the purpose of this study, however, a school leaver (or out-of-school youth) may be described as a young person who has completed or prematurely terminated schooling, irrespective of the reason, before the tertiary level and who is unable to continue into tertiary education or work using the education attained. Thus, school leavers in the context of this research include school drop-outs and those who have completed various levels of schooling (below tertiary) and could not continue to the next level.

School leaving is caused by multi-dimensional across micro, meso and macro levels (Furguson, 2005). The most cited reasons by early school leavers for disengagement had to do with school risk factors such as communication apprehension rather than external influences. The perception of most school leavers is that their environment is unrewarding. This is often precipitated by social, academic problems and negative experiences with their teachers (Community Health Systems Resource Group, 2005). For example, people who leave school due to psycho-social reasons often begin with a process of disengagement and alienation that may be preceded by less severe types of withdrawal such as truancy and course failures (Tam, 2012). Generally, school-related factors, which lead to early school leaving include ineffective

discipline system, inadequate counselling/referral, negative school climate, lack of relevant curriculum, disregard of student learning styles and lack of assessment and support for students including social and financial support (Community Health Systems Resource Group, 2005). The causal factors of early school leaving in sub-Sahara Africa are apparently different from those of the OECDs. According to the World Bank, about 89 million youth (12-24 years old) are out of school in Sub-Saharan Africa (World Bank, 2015). The World Bank (2015) described school leavers in Sub-Saharan Africa as youth who drop out of school before secondary level or have never set foot in a school. It suggests a lack of formal schools and low educational quality as constraints to improving enrolment and retention of students (Inoue, di Gropello, Taylor, & Gresham, 2015).

The major factor parents cite as causing children to be out of school is poverty (UNICEF, 2005). Available data from the GES suggest a significant number of the youth are out of school at different levels. For instance, the gross enrolment ratio (GER) of JHS in 2015/16 was 88%, which means 12% of school-going age children that should be in JHS are not. The data also show the GER for senior high schools (SHSs) in 2014/15 was 49.5% with 51.5% of children unable to go to SHS. About 87% were not able to access tertiary education (MoH/GES, 2016; World Bank, 2017).

POLICY REVIEW

2.4 State of apprenticeship in other countries

Ghana as a developing country has the opportunity to learn from the policies of the well-developed countries. Europe and Australasia have made significant advances in providing apprenticeship training for their youth. The policies of two European countries – England and Germany – and Australia were purposefully reviewed because their apprenticeship and the informal system is properly organized and could serve as a model for Ghana.

In Australia, a policy on vocational education and training pathways have been introduced into the formal school system (Steedman, 2010). Traineeship has been introduced and added to more traditional apprenticeships, which are together called 'Australian Apprenticeships'. Australia apprenticeships are supported by legislation and bring together employees and employers to ensure competency-based on-the-job and off-the-job training of apprentices within a national qualification framework (Steedman, 2010). The required off-the-job training for an apprenticeship is well spelt out in the contract of training (particularly the training plan) for apprentices and trainees. The minimum off-the-job requirements vary depending on the apprenticeship or traineeship qualifications target. Where the qualification target is Certificate III or higher the minimum off-the-job training period average over a four-week cycle is three hours per week. Where the qualification target is Certificate I and II, the minimum off-the-job training is 1.5 hours per week averaged over a two-month cycle (Steedman, 2010).

Vocational education and training in Australia lead to a recognised certification and qualification within the Australian Qualifications Framework (AQF). In the State of New South Wales (NSW) students in years, 11 and 12 can gain a recognized vocational qualification and the Senior Secondary Certificate (SSC) while on a school-based apprenticeship. Apprenticeship involves a legal contract between the employer and the apprentice. The training duration depends on the type of apprenticeship. Traditional apprenticeship takes three to four years while traineeship takes one to two years (Smith, 2005). There are relevant general areas of study like mathematics and communication for all apprentices. In addition, all apprenticeship qualifications have Australia's Employability Skills embedded in units of competency. In order to graduate, apprentices must complete all the required units of the appropriate Training Package (TP) including formal off-the-job components. The apprentice must also complete the indenture period of the contract and meet on-the-job requirements endorsed by the employer. In 2009, about seven per cent of apprentices continued directly to

the university. The Australian government has invested in apprenticeship provision. There are full-time career advisors in every secondary school to provide information and academic guidance to any child who wants to take up apprenticeship. The Australian Apprenticeship Centres (AACs) are also one-stop shops that employers who want to hire apprentices and employees who want to go into apprenticeships can leverage on. There is government funding available at State and Federal levels to support apprentice employers and apprentices.

Similarly, in England apprenticeship requires completion of competency-based qualifications, underpinning knowledge and key skills, employment experience and off-the-job training (EURYDICE, 2008). Apprenticeship in England is regulated by the Apprenticeships, Skills, Children and Learning (ASCL) Act 2009. The Specification of Apprenticeship Standards for England (SASE) sets out the minimum requirements to be included in a recognized English Apprenticeship framework. For an apprentice to attain full qualification he/she must complete all the specified elements of specification set by the SASE. These required specifications from the SASE include an occupational qualification, related technical knowledge, Functional Skills, Employee Rights and Responsibilities (ERRs) and Personal Learning and Thinking Skills (PLTS). There are apprenticeship frameworks at level two for all sectors; however, at levels three and four, some sectors do not have frameworks. Apprenticeship completion has no minimum time but most Level two apprenticeships take between nine months and a year to complete while most Level three apprenticeships who will take between 18 months and two years to complete. Some apprenticeships in engineering and other technically complex occupations will take longer. The SASE specifies that apprentices must receive a minimum of 280 Guided Learning Hours (GLH) per year of which a minimum of 100 hours must be off-the-job (National Apprenticeship Services, 2010). A national apprenticeship service has just been launched to ensure that the offer of a place is met for every individual with prior qualification, access to an apprenticeship. The national apprenticeship service is also

responsible for apprenticeship funding. A formal contract is usually signed between the employer and the apprentice. The national apprenticeship service pays wages to the apprentice (SSDA, 2008).

In Germany, apprenticeship is still the route into work and further career development for nearly two-thirds of all young people (Steedman, 2010). Apprenticeship in Germany is regulated by Federal Law, which apportions responsibility between regional education authorities, employer and employee organizations (Social Partners) and the Federal Government. Apprenticeship is run through a dual system, which consists of both training – provided by firms to specifications agreed by sector employer and employee organizations – and education provided in vocational schools. Apprentice occupations are defined broadly to allow flexibility for specialisation within different organizational contexts and to allow firms to adapt the training programme outline to their own business/production organization. Apprenticeships normally last for three years but can be shortened to two years if an apprentice is judged capable of completing more quickly (usually those with A-levels). At least one day a week must be spent in the vocational school where a federally agreed programme of general education and occupationally-relevant technical knowledge is taught (Steedman, 2010). Apprenticeship firms must demonstrate that they have the equipment and personnel to supervise the apprentice in the course of learning. Apprentices who wish to progress to Higher Education and who do not already hold a Higher Education entry qualification may study full-time for a further one or two years following the end of apprenticeship. Successful completion entitles the ex-apprentice to enter a course of Vocational Higher Education (Steedman, 2010).

There are career guidance service providers who give information to prospective apprentices. There is a wide variety of web-based resources available to students who desire to learn more about apprenticeship occupations. There is also a web-based matching service that allows students to identify firms offering apprenticeships in their chosen occupations (Steedman,

2010). The cost of the one-day a week full-time education and training provided for apprentices in the vocational school is met by the regional education authority. Costs of external assessment and examinations are met by the Chambers of Commerce (or similar organizations), which are funded through a compulsory membership subscription paid by all businesses. The Federally-funded Vocational Training Development Institute (BIBB) bears much of the administrative cost of updating and developing new training occupations (Steedman, 2010).

The discussion of how apprenticeship is organized in some developed countries shows it is a much-formalised process even though it is run by the private sector. Strict government regulations and enforcement are the benchmarks that drive apprenticeships in these countries. These regulations are also strictly enforced by the various agencies.

2.5 Public policy and apprenticeships

There is no doubt the role of public policy in bringing out the desired outcomes of apprenticeships to the general masses of Ghana as a republic. People's lives are affected daily directly or indirectly by public policy. Birkland indicated that there is a lack of consensus on the definition of public policy (Birkland, 2001). Dye (2013) argues that this search for a definition of public policy can degenerate into a word game. Nevertheless, Dye proposes that anything that government chooses to do or not to do can be referred to as a public policy. Clarke, et al. (2010) add that public policy always refers to the actions of government and the intentions that determine those actions. Public policy for them is the outcome of the struggle in government over who gets what. So, for Cochran et al., public policy is mostly a political process since decision making lies in the corridors of those who have political power.

From the foregoing, the literature suggests that public policy is undertaken by governmental agencies. It is important to know that non-governmental agencies and informal organizations can only influence the course of public policy development (Anderson, 2015). One major

characteristic of public policy is the fact that they originate from the "authorities" in a political system. These authorities in the political system include elders, paramount chiefs, executives, legislators, judges, administrators and many others (Easton, 1965). These leaders who, according to Easton "engage in a daily affair of a political system" are "recognized by most members of the system as having responsibility for these matters" and take actions that are "accepted as binding most of the members so long as the leaders act within the remit of their roles". This links public policy to a purposive, stable course of action followed by government in dealing with a matter that is of concern to the citizens. Public policy, therefore, is not produced from a series of random occurrences (Anderson, 2015). Thus, to have a secure society, an enabling environment should be created for the development of the full potentials of every citizen. Technical and vocational training opportunities should be purposively created to take up the school leavers who are not able to continue through formal education.

Public policies are usually done in response to policy demands or claims of action or inaction on some public issue made by other actors, such as private citizens, groups' representatives and other public officials. Such demands can range from general problems like asking government to provide skill development centres for school leavers to specific demands like asking national governments to ensure lower levels of unemployment among the youth. In response to these policy-related demands, public officials enact programmes that give content and direction to these demands. They may formulate laws, statutes, and administrative rules or make judicial interpretation of laws to show the course that policy should chart (Anderson, 2015). Public policy, therefore, is what governments actually do and not what government intends to do or government planned programmes. If there are legislations, which are not implemented, those legislations cannot be termed public policy. Finally, public policy is based on law and they have legally coercive authority. The citizens accept the laws and regulations from public officials as legitimate and must be complied with. Apprenticeships look at the

authorised government agencies like the COTVET and TVET to purposefully design policies that give direction to the sector so that the challenges that bedevil it will be dealt with. Policy can solve the standardisation requirement, certification, harmonisation of fees charged and adhering to a strict training period especially in the informal apprenticeships.

2.6 Standardization and certification of informal mechanic apprentices in Ghana

There is currently a TVET qualification framework to ensure national recognition of vocational skills, knowledge and competencies. The framework sets quality standards in the provision of TVET through formal and informal apprenticeships in Ghana. IATs currently have two certification options – the Informal Skills Associations (ISA) awarded certificates and the NVTI proficiency certificates (a non-written competency-based skill test). However, many informal apprentices do not register for the NVTI examination (COTVET, 2019).

2.7 Skills and entrepreneurship development in Ghana

Skill development for entrepreneurship development remain the biggest socio-economic challenges facing Ghana. Over the years, there have been a number of public efforts aimed at promoting skill and entrepreneurship, especially among the youth. Entrepreneurship development refers to the process of enhancing entrepreneurial skills and knowledge through structured training and institution-building programmes. Its aim is to broaden the base of entrepreneurs to speed up new business creation, to accelerate employment generation and economic development (Miryala, 2016). Entrepreneurship development focuses on the individual who wishes to start or expand a business.

Closely related to entrepreneurship development is skill development. Skill development involves providing assistance to individuals to improve their competence so as to enhance his/her entrepreneurial objectives (Miryala, 2016).

2.8 Institutions that provide vocational training in Ghana

Both public and private institutions deliver TVET in Ghana. According to the Ministry of Education (MoE) there were 129 public and 151 private Technical Vocational Education and Training (TVET) institutions in 2010. About 27% of the TVET institutions were Integrated Community Centres for Employable Skills (ICCES), 21% were Ghana Education Service (GES) Technical Institutes (TI), 19% were National Vocational Training Institute (NVTI) Centres and 16% were Community Development Centres (CDCs). About 1 in ten (10%) TVET institutions are Social Welfare Centres, 6% are Leadership Training Institutes (LTIs), 1% is Opportunities Industrialisation Centres and 1% is Agricultural Training Institutes (MoE, 2010). The Catholic Church is the largest provider of private TVET education in Ghana (Asare-Danso, 2014).

The NVTI was set up in 1970 to provide employable skills and to increase income generating capacities of basic and secondary school leavers. Apprenticeship, master craftsmanship, testing and career development are offered at the NVTI. Programmes offered at the NVTI include auto-electrical, block laying and concreting, batik tie and dye, catering, auto mechanics and many others. To be eligible the applicant must be a holder of at least BECE certificate with passes in mathematics and English, but, non-formal education graduates who are 15 years or older are also accepted for certain courses. NVTI has at least two institutes in all the ten regions of Ghana (Darvas & Palmer, Demand and Supply of Skills in Ghana: How can Training Programs Improve Employment and Productivity, 2014).

In 1990, the National Coordinating Committee on Technical and Vocational Education and Training (NACVET) was established to formulate policies and coordinate all technical and vocational education. However, in 2007 NACVET was replaced by the COTVET, which was created by Act 716 of 2006, to carry out similar functions (COTVET, 2019; Asare-Danso, 2014).

ICCES were established in 1986 under the Non-formal Education Division (NFED) of the GES to train youth, particularly, non-English literates in technical and vocational skills (ICCES, n.d.). There are 60 ICCES centres in Ghana, which train youth on carpentry and joinery, masonry, plumbing among others. Other subjects including mathematics, English, entrepreneurship is also taught at the ICCES centres nationwide.

The GES's TIs provide formal training to the youth who have completed basic education. In 1998, the legislative framework for Informal Apprenticeship Trainings (IATs) was designed as part of the Children's Act. A branch of IAT is the Informal Skills Associations (ISAs), which act as intermediaries between their members and both the government and other agencies. It is also worth noting that the Children' Act also put the minimum age for enrolment into informal apprenticeship training at 15 years or after completion of basic education. The Act further spelt out the terms of apprenticeship engagements and terminations.

The LTIs (also called Youth Leadership and Skills Training Institutes) were established by the National Youth Council, to provide vocational training to underprivileged youth in Ghana. The first institute was established at Afienya in 1974. Subsequently, 10 more were established at Takrowase, Asankare, Avenorpeme, Fawohoyeden, Nalerigu, Sandema, Issa, Aburi, Nzema Maanle and Ajumako Afranse communities (National Youth Authority, Ghana, 2017).

The Gratis Foundation, on the other hand, a product of the Ghana Regional Appropriate Technology and Industrial Service (GRATIS) project, is under the Ministry of Trade and Industry. Located in nine regions (excluding Ashanti Region), its main mandate is to equip the youth with technical, vocational and entrepreneurial skills for self-employment. GRATIS also do extension training programmes to support the development of rural industries. A minimum of basic education is required to enrol in GRATIS programmes. GRATIS manufactures equipment/plant, tools and spare parts and undertake installation, repair and maintenance

services of agriculture/agro-processing, textile and other industrial equipment (Darvas & Palmer, Demand and Supply of Skills in Ghana: How can Training Programs Improve Employment and Productivity, 2014).

Although the MoE and the GES are legally mandated to make policy and implement all educational trainings in Ghana respectively, different government ministries and agencies have legal mandate to make policies, provide and coordinate TVET trainings. Consequently, the GES technical institutions are the only institutions under the control of MoE/GES. The rest are under the control of the units that established them and different ministries. The NVTI, ICCES, TLTCs, CDCs are under the Ministry of Manpower, Youth and Employment; GRATIS foundation is under the Ministry of Environment and Science whiles the private institutions control their own facilities. This suggests policy fragmentation and ineffective and inefficient coordination (Asare-Danso, 2014; Nsiah-Gyabaah, 2009).

2.9 Governance and apprenticeships in Ghana

The informal sector employs most of Ghana's workforce (Clara, 2011). According to Palme (2009) the government of Ghana sees skills and vocational training as critical areas for economic growth and national development. In the Ghana Poverty Reduction Strategy (GPRS) 1, for instance, government expressed its intention to increase the relevance and coverage of vocational training (Government of Ghana, 2003). It also included government's intention to promote and expand traditional apprenticeships and to encourage entrepreneurships among the youth in Ghana (Palmer, 2009). Similarly, the section "Training and Skills Development" in the GPRS II (Government of Ghana, 2005) added a fourth category of young people to skill development – young persons with disabilities. The GPRS II outlines the following priority areas for the development of skills and entrepreneurial know-how,

(i) provide skills and entrepreneurial training in a gender responsive and equitable manner;

(ii) promote dialogue between industry and skills/professional training institutions to produce skilled labour required by industry;

(iii) strengthen and support human resource training institutions;

(iv) promote apprenticeship training and;

(v) promote the adoption of the National Youth Policy and enactment of the Disability Bill.

Palmer (2009) notes that despite the rhetoric of the GRPS I and II documents, skills training continued to receive little practical government focus. Public skills development in Ghana is disjointed and uncoordinated. Government programmes on skill training are spread across no less than nine different government ministries. Government intervention has been focused on pre-employment skills training and there has been very little attention paid to supporting traditional apprenticeships. Government proposed a national qualification framework (NQF) in 2009, which recommends an eight-level NQF. Level one, which covers the traditional apprenticeship is the lowest and the least demanding and Level eight, covers the Doctorate in Technology, and is the highest and most demanding. The government has officially included traditional apprenticeship as part of the definition of TVET with the aim of formalizing the informal sector (Government of Ghana, 2005). Government has set up COTVET to coordinate and oversee all aspects of TVET.

2.10 Major national apprenticeship programmes since the year 2000

Literature suggest that Ghana has apprenticeship-related programmes have been initiated by several governments since independence (Asare-Danso, 2014). Since the year 2000 Government has launched several apprenticeship-related skills improvement programmes

including the Skills Training and Entrepreneurship Programme (STEP), the National Apprenticeship Programme (NAP) and the Ghana Skills Development Initiative (GSDI).

The STEP was set up in 2001 to provide skills training through vocational training providers and skills enhancement for master-craftsmen and skills training delivered through apprenticeship placements (Darvas & Palmer, Demand and Supply of Skills in Ghana: How can Training Programs Improve Employment and Productivity, 2014). Skills enhancement for Mastercraft Persons (MCs) and skills training delivered through apprenticeship placements entailed MCs undertaking a few days' pedagogical skills enhancement with the GRATIS to make them more effective trainers. Skill training was then delivered by attaching up to 10 trainees to an MC to undertake a workshop-based apprenticeship for up to 12 months (Darvas & Palmer, Demand and Supply of Skills in Ghana: How can Training Programs Improve Employment and Productivity, 2014). Apprenticeship training organized by GRATIS either took place in their own facilities where adequate equipment and machinery existed for the training or in informal enterprises with MCs identified by GRATIS. This was to train trainers who will send the knowledge down to their various apprentices (Darvas & Palmer, Demand and Supply of Skills in Ghana: How can Training Programs Improve Employment and Productivity, 2014).

Additionally, in 2011 the COTVET launched the NAP to equip trade areas with Competency-based Training (CBT) and materials to master craftspeople and Ghanaian youth between the ages of 16 and 24 years who could not continue their basic education (Darvas & Palmer, Demand and Supply of Skills in Ghana: How can Training Programs Improve Employment and Productivity, 2014). Beneficiaries of NAB were presented with the necessary tools and equipment and linked to select master crafts persons in their chosen area of training through executives of the various trade associations. Master crafts persons go through a screening process to ensure that they have the capacity to take on apprentices and have been practicing

their trade consistently at an appreciable standard (Graphic online, 2016). At the launch of the NAP, state-funded projects covered about one percent of the half a million youth in informal apprenticeships (Darvas & Palmer, Demand and Supply of Skills in Ghana: How can Training Programs Improve Employment and Productivity, 2014).

The COTVET's National Apprenticeship Training Policy, states that it intends to do the following.

- Reform and strengthen the formal and informal apprenticeship system by infusing a CBT and assessment system.
- Develop training systems and mechanisms to facilitate the articulation of the informal level and standards of skills acquisition with those of the formal TVET system.
- Encourage the formation and recognition of trade associations as a means of delivering training-related assistance to members.
- Integrate informal apprenticeship training into the NQF
- Provide guidelines for governmental and private/NGO activities in the informal sector training and apprenticeship.

The Children's Act 560 outlined the legislative framework for informal apprenticeship training (IAT) and specified the minimum age for informal apprenticeship to be 15 years. The apprenticeship policy also relies on the children's Act to assign roles to 'trainers/masters' towards their apprentices regarding training, apprenticeship agreement, duties and release of an apprentice (Act 560) (Government of Ghana, 1999).

Moreover, one of the most recent apprenticeship programmes is the GSDI, which was commissioned in 2012. It is being assisted by the German Government in collaboration with the Council for Technical and Vocational Education and Training (COTVET). The GSDI aims at building capacity in the informal sector. The project seeks to improve the quality of the

traditional apprenticeship system, which suffers from some structural deficiencies. In order to upgrade the skills and qualifications in traditional technical and vocational training, the project supports COTVET's approach to introduce quality standards for the apprenticeship system and complement the training at the workplaces with additional structured training courses at selected training institutions. This new training scheme is based on national Cognitive Behavioural Therapy (CBT) standards (Schaefer-Kehnert, 2015; Goverment of Ghana, 2018).

2.11 Conceptual framework

Three models were reviewed as part of the search for an appropriate conceptual framework for this study. They included the Fertig and Kluve (2004) framework; the Benson (2005) model and the Shippensburg University's (n.d.) model as described below.

2.11.1 Comprehensive labour market policy reforms framework

This model was developed by Fertig and Kluve (2004), for the evaluation of the German Government's labour reform policy between 2003 and 2006. The model is composed of three main components – analysis of effectiveness, analysis of efficiency and, analysis of the implementation and process. According to the model, the analysis of effectiveness measures the impact of the policy on the labour market. The second component – analysis of efficiency – measures the cost-benefit of the intervention. Both components require extensive quantitative data, several assumptions and potentially complex analysis, which could take longer time to achieve. The third component of the model explains the reasons for the estimated effectiveness and efficiency. Due to the absence of reliable data on informal mechanic apprenticeships in LDKM coupled with the relatively short time for this study and the fact that this study is qualitative, this model was deemed unsuitable.

2.11.2 The Benson conceptual framework

The Benson framework was designed to assess the outcomes of abortion policy interventions. It proposes that, first, the socio-economic, political and legal environment must be enabling enough to influence for successful outcome of a policy intervention. Secondly, that the people must have adequate information on the interventions, feel empowered and cultivate a positive attitude towards participation and utilisation of the intervention. Finally, that service providers or implementers of the intervention must be sufficiently equipped and have both the capability and willingness to implement the intervention. The interactions between these 3 broad categories of factors determine the overall success of the intervention (Benson, 2005). However, this model was considered unsuitable for this study because it does not show how it can be used to collect data to evaluate non-health interventions.

2.11.3 The Shippensburg University's apprenticeship conceptual model

Developed by the Shippensburg University (n.d.), the model was designed to guide the transfer of skills to apprentices at any given level. The model is attached to this report as Appendix B. It has eight principles or spokes that guide apprenticeships – national standards, content knowledge, diversity, assessment, instructional planning, theory and research, dispositions, and professional standards and pedagogy.

According to the principle/spoke of national standards, all decisions regarding apprenticeship must be based on data and all educational standards must be adhered to. The second principle/spoke – content knowledge – requires candidates to respond positively and productively to learning experiences by synthesising feedback from the experts. Additionally, the principle of diversity states that both apprentices and tutors appreciate and accommodate the diverse learning needs of participants. The assessment principle states that apprentices be assessed to ensure that they have achieved the objectives of the training. To add to that, the instructional planning principle requires trainers to support apprentices to plan and implement

standard procedures relating to their field of training. The principle of theory and research requires that theory and research for the basis of the content of training. The disposition principle requires apprentices to acquire professional behaviour as part of their skills. Finally, the principle of professional standard and pedagogy requires apprenticeship trainings to use pedagogic training methods and to ensure that professional codes of conduct are observed at all times.

This model is comparatively more relevant to this study than the other two models because this model was specifically designed for the training of apprentices, thus it captured the most relevant of apprenticeship training. It is considered relevant for informal apprenticeship in Ghana because, it shows the pathway to formalisation and standardisation of informal apprenticeship trainings, which are currently unstandardized. Standardisation of the apprenticeship training, even in its current informal state, could improve the quality of training, ensure a relatively consistent evaluation/assessment of trainees and lead to the production of internationally competitive workforce.

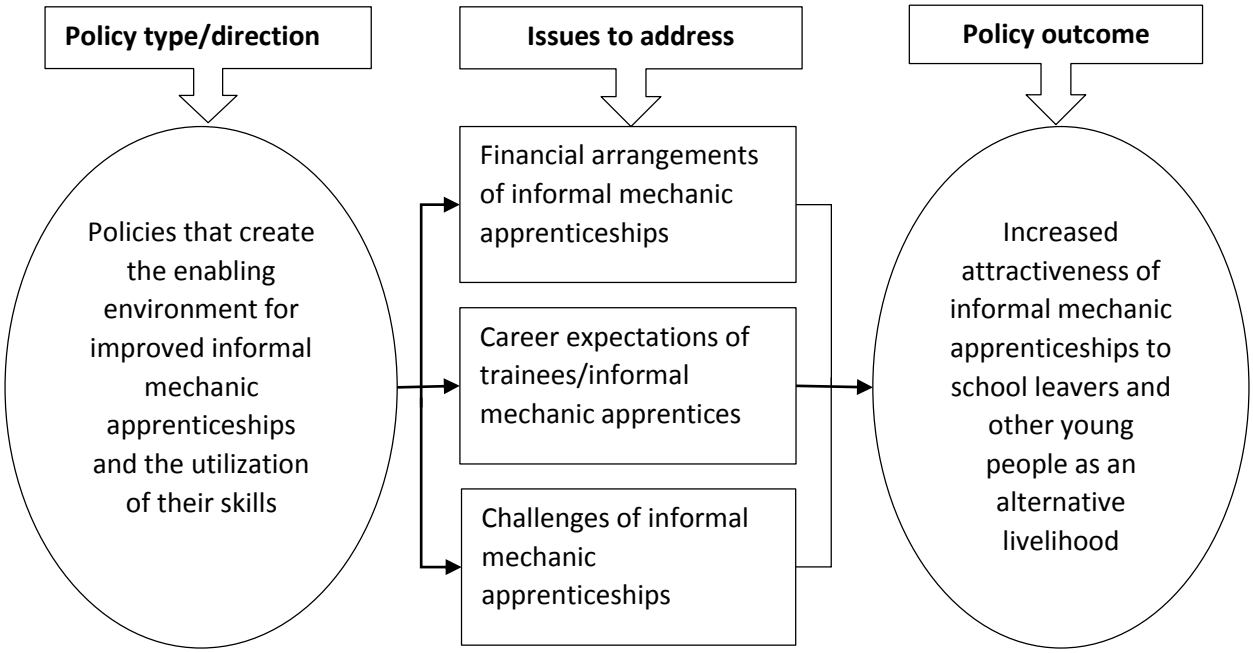
However, the model was designed for apprenticeship training, thus, lacks the direction on how it can be used to carry out research, thus, it could not serve as this study's framework in its original state. Moreover, it is designed for high formalised developed countries and could not be adopted wholly or in part for the Ghanaian context without modification. Additionally, the objectives of this study do not match with the framework, which informs the modification to suit the study. Theoretically, it is based on the combination of pedagogic principles and the standardisation of apprenticeship tuition for optimum results.

2.11.4 Conceptual framework

This framework borrowed ideas from multiple models including the Fertig and Kluve (2004) model and the Shippensburg University model discussed above. This conceptual framework comprises four main components, which are in line with the study objectives – (i) the financial

arrangements of informal mechanic apprenticeships; (ii) the career expectations of informal mechanic apprentices; (iii) the unique challenges of informal mechanic apprenticeships; and (iv) the creation of an enabling environment for the improvement of informal mechanic apprenticeships and the utilisation of their skills through public policies. As shown in Figure 2.1 below, it is of the premise that to make informal mechanic apprenticeship attractive to young people as an alternative livelihood pathway government policy must first support and improve the financial arrangements; take into account the career expectations of informal mechanic apprentices and address the unique challenges of informal mechanic apprenticeships, which this study sought to explore in LDKM. In addition, it shows the need for a paradigmatic shift from policies of formalisation of informal mechanic apprenticeships to policies that create the enabling environment where they can thrive and improve and the skills of informal mechanics are utilised. Unlike the reviewed models, this framework meets the objectives of this study because it outlines the relevant study variables – financial arrangements, apprentices career expectations and their unique challenges of informal mechanic apprenticeships. It also shows the link between this information and government policies to ensure informal mechanic apprenticeship attracts more school leavers and other young people. The weakness of this framework is that it has not been tested elsewhere. However, its strength lies in the fact that it is specifically designed for the context of informal mechanic apprenticeships in LDKM and for achieving the specific objectives of this study.

Figure 2. 1. This study's conceptual framework



Source: Author's construct.

2.13 Conclusion to the Chapter

The literature revealed that formal mechanic apprenticeships are accredited and regulated institutions with a structured syllabus, which are distinct from informal ones that are often characterised by the opposite. The literature review has shown that studies on informal mechanic apprenticeships are few and far between. Most literature have focused on informal apprenticeships in general rather than informal mechanic apprenticeship. This means that the unique challenges of mechanic apprenticeships may have been overlooked, which has contributed to making the trade less attractive to school leavers and young people. Moreover, most of the existing studies on informal mechanic apprenticeships are either out of date or quantitative in nature and lack the appropriate context to inform the relevant policies.

Moreover, Ghana government's policies on informal apprenticeships have focused on mainly on formalisation, which does not seem to work. The literature suggests that a change from policies aimed at formalising informal mechanic apprenticeships to those that aim at improving them in their informal state could help make the sector more attractive to school leavers. This

is partly because the resilience of the informal sector has been largely due to its informal nature. These call for an in-depth investigation of the activities of informal mechanic apprenticeships, including their unique challenges, which can inform policy-makers to redirect their efforts to improving the apprenticeships in their informal state, which is the main objective of this study.

CHAPTER THREE

RESEARCH METHODOLOGY

3. Introduction

This chapter describes the research methodology which includes descriptions of the study area, study paradigms, study approach, the study participants, the sampling procedure, the data collection and the development of the study instruments, data analysis, ethical considerations and the limitations of the study.

3.1 Study area

The study area, La-Dade Kotopon Municipality, is located in the Greater Accra Region of Ghana (GSS, 2014b). A map of the study is attached to this report as Appendix A. The population of, according to the Ghana Statistical Service (GSS) is about 224,000 (GSS, 2019). Females constitute more than half (52.7%) of the population. The LDKM has a sex ratio of 90, which is lower than that of the Greater Accra Region (93.6). It also has a youthful population with children under 15 years constituting 44.3%, depicting a broad base population pyramid, which tapers off with a small number of elderly persons (60 years or above) constituting 5.8%. The total age dependency ratio for the Municipality is 50.1% (GSS, 2014b). Almost half (40%) of the population are migrants. The Municipality is entirely urban, with little land for agriculture. Consequently, unlike the rest of Ghana where majority of the population are agrarians, about two percent of the LDKM population are engaged in agricultural activities. The population is mainly engaged in service provision. More than half (60%) of the population is self-employed, mainly in mechanical works and other craft or informal activities. Moreover, majority of the men operate public transport system (popularly known as trotro). This may partly explain why about a quarter (24.7%) of the population are engaged in sale and repair of

vehicles and motorcycles, which is the largest occupation in the Municipality (GSS, 2014a). The Municipality is a prime residential and commercial area, partly due to the fact that it hosts important companies and facilities including the Kotoka International Airport. With increasing wealth and rising population and large transport business, the demand for mechanics to service the vehicles is most likely to increase.

3.2 Study Paradigms

Although there are several paradigm underpinnings of research. According to Bryman (2012), two main paradigm stances dominate social science research domain, namely deductive and inductive paradigms. The deductive research paradigm argues for a top-down approach (Trochim, 2006). It usually works from a more general to more specific issues. On the other hand, the inductive research paradigm suggests understanding research issues from specific observations to broader generalizations and theories (Trochim, 2006). Deductive reasoning is narrower in nature and is concerned with testing or confirming hypotheses (Trochim, 2006). This research adopted the inductive research paradigm first of all because of the qualitative nature of the study. This allowed the study to employ explorative means to answer the research questions.

3.3 Study type and research methods

The study is a qualitative study, which employed qualitative research methods to collect the primary data. Secondary data were obtained through a review of both published scientific and grey literature. Secondary data included data on vocational institutions and apprenticeships that were retrieved from MoE reports and COTVET website and data regarding population and other economic activities in the municipality that were obtained from the GSS reports. These data were necessary to enable the study to put the findings in the proper context.

3.4 Study design

This study employed a case study design. Yin (1994) defined a case study research method as an empirical inquiry that investigates a contemporary phenomenon within its real-life context; when the boundaries between phenomenon and context are not clearly evident; and in which multiple sources of evidence are used. The study adopted a case study design for the following reasons. First, the study employed a case study design because it allowed the researcher to draw interpretations of data on the experiences and insights of the study participants. Secondly, the researcher selected informal mechanic apprenticeships as a case from the many other apprenticeships for an in-depth understanding of the issues affecting it. Thirdly, the researcher also relied on multiple data sources (both primary and secondary) to understand the issues surrounding the informal mechanic apprenticeship phenomenon.

3.5 Study population

The study population was all informal mechanic apprentices above 15 years of age and master craftsmen in LDKM. They were chosen because they are among the primary actors in the informal sector and have the technical knowledge of apprenticeship training and learning processes. They also have first-hand experiences of the challenges encountered by both apprentices and their masters during knowledge and skills transfer. It was also assumed that the masters were themselves, former apprentices, thus, no efforts were made to include other apprentices who had completed their training and were operating their own shops.

3.6 Sampling technique and sample size

Purposive sampling was used to identify the study participants. Despite the deliberate search for female mechanic apprentices and masters in the LDKM to recruit into the study, none was found. In all 20 participants were selected for this study all of them male. They were people who by the researcher's judgment met the inclusion criteria of the study which was participants

must either be apprentices undergoing mechanic training in the informal sector in LDKM or master craftsmen.

3.7 Data collection methods

3.7.1 In-depth interviews

Face-to-face in-depth interviews were conducted with the selected mechanic apprentice/master with the help of an interview guide. The interview guide has been attached to this report as appendix C. The guide was designed based on the research objectives. The interview questions were divided into two parts; the first part focused on the day to day activities at training workshops including challenges they faced. The second part focused on funding mechanism and the employment opportunities available to apprentices once they complete their training. Many of the apprentices and the master mechanics could not speak fluent English. Although the area is typically a Ga-speaking community, the interviews were conducted in English, Ga or Twi because those languages are also commonly spoken in the community. The respondents determined the language that they could comfortably express themselves. Each interview lasted between 40 and 60 minutes. All interviews were audio recorded with the consent of the participants and transcribed verbatim. All interviews in Twi and Ga were translated into English during transcription. In all, six in-depth interviews were conducted with three masters and three apprentices. For in-depth interviews, Yin (1994) advocates for a small sample size so that the research can properly and easily analyse the information in a short time.

3.7.2 Focus group discussions

Two focus group discussions (FGDs) were also organized, one each with the apprentices and the master craftsmen to enable the researcher to collect a large amount of data in a short time. Each FGD comprised seven members. The FGDs focused on eliciting information on making informal mechanic apprenticeships effective and sustainable. The FGDs also explored their perspectives on the challenges they face as informal mechanic apprentices, mechanisms for

financing informal mechanic apprenticeships and what they believe is the appropriate means of creating an enabling environment for the employment of informal mechanic apprentices. The FGD guide is attached to this report as Appendix D.

3.8 Data analysis

The data were analysed manually. The research used thematic analysis technique. Thematic analysis was used to report experiences, meanings and the reality of participants (Braun & Clarke, 2006). It is a technique that was used to examine the ways in which events, realities, meanings, experiences of informal apprentices affect their trade. Thematic analysis was useful because it supported qualitative data analyses suited for informing policy development. Thematic analysis helped to generate unanticipated insights about the case of mechanic apprenticeship. A deep appreciation of the issues affecting the informal mechanic apprenticeship were discovered. It allowed for interpretations of the data based on the experiences and insights of the study participants, which is in line with the inductive paradigm approach which the study relied on. The themes extracted were categorised into general and sub-themes as proposed by (Braun & Clarke, 2006). The responses were coded for the various themes using Microsoft Excel (version 2016) according to "basic", "organizing" and "global" themes in accordance with the study objectives (Attride-Stirling, 2001). All respondents were assigned unique numbers which were used for the codes. Responses were coded as alpha symbol (α) under each theme and the number for the respondent represented by 'I' symbol indicated. The unique assigned identification numbers of all respondents were used throughout the analysis and discussions.

3.9 Ethical considerations

Research ethics are a set of principles or rules that guide the conduct of research involving human subjects. Since this study design and implementation involved humans and especially teenagers, consent was sought from the parents/masters of adolescents below 18 years of age

prior to the interview. The adult participants were also given a consent form to endorse. Participants were informed that they had the right to refuse/stop their participation anytime they felt uncomfortable with the study. It also stated that the study will not lead to any negative effects on the study participants and the society at large. The in-depth interviews were conducted outside the workshops of the participants to avoid interruption in the interviews and to ensure the privacy of the respondents.

3.10 Limitations of the study

First, there was a dearth of literature on informal mechanics in Ghana, so the study relied on literature that were older and might not reflect the current status quo. Secondly, the limited sample size of the study means that some key findings may be missed, thus not representative of all mechanic apprenticeships. Thirdly, the study did not include policy-makers, such as the LDKM chief executive or the COTVET director, which implies that the perspective of policy-makers were not captured by this study. Finally, the short duration of the study means that there was insufficient time to triangulate some of the responses through observations.

3.11 Conclusion to the Chapter

This qualitative study used in-depth interviews and FGDs to collect data from informal mechanic apprenticeships in the LDKM. The study area was selected due to the unusually large proportion of its population that is engaged in transportation or vehicle trading and repairs. The data were analysed manually using thematic technique.

CHAPTER FOUR

FINDINGS AND DISCUSSION

4. Introduction

The findings of the study are presented and discussed in this chapter. The first part describes the socio-demographic characteristics of the study participants. The rest of the results are presented in line with the study objectives, namely the challenges of informal mechanic apprenticeships in LDKM, financing mechanisms options for informal mechanic apprenticeships in LDKM and creating an enabling environment for the skills of informal apprentices to be utilised in LDKM.

4.1 Socio-demographic characteristics of participants

In all, 20 people comprising 10 informal mechanic apprentices and 10 master craftsmen participated. All the study participants were males. Table 3.1 below shows that out of the 20 participants, two of the apprentices completed SHS while none of the masters went to SHS. This could be as a result of the increased access to education in Ghana in recent years as compared to the days of the master craftsmen.

Table 4.1 Socio-demographic characteristics of participants

Level of skill of participant	Mechanic Apprentices	Master craftsmen
Senior High School	2	0
Junior High School	5	1
Primary School	2	0
No formal education	0	6
Dropout	1	3
Total	**10**	**10**
Category of auto mechanic work		
Mechanic/Auto-mechanic (fitter)	5	4
Auto electrician	2	1
Auto-sprayer	2	2
Auto-welder	1	3
Total	**10**	**10**

Source: Fieldwork

4.2 Motivation for engaging in mechanic apprenticeship

Most master mechanics said they recruited apprentices because they provided cheap labour. They explained that having apprentices enabled them to repair more vehicles daily. This finding is in consonance with Forkuoh, Osei, Emmanuel and Osei (2014) and Omar (2018) found that most master craftsmen recruit apprentices in order to benefit from their cheap labour.

Some of the master mechanics said they became mechanics themselves to continue a family business/tradition. One master mechanic said

> "my grandfather was a mechanic and he trained my father to take over. My father trained me and now that he is old, I am now in charge. I recruit these people including my cousin, to continue with the family business" (Master Auto-mechanic, March 2018).

The apprentices also seem to have similar motivation, because some of them said their parents asked them to go join mechanic apprenticeship. But unlike Omar (2018) who found that some of them were forced by their families into apprenticeships, this study found no evidence of coercion in the apprenticeship decisions of the apprentices. One of them said he came from the

northern part of Ghana where customers seem to respect mechanics who are trained from Accra more than those who learnt within the town. Moreover, he claims that most mechanics in his hometown know how to repair motorcycles, but not vehicles. He learning to become a mechanic was motivated by his need for mechanic skills, which will enable him to set up his own shop as a master mechanic. This is in line with Omar (2018) finding that some mechanic apprentices are motivated by their need for the skills. Other apprentices said they were told that mechanic work was financially lucrative.

> "I see the fitters and they always have money. Some have houses and cars and… I know there is money in the mechanic job. That is why a joined (this mechanic apprenticeship)" (Auto-mechanic Apprentice, March 2018).

This suggests that mechanic apprenticeship have an appeal for some of the youth because they perceive it as financially rewarding. This also suggests that if government provide the proper enabling environment mechanic apprenticeship could be a viable source of skills for most young people.

Another master said

> "here, we have no land for farming. So those of us who do not know book either go fishing, drive trotro, or become a master mechanic to earn a living" (Master Auto-mechanic, March 2018).

This suggests that the informal mechanic trade is seen as an alternative livelihood for those who could not complete school.

4.3 Recruitment process and items offered

According to the master mechanics, the guardians of young prospectus apprentices often bring them, but older apprentices also come on their own. The master, then determines if the potential

apprentice is physically fit to do the job as it involves moving heavy vehicle parts and equipment. This is however at variance with Middleton, Ziderman and Van Adams (1993) who found that recruitment is sometimes preceded by a trial apprenticeship. Once satisfied, they issue a form the details the tools and commitment fees needed. Usually, a toolbox and some commonly used tools including 10" spanner, a pair of pliers, a set of screwdrivers and a shifting-spanner are required. On average the toolbox and the tools may cost about Gh¢ 40, which is about the same as the Gh¢38 found by Anokye and Afrane, (2014). According to the master mechanics, the apprentices are allowed to carry those tools home so that they can repair machines on their own at home. The master mechanics said they usually charge an amount of Gh¢ 50, but some masters may charge higher. In addition, four crates of soft drinks are also required, which will be shared with other apprentices and nearby mechanics as a form of matriculation. Once the necessary tools, fees and drinks are provided, the apprentice told the rules of the apprenticeship, including obeying the seniors, the reporting time and how tools are handled or moved out of the shop. The most important grounds for termination of the apprenticeship include theft, insubbodrination to the master and violent conflict with other apprentices of customers. In the event of termination of the apprenticeship, the apprentice can only take his toolbox including tools, but neither the fees nor the beverages are refunded.

4.4 Contract agreement

According to the Master mechanics, the contract is sealed when all or part of the payments are made and the form is signed by both the master mechanic and the apprentice or his guardian with witnesses from both sides. However, they added that in other instances, such as when a family member enrols, no signing of form is usually required but the drinks and the tools must be provided by the apprentice. On master mechanic said

> "If the apprentice is the son of the master, he may not buy tools or sign any form, but the drinks are compulsory" (Master Auto-mechanic, March 2018).

The contract may be endorsed by either the parent/guardian or the apprentice. Although the signing of forms appears to diminish the level of informality associated with the recruitment, both master craftsmen and apprentices explained that it gives them some level of assurance that both parties will deliver on their part of the undertaking. This is in consonance with Anokye and Afrane (2014) who observed that the recognition that mechanic apprenticeship is a viable alternative source of livelihood skills to the formal educational system, precipitated the need for have binding agreements to ensure the course is completed. This may also be partly the influence of governments formalization drive over the year, as indicated by Robert (2007).

On the other hand, in some cases an oral agremments are made in the form of a promise by the apprentice to obey and learn and by the master to coach suffices. Both Anokye and Afrane (2014) and Breyer (2007) noted that oral agreements are made by some apprenticeships. This often happen when the apprentice is a family member or a close friend of the master where no cash payment are usually involved. In such cases, the apprentice is often groomed to take over the family business in the future. Furthermore, this form of contractual agreement may be convinient for persons with low English literacy, since there is no need to involve third party interpretors.

4.5 Existing financing mechanisms for informal mechanic apprenticeships in LDKM

In line with the first objective and the theoretical framework, this section discusses how informal mechanic apprenticeships are financed in the LDKM. The findings could inform policy decision on how informal mechanic apprenticeships can be sustainably financed. Four themes emerged in this section: self-financing, parents/guardian financing, extended foster service and non-governmental organization (NGO) support. All the master mechanics said they accepted apprentices with all the four forms payment arrangements. However, there was no uniform financial arrangement among the apprentice as discussed below.

4.5.1 Self-finance

Financing the developmental agenda of Ghana has always been a problem (Sowa, 2001). That has extended to every sector of the Ghanaian economy including education, especially technical education. Informal apprenticeships in Ghana are mostly self-financed (Breyer, 2007). From the data, two apprentices financed their apprenticeship training from personal savings while one person said he borrowed to pay for his training cost. One 17-year-old apprentice said

> "… I pay master from the money I made and put whiles I was in the village" (Auto-spray Apprentice, March 2018).

Anecdotal evidence suggest self-financing would be suitable and empowering than other sources, although it could take several years for apprentices to save enough to pay the fees. Most of them came from poorer background and had taken several years and much of the family income to pay the fees. That also means that others may have been unable to pay for the training, which means the vicious cycle of poverty will be sustained. As a policy direction, government could identify the very poor and help finance their training as in the formal education where scholarships are given to brilliant but needy students. Government is financing the education of youth in formal education in the name of free SHS. To ensure equity, government would have to support informal apprenticeships where the most vulnerable youth without access to secondary education can be found. This could also erase the apparent preference for blue collar jobs among the youth while helping boost economic group through the informal sector where majority of Ghanaians are employed.

4.5.2 Extended foster service

Two apprentices financed their training using fostering. They said most of his colleagues who worked for their masters to pay for their training had endured several months or years of unpaid

labour, which they believe were unfair terms of payment. But they said they had no alternative source of funding their training than foster arrangement. For example, one apprentice said

> "…I didn't have money and my parents too didn't have money so my master agreed that I will work for him to pay for my training cost" (Auto-mechanic Apprentice, March 2018).

This finding is partly consistent with Kwame (1991) and Breyer (2007) who found that foster apprentices were using their labour inputs to pay for their training. However, contrary Kwame's (1991) assertion that it is practiced among kin, this study found that some of the foster apprentices were not relatives of the master. It was also revealed that the period of service is often agreed at the start of the apprenticeship, but sometimes extended by the master after the initial agreed period is over. This is in line with Omar's (2018) finding that the Master often choose the most experienced apprentice to serve under him after the completion of the apprenticeship period. Omar believes that the additional years of service under the master offer the apprentices the opportunity to gain additional experience, but eventually lead to attrition as most apprentices refuse to stay longer. During the extended foster service period, the apprentice may be offered an allowance, but it is often perceived as inadequate. Moreover, the Master determines the number of additional years that the apprentice must work to gain his freedom. Although this serves as a disincentive to some potential apprentices, standardising such agreements to ensure fairness for both parties could make informal mechanic apprenticeships more accessible to poor young people.

4.5.3 Parents/guardian finance

From the data, three apprentices had their training cost paid for them by their parents while one said a relative paid for his training. In the FGD with the apprentices, they intimated that their parents/family either sold their families most valuable assets to pay affront or paid a deposit

and the rest in instalments. Among those who said they paid full affront, one mechanic apprentice said

> "…he [Master] spoke with my sister and although my sister has not told me anything, I am aware that she is paid all the fee" (Auto-mechanic Apprentice, March 2018).

Another apprentice added that

> "my master took money from me, but it was not enough so my uncle paid the rest" (Auto-spray Apprentice, March 2018).

Another apprentice confirmed that

> "They collect money from our hands before they start teaching us the work; my dad sold everything in the house to pay" (Auto-mechanic Apprentice, March 2018).

Although paying the entire fee affront is obviously the ideal case, some of them may have to sell their family assets including their farm produce to be able to pay. This may leave vulnerable families food insecure afterward. Moreover, for some of the poor, they may never be able to afford an affront fee. Those who are fortunate are given the option of paying a little deposit prior to the start of the training and pay the remainder in instalments once the apprentice begins. For example, a 22 -year old Auto-electrician said

> "…I paid small money before starting. My parents paid the remaining training fee every month and still paying even now…and nobody from any government agency helped my parents pay my fees" (Auto-electrical Apprentice, March 2018).

4.5.4 Non-governmental organization (NGO) /philanthropic support

The study revealed that one person had NGO support in paying for his apprenticeship. Since it is impossible for government alone to shoulder the burden of financing apprenticeship training, the assistance of NGOs is very vital. However, most NGOs and donors would want to design

their programs in line with government priorities. To create the environment necessary for increased NGO participation in financing informal apprenticeships, government must priorities such training in its policies. An example of such collaboration is the Ghana Skills Development Initiative (GSDI), which is implemented by Council for Technical and Vocational Education and Training (COTVET) in collaboration with the Deutsche Gesellschaft für Internationale Zusammenarbeit, GIZ GmbH. The GSDI plays the important roles in upgrading skill development in Ghana and helping put in place the right structures.

4.6 Challenges of Informal Mechanic Apprenticeships in LDKM

The first objective of the study was to identify the challenges facing informal mechanic apprenticeships in LDKM. Given the peculiar demands and different environments under which they work, apprentices expressed varied challenges in the learning process of their work. It is important to understand the challenges that apprentices face so that the design of any intervention will take into considerations ways that will help ameliorate these challenges. The challenges discussed include unfavourable learning environment, bad relationship between master and apprentice and unavailability of learning and working tools. These challenges have been categorised into organizing and basic themes and discussed below.

4.6.1 Lack of accommodation

It is very important for teaching and learning to always take place in a conducive environment. Unfavourable teaching and learning environment was stated by 15 out of the 20 master craftsmen and apprentices interviewed. They explained that apprentices had learning challenges due to the unconducive working environment. Out of this number, nine of them reported that apprentices had no accommodation and therefore used broken down vehicles as their sleeping places. One apprentice added the following.

> "…. where we will also sleep is a problem especially the cars that are here if they finish working on them and they leave here, where to always sleep is always a big problem" (Auto-mechanic Apprentice, 2018).

The apprentices were worried about losing their sleeping places because the broken-down vehicles were either being repaired or waiting to be taken by their owners. This apparently insecure mode of accommodation may partly explain why there are virtually no female mechanic apprentices. It is perceivable that females who do not have accommodation may not want to risk poor sanitation and hygiene, burglary or rape by sleeping in a vehicle under repairs. These sleeping conditions for apprentices go a long way to affect the performances of the apprentices when they come for lessons.

Additionally, seven of the respondents (all of them apprentices) said their output was affected because they suffer from mosquito bites. The Kpese river runs through some parts of these areas and has become breeding ground for mosquitoes. Since they do not have any protective netted windows and doors, they are vulnerable to mosquito bites resulting in frequent malaria attacks. This does not only lead to the inability of the apprentices to work for some days, but also robs them of their little income as they have to buy painkillers and antimalarials. The apprentices said they were unable to save enough to buy mosquito nets because their income was hardly enough to feed them two meals a day. The difficulty of sleeping in vehicles was also expressed by this 17-year-old apprentice who said

> "….. because of the Kpese River there are too many mosquitoes here. Since we sleep in cars without nets, they bite us we can't sleep well at night. If you are not lucky you can get malaria like two times a month and spend all your money on medicine" (Auto-mechanic Apprentice, March 2018).

This does not only present a public health challenge but also shows social inequity as poor young learners sleep in places that put them at greater risk of mosquito bites and contracting

malaria while their colleagues in SHSs sleep in government-built dormitories. A policy requiring improved housing for apprentices in the informal sector could improve this challenge. However, such a policy will be difficult to enforce as the fees paid were usually insufficient to rent a housing facility. Enforcing such a law may also force the master mechanics to increase fees and cancel certain type of apprenticeships, which could further alienate poorer youth who cannot afford such fees. Although Government's provision of housing facility for informal apprentices as is the case of Germany or supplement their fees could help improve the situation, it will involve huge financial cost. Nevertheless, it is feasible if there is a political will; for example, Government has been able to implement a free SHS policy, which is equally financially expensive. Free distribution of insecticide treated nets (LLINs) and tents by both Government and NGOs such as Anglican Diocesan Development and Relief Organization (ADDRO) could temporarily help improve their lot until a permanent place is found.

4.6.2 Rudimentary teaching techniques

Another 12 of the interviewees (10 Apprentices and two Master mechanics) reported that there was no good relationship between some apprentices and their masters, which was affecting their ability to learn their trade well. They said this usually manifest in the form of crude punishment methods like lashing apprentices with wire or tires. Although capital punishment may constitute workplace violence/abuse against the apprentices, they were willing to endure it to gain the skill. In some cases, after several years of abuse, some become violent and may even engage in violent crimes such as batter. Others especially the younger apprentices could become timid and lose concentration for fear of being flogged with electric cables. This concern was confirmed by some of the masters who explained that most of their apprentices were stubborn and will only remember instructions after capital punishment, which sometimes create temporary tense relationship. An apprentice said

> "…if you do something wrong, they will tell another master to lash you with electric cable" (Auto-mechanic Apprentice, March 2018).

Three apprentices also added that sometimes they are denied their allowance of five Ghana cedis (Gh¢5) a day as a form of punishment. This means they are unable to feed or save for that day and the next, which adversely affects their ability to concentrate on their learning. Since their activities are physical, not being able to feed makes the apprentices sluggish, which attracts further punishment.

> "…Sometimes too they [master craftsmen] can sack you as punishment. Especially for the whole week, you will not work without getting anything too" **(**Auto-electrical Apprentice, March 2018).

Three of the respondents further explained that their masters were not patient with them so that when they make little mistakes, they were overly criticized making it difficult to build positive attitude and give their best in the workshop. One mechanic apprentice said the following.

> "…sometimes when a master is teaching you something and…you make a mistake, instead of him to take his time and show you the thing he rather becomes angry and begin to talk anyhow" (Auto-mechanic Apprentice, March 2018)

From the responses of the apprentices, it appears the masters needed training on instructor-student relationship and possibly human rights. The unconventional form of punishment may also be a disincentive for many school leavers and young people, especially those from wealthier homes, to engage in informal mechanic apprenticeships.

4.6.3 Inadequate stock of appropriate tools and equipment

Nine of the apprentices complained that they did not have enough tools to learn the work. This, they said, was because their tools were expensive. However, a few also opined that the introduction of new cars and technology all the time was what caused them not to have all the required tools. Although no master mechanic mentioned this challenge, some of them admitted

that sometimes they had to go outside and work meaning the tools in the shop would be taken out leading to reduced stock of tools to take care of any car that would come to the shop. The ideal case is that, besides the toolbox for the shop/master, each apprentice should have a toolbox containing a set of all the necessary tools. Some of the modern diagnostic equipment is usually out of reach of most informal mechanics. The inadequate number of appropriate tools could lead to delays in repairing vehicles, which could lead to loss of customers and income. During the focus group discussion, one master mechanic explained that,

> "…. sometimes the job requires that we go out the shop with tools to work on people's cars. So, when tools are taken out of the shop and other cars come, we usually don't have enough tools to work on these cars" (Master Auto-mechanic, March 2018).

From the discussions above, unfavourable learning environment, bad master-apprentice relation and inadequate quantity of the right tools were identified by apprentices and their masters as their main challenges. These issues have a direct impact on the outcomes of training apprentices.

4.7 Skills utilisation based on the apprentices' job expectations or future work plans

Many countries in the world are battling unemployment, especially youth employment (Ahadzie, 2009). This section of the study presents the perspectives of informal mechanic apprentices on how a good environment can be created for easy utilisations of their skills once they complete their training. It details the means by which informal mechanics acquire employment after training and suggestions on increasing employment opportunities for informal mechanic apprentices. In this section four key themes emerged: establishing own shops, working in another person's shop, freelance mechanic and working in the apprentices' master's office.

4.7.1 Establishing their own shops

The data from the in-depth interviews showed that half (5) of the apprentices wanted to open their own shops/garages immediately after their training. This is in line with the findings by Anokye and Afrane (2014) and Omar (2018) that most of the apprentices wanted to start their own shops after completion of their training. During the FGD, one apprentice stated that

> "the plans I have here, if you learn work with your master and you do good things with your master and your customers, sometimes you [can] finish your work [and] go open [your own] shop". Another added that "I will open my own shop at Ho" (Auto-mechanic Apprentice, March 2018).

This reaffirms the fact that informal mechanic apprenticeship training has good potential in creating self-employed youth. This also means that a little investment in that sector could reduce the rate of unemployment, especially among school leavers and the youth in La Dade Kokopon Municipality and beyond.

4.7.2 Working in another person's shop

Three of the apprentices wanted to work with other masters in different shops other than the places they trained. In such circumstances, they would work as employees of their new master. The shop can be private or company business. This sentiment was typically captured by one mechanic apprentice who said

> "… I will leave my master's place and go to a different person who I didn't learn the work under to work with that person for some time. That will be an opportunity for me to save some money and when the time comes and I feel I have saved enough then I will open my own shop" (Auto-mechanic Apprentice, March 2018).

Some of these apprentices believed that if they continue to stay with their masters they will continually be treated as apprentices and will not be paid right wages for the work they will render to their master.

4.7.3 Freelance mechanic

Freelance mechanic involves apprentices providing home services and call-on-demand services. That means they don't have to open physical workshops. One apprentice aspired for this form of employment. He said

> "… now I get customer and I have a phone. Customers have my number and I also have their numbers so when I leave this place and I call them and tell them where I am, they will call me whenever they have faults" (Auto-mechanic Apprentice, March 2018).

This kind of career option is perhaps relatively new as it is not captured by the literature reviewed. Whereas this offer freedom and a promise of early returns to their investment compared to the foster relationship, it requires an initial capital-intensive investment on tools. This difficulty is exacerbated by the unavailability of loans on flexible payment terms or financial grants that can help them start. They may even accept loans in the form of a set of tools that are needed for the business.

4.7.4 Working in the same shop as an employee of the master

Surprisingly, one apprentice was willing to work with his master after his training.

> "…When I graduate, I can decide to stay and help my master one or two years before I can go to start on my own. When I do that, I will have a good relationship with my master, so that I can even call him some day when (I) am confronted at work with a problem I cannot solve on my own. This can increase your knowledge" (Auto-sprayer Apprentice, March 2018)

This resonates with the findings of both Anokye and Afrane (2014) and Omar (2018) who noted that some apprentices work with their master for some time after graduation before starting their own shops. In fact, McLaughlin (1979) noted that graduating apprentices are often required by their masters to stay in the workshop and work for the master as paid journeymen to show their appreciation to the master. It also enables the graduated apprentice to pick up

additional experience. In a number of countries across Sub-Saharan Africa, politicians and policymakers are giving attention to delivering skills training as a means to make these youths employable and hence facilitate their entry into enterprise (Palmer, 2009). The foregoing findings show that once a young person completes mechanic apprenticeship, the employment options are numerous. It is important to create a good environment for the trained apprentices to utilize their skills and as such serve as a means of livelihood for these young ones. This has to be accompanied by sustainable funding mechanisms for informal mechanic apprenticeships. There is a wide difference between skill acquisition and skill utilisation. The fact that skills are acquired does not necessarily mean poverty will be reduced. Psacharopoulos and Patrinos (2002) seem to agree with this, when they indicated that a positive climate is necessary to enable apprentices adopt high quality skills. They emphasised that there is no automatic connection between skills development and employment because training, by itself does not create jobs. The jobs will be created when the conditions for economic growth are in place.

The factors that will ensure the utilisation of acquired skills include, good macroeconomic, a skill supportive labour market and strong government policies. Reinforcing initiatives like a proper macro-economy and regulatory framework and innovation from private firms and NGOs are necessary to create the enabling environment for skills to be utilised. The macro-economic environment includes the trends in gross domestic product (GDP) that is inflation, employment, spending, and monetary and fiscal policy. When these indicators are good private individuals and firms will be able to invest in areas like mechanic workshops and employ trained youth to work in those shops. In addition, cross-sectoral linkages like physical and social infrastructure including the availability of water, sanitation, transport, health, energy and private sector development go a long way to influence the utilisation of skills in the economy.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATION

5. Introduction

The previous chapter presented the results and discussions of the findings of this study. This last chapter of the study presents a summary of the findings in relation to the objectives of the study. Conclusions are drawn from them and appropriate policy guidelines to remedy the challenges of informal mechanic apprenticeships recommended. The recommendations relate to financing and creating a good environment for employing informal mechanic apprenticeships.

5.1 Summary of Findings

The study found that the main motivations for master mechanics engaging in mechanic trade in the LDKM are due to limited alternative livelihoods for those people without formal education and the desire to continue with a family business. Their main motive for recruiting apprentices is to gain access to cheap labour. Among apprentices, financial gain, need for mechanic skill and family recommendations are their main motivations for enrolling into mechanic apprenticeships in LDKM. The perception that there is financial gain in mechanic apprenticeship means that, when the right policy environment is created, it can be used as an alternative skill source for school leavers.

Additionally, the study revealed four forms of apprenticeship financing arrangements including self-financing (30%), extended foster service (20%), parent/guardian financing (40%) and NGO/philanthropic financing (10%). Depending on the relationship between the apprentice and the master mechanic, the required items may vary. Recruitment usually involve the payment of a fee of about Gh¢50 together with four crates of soft drinks and a toolbox with

some commonly used tools. A form may be signed or a verbal agreement may be made to mark the commencement of the contract.

Moreover, the apprentices had four main job expectations – establish their own shops, work in another person's shop, operate as freelance mechanic and work in the same master's office. Half of them wanted to start their own shops; a third wanted to work in another person's shop; a tenth preferred to operate as freelance and a tenth intended to stay and work in the same shop with their current masters.

Finally, regarding challenges, the study found that lack of accommodation safe and comfortable accommodation forced many of them to sleep in faulty vehicles at the workshops, which exposed them to mosquito bites and frequent malaria attacks. These may partly explain why the mechanic apprenticeship is less attractive to most females. However, further studies are needed to establish the man reasons. Additionally, rudimentary teaching techniques including capital punishment and denial/withholding of stipends by masters were also identified. This may partly explain why young people from wealthier homes do not enrol in the informal mechanic apprenticeships. However, there was no independent observation that these discordant relationships were common. Additional research is necessary to confirm whether this finding is widespread. The apprenticeships were also confronted by inadequate stock of learning and working tools partly due to the high cost of tools, rapid changes in technology of new vehicles that require additional tools and the movement of tools to work outside the shop.

5.2 Conclusion

This study's findings suggest that the necessary policy environment for the improvement of informal mechanic apprenticeships and for the utilisation of the skills of trained informal mechanics is lacking.

Regarding financing arrangements, the study discovered that unlike Germany, England and Australia where government support the financing of informal apprenticeships, there was no Ghana government financial support among those in LDKM. This policy gap has created a funding vacuum for apprenticeships and inequity between youth in formal institutions who enjoy government-sponsored free secondary education and poor informal apprentices who need government financing most yet have no access.

Secondly, the study discovered that the career expectations of informal mechanic apprentices in LDKM were to establish their own shops, gain employment in other people's shops, work as freelance or continue working with their existing masters. However, there are no policies that regulate these four potential forms of skills utilisation. It could lead to exploitation and underutilisation of skill and unemployment of apprentices after completion of their training. The lack of government financing support or reduced credit for informal mechanics stifle their ability to start their own businesses.

Thirdly, this study found three main challenges facing informal mechanic apprenticeships in LDKM - lack of accommodation for apprentices, rudimentary teaching techniques and inadequate stockpile of the appropriate tools and equipment. The absence of a national policy regulating the recruitment, training and housing of apprentices has left them with no hope of acquiring internationally competitive skills in a dignified and humane environment.

In a nutshell, the absence of government financial support; Ghana's failure to regulate and support mechanic apprentices to fulfil their career objectives; and the failure to address the challenges partly as suggested in the conceptual framework of this study explain the apparent unattractiveness of informal mechanic apprenticeships to school leavers and other young people in the LDKM.

5.3 Recommendation

The following recommendations are made to the government of Ghana, Ministry of youth and employment, TVET, COTVET, and NYA.

Enact a national apprenticeship policy that standardises contract agreements for apprenticeships including the standard minimum resource requirement for informal apprentice masters (tools, accommodation, skills and staff). The policy must also include compulsory training of masters on violence and child rights. This will make apprenticeship a dignified and attractive life development alternative for the youth.

Secondly, fund informal mechanic apprenticeships, to enable more young people access technical skills in their respective districts. When this is done, apprentices can sleep in their homes and go through their trainings instead of travelling to Accra where they cannot afford decent accommodation. This could help reduce the financial burden on poor families and free foster apprentices to start earning their income as soon as they complete their training.

Thirdly, give mechanic apprentices grants and relatively flexible loans to start their own shops/buy tools for free lancing. This will create the enabling environment for self-employed informal mechanics to thrive and reduce youth unemployment.

Finally, enact a policy to regularise and standardise the terms and conditions for engagement of informal mechanics apprenticeships. The policy must cover those who wish to continue to work with their masters or get employed other masters' shops after completion of their training. This will reduce the vulnerability of apprentices who complete their training and decide to work with their masters or in other people's shops.

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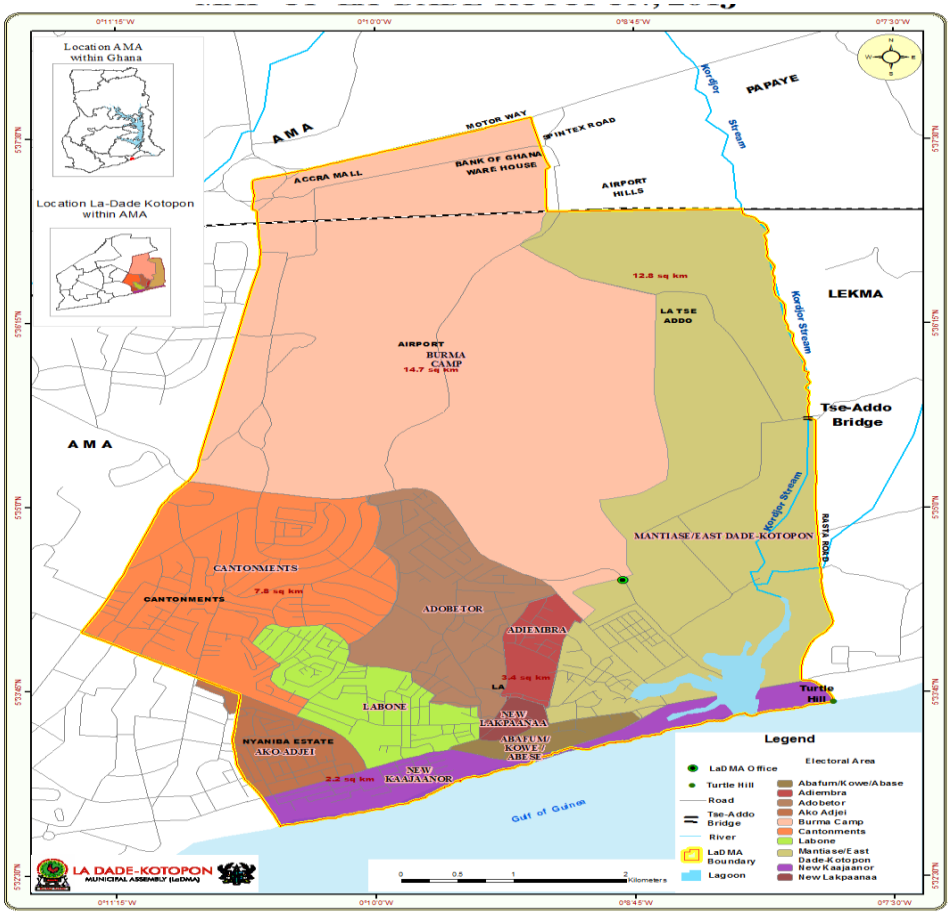
APPENDICES

APPENDIX A: MAP OF STUDY AREA



APPENDIX B: IN-DEPTH INTERVIEW GUIDE FOR INFORMAL MECHANIC APPRENTICES' MASTERS

So, how did you end up in this profession?

What exactly are you training for?

Did you always want to be a mechanic?

Was it decided for you by parents or it was your own decision?

If it was your own decision, what informed it?

Do you have any regrets about becoming a mechanic? (Master)

Were there incentives at the time you were learning this trade? (Master)

If the interventions are more than one, can you talk about each of them?

How long did the intervention last?

Are the interventions still running?

How did these interventions improve your operation?

For all this year that you had been in this trade, (as an apprentice and owner-manager), what government intervention concerning the trade are you aware of or benefitted from?

Can you speak about them?

How many apprentices are under your care?

Do you explain to the apprentice the educational aims, objectives and expected learning outcomes of the roles you give to the apprentice? (Master)

How and from whom can your apprentices get help in terms of inability to master an assigned role at the workshop if they need it? Master

Do you have the necessary learning resources and tools available for apprentices to use to carry out assigned activities? Master

Who provides these resources?

Where and how can they get access to these resources?

Do you have any assessment for the training, and if it is assessed, what is the marking criterion?

How do you determine an apprentice is ready to pass out?

What is your perception of the state of informal apprenticeship in Ghana?

Is it attractive and lucrative?

Are there financing strategies available for informal apprenticeships in Ghana?

How do you think the state can strengthen informal mechanic apprenticeships?

Were you told to meet any standard before setting up your workshop?

Has an individual or institution come to inspect your workshop?

How are informal mechanic apprentices employed after their training?

Do you admit female apprentices here?

Have you admitted any female apprentice before?

Do you have any strategies in place to encourage females to take up mechanic learning in your workshop?

If yes, how difficult or easy was it?

If no why?

Thank you.

APPENDIX C: FOCUS GROUP DISCUSSION GUIDE FOR INFORMAL MECHANIC APPRENTICES

INTRODUCTION

You are all welcome to today's meeting; my name is Richard Afoblikame from the University of Ghana. I will be your moderator today.

Our topic is how can informal mechanic apprenticeships serve as alternative development pathways for school leavers in our community today.

You were selected because you are the main target of this study. We would want to find out how you think informal mechanic apprenticeship can be organized to be able to attract your children or students into it.

We also want to know how informal mechanic apprenticeships can be organized so that equal opportunities will be given to boys and girls to participate in.

GUIDELINES

There are no right or wrong answers, only different points of views.

You have probably seen the voice recorder; I am seeking your permission to tape record our conversation so that we don't miss any of your views. We should try and one person will speak at a time.

You don't need to agree with others but you must listen respectively as others share their views

We humbly ask that we turn our phones off

My role as moderator will be to guide the discussion

You are assured of complete confidentiality. The reports will go directly to the University purely for academic purposes.

Let's begin by going round so that we get to know each other more by telling us your name and where we live.

DISCUSSION AREAS

How do recruit apprentices?

How much are apprentices charged and what tools are they supposed to provide?

What are your perceptions of informal mechanic apprenticeships in the community?

What are the main challenges you face as informal mechanic apprentices in your workshops?

So, how did you end up in this profession?

Did you always want to become a mechanic?

Was it decided for you by parents or it was your own decision?

If it was your own decision, what informed it?

Do you have any regrets about becoming a mechanic apprentice?

For all this year that you had been in this trade, what government intervention concerning informal mechanic apprenticeships are you aware of or benefitted from?

Can you speak about them?

Is it attractive and lucrative?

Are there financing strategies available for informal apprenticeships in Ghana?

How do you think the state can strengthen informal mechanic apprenticeships?

Has an individual or institution come to inspect the workshop in which you learn?

How are informal mechanic apprentices employed after their training?

Are you ok with the training you are receiving?

How do you think informal mechanic apprenticeships can be improved in this community?

That concludes our focus group. Thank you so much for coming and sharing your thoughts and opinions with us. If you have additional information that you did not get to say in the focus group, please feel free to share it with us now or you can always call me since you have my telephone number.

Thank you.

APPENDIX D: CONSENT FORM FOR INFORMAL MECHANIC APPRENTICES AND MASTERS

Good morning/afternoon/evening. My name is Richard Afoblikame. I am a student of the University of Ghana. I wish to have a discussion with you on your work and how it can be improved. All information you give me today will not be shared with anyone.

I would like to ask you a few questions if I may, but you can refuse to answer any question I ask. You may end the interview at any time. You can also refuse to participate in the study entirely. The interview will last approximately 1 hour. The information I collect will be put together and published, but will not contain your name or identity or any other participant. If you have any question about this study, you may ask me now or call me on 0243459658.

May I proceed with the questions? Yes/No

APPENDIX E. RESULTS TABLES

Table 1: Coding frequency on challenges of mechanic apprenticeships in LDKM

Interviewee's Identification Code		1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	1.10	1.11	1.12	1.13	1.14	1.15	1.16	1.17	1.18	1.19	1.20	Total
Organizing Themes	Basic Themes																					20
Lack of accommodation	using spoilt vehicles as	α		α		α		α			α			α	α	α	α					9
	suffering from severe	α		α				α					α			α			α	α		7
Rudimentary teaching techniques	Harsh form of punishing	α			α		α						α				α				α	6
	Non-payment of		α						α						α							3
	impatience of masters										α								α		α	3
Inadequate stock of appropriate tools and equipment	New car make	α						α			α					α						4
	Cost of tools	α		α	α		α		α		α		α	α			α			α	α	11
	work demands										α					α						2

Table 2: Thematic framework on the challenges of informal mechanic apprenticeships in LDKM.

Global Theme	Organizing Theme	Basic Theme	Number of responses	Definitions	Quotes
Challenges of informal mechanic of apprentices	Lack of accommodation	using spoilt vehicles as sleeping places for apprentices	9	Apprentices sleep in faulty vehicles at the close of work	"…. where we will also sleep is a problem especially the cars that are here if they finish working on them and they leave here, where to always sleep is always a big problem". **1.1,1.9 ,1.11,1.13**
		suffering from severe mosquito bites	7	Mosquitoes bite apprentices both during the day and night	"….. there are mosquitoes too here, because of the Kpese River there are too many mosquitoes here" **1.3,1.5,1.6**.
	Rudimentary teaching techniques	Barbaric form of punishing apprentices by masters	6	Using electric cables to lash apprentices when they go wrong	"……if you do something wrong, they will tell another master to lash you with electric cable". **1.20**
		Nonpayment of apprentice's stipends by masters	3	Masters don't pay apprentices their daily stipend	"……Sometim es too they go fit sack you as punishment. Especially for the whole week you will not work without getting anything too" **1.7,1.5**
		Impatience of masters towards apprentices	3	Masters do not take their time to explain instructional objectives to apprentices	"….. sometimes when a master is teach you something and you come to do it and you make a mistake, instead of him to take his time and show you the thing he rather

					becomes angry and begin to talk anyhow"[1.4]
	Inadequate stock of appropriate tools and equipment	New car make	4	New technology in cars requires constant updating of tool box	"…… the cars that are being introduced come with very expensive tools. An old machine for example goes for 2500 Ghana cedis".[1.9,1.20]
		Cost of tools	11	Tools are too expensive	"……for tools you can't buy the tools all because they are very expensive"[1.1,1.3,1.7,1.8]
		work demands	2	Going to work on a faulty car outside the shop	"…. sometimes the job requires that we go out the shop with tools to work on people cars. So, when tools are taken out of the shop and other cars come, we usually don't have enough tools to work on these cars".[1.8]

Table 3: Coding frequency of themes on sustainable financing mechanisms/financing arrangements for informal mechanic apprenticeships in LDKM

Interviewee's Identification		1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	1.10	1.11	1.12	1.13	1.14	1.15	1.16	1.17	Total
Organizing Themes	Basic Themes																		17
Self-finance	Personal apprentice resources									α					α				2
	Borrowed by apprentices							α											1
Parents/ Guardian Finance	Payment by parents	α	α		α				α			α				α		α	7
	Relative paid training fee			α		α	α						α						4
	Learning from relative (didn't pay)													α			α		2
Support from government	Government made full payment for training																		
	Government subsidized training fee																		
Non-governmental (NGO) /Philanthropic support	NGO paid training cost																		
	Learning at an NGO owned shop																		
	Philanthropist paid training fee										α								1

Table 4: Coding frequency on creating enabling environment for the utilization of apprentices' skills of informal mechanic apprenticeships in LDKM

Interviewee's Identification		1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	1.10	1.11	1.12	1.13	1.14	1.15	1.16	1.17	Total
Organizing Themes	Basic Theme																		17
Establishing apprentices 'own shop	Set up own shop	α			α			α			α				α		α		6
	Apprentice given a shop to manage		α															α	2
	Parents set up shop for apprentice						α					α							2
Working in another person's shop	Apprentice work for a company			α															1
	Apprentice works for another master in a different shop					α								α					2
Freelance mechanic	Apprentice work in a virtual shop												α						1
	Apprentice provide home services															α			1
	Apprentice does call on demand services																		
Working in the shop as an employee for the master	Apprentice works for master as an employee									α									1