

# Apprenticeship Training System In Ghana: Processes, Institutional Dynamics And Challenges

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## Abstract

Ghana's informal apprenticeship system has been an important part of its informal economy, particularly for its role as a complimentary means of skills transfer and the development of the nation's human capital required for the overall national development. In spite of its role, little attention has been paid to this sector over the years. This study interrogates and documents the processes, institutional dynamics and challenges that confront the informal apprenticeship system of Ghana a means of skills acquisition and transfer in the wake of the ever changing social and economic conditions in Ghana. The study adopted both exploratory and descriptive approaches. Using quota sampling technique, 200 questionnaires were distributed among four broad trades namely; wood workers; auto mechanics; textile and apparel; and beauticians and hair dressers. This was complimented by key informant interviews and focus group discussions. The study revealed that the system provides an alternative path for nearly 33 per cent of students who drop out before completing Junior High School and nearly 42 per cent who drop out after completing Senior High School. It was also evident that the master craftsmen/women generally have a weak theoretical basis for what they do besides the financial challenges they have. A two part training programme has been proposed: a theoretical and practical component. It is also recommended that a policy be developed to improve the system without the state necessarily capturing and controlling it.

## BACKGROUND

Human capital has been cited as a critical ingredient for a nation's growth and development. This fact is supported by the conscious effort that was made at Ghana's independence to produce capable and highly skilled human resource needed to drive the country's developmental agenda. In his last speech to the old Legislative Assembly in 1957, Ghana's first president outlined his government's vision which had education and skills development as the Fulcrum (McWilliam and Kwamena-Poh, 1975:94). In his view Ghana's educational system was to achieve the following: first, it was to be used as a tool for producing a scientifically literate population. Secondly, for tackling mainly the fundamental causes of low productivity; and thirdly, for producing knowledge to harness Ghana's economic potential (McWilliam and Kwamena-Poh, 1975:112).

Having such a focus, traditional educational and skills transfer systems –the apprenticeship system that catered to the different needs of society prior to pre-independence, independence and post-independence eras were de-emphasized and tagged unproductive hence down played in the years that followed. In Ghana, the post-independence educational reforms including the Basic Education reforms which sought to integrate skill transfer failed to deliver the goods for a number of reasons. For instance the increases in school fees; cost of textbooks; and withdrawal of state subsidies that came to be associated with Ghana's educational reforms that emphasized cost recovery in secondary and tertiary education was largely exclusionary as it priced out poor families the hardest from participation in post-basic education (World Bank 2004).

The inability of the educational system to convey the requisite technical and vocational skills to the students as envisioned, made the products of the system unemployable by the formal sector. These were taking place at a time when urbanization and globalization were changing the economic, social and political landscape of Ghana. As a survival strategy and coping mechanism for a good many of those who drop out at the Basic Education level, the best option has been learning a trade and settling in the informal economy. This obviously brought a new awakening and increased interest in the informal economy in Ghana especially the apprenticeship system (Fox and Gaal 2008).

Having evolved to the size of an economy and currently employing at least 80% of the labor force in Ghana, a sector which was once perceived as "marginal workers" has become an important subject of research (ISSER, 2003). The interest areas have spanned the contributions of the informal economy to national development, opportunities for job creation, potential for revenue mobilization for financing, the role of finance in the transfer

of skills in the informal apprenticeship system among others. This paper however discusses the apprenticeship system in Ghana with emphasis on the processes, institutional dynamics and challenges that confronts its system for skill acquisition, and transfers in the wake of the ever changing social and economic conditions in Ghana.

### **A PERSPECTIVE OF THE KEY ATTRIBUTES AND DIMENSIONS OF THE APPRENTICESHIP SYSTEM IN GHANA**

As noted by Monk, Sandefur and Teal, (2008) traditional apprenticeships in West Africa are widespread. In Ghana, the practice has particularly been linked to the informal economy. The market for apprenticeships has gained a toe hold in Ghana and is especially common place in urbanizing areas. Although the system of entry are many and varied for a new entrant into the apprenticeship system, many authors have presented closely related yet different views as to what the entry requirements are. Donkor (2006) for instance noted that the modalities regarding apprenticeship in the informal sector vary. Entry is for the most part open for anyone who can pay the training fee: minimum education requirements are non-existent, and other necessary qualifications besides ethnic or clan identity are uncommon (Middleton et al., 1993).

The ILO brings a new dimension to the above when it highlights that entry requirements, if any exist, are generally low and not restricted by age, ethnicity or proof of literacy (ILO 1988). Analyses of the above is varied, yet related opinions suggest that there is fairly an easy entry into the informal apprenticeship system compared to the formal vocational or apprenticeship system where some formal training of a sort is required with basic passes in subjects such as English and Mathematics which are essential part of the selection criteria. In addition to all the above, anecdotal evidence suggests that a written or oral agreement is made between the “master” or “mistress” and the parents/guardians of the potential apprentice.

Another key attribute of the informal apprenticeship system is that until recently when commercialization became a norm, the system was very much seen as a socialization process as much as it was training. This can be inferred from the expressions of authors such as Boehm (1995) that the apprenticeship system offered parents effective way of transferring skills or education directly from them or a master apprentice to an adolescent. In most cases, the master will receive a fee, but other times the apprentice will work for reduced (or no) wages. Some apprentices pay for their training while others train at the forfeit of their income for the work they do in lieu of payment for training. Other apprentices who are fortunate receive free boarding and lodging or some pocket money or occasional bonuses. In some rare cases, apprentices are permitted to sell what they produce in their spare time with the materials and the equipment they find in the workshop (ILO 1988).

Abban and Quarshie (1993) observed that apprenticeship training proceed in phases. According to the authors, the process begins with an introductory phase during which the novice is coached on how to perform menial jobs such as tidying the workshop or running errands for the master and seniors. The next phase consists of getting to know all tools, equipment and materials needed for the trade. These include learning what constitutes appropriate tools for every job, the materials, the ingredients and the spare parts for the job. The nature of the training is sector-specific and often product-specific; apprentices may learn how to manufacture or repair only one item at a time (Frazer, 2006). They also learn trade-related skills such as how to handle tools and repair machines, as well as general business management skills like sourcing, pricing, and contracting. Skills transfer occurs mainly by watching and imitating the master (Johanson and Adams, 2004).

Depending on the trade, the master and the apprentice, training might take from months to years. Working hours of apprentices are usually long, typically six days a week with weekly working hours ranging from 50 to 60. Meanwhile, the apprentice is expected to observe and learn about the work. The master occasionally demonstrates a particular operation or directs an apprentice whose trials usually end in an error. 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 (Abban and Quarshie 1993). Thus, skills, knowledge and attitudes are transmitted through observation, imitation and on-the-job experience.

Relative to more formal vocational training, apprenticeships are much more flexible. Apprentices also have 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. Although it is believed that nearly all apprentices want to set up their own business after their training is completed, as this is by far the most rewarding outcome, they are mostly constrained. The reason for the above has been the substantial start-up capital requirement, especially in the manufacturing sector.

Regarding how the apprenticeship system has evolved over time and how quickly the system is transforming in response to the ever changing economic conditions and social systems, this paper examined the apprenticeship

system in Ghana along the following lines: entry requirements; terms of engagement; fees paid, what determines the fees and mode of payment; methods of skill transfer and training; hours of training and duration of training; sustenance and support systems; and how qualified apprentices settle in after their acquired trade, the major challenges that confront the system and policy recommendations.

### MATERIALS AND METHODS

The study builds upon other exploratory studies carried on Ghana's informal apprenticeship system. It sought to produce a rather recent state of affairs so far as the informal apprenticeship system is concerned and at the same time establishes useful relationships between the variables mentioned at the onset of the paper so as to inform policy attempts at addressing or mitigating the perceived challenges. It thus combines exploratory and descriptive approaches. In view of the questions the paper sought to answer, the case study was adopted as a research design strategy. A combination of quantitative and qualitative data was collected on the informal apprenticeship system Accra.

For the purpose of triangulation, in addition to the 200 questionnaires that were administered, Focus Group Discussions and the key informant interviews were also conducted. Four broad trades were selected namely; wood workers; auto mechanics; textile and apparel; and beauticians and hair dressers. Specifically carpenters, hairdressers, mechanics and tailors and dressmakers were enumerated. A quota sampling technique was used in assigning the 200 questionnaires among the four trade groups. Using the accidental sampling technique, 50 questionnaires each were administered among the trade groups. In addition to the above, secondary data sources provided the framework for the analysis of data collection.

### RESULTS AND DISCUSSION

#### Characteristics of apprentices and entry requirements

The study sought to investigate some of the attributes of the informal apprentices such as their age, their gender and the highest educational levels attained generally and how that affected their choice of trade.

**Table 1: Background and attributes of respondents**

Variables	Frequency (N= 200)	Percentage (%)
<b>Age (years)</b>		
<= 18	20	10.0
19 – 24	157	78.5
25 – 30	18	9.0
>= 31	6	3.0
<b>Gender</b>		
Male	120	60.0
Female	80	40.0
<b>Type of trade</b>		
Tailoring	50	25.0
Hairdressing	52	26.0
Mechanics	50	25.0
Carpentry	48	24.0
<b>Educational level</b>		
No formal education	6	3.0
Primary School (6 years)	43	21.8
J SS (3 years)	136	67.8
S SS (3 years)	8	4.0
Vocational/ Technical Training	7	3.5

Source: Field Survey, 2012

The mean age of the respondents was 20.62 years with a Standard deviation of 0.71 years. The minimum age of the respondents was 14 years and the highest was 35 years. Majority of the respondents interviewed (78.2%) were aged nineteen (19) to twenty-four (24) years. 9.9 per cent of them were eighteen (18) years and below. Only 3 per cent of them were thirty years and above.

Relating this finding to the average age at which most students complete Junior High School which is fifteen years in Ghana to how long it takes an apprentice to graduate, it is possible to say that most of these apprentices do not enter apprenticeship training at much an early age as they probably did in the past. This obviously contrasts the point made by Boehm (1995) that apprenticeship training starts at adolescence especially pre-teens in some

instances. For the specific trades the mean ages varied marginally, with trades like tailoring having a mean age of 21.16 with a standard deviation of 2.16; hairdressing, 21.31 with a standard deviation of 3.64; mechanics, 22.36 as mean with a standard deviation of 3.43; and carpentry, with a mean of 21.18 and a standard deviation of 2.61.

There is a gender dimension to the choice of trade an apprentice learnt. Out of the total of 200 eligible apprentices who participated in this study, 120 of them (60 %) were males and the rest, 80 (40%) were females, a male to female ratio of 6:4 (1.53 male(s)/female). As seen in Table 2, the study revealed that certain types of trades were male dominated whereas others were more female inclined. The analysis shows that trades such as carpentry and mechanics were mostly the options for males whereas tailoring and hairdressing was mostly female dominant trades. This can partly be explained from the fact that the former are rather strenuous and in some respect required much energy thus making it unattractive to female.

Quite apart from this, traditionally certain trades are associated with a particular gender, although society is evolving, the roles played by the different sexes also evident in the choice of jobs have not altogether changed. The computed Chi Square value with its associated P-value (less than 0.05) computed and presented in Table 2 confirms the significance of the trend observed. One's choice of trade was highly influenced or determined by his/ her gender (i.e. whether male or female)

**Table 2 Gender dimension to the choice of trade**

Type of trade		Sex		Chi Square	P- value ( $\alpha= 0.05$ )
		Male (%)	Female (%)		
<b>Mechanics</b>	% within trade	100.0	0.0	1.423E2	0.00
<b>Carpentry</b>		100.0	0.0		
<b>Hairdressing</b>		3.8	96.2		
<b>Tailoring</b>		41.2	58.8		
<b>% of Total</b>		<b>60.4</b>	<b>39.6</b>		

Source: Field Survey, 2012

On the issue of education, the trend that emerged was that most of the apprentices have had some formal education of a sort but entered apprenticeship training along the way. This fact is corroborated by the number of Junior High School graduates who for some reasons do not proceed to the Senior High School level. Between 2002/03 to 2009/10 academic year, the average dropout rate has been 42%. The dropout rates over the years ranges from a low of 35% in 2009/10 and a high of 54% in 2005/06 academic year (MoE, 2010). Over the seven year period under consideration, only about 39% (3,147,989) out of the 8,137,647 Junior High School entrants successfully completed either Senior High School or Vocational or Technical education in Ghana.

Table 1 presents a summary of the educational levels attained by the respondents and sits well with the above facts. The largest group of participants (67.8%) had been educated up to the Junior Secondary School level while 21.8 per cent had no formal education or had education only up to Primary School. Only 4.0 per cent had education up to Senior Secondary School level. The remaining 3.5 per cent were Vocational or Technical Training School graduates. This implies that most of the apprentices entered the apprenticeship trade just after their Junior High School education or when the dropout before completion.

Although a relatively small number (22%) learnt a trade after their primary education this is also significant. This follows logically that one's educational attainment was not a prerequisite for entering any particular apprenticeship training. An important observation made which corroborates the findings made by ILO (1988) however is that age, ethnicity or proof of literacy are not important entry requirements.

If the formal educational system is able to deliver on its mandate, one would expect that these apprentices should be literate and numerate. Another perspective to this trend is that as many as whose dreams of pursuing formal education either gets interrupted or ends abruptly, the option is to enter informal apprenticeship training as a last resort. This make the apprenticeship system an important contributor to human resources development agenda of Ghana with respect to technical skills acquisition as it cares for a good number of young Ghanaians who cannot acquire a career in the formal sector.

**Fees paid, terms of engagement, the determinants of the fees paid and mode of payment**

As an entry requirement, apprentices are expected to pay a commitment fee to show their readiness to be trained. In addition to the money paid, 80.2 per cent of the apprentices presented tool boxes for the specific trades they were learning while 6.9 per cent of the apprentices backed their readiness, willingness and qualification to learn the trade with the endorsement and assurance (either verbally or orally) from their parents to their respective masters.

On the average, a tool box was purchased at a cost of GH¢ 38.27 with a standard deviation of GH¢ **8.01**. This means that a normal tool box was purchased at about GH¢ 37.00 to nearly GH¢ 40.00 as at the time of the study. It was found that nearly 80.0 per cent of the tool boxes of the apprentices in this study was purchased at a price

less than GH¢ 50.00. The minimum value (price) at which a tool box was ever purchased was GH¢ 5.00 and the maximum was GH¢ 200.00. Also a total of 63.9 per cent of the apprentices had a written apprenticeship contract.

In all, 44.2 per cent of the written apprenticeship contract documents were solely signed by the apprentices themselves while 51.9 per cent were signed by either the parents or guardians of the apprentices. Nearly 4 per cent of the contracts were approved by the autographs of both the apprentice and his parent or guardian. As permissive as the apprenticeship system has been, the study revealed that 63.9 % of the apprentices are made to sign a written contract that binds both the apprentice and the master. This obviously minimizes the informality that has over the years characterized the apprenticeship system. In effect by signing that contracts it becomes legally binding the parties involved deliver on their mandate. Again, relating those who sign the contract to the category who pay to get trained, nearly 70% of those who make cash payments in order to gain entry into apprenticeship system are also those who have written contracts with their masters.

Regarding the amount of commitment fees paid according to the various trades, it was clear that mechanics records the highest average whereas hairdressing recording the lowest. On the average, an apprentice learning any of the four trade types pays GH¢ 65.20 as commitment fee with a standard deviation of GH¢ 5.3. This differed for the various trades. For instance a trade like tailoring paid GH¢63.1; hairdressing paid GH¢ 60.4; whereas mechanics and carpentry, paid GH¢ 76.2 and GH¢61.3 respectively.

As noted earlier, quite apart from the commitment fees paid, other entry requirements or term of engagement for apprentices also included presenting a tool box to the master apprentice and surety in the form of a parent's pledge towards ensuring a continuous and uninterrupted training of their wards. Table 3 depicts the type of surety accepted by entrepreneurs and their frequency of use by the various trade types.

**Table 3 Trade learnt by their entry requirement or terms of engagement**

Trade learnt	Entry requirement		Total
	Tool box	Surety in the form of parent	
Tailoring	39	6	45
Hairdressing	42	3	45
Mechanics	39	2	41
Carpentry	42	3	45
Total	162	14	176

Source: Field Survey, 2012

Evidently modernisation and formalization of the apprenticeship system has the tendency to gradually erode the socialization dimension of the informal apprenticeship system that once existed. The above observations notwithstanding close to 29 per cent of the entrepreneur do not take any fees from some of their apprentices due to factors such as the inability of the apprentice and the family to pay, a case where the apprentice happens to be a member of the master's family, and or a relations of a very close friends. Although some might argue that the fees charged can possible exclude others from entry from the perspective of both the entrepreneur and the apprentices, without these fees some masters will have to shut down as these fees serve as an important form of working capital and are used for the procurement of raw materials, purchase of equipment, investing in the venture as well as for acquiring training related materials.

The study further showed that the fee charged was dependent on a number of factors such as the duration of the apprentice's training, the ability to pay on the part of the apprentice, and the going market rate for that particular trade as depicted by Table 3. As important as the other factors were in the determination of the how much to charge, a good many of the masters in their determination of apprenticeship fees considered the ability of the apprentice to pay.

**Table 4 The determinants of an apprenticeship fees.**

Factor	Frequency	Per cent
Duration of apprenticeship and fees demanded by other masters	15	7.4
Fees demanded by other masters (going rate)	28	13.9
Relationship to the parents of apprentice, ability to pay	55	27.2
Fees fixed by master	22	10.9
The apprentice's ability to pay	59	29.2
The demand for apprenticeship training	23	11.4
<b>Total</b>	<b>202</b>	<b>100.0</b>

Source: Field Survey, 2012

### Training and methods of skill transfer

Apprenticeship training like any other system of skill transfer is an art hence how skilful the master is and the effectiveness of the approaches used in the skill transfer obviously determines the quality of the apprentice likely to be produced. The apprentices (93.9%) confirmed that they were directly learning the trade from their masters. In few other cases however, the apprentices were either learning the trade from journeymen, senior apprentices or all of them. A journeyman is a graduate apprentice who works with his master and gets paid for his service. Table 5 provide a breakdown of the responses received from apprentices regarding who taught them the trade and the method of skill acquisition respectively.

A good many (56.9 per cent) of the apprentices learn the trade from their trainers at their workplace by observing, doing and following instructions from their trainers. Apprentices learned either by observing the master as he goes about his daily routines, by being obedient, observing and following instructions given by the master, through effort on the part of the master to consciously demonstrate or yet others through learn by doing. Yet as noted by authors such as Abban and Quarshie (1993) and Frazer (2006), apprentice training although not formally written out is clearly divided and spread out over period of training and divided into modules of a sort. Some masters also encouraged their apprentices to take part in additional classes organised by other formal apprenticeship or vocational training centres in that particular trade they were learning.

**Table 5 Skill acquisition method**

Skill acquisition method	Frequency	Per cent (%)
Observing	17	8.4
Learning by doing	3	1.5
Following instructions while working	2	1.0
Through demonstration	1	0.5
External classes from training centre and others	2	1.0
Observing and Following instructions while working	62	30.7
Observing, learning by doing, following instructions	115	56.9
<b>Total</b>	<b>202</b>	<b>100.0</b>

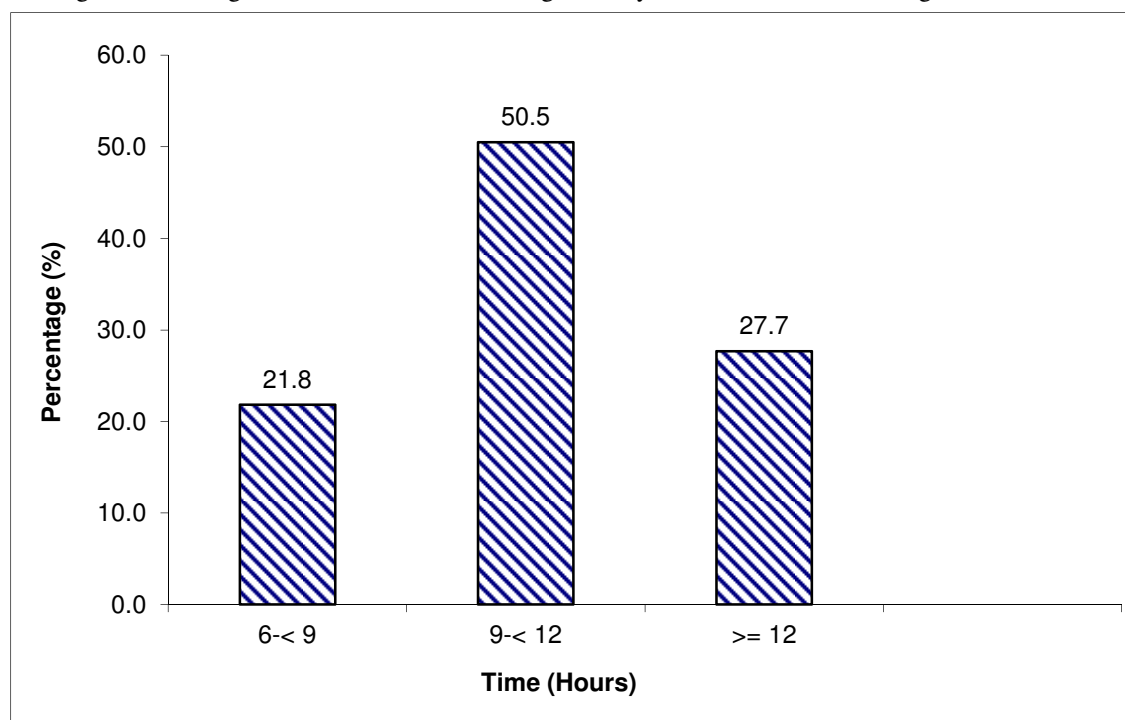
Source: Field Survey, 2012

The fact that apprentices train by observing also confirms the point made by Johanson and Adams (2004) that skills transfer occurs mainly by watching and imitating the master. This has not changed much over time. The level of contentment of the apprentices in terms of how they perceived the training methods was also assessed. The outcome of this assessment was as follows: 55.0 per cent of the trainees mentioned that the training and instructions they were receiving was very useful and also of very good quality while 30.7 per cent of them felt it was good. Nearly 14 per cent mentioned that the quality and usefulness of the training was satisfactory. Only one respondent (0.5%) felt the quality of the training and instructions he was receiving was not so good and that it was not useful.

### Hours of training received and duration of training of an apprentice

On the matter of how much time an apprentice spent with the master learning the trade a day, the study revealed the following. The average apprentice spent 8.6 hours with a standard deviation of 0.24hours at their place of work each day. Figure 4 below shows the distribution of the length of time (in hours) spent at the workplace each day. A follow up question to ascertain how satisfied apprentices were in terms of the quality of training time they

received from their trainers, 91.1 per cent of the apprentices said they were satisfied. A total of 4.0 per cent of respondents felt it was too short while 4.5 per cent of them felt it was too long. For those not satisfied their reasons were pivoted on the *laissez faire* approach to training where majority of them learn by observing the master, listening and following instructions instead of having a clearly written outline for training.



**Figure 4 Hours of training received by an apprentice per day**

Closely linked to how much time the trainer spent in the process of skill transfer and the one who gave the training is the total length of the training period. As at the time of the study, 95.5 per cent of the participants in this survey had been in apprenticeship from the year 2002 to 2007 (about 5 years). The remaining 4.5 per cent had spent nine years or less (1992- 2001) in their training. Meanwhile, the average expected duration of all the apprenticeships was 3.03 years with a standard deviation of 0.20 years.

On the whole, about 76 per cent of all the apprentices in the various trades are supposed to spend between three and four years with their masters as apprentices as seen in Table 6. This notwithstanding, apprentices learning trades such as mechanics and carpentry spent much longer time compared to trades such as tailoring and hairdressing. This also varies from one apprentice to another. An observant apprentice is likely to learn a trade much faster. Comparing the formal vocational training system, which takes three years to graduate students with the informal apprenticeship system, it is evident that it takes much longer time for an individual to train under the apprenticeship system perhaps due to the unstructured nature of the mode of training.

**Table 6 Average duration (in months) spent by an apprentice learning a trade**

Types of trades	Average duration (years) spent by an apprenticeship learning a trade					Total
	<1 year	1 year	2 years	3 years	4 years	
Tailoring	1	1	6	30	2	40
Hairdressing	0	1	13	22	1	37
Mechanics	0	1	1	29	4	35
Carpentry	0	1	0	31	3	35
Total	1(0.6%)	4(2.7%)	20(14%)	112(76%)	10(6.7%)	147

Source: Field Survey, 2012

### Sustenance and support systems for apprentices

Another key area the research sought to explore was how the apprentices obtained sustenance and the support systems during their training. This was investigated mainly using their sources of income and living expenditure patterns on items such as daily meals, clothing, utility bills, and cost of commuting to work from home among others. A total of 76.2 per cent of the trainees received monetary payments from their masters during their period of training. The minimum daily amount ever received as at the time of the study was ₵ 0.20Ghp and the maximum was GH₵ 6.00.

On the average, a trainee received an amount of GH₵ 1.80 with a standard deviation of GH₵ 0.22 as a daily wage. This means that on a normal working day, an apprentice received a minimum of amount of GH₵ 1.70 to a highest of GH₵ 1.90 after work. Unfortunately, this payment was not regular from the perspective of 28.7 per cent of the apprentices. In all, 66.7 per cent of the trainees used the regular payments they received to pay for their living expenses. Notwithstanding how paltry the amount was 4.6 per cent of them saved theirs while the remaining 28.7 per cent did both (they saved a part of their money and spent the rest on living expenses).

Apprentices financed the cost of their daily meal through the support they received from their parents or relatives, their masters, or had to depend on a boyfriend or girlfriend for support. In some cases in addition to learning the trade an apprentice had to devise a way of eking out a living. Arranging these different means of sustenance in order of importance, it is still evident that there is a huge dependence of apprentices on their parents during this period of skill acquisition. For one thing these parents had to pay their fees and provide their daily bread.

This obviously makes sense in that if these apprentices have chosen a career in the formal educational sector, they would still have received some support even beyond the three years post-secondary education. Again one can still relate to the existence of the social support systems in many parts of Africa where children leave home mostly after they have established themselves in life or have married. Also worthy of note are the numbers that support themselves. However they do it, there is the high possibility that it might at some point interfere with their time devoted to training. These individuals at some point might need some support since state support of a sort exists for those who choose careers in the formal educational system. Table 7 gives the detailed distribution of the issue.

**Table 7 Means of Funding Apprentice's Daily Meals**

Means	Frequency	Per cent
Parents or relative	140	70.0
Master	16	8.0
Apprentice himself	42	21.0
Others-Husband, boyfriend	2	1.0
Total	200	100.0

Source: Field Survey, 2012

Relating the above to the types of trades an apprentice was learning it was realized that 86.3 per cent of those who studied tailoring depend on their parents and relatives. A good many apprentices (84.6%) training as hairdressers also depending heavily on parents. A total of 36.0 per cent of apprentices who learnt a trade as mechanics and 30.6 per cent who studied carpentry were likely to fend for themselves. The plausible reasons are that unlike hairdressing and tailoring where the client deals directly with the master, clients of mechanics often have to move to the shop and wait upon the mechanic until the car is serviced. A hardworking apprentice noticed by the client at times gets tips. There are also few others who also sell scraps and rejected auto part to others who need them. The carpenters on the other hand are able to make certain basic products to sell thus getting some money to buy food.

The major sources of funding for an apprentice's clothing were apprentices' parents or relatives and apprentices themselves. Whilst more than half of apprentices (52.5%) depended on their parents or relatives for clothing 40.6 per cent of them raised money themselves to pay for clothing. Although in some cases the masters of the apprentices' or their boyfriends and girlfriends assisted them the figure was rather small to be that significant. Relating this finding to the type of trade an apprentice learnt, as before 62.0 per cent of mechanics and 51.0 per cent of carpenters in this survey financed their own clothes.



Analysis of the monthly amount spent on transportation by apprentices was compared. The mean or average amount spent on transportation by the various types of trade yielded an average of ₵8.55 Ghana cedis per month. A comparative analysis of the amounts paid by the different trade types depicted that apprentices learning a trade as mechanics averagely spent GH₵11.75 per month whereas those engaged in tailoring pay the smallest amount of GH₵ 7.25 per month on the average. The reason for this pattern is not farfetched as the different space requirement for the different types of trades informs their spatial distribution or geographical location. Trades such as tailoring, hair dressing can easily be integrated into residential space thus making them home based. The space required by mechanics and the negative externalities that characterizes their work however requires that they often locate outside the residential area.

### How qualified apprentices settle in and ply their acquired trade

Certification of apprentice after completion of training

The study also found that as many as 61.0 per cent of entrepreneurs issue out certificates of a sort to their apprentices after they have completed their training. Further probe revealed that less than half of masters (42 per cent) have had their apprentices take certification examination of a sort that will qualify them to enter the formal educational stream. An analysis along the different trade types shows that trades such as tailoring and hairdressing have over 50 per cent of their apprentices taken oral and practical certification examination after their training. Conversely a total of 59 per cent of apprentices training as mechanics have never taken such examinations. The situation is worst for those training as carpentry since well over 78 per cent of their past apprentices have never taken certification examination. Although the case of the mechanics and the carpenters still reflects the traditional way of doing things in the informal apprenticeship system, that of the hairdressers and tailors evidently reflect a departure from what has been seen as the norm.

### Requirement for the completion of apprenticeship training

It was interesting to know the set of parameters that are used in determining when an apprentice is due for graduation. Among the severally identified modes of assessment or requirements for completion of apprenticeship training, evidence of skills acquired, was the most preferred and applied. As many as over 50 per cent of all the masters assessed their apprentices for graduation using this mode. Passing an examination is actually the least of the requirements with less than 2 per cent of master resorting to it. The parameters and the importance attached to them are as shown in Table 8.

**Table 8 Criteria for graduating apprentices after training**

Requirements	Frequency	Per cent
Complete the apprenticeship period, evidence of skills, fees	51	25.2
Evidence of skills acquisition and money/fees paid in full	19	9.4
Evidence of skill acquisition	119	59.0
Pass an exam, evidence of skill acquisition	13	6.4
Total	200	100

Source: Field Survey, 2012

### Plans of apprentices after completion of apprenticeship training

As a gauge for measuring the relevance of the skilled acquired by apprentices and their willingness to utilize these skills, the future plans of the apprentices were examined. The two most dominant plans of the apprentices which also accounted for over 60 per cent of the collated views of apprentices interviewed was one of staying in the same enterprise for a while and then starting their own enterprise later. The next most important plan was that of starting their enterprise immediately after graduation. Whilst the former forms 31 per cent of collated views of the apprentices, the latter accounts for 36 per cent of same.

The two dominant plans cited above are common to all the types of trade. The major plan of apprentices engaged in tailoring and hairdressing is to start their own enterprise immediately after completion. This plan is shared by 38 and 44 per cent respectively of the former and latter. In the case of mechanics, 42.9 per cent of apprentices have the plan of staying in the same enterprise for a while and start their own enterprise later. How quickly an apprentice set up after training is contingent on factors such availability of land, inputs required which also dependent on the availability of start-up capital among others.

Comparatively tailoring and hairdressing have less space requirement and can even be home based. Again capital out of which good will for land can be paid; equipment; just to mention but a few makes it necessary that a graduate apprentice serves as a journeyman at least for a while a period of which he or she accumulates the capital needed to set up.

### Payment of graduation fees

On the average, an apprentice paid GH¢60.68 as a graduation fee which is a requirement for graduation for some entrepreneurs. Apprentices engaged in mechanics pay a relatively higher amount. They paid an average amount of GH¢72.79. The lowest amount of graduation fee was paid by those in tailoring and this was closely followed by hairdressing. Apprentices in these trades paid an average amount of GH¢ 47.22 and GH¢ 60.0 respectively as graduation fees. Table 9 presents for comparison the mean graduation fees charged by masters for the various types of trades.

**Table 9 Type of trade by average amount paid as graduation fee**

Type of trade	Average amount paid as graduation fee (GH¢)	Standard deviation
Tailoring	47.22	5.45
Hairdressing	60.00	5.11
Mechanics	72.79	5.67
Carpentry	62.00	5.24

Source: Field Survey, 2012

### FINDINGS AND POLICY RECOMMENDATIONS

The study set out to investigate the following about the apprenticeship system in Ghana in the fast changing economy: the entry requirements; terms of engagement; fees paid, what determines the fees and mode of payment; methods of skill transfer and training; hours of training and duration of training; sustenance and support systems; and what qualified apprentices do after their acquired trade and the major challenges that confront the system.

The apprenticeship system has survived over the years in spite of all the modernization and formalization of the educational and skill transfer systems in the country by past and present governments. Although marginalised with the inception of formal education, its role and contribution to human resource development has been enormous. As the study shows, it has become an important alternative path for approximately 33% who drop out of Junior High School after enrolling and the other estimated 42% who drop out of the formal educational system after they have successfully completed Junior High School education. This evidences the increased patronage of the informal apprenticeship system.

#### Current transformation taking place in the apprenticeship system

In the area of entry requirements, not much has changed since age, educational background; ethnicity among others is still no barriers to entry. What however has changed is how early individuals enter the training programmes. Whereas in the past, training began during an individual's adolescence now many will-be apprentices prefer to have some basic level education before entering a trade. Thus the average age of an apprentice has gone up to almost 22 years. This is obviously different from what other authors have said in the past.

Again the perception once held that the apprenticeship system was just a part of the socialization process in Ghana might perhaps also be giving way to a new thinking. The reason is not farfetched in that as it is characteristic of many social processes, contracts and terms of engagement was mostly verbally done in the past. The study however showed that both apprentices and their masters prefer to have a written contract that binds both parties involved. In as much as an improvement in the systems for documentation has made contract writing come handy, many now view the apprenticeship training as a major career alternative to that acquired through formal education. A contract thus signed binds the apprentice and the trainer to complete the course just as a student in the formal educational system formally applies for admission and sign a written contract to undergo an academic training for a specified period.

#### Challenges of the apprenticeship system in Ghana

Relative to formal education the informal; apprenticeship system is rather affordable, comparing how much a toddler now pays to get admitted into crèche to the GH¢ 60.0 now paid as commitment fees. Although this might still appear high for some individuals it is clear that the masters are duly aware of this hence ability to pay is the most important criteria used in the determination of the entry fees charged. This however has implications for the operations of the enterprise in that the money raised from these apprentices is what goes to pay for the day to day running of the business.

It was also observed that the masters themselves offer training to the apprentices under their care. Yet there was no structured approach to the training. In as much as learning by doing creates a relaxed learning environment, the lack of consistency in the teaching and learning approaches means that it might be difficult somehow to compare two apprentices who have graduated from the same trade but trained by two different masters. It is therefore not surprising that most masters have not bothered about putting their graduates through examinations.

The role parents play in supporting their children and their wards through the period of training is remarkable. This notwithstanding, there are still individuals who are struggling to make ends meet. This has implications for their training and in the long term the nation will have to bear the brunt if these individuals drop out. This is coupled with the fact that many apprentices are desirous of plying their trade after graduation but dread their inability to raise the start-up capital. In the wake of such financial difficulty, the sustainability of the system can be threatened.

In conclusion, the Ghanaian society is changing yet the apprenticeship system is not at pace with the dynamism with which the systems are changing. The institutional dynamics are also slow. If the gains of the informal apprenticeship system will continuously benefit the nation and the individual actors, conscious effort must be made by all stakeholders to address the many bottlenecks to the growth and development of the apprenticeship system. Other key areas that need attention in connection with the informal apprenticeship system in Ghana are how to sustain this skill transfer process and the implications the activities of the apprenticeship system have on the management of urban spaces. These two critical areas provide fertile grounds for further research in the area of apprenticeship training.

To address the matter of how loose the system of skill transfer is currently, it should be possible for a two part training programme to be designed such that all masters will be required through their associations to give the apprentices theoretical insight into the many practical things they do. For this to be effective, a general but basic curriculum for each trade can be developed. Based on this curriculum, the master craftsmen themselves can be given theoretical training in their respective areas and have their pedagogical skills honed without replacing the informal nature of their skill transfer process, which in itself promote a relaxed yet an effective learning environment. The benefits of this will include standardisation of the training methods and certification.

Given the role the apprenticeship system plays in the development of the nation's human resources, there should be a policy on how to support the system. Without advocating for state control, it should be possible for instance to train the master craftsmen in modern and efficient ways of plying their trade or business concept development. This will make it easy to regulate the system to increase efficiency and productivity. In addition to this, for their contribution to human resource development, the master craftsmen and their graduates can be given start-up capital and basic fees paid them based on the number of apprentices trained.

The government currently supports secondary education with some subsidies and some fortunate individuals get funding to study at the senior high schools. Without arguing for the impossible, if a fund of a sort was created from which needy individuals can access for support during their training it will prove rather useful. The reason is that as many as are not able to continue from the Junior High School, the apprenticeship system have been their backbone. Overlooking such numbers will mean ignoring a good proportion of close to five million youths who constitutes Ghana's human resource base but drop out of the formal educational system from 2003 to 2010.

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