

MALAWI CONGRESS OF TRADE UNIONS (MCTU)



RESEARCH STUDY

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1. Introduction

This study assessed the skills gap among youth and women working in the construction sector. Much attention was in the informal economy mainly because of its complexity and the mainly challenges that exists in it.

The construction sector in Malawi employs not less than 4.3% of the total labour force in the informal economy, and it contributes a round 4.9% towards the GDP (African Economic Outlook 2016). Indeed the construction industry in Malawi is in its infancy stage when compared to other African countries like South Africa, Kenya and Ethiopia. However, with the booming of construction projects across the country many workers are finding their way into the construction industry as casual workers. The nature of the construction projects in Malawi encourage informality as most of the ground workers are employed without employment contracts and worse they are not placed on any type of social protection.

According to Building Union an affiliate of Malawi Congress of Trade Unions (MCTU), many ground workers in the construction industry do not have formal qualifications, however there is technical evidence that they perform much better than those with formal qualification. On the other hand in 2017, employers (construction site Managers and supervisors) registered complaints with National Construction Industry Council (NCIC) and MCTU that working with informal workers especially those with no formal qualification is a challenge mainly in terms of technical communication.

Indeed, workers in the informal economy have challenges to access skill development opportunities not only because of financial constraints but also time and the mode of communication in technical training institutions in Malawi. It is undeniable that the nature of the informal economy has limited the opportunity for both youth and women to escape poverty traps in Malawi.

2. Study background

Vocational and technical skills development is among the key strategic goals for the government of Malawi, in achieving sustainable economic growth and development (Vision 2020). In 2015 the President of Malawi HE Peter Muthalika launched community technical colleges, which trains youth and women in various vocational and technical skills. It was estimated that about 11 community colleges will be constructed across Malawi. This initiative is an indication of how the government of Malawi is prioritizing skills development for the socio-economic transformation of this country. The commitment by the government is also very visible

in the 202017/18 national budget where K69.9 billion has been allocated to the construction of infrastructure and K 38.7 billion to the education sector.

Indeed, various activities have been implemented in Malawi to develop and increase skills that are relevant to the socio-economic development of this country. Despite government's efforts to supply relevant skills on the market, issues of skills mismatch are common in key economic sectors, including construction, manufacturing, mining, transport, and even tourism.

The TEVETA training systems has also invested heavily in skills development in both the formal and informal economy. However the system has delivered services with little relation between training opportunities and the needs of the informal economy and limited understanding of the practical and entrepreneurial skills required in the informal economy (Ching'ani, 2017, June). The education system in Malawi has also excluded socially and economically disadvantaged and vulnerable workers from the informal economy. Most vocational training courses in Malawi are in English and take not less than 3 months to complete, making it hard for informal workers to attend.

The construction industry through the National Construction Industry Council (NCIC) has registered its concerns with TEVET training institutions, MCTU and other stakeholders regarding low levels and poor vocational and technical skills among construction workers, especially among youths and women in the informal economy. The construction industry has also shifted the blame to construction workers particularly labourers regarding substandard services and product delivery to clients (Banda, 2017, June).

It is against this background that MCTU together with social partners and other key stakeholders aim to contribute towards reshaping the Tevet system, by taking an active part in the vocational and entrepreneurial skills development. For instance advocating for customized training programs for informal workers, and linking employers, workers and training institutions so that relevant skills are developed for the industry.

3. Objectives of the study

- To identify vocational and educational skills currently in demand in the informal economy (Construction sector).
- To uncover skills deficit in TEVET supply of vocational and educational training in the informal economy- (Construction sector).

- To identify the skills gap particularly among youth and women in the informal economy-(Construction sector).

4. Literature Review

4.1. Introduction

The literature review will discuss the status of the construction industry in Malawi in relation to youth, women and the informal economy. It will also look at some of the training programmes offered by TEVETA and some challenges that informal workers face in general.

4.1.2. Construction sector

The term construction is broad and it means different things in different contexts, however according to (www.wikipedia.org) construction refers to the process of constructing a building or infrastructures. Construction starts with planning, designing, and financing and continues until the project is built and ready for use. The construction sector in Malawi has many players including clients, contractors, designers, planners, quantity surveyors, land surveyors, materials suppliers, as well as the National Construction Industry Council (NCIC) (Ching'ani, 2017; European Retail Property School, 2014).

4.1.3. Informal economy

Among the characteristics of the informal economy, the common one is its nature of having diverse set of economic activities, enterprises, jobs, and workers that are not regulated or protected by the state (MCTU Informal Strategic Plan, 2017). Informal employment refers to jobs that are outside the framework of regulations either because (a) the enterprises, in which the jobs are located, are too small and/or not registered, or (b) labour legislation does not specifically cover or is not applied to atypical jobs (such as casual, part-time, temporary or home-based jobs) or to subcontracting arrangements in production chains (such as industrial outwork), so that the jobs (and, therefore, their incumbents) are left out from the scope of labour legislation implementation.

4.1.4. Youth and Women

According to the youth policy of Malawi (2013), youth refers to all persons from the age of 10 to 35 years regardless of their sex, race, education, culture, religion, economic, marital, and physical status. In this regard, the word "youth" and "young people" will be used interchangeably. A woman in Malawi is regarded as any female

person who is above the age of 18 years old, regardless of their race, education, culture, and religion, economic, marital, and physical status.

4.2. The status of the construction industry in Malawi

In Malawi like in any other countries, the construction industry plays a major role in socio economic development. The industry makes direct contribution to economic growth just like all other sectors (Banda, 2017, June). It also provides the basis upon which the other sectors can grow, by constructing the physical facilities required for the production and distribution of goods and services. The industry has great employment-generation potential as labour-intensive technologies are economically viable for most items of construction work. The construction industry in Malawi employs a large percentage of the labour force which is not recorded especially in the informal economy.

This industry mostly creates short term and temporary employments with poor working conditions. The nature of most construction jobs especially for those in the informal economy present few opportunities in relation to skills development, as wages are calculated against numbers of days or hours, making it hard to spare time for other activities. This situation in the industry has prevented many youth and women to upgrade their skills for decent employment. Currently the construction industry struggle to find or employ well qualified workers especially at implementation stage.

It is undeniable that in most rural part of Malawi we have substandard infrastructure in terms of roads, residential and no residential buildings and bridges and most contractors blame workers for the substandard projects.

4.3. Key challenges in the construction industry

Globalization has redefined how infrastructure development is taking place in Malawi. This situation has created demand for high quality construction projects that are delivered on time and within planned budget (Banda, 2017, June). In Malawi contractors and consultants are facing challenges which includes but not limited to the following;

- ❖ Unfavorable operating environment,
- ❖ Poor management,
- ❖ Lack of planning,
- ❖ Lack of adequate technical skills to competently execute the works.
- ❖ Poor quality of construction materials.

4.4. TEVETA and the construction industry

The Technical, Entrepreneurial and Vocational Education and Training (TEVET) Authority is a regulatory body that was established in 1999 by an Act of Parliament to promote and regulate sustainable provision of quality technical, entrepreneurial and vocational education and training for the Malawian workforce in a socially responsible manner. The TEVETA system supplies a variety of skills that are relevant to the key sectors of the economy including the construction industry. TEVAT training institutions are strategic organizations in the economic development of Malawi, hence they have been commended by both the public and private organizations regarding their training courses that feed directly in the various sectors of the economy. It is encouraging to note that the TEVETA system does not only deliver services in the formal economy but also in the informal. This approach has helped disadvantaged group especially those in the informal economy, to access and benefit from trainings that continuously build and improve their technical, entrepreneurial, and vocational capacity.

In the construction industry TEVETA system has designed and supply relevant trades that strongly contribute to the growth and development of the industry. For instance in the construction sector TEVET training institutions trains human resource in the following areas (www.teveta.mw)

Courses offered in the construction sector

Table 1.

Trade	Components at level 1
Bricklaying	<ul style="list-style-type: none"> • Clearing site and excavation (digging foundation and drain trench) • Placing concrete (placing hard core and casting concrete) • Manufacturing wall units (bricks /blocks) (Moulding bricks, burning bricks, casting concrete paving slabs and moulding cement blocks) • Constructing brick and block walls (electing a wall, laying damp proof membrane and fixing reinforcements) • Making platforms (placing platform boards) • Finishing surface (plastering brick and block walls, flooring surfaces, pointing walls and tiling wall/floor surface)
Plumbing	<ul style="list-style-type: none"> • Ensuring safety at work • Protecting the environment • Inspecting site • Joining components (soft soldering, reverting/bolting and adhesive bonding components) • Performing sheet metal work • Fixing domestic appliances (Threading the pipes and fixing domestic appliances)

	<ul style="list-style-type: none"> • Constructing drainage systems (excavating drainage trenches, installing draining pipes and clearing blockages)
Painting and decoration	<ul style="list-style-type: none"> • Preparing a surface for painting (pre-treating surface, priming surface and undercoating substances) • Applying finishing coat (applying finishing coat, and applying a specialized architectural coating) • Producing paint (dispersing, testing and tinting paint) • Storing paint • Glazing glass • Producing vinyl signs • Performing screen printing
Carpentry	
Electrical installation and electronics	<ul style="list-style-type: none"> • Installing circuits (Electrical safety procedures, installing circuits, protecting cable and testing circuits) • Installing small transformers • Marinating installations • Repairing appliances • Distributing power • Fixing solar home circuits • Lubricating machines

To qualify for a place to study any of the trades in TEVET training institutions, it is required that a prospective student should have passed Malawi School Certificate for Education (MSCE). This selection criterion has allowed Tevet training institutions to recruit capable students that are able to perform and successfully complete various trades.

However this criterion has also excluded disadvantaged groups who have not pursued education up to form 4 level to obtain MSCE. In addition the informal economy accommodates a high number of school drop outs especially youth and women, hence they are closed out from accessing formal trainings in the Tevet training institutions. The system has on the other hand encouraged informal apprenticeships which accommodate the less or not educated group.

In the informal economy the TEVET system has designed, what is called the Informal Sector Skills Development Programme. The Programme aims at improving the standards of technical and entrepreneurial skills of people living and working in the informal sector. As much as the initiative is a good one, it has not delivered the expected results particularly in the construction sector, as majority of informal workers still suffers from low levels of education and poor technical and vocation skills associated to their occupation. Informal workers especially youth and women in the construction industry have accumulated vast experience, however issues of quality and standard work still remains a greatest concern.

4.5. Neglected skills

Below are skills that the industry feels technical training institutions in Malawi under the Tevet system are not producing enough includes (Ching'ani, 2017, June):

- Steel Fixing
- Water Proofing
- Derbigum
- Gamazenith
- Geocoat
- Epoxy Flooring

4.6. Conclusion

There is an evident gap between the supply of skills, competencies and knowledge and those being demanded by the public and private sectors. This gap has undermined quality and standard of infrastructures being planted across the country. Not only that but it has also highly contributed to high levels of unemployment in Malawi and informality in Malawi.

5. Methodology

5.1. Research Design

The study was guided by the constructivist paradigm, an approach that speaks of understanding the world as others experience it (Wagner et al., 2012). This study employed a qualitative research strategy in order to collect reliable and credible data (Bryman, 2016). Data was collected from respondents working in the construction industry by applying phenomenology. This research design attempts to understand people's perceptions, perspectives and understandings of particular situations.

5.2. Data collection techniques

Three data collection techniques were employed;

5.2.1. Primary data

➤ *Semi-structured Interviews*; A total of 19 individual interviews were conducted with 12 foremen from 12 construction sites, 3 trade union representative from, Malawi Union for the Informal Sector (MUFIS), Building Union and MCTU, 3 instructors from 3 TEVET technical training institutions and 1 representative from the National Construction Industry Council (NCIC).

The interviews were conducted in semi urban areas of Mzuzu, Lilongwe and Blantyre; however the coverage of the data collection exercise depended on

the researcher's decision which was guided by convenience and availability of respondents.

- *Focus group discussions*; 6 focus group discussions were conducted with 6 construction companies, 2 from each region. These FGDs were conducted on construction sites where both informal and formal workers were involved. Each FGDs comprised of 6 participants 3 females and 3 males, this set up allowed the researcher to collect diverse views from respondents.

The data collection exercise was sensitive to gender hence views presented in this study is a fair representation of all groups of workers.

5.2.1. Secondary data

- *Official documents and workshops*; books, articles and TEVETA documents talking to the construction industry were analysed. In addition various workshop regarding informal economy, TEVETA and Construction industry were attended, these workshops afforded the researcher to gather relevant information for this study.

5.3. Sampling strategy

Purposive sampling method was used to identify 73 research respondents for the study.

5.4. Data analysis

Thematic technique was used to analyse the data. The researcher identified themes and patterns in the data collected, of course applicable to the study (Wagner et al., 2012).

5.5. Credibility and Trust-Worthy of the study

The study used different data collection tools, a system that allowed the researcher to check and validate the data collected by each tool. Secondly the study used five research assistants, including 2 from Malawi Union for the informal economy and 1 from Building Union and 2 from other unions. This set up allowed the study to collect reliable and trustworthy data as one set of data could be easily compared to another.

5.6. Limitations of the research

This study was conducted in a short period of time which presented various challenges for the researchers, for instance 4 weeks for data collection was very little time for the researchers to establish excellent rapport with various participants for reliable and credible data. The study followed the constructivism paradigm and the

sample size used was not representative hence the findings are limited to the study area.

5.7. Ethical Consideration

The study adhered to all ethical consideration that the social science research recommends. Firstly the researcher clearly explained the purpose of the study and assured no harm to its participants in any way. The study also obtained informed consent from its participants before interviews. Privacy was also assured to its participants and equally important participants had the right and opportunity to withdraw from the study at any stage of the research (Bryman, 2016).

6. Data presentation

6.2. Introduction

The interview questions were semi-structured. The following were the guiding questions for the whole data collection exercise;

- What are some of the most demanded skills in the construction industry?
- What are the challenges that informal workers face in the construction industry?
- What training programs does TEVET provide for the construction industry?

6.3. Thematic issues

6.4. Individual Interviews with foremen

The following are the key issues that came out from interviews with foremen from various construction sites in the three regions.

6.4.1. The concept of construction

“Construction is a broad term and very unstable when it comes to defining it” *one foremen explained*. The theoretical definition of the term does not reflect how loaded the term is, as compared to when it comes to the actual construction on the ground he added. For instance construction means anything that is concerned with infrastructure development i.e. mapping and setting out, site clearing, constructing a building, roads and bridges, plumbing, roofing, carpentry, electrical installation, painting, fixing ceiling boards and tiles, painting, and decollations. Almost all foremen

agreed that construction is a collective activity that contributes towards erecting a structure, meaning that various trades have to work together towards the completion of a structure for instance a building. The foremen classified construction into; (1) Residential, (2) Non-residential, (3) Roads and bridges. In general foremen agreed that there is no trade that is more important than the other; however they confirmed that other skills are very hard to get than others.

6.4.2. Common construction skills in the informal economy

The skills that are common in the informal economy especially among youth and women, are those that are also common in the rural areas, one foreman linked the two. He added that most skills found in the informal economy are those that are easy to learn and practice. These skills do not require much theoretical background. Majority of the foremen agreed that it's the people from the informal economy who are building or construction Malawi. The table below summarize the common skills as identified by foremen;

Table 3

Common trades in the informal economy
<ul style="list-style-type: none"> ❖ Bricklaying ❖ Painting ❖ Plumbing ❖ Carpentry ❖ Welding

6.4.3. Critical skills in the construction industry

The following skills were identified:

Table 4

Critical skills
<ul style="list-style-type: none"> ❖ Selection of construction material ❖ Translating plan into actual project ❖ Steel fixing ❖ Carpentry ❖ Refrigeration and electrical installation

6.4.4. Skills gap in the construction industry in the informal economy

Youth and women in the construction industry particularly in the informal economy lack various skills, one respondent indicated. In addition, other respondents said that there are some skills that are difficult to get in the construction sector and worse among workers in the informal economy. However these skills are not also easy to get in the formal economy for instance;

Table 5

Difficult trades	Skills gaps
<ul style="list-style-type: none"> ❖ Steel and tile fixing ❖ Electrical installation ❖ Setting and measurements ❖ Mapping out ❖ Land surveying ❖ Refrigeration ❖ Terrazzo 	<ul style="list-style-type: none"> ❖ Lack technical skills ❖ Logical thinking ❖ Measurements ❖ Cement and sand mixing ❖ Blundering ❖ Difficult to understand instructions ❖ General construction rules ❖ Finishing i.e. making a sharp corner in a building

6.4.5. Why are these skills and trades difficult to get

All the foremen agreed that the indicated trades, demands a level of theoretical background which is commonly obtain in a classroom setting. One foreman indicated that these trades are difficult to get in the informal economy because few people are practicing these trades in the rural areas. In addition these trades demand logical thinking and a level of knowledge in occupation, health, and safety (OSH), which requires intensive training.

6.4.6. Trade union representatives

6.4.7. Concept of construction

Construction range from erecting a structure to maintenance and rehabilitation of old structures.

6.4.8. Key skills in the construction industry

- ❖ Roofing
- ❖ Carpentry
- ❖ Bricklaying
- ❖ Welding
- ❖ Electrical installations
- ❖ Painting

The respondents also agreed that there is no skill or skills that are more relevant than the other, rather these skills complement each other towards a specific job outcome.

6.4.9. Skills gap in the construction industry in the informal economy

Trade union representatives indicated similar skills as identified by foremen, however they believed that a critical gap among youth and women falls on the theoretical background especially in the various trades of their specialization. In addition one respondent said shortcuts among informal workers is very common and this compromising the quality of the service delivered.

6.4.10. How to address skills gap in the informal economy

One of the respondent said training is a key solution to the gaps in the informal economy. However respondents disagreed on how the training should be delivered, one respondent said intensive training is required, while others preferred short and context based trainings. Despite the disagreements they all thought trade unions have a key role to play in the construction industry, by designing training activities that should address skills gap in the industry but targeting union members.

6.5. National Construction Industry Council (NCIC)

6.5.1. Concept of construction

Construction is broad and involves a lot of activities from structure design/paper work to translating the plan into a living structure like a building. The respondent added that rehabilitation of buildings and roads for instance also falls with construction.

6.5.2. Relevant skills in the construction industry

The respondent made it clear that each trade in the industry comes with various skills that contribute towards a quality product. He further added that there is no skill that is more relevant than the other only that every skill has its place in the construction phases and needed at different times, for instance in setting out and measurements requires different skills compared to finishing, which involves painting and decollations among others.

6.5.3. Rare skills in the construction industry

The respondents identified the following;

- ❖ Plant operators
- ❖ Surveyors
- ❖ Interior decoration

- ❖ Plumbing –lack theoretical back up

The respondent also stressed that sometimes informal workers get instructions on particular exercises while without really knowing why they have to do it, he laughed.

6.5.4. How to address skills gaps

The respondent suggested;

- ❖ Teaming up with Tevet training institutions offer long and short courses to informal workers.
- ❖ Best language for delivering modules for unskilled workers need to be identified.

6.6. Technical Colleges Trainers

6.6.1. Concept of construction

Construction is a combination of trades and these trades complement each other throughout the construction project, the technical college trainers agreed. However, one trainer added that its starts from conception of an idea (designing of a structure) to translating the idea into a physical structure.

6.6.2. Trades offered by TEVET training institutions

TEVET system offers the following trades

- ❖ Bricklaying
- ❖ Carpentry
- ❖ Plumbing
- ❖ Electrical and refrigeration
- ❖ Painting and decoration
- ❖ Carpentry

The respondents however indicated strong dissatisfaction with the TEVET system. They believed that the coming of TEVETA has distorted the construction industry. One of the respondent added that TEVET system is very colourful but on the ground it is not doing anything. For instance the current assessment system for students has destroyed the quality of education. Respondents agreed that with TEVETA system students study to pass exams rather than gain the needed knowledge and experience. They explained that majority of the technocrats behind the TEVET system lack the necessary skills in the trades offered by technical schools, for instance how do you expect some one with an agricultural background to supervise the construction department, and he laughed.

6.6.3. Scares Skills in the construction industry

The respondents believed that the question of scarce skills on the ground, foremen were better placed to answer. However they listed the following as some of the difficult skills to find in informal workers;

- ❖ Wall decoration
- ❖ Landscaping
- ❖ Mortar mixing
- ❖ Surface preparation and filling
- ❖ Majority lacks theoretical background to their various trades, for instance a bricklayer may not understand why they need space between blocks

6.6.4. How to address gaps in the informal economy

The trainers agreed that the only way is through trainings and workshops that should train informal workers on basic principles of construction including theoretical background to each and every activity on the construction site. They need to be taught measurements and all technical terms and their meaning in the construction industry. However these instructors acknowledged that, informal workers have built many buildings in towns and communities. Informal workers have vast experience and very fast when it comes to construction a structure, the only weakness is with little or no supervision from qualified foremen quality of the structure is mostly compromised.

6.7. Focus Group Discussions with formal and informal workers

12 FGDs were conducted in the three regions of Malawi, 3 per region and each FGDs comprised of 6 participants (3 women and 3 Men). Below is the presentation of the data that was collected.

6.7.1. Concept of construction

The concept was defined differently from one FGDs to another, however all definitions narrowed down to an activity that leads into constructing a physical structure, for instance buildings, roads and bridges. However more than half of the respondents added that construction involves more than building structures like, painting, decoration, designing a structure, translation of the plan into a physical structure, landscaping and even rehabilitation of old buildings.

6.7.2. Common skills in the construction sectors in the informal economy

The following were the skills that respondents thought are very common in the informal economy;

- ❖ Bricklaying
- ❖ Roofing
- ❖ Carpentry
- ❖ Welding
- ❖ Electrical installations
- ❖ Painting
- ❖ Plumbing

It was noted that every skill that is found in the formal economy of the construction industry is also there in the informal economy. It was further agreed by the respondents that informal workers have more experience than those from training institutions. Half of the respondents said that most foremen started from the informal economy and through formal trainings they managed to obtain qualifications that have allowed them to get better contracts with employers.

About 60 % of the respondents said that even though these trades are common in the informal economy but those with excellent skills and ability to do good jobs are few. The reason given was that these trades need to be grounded on good theoretical background which is not available in local apprenticeship programs in the informal economy. 10 % of the respondents said that some trades though are there in the informal economy but have high risks for instance electrical, steel fixing, plant operators, and plumbing, which when recklessly done they can harm person involved or end user.

6.7.3. Skills gap among informal workers

All respondents indicated that all informal workers have one common problem, which is they lack theoretical background to each and every construction activity that they do. They also claimed that this situation also contributes to the low levels of logical thinking and challenges in understanding technical instructions among informal workers. 70% of the respondents also indicated that informal workers find it difficult to interpret and translate a construction drawing into a living structure like a house for instance. All respondents agreed that they also lack basic rules that guides construction activities for instance why, how and when do you prepare the surface for painting, mortar mixing and how to construct sharp and attractive corners. It was also noted that short cuts are very common among informal workers which mostly makes their work to be labelled as being not professional one respondent said.

90% of the respondents indicated steel fixing, wall and floor finishing with terrazzo, roofing, tiles fixing, electrical installation and building setting out including excavating the foundation needs a close supervision by well-qualified foremen if quality job is to be done by informal workers.

6.7.4. Difficult skills to get in the informal economy

The following are the skills that came out;

- ❖ Steel fixing
- ❖ Tire fixing
- ❖ Translating construction plans onto the ground
- ❖ Finishing esp. wall and floor finishing with terrazzo
- ❖ Drawing construction plans

Respondents claimed that these skills are difficult to get in the informal economy, because they are not normally practiced in rural areas, where most of the traditional apprentices happen. It was also found, that most of the above skills require good theoretical and technical background which is difficult to get in the informal economy settings.

6.7.5. How to address the gaps

Trainings on specific skill targeting particular trades in the construction industry was the general comment from all the respondents. It was also noted that 40% of the respondents indicated development of customized training targeting informal workers can be very key towards addressing the gaps in the industry. It was also agreed that there is a need of active involvement by other stakeholders like trade unions, contractors, TEVET technical colleges and National Construction Industry Council and researchers to come up with evidence based action plans that should target addressing the identified gaps in the industry. However some respondents noted that the training courses should pay serious attention to the emerging developments especially the technological aspect in the construction industry.

7. Discussion of findings

7.1. Introduction

This section will discuss the findings of the study. The discussion will take into consideration the literature gathered, data collected and the researcher's voice.

7.1.1. The construction sector in Malawi

Construction is very broad and defined differently in different contexts. In the informal economy it is understood in terms of the various trades and their activities taking place on the construction sites, for instance building, painting, electrical installation, plumbing, tile fixing, roofing among others.

In the formal economy, construction refers to a systematic process ranging from conception of an idea, designing and planning, costing a structure, up to the actual translation of the plan into a physical structure. Construction also involves rehabilitation and maintenance of structures especially old ones (European Retail Property School, 2014).

The nature of construction demands different types of labour in different phases, however for the case of Malawi the construction phase accommodate many informal workers compared to the other phases, because of two main reasons (Ching'ani, 201, June, MCTU Strategic Plan, 2017)

- ❖ Other phases and level demands professionals/experts who have undergone intensive training on a particular job hence closing out informal workers.
- ❖ Cheap labour, usually informal workers are cheap as majority do not have proper or the required education and in addition because the sector (informal economy) is not highly regulated hence giving much freedom to employers in terms of employment contracts.

In 2016 the construction sector contributed around 4.9% towards the total GDP of Malawi from about 2.4% in 2010. The sector is booming with more jobs on the market, however it has failed to create decent jobs for all, since majority of the youth and women are employed in the informal economy.

In general, workers in the Informal economy have limited opportunities to access capacity development activities. For instance all respondents (informal economy) for this study indicated that they have never received any type of training in relation to a specific trade or occupation that they perform.

Working conditions in the informal economy do not allow workers to access capacity development activities or trainings as;

- ❖ Wages are calculated per hour or day, which means days off work equal a reduction in total wages.

It should also be noted that most training courses in construction industry are delivered in English and demand a minimum period of not less than 2 months. This

system alone disadvantage informal workers as they have to choose between wages and certificates.

- ❖ Affordability, on average a construction worker from the informal economy receives a total of k45, 000.00 about 60 USD per month. This amount is not enough to cater for basic needs of a family including transport to and from work.

Education including trainings in Malawi are expensive, for instance services centres are not usually located close to residential areas hence demanding transport on top of unaffordable tuition and administration fees. This situation also side line youth and women who their average income is very low to cater for basic needs including education and short courses.

No wonder the construction industry in Malawi is flooded with skills mismatch and unskilled labour, and according to one foreman;

“There is a time on construction site, where 80% of total labour force has never received any formal training in relation to what they do”

The growing numbers of informal workers with no education background on a particular trade of their focus is disadvantaging the industry. Recently Malawi has seen poor and substandard construction works being constructed in most parts of Malawi and contractors have claimed that the labour market does not produce quality and relevant skills that are highly needed on the construction site.

7.1.2. TEVETA and the construction industry

The government of Malawi has established various institutions that supply various technical skills in various economic sectors, including the construction industry. However it is sad to note that the available government institutions fails to supply adequate skills for the construction sector, as a result Malawi has seen a rise in private technical schools that exists to help fill the gap in the short supply of these skills.

To ensure that quality and high standard technical skills are offered by all technical colleges, the government of Malawi established a regulatory body called the Technical, Entrepreneurial and Vocational Education and Training Authority (TEVETA).

7.1.3. Skills supplied by TEVET training Institutions in the construction industry.

The TEVET system through both private and public training institutions supply various relevant skills in the construction industry and these include but not limited to the following;

Table 6

<ol style="list-style-type: none"> 1. Bricklaying 2. Plumbing 3. Painting and decoration 	<ol style="list-style-type: none"> 4. Carpentry 5. Electrical wiring and installation 6. Welding 7. Refrigeration
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It is undeniable that the TEVET system has greatly contributed to the socio-economic development of this country through the supply of key skills in various sectors. In addition the system is inclusive as it services both formal and informal economy. In the informal economy it has designed programmes that build the capacity of youths including women with various technical, entrepreneurial vocational skills.

Skills Development Initiative (SDI) established in 2000, is one of the common programs for the informal economy. This program provides outreach trainings to the youth through traditional apprenticeship scheme. So far the program has trained and graduated 3,500 people in different occupational fields including carpentry and bricklaying. In addition realizing that youths are the future leaders and labour force for tomorrow, TEVETA attaches them within their communities on infrastructural development projects. This system has also allowed youth and women to receive on the Job training which gives them an added advantage as they graduate with some level of practical job experience, so far about 300 youths have been trained.

Despite all the efforts, the construction industry still suffers from inadequate and well qualified human resources. In the informal economy its worse as majority of them have not received any formal trainings in relation to their occupation. Majority have known the job through traditional apprentices which do not provide any theoretical background to their occupation for instance bricklaying or plumbing.

7.1.4. Skills not supplied by TEVET training institutions

The following are some of the construction skills that are not supplied by TEVET training institutions. However it should be noted that with the new technologies, the industry is demanding new and sophisticated skills that are not even locally found and mostly they are imported from other advanced countries including South Africa and Kenya. Below are some of the skills not supplied by TEVET training institutions and yet they are in high demand;

- ❖ Waterproofing Epoxy flooring
- ❖ Geocoat
- ❖ Derbigum
- ❖ Gamazenith

7.1.5. Skills gap in the construction industry in the informal economy

In as far as the construction industry is concerned there are numerous skills that are in short supply especially from the informal economy in the construction phase. However, it is very important to note that some of the TEVET training institutions offer these skills, but the requirements to qualify for the trainings, is far beyond the capacity of informal workers. According to some respondents;

“All skills available in the formal economy are also there in the informal, only that quality of the job done may differ. For instance when you compare jobs done by two different workers but with similar experience, you may note that job done by a worker form the formal economy is mostly of high standard and excellent quality than that from the informal economy”.

Mostly informal workers lack theoretical background in their area of specialization for instance bricklaying or steel fixing.

7.1.6. Trades and skills in short supply from the informal economy in the construction industry

70 % of the respondents agreed that informal economy workers especially youth and women lack various skills that are critical to the industry. In addition it was noted that there are some skills that are available in the informal economy but very difficult to get. It has also been discovered that some of the skill not available in the informal economy, are also very difficult to get in the formal economy.

This study has also found out that Informal economy workers fall short heavily on theoretical background of a particular trade or occupation that they specialize in, as a result informal workers are known for the following;

- ❖ Low levels of logical thinking, including inability to understand simple construction instructions especially from foremen and also fails to interpret technical drawings into a living structure i.e. a house
- ❖ Doing shortcuts in the course of doing their jobs and this mentality has contributed to poor and substandard jobs done by informal workers.

Below is the combination of scarce skills in the informal economy and in high demand:

Table 8

Scarce skills in the informal economy

- | | |
|---|--|
| 1. Steel fixing | 2. Waterproofing |
| 3. Derbigum | 4. Gamazenith |
| 5. Geocoat | 6. Tile fixing |
| 7. Plant operators | 8. Refrigeration |
| 9. Epoxy flooring | 10. Electrical installation |
| 11. Land surveying | 12. Refrigeration |
| 13. Setting out and measurements | 14. Blundering |
| 15. Selection of construction materials | 16. Wall finishing with terrazzo |
| 17. Logical thinking | 18. Translation of plans onto the ground |

7.1.7. Why are these skills scarce or difficult to get?

It was noted, that the above mention skills demands a level of theoretical background, which is commonly obtained from a classroom setting. This set up makes it very difficult for informal workers to access and afford due to limited resources include availability of time. In addition these skills are not available or commonly practiced in the rural areas of Malawi, making them difficult or not possible to be transferred through traditional apprenticeships.

7.2. How to address the skills gap in the informal economy

To address skills gap in the construction industry especially among youth and women in the informal economy, it is important to consider the following;

7.2.1. Trainings

There is a need for short and long term trainings targeting informal workers. In this case TEVET training institutions and others should design trainings that should pay attention to the complexity attached to informal workers for instance in terms of mode of communication as majority are illiterate.

7.2.2. Workshops

Conduct workshops which should target informal workers and brainstorming steps to be taken to address their skills gap should be a must, since each group may require different strategies.

7.2.3. On-Job trainings

On job trainings which should target informal workers, however before these trainings, there should be a situation analysis of a construction site. So that trainings are designed to address the skills gap for those informal workers on a particular site.

7.3. Recommendations

This section will propose strategies that may help to address skills gap in the construction industry, particularly among youth and women working in the informal economy.

However before the proposed strategies, it is very important to appreciate that the only difference between informal and formal workers is that, formal workers unlike informal workers have theoretical background to their area of specialization which is mostly obtained from a classroom set up. In addition all the trades offered by TEVET technical training institutions are all available in the informal economy and the only difference is that informal workers do not have any certificates to prove their abilities. It therefore is against this assertion that this study proposes the following;

7.3.1. MCTU and other stakeholders should design customized short courses

Informal workers in the construction industry do not have adequate theoretical background and foundation of their respective occupations. Therefore it is very important that short customized courses are designed for informal workers especially to on the theoretical foundation of the various occupations for instance carpentry, bricklaying, plumbing, and steel fixing among others. These courses should at least take a minimum of one to two weeks and also best language for delivering the training should be identified since majority are illiterate.

The courses should also be in a position to offer or train informal workers on basic rules in the construction industry including but not limited to the following;

- ❖ Basic construction calculations
- ❖ Identification of construction materials
- ❖ Construction language for easy communication
- ❖ Team playing and conflict management
- ❖ How to read drawings and possibly how to translate onto the ground

Teaching informal workers about basic construction rules and theoretical foundation is one of the best ways of improving quality of services and filling skills gap in the construction industry especially among youth and women in the informal economy.

7.3.2. On Job Trainings

Considering the nature and the working conditions attached to the informal economy, on job trainings can be the best option. The on job trainings will need to learn from recommendation 7.3.1., in this case what to be taught should be context specific hence paying attention to specific skills gap on a site. The content of the on job trainings will need to be informed by a situation analysis that should identify the skills gap and best language for a particular target group. This approach will avoid the one size fits all approach that has failed numerous development projects.

It should be a must therefore that only well-qualified trainer, or peers who have vast practical and theoretical background of a particular occupation, should be recruited to deliver the on job trainings. In addition the identified trainer should be confirmed by TEVETA, so that quality output is assured.

7.3.3. Partnership among stakeholders

MCTU, ECAM, TEVETA, NCIC, and MABUCATA and other stakeholders should dialogue so that TEVETA start to offer short and on job trainings targeting informal workers. In this case either a certificate or any form of recognition paper should be given to those who have participated and completed the courses or on job trainings.

Once, informal workers are given certificates or become formally recognized as having attended any form of training related to their vocation, it might improve their public image, as the tradition is that informal workers have never received any level of formal education and mostly they are uneducated. It should be noted as well that these certificates may allow informal workers to secure formal jobs in the construction industry, as they will have evidence for their practical work experience and education background.

8. Conclusion

Informal workers especially youth and women in the construction industry lack theoretical foundation to their various occupation. This situation has disadvantaged them as the quality of work is mostly compromised and also they fail to negotiate for better working conditions as they do not have proper formal education certificates.

This study has recommended customized trainings which would then provide relevant skills and knowledge for employability of the youth and women in the informal economy.

In addition once the training participants have finished the training program, TEVETA should recognize and offer certificates confirming that a particular person has undergone a formal training on a specific trade. This strategy will increase chances for informal workers to be employed in decent employment.

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