



Significant Drivers of Labour-Only Subcontracting in Housing Delivery in Ghana

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Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

Article Information

DOI: 10.9734/CJAST/2023/v42i394252

Open Peer Review History:

This journal follows the Advanced Open Peer Review policy. Identity of the Reviewers, Editor(s) and additional Reviewers, peer review comments, different versions of the manuscript, comments of the editors, etc are available here: <https://www.sdiarticle5.com/review-history/107207>

Original Research Article

Received: 07/08/2023

Accepted: 12/10/2023

Published: 26/10/2023

ABSTRACT

World Bank (1984) for instance defined the domestic labour subcontracting DLS as a union of activities that leads to the construction of buildings at relatively low-cost. This study was conducted to explore the role of labour-only subcontracting in the housing delivery in Ghana and the factors that drive this system, Tamale Metropolis was the research area. The significant of this study is to help the government, clients, contractors and other stake holders in the building industry appreciate how the use of labour-only subcontracting can improve the supply of housing in the Ghanaian building industry. Descriptive survey design with quantitative methods was utilized. The researcher used purposive sampling technique to sample 190 individual house owners whiles census technique was adopted to use the 42 estate developers in the Metropolis for the study. Two separate

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questionnaires were used which was a 5-point likert scale to gather data to address the research question. The instruments were pilot tested and the reliability coefficients were estimated to be .893 and .843 for the individual house owners and estate developers respectively. The statistical tools adopted for the analysis of the research question were means and standard deviations, frequencies and percentages for the demographic data. Independent sample t-test tool was used to determine whether there was any statistically significant difference between the estate developers and the individual house owners sampled in relation to the drivers of labour-only subcontracting. The data analyzed showed that there was no statically significant difference between the two groups. The findings of the study showed that an increase in productivity, quality and cooperation, highly flexibility and convenience and lack of ready funds/cash were identified as the major drivers of the labour-only subcontracting. It is recommended that the necessary policies be implemented to create training centers in the country with proper regulatory measures to ensure that the youth build much more skills to meet modern requirements.

Keywords: Labour-only subcontracting; policies; training; main contractors; independent sample t-test.

1. INTRODUCTION

Labour-only activities in the construction sector for a very long time have contributed significantly to the production of infrastructure particularly in the housing industry in many countries. Labour subcontracting is therefore an important means when it comes to housing delivery [1,2]. Also, according to Maslow [3] cited by Saul-McCleod (2018) posited that shelter is a basic necessity for human inhabitation. It is for this reason that the housing sector is known to be one of the most essential determinants of the economic and social wellbeing of people. It plays a key role in the lives of people as the provision of shelter has become an inherent basic necessity of man [4]. The role, so therefore, played by labour-only subcontracting in the delivery of housing cannot be overlook as it is considered to be a major stake holder in the informal construction sector.

There is a philosophical believe that productivity is influenced by adequate and a well-planned decent housing [5,6-8]. To this end, it is unambiguous that the formal sector alone cannot employ the required human resource to provide housing in order to meet the rising demand of the population without the informal sector participation through labour-subcontracting [9,10,11,12]. These activities have also resulted in an overwhelming employment of many youth groups in the building construction sector. Awuah-Nyamekye [13] opined that the growth of the activities in the sector in the 1980s was twice that of the formal sector employment however, by the 1990s, the labour-base employment had gone up by five and half times that of the formal sector. Kheni [14] opined that construction activities are mainly labour intensive thus need a

lot of individuals with diverse dexterities to propel the growth of the sector. Akoto [15] supported this by indicating that the sector over the years has experienced massive number of people educated and non-educated, skilled and non-skilled individuals moving into the industry. This emerging trend in recent years in the industry must be a concern to the major players including the government [16].

1.1 Problem Statement

According to the findings by Nkechi and Lambon-Quayefio, [17] the formal method of construction has over the years appears to be very expensive for which reason many clients in the building industry are unable to afford the cost. Wells (2007) also asserted that issues with respect to productivity, quality assurance, convenience and among other factors remain a big challenge in the formal system of construction. These constraints affect the smooth performance of the industry hence stampeding quality and sustainable housing to meet the demand of the population [16]. Following this, the Ministry of Water Resources, Works and Housing declared that Ghana needs effective systems to ensure an annual housing production of 170,000 units so as to deal with its housing deficit of 1.7 million (MWWH, 2018). Hence, to ensure a smooth/successive delivery of building projects in the country, attention has to be extended to what is called Labour-only subcontracting (LOS) activities by way of identifying the drivers, and challenges to the practice and finding solutions to address these constraints for its smooth running. It is therefore the reason why the study sought to explore the drivers of labour only subcontracting in Ghana.

1.2 Aim and Objective of the Study

The aim of the study is to explore the use of labour-only subcontracting in housing delivery and develop a conceptual framework to facilitate its adoption in the building industry in Ghana. To achieve this aim, the following objective was pursued:

- To identify drivers of labour-only subcontracting practice in housing delivery in Ghana
- To find the significant difference between house owners and estate developers based on the drivers of labour only subcontracting in Ghana

1.3 Research Question

What are the drivers of labour-only subcontracting in the housing delivery in Ghana? Is there any significant difference between individual house owners and estate developers based on the drivers of labour only subcontracting in Ghana?

2. LITERATURE REVIEW

2.1 Definitions of Labour-only Subcontracting

The informal sector according to UNCHS [18] defined it as contract between two or more parties which is often verbal and the contract process normally starts and continues in stages without any legal engagements. The traditional certain and the socio-cultural practices in Ghana perfectly matches with these informal construction activities. This is because the people of Ghana for long have always been engaged in communal type of constructional works where people within a particular locality would normally mobilize to build for another person in need while the owner only provides the materials. These activities mostly are predominant in the rural communities in the country and the practice has been a Stone Age phenomenon before the coming of the formal sector. One of the distinct characteristics between the formal and the informal sector is that with the formal sector, activities are well regulated whereas the informal sector they are not. This is strongly supported by the definition advanced by Farrell et al. [19] that the informal sector is categorised into two parts that is "behavioural and definitional" in the definitional, the informal sector is full of activities that are usually not recorded in the national statistics like

the national gross domestic product (NGDP), while on the part of the behavioural approach, the activities are completely informal and do not directly conform with the national rules and regulations on labour.

Subcontracting activities in Ghana ranges from maintenance, special installations, repairs and the construction of new houses, this style of construction was referred to as domestic construction by Hindle [20]. It is also asserted as self-assisted activities undertaken by family labour or self-employed artisans where a group of individuals are usually contacted by a leader to undertake all or part of a building work normally with the necessary materials fully administered by the client/contractor.

Furthermore, labour-only subcontracting can also be defined as a situation whereby an individual or a group of labours are contracted and assigned specific tasks on behalf of a company or a contractor. Similarly, subcontracting is usually an arrangement made between managers or a company and a group of individuals/labours/artisans to undertake a given task within a specific time (this is mostly done in relatively shorter time) compared to contracts works done in the formal sector. Pagani [21] looked into subcontracting and defined the practice as a theory with two distinct characteristics involving substitution and subordination. Pagani elaborated that substitution refers to the provision of materials and money as well takes charge of all technical and financial implications in the course of operations. While on the other hand, subordination is the person physically performing the work as instructed. client or owner who is responsible for the In these types of engagements, there should always at all times be a cordial relationship between the contractor/client and the persons undertaking the operations [22]. Again Wells (2007) indicated that in Arusa-Tanzania, participants who attended the first meeting of CIB Task Group 29 in relation to labour in the informal construction sector defined it as *"Unregulated and unprotected individuals and enterprises engaged in economic activities in the construction industry including the supply of labour and production of building materials and components of both the informal construction sector and directly in response to client needs"*

2.2 Underpinning Theory of the Study

Since the introduction of the labour-only subcontracting concept at the 87th session of the

International Labour Organisation (ILO) conference in 1999, the main concern of the ILO was to promote and expand decent jobs in both the formal and the informal sector [23]. During the conference, key participants and stake holders recommended that more attention be given the casual workers in the informal sector especially the construction industry to make it solidly relevant in the 21st century [23]. Decent work according to ILO [24] refers to equal opportunities within a sound environment where workers can deliver satisfactorily in “conditions of freedom, equality, security and human dignity”. The main aim of decent work for all is to make available jobs that are of high quality and are executed for the following reasons; “socio-economic security, universal respect for fundamental principles, rights at work and a very conducive social dialogue [24,25,26], (Fields, 2003).

Dignity is the main focal point of every working environment that brings happiness and productivity [27,28,29,30]. This philosophical underpinning was stressed by ILO (2000) in a report presented by the Director-General to the 89th session of the international labour organization stating that everywhere and for everyone, decent work is about attaining human dignity in the working environment”. Equal treatment and decent work for all has been strongly stated in the ILO declaration. This seeks to create freedom and dignity, economic security, and some level of opportunities for every worker in the construction industry [28]. As labour-only subcontracting begins to attain a global recognition it is essential to ensure decency for all workers as this is the surest way of accomplishing a mutual well-being and economic development of the individual worker [30]. Guichard [28] emphasized that to have a decent work for all, four dimensions need to be considered; “freedom, equity, security and dignity”.

Decency in the working environment has been given a maximum attention and recognition and has been welcomed extensively by the International Development Organizations (IDO) in recent pass [17]. The sustainable development goals consider work decency as part of the goals which addresses the challenges of workers in the developing countries [31]. A declaration by the United Nations Development Programme (UNDP) stated that human capacity building concerns with expanding the freedoms that encloses everyone in one conducive

environment. According to UNDP [32] the philosophical underpinning of freedom of workers presents two stigmatic areas which include freedom of well-being which has to do with one’s capacities and freedom of audience that concerns with one’s voice of autonomy. In all these the human capacity building is paramount to any other segment of a human being. This has been strongly presented in the Sen’s theory of capabilities and performance now known as freedoms (Sechnbruch, 2015). The performance underpinning theory is a major component in the development of a worker’s capacity towards making him or her viable operative in the construction environment [33].

Canvassing for human development theory is key in getting people realising their full potentials and become productive in society. Nassbaum [33] posited that, abilities of a person are not just seen in him but also has to do with the freedoms associated with it. According to Sehnbruch et al. (2015) the theory of human capacity building originates from the ILO literature presentation three decades ago.

Availability of findings led to the understanding and measurement of the accuracy of human development. According to Burchell et al. [34] accurate measurement depends on a well-defined data. The authors added that this is achieved when the type of labour is well-defined and classified. This definition comes when these various components known as; the individual worker’s interest, the job itself, regulatory procedure of the labour market are properly instituted [35].

2.3 The Construction Industry in Ghana

For Ghana’s construction sector to remain robust and competitive there is the need for all industry players in general to initiate a strategic and a sustainable plan in order to boost the sector. According to Ahamed et al. [36] buildings can be evaluated to satisfy sustainability using the following indicators; minimizing environmental footprint of building structures relative to carbon dioxide, minimal use of resources such as gas, water and electricity, less wastage and expansion of recycling methods, ensure the comfort of building occupants considering their health and safety, manufacturing of ‘able to recycle’ products, harvesting of portable and non-portable water and renewing and treatment of fowl water. It must be understood that the concept of sustainability in relation to building

projects in order to enhance the activities of labour subcontracting be made part and parcel of the work of all building consultants, engineers, surveyors, designers, contractors/labour subcontractors.

An acceptable sustainable development in the construction industry can be simply put as “good working environmental conditions and a maximum energy reserve with 70% of the global population dwelling in clean cities and towns and, 97% of existing buildings stock using nearly zero energy, and not more than 5% of the existing buildings heated with fossil energy” (The World Business Council for Sustainable Development Vision 2050 project Nd). the goal set by the world Business Council for Sustainable Development (WBCSD) is perfectly in tandem with the Ghana Green Building Council’s vision (GHGBC) which outlines in its mission’s statement that “to transform the built environment in Ghana towards sustainability through the way our communities are planned, design, constructed maintained and operated”. All these cannot be achieved without the involvement of the labour-only subcontracting practice. This is very key in the transformation of the sector because the country’s economy is heavily supported by the construction industry through the provision of physical infrastructure and the continues engagement of young people into the labour force [31]. The construction industry makes a total contribution of 2.2 percent of the country’s employment [14]. Out of this, 67.2 percent constitutes the various artisans in the industry (Ghana Investment Promotion Centre-GIPC, 2006).

2.4 Drivers of Labour-only Subcontracting in Housing Delivery

In the construction industry labour is an important commodity hence, many contractors have relied on labour to keep their businesses running. Data available indicated that this form of employment is prevalent in the developing and developed countries (Wells, 2007). Notwithstanding, Wells continued to argue that this form of contracting is essential as it lessens community unemployment and creates a gap between the main contractor and the workers thereby reducing the magnitude of control from the main contractor and this obviously lessens the amount spent on keeping labours in the company.

- Wells (2007) stressed that the conditions under which labours are recruited and the

atmosphere created around this system of employment at sites, and the quantum of work undertaken by these people has a negative effect on the poverty eradication and their job security. Though in the midst of all these prevailing factors facing the system, it is still dominating when it comes to employment. Wells (2007) analysis from the national household in Brazil provided that, registered employees in the Brazilian construction industry dropped to 21% from 41% between the period of 1981 and 1999 whereas, casual workers appreciated from 57% to 75% the same period. With these records available, the sub-Saharan African society has not been left out of the equation as in Cape Town in South Africa (SA), studies showed that approximately all workers in the South African construction sites were casual workers or subcontracted [37]. Dutra and Filguiras (2020) suggest reasons why many companies prefer labour subcontracting instead of direct or permanent employment. Among these enabling factors include the following; overcome any collective actions, labour subcontracting system makes it quite too difficult for the individual workers who are usually under the control of different subcontractors to come together and take any unanimous or collective decision and build any uniform force. This means that whether workers are satisfied with certain treatment or not they are incapacitated from taking any action against management, because the method puts the employees far away from the company and makes them not feel part of the company structure. The casual workers come to the company in individual groups and so their prime aim is to satisfy their client in whatever way possible. Another issue is, it increases productivity: in subcontracting the authors suggest that workers are much interested in what they are given at the end of the day which keeps them from idleness this thinking alone serves as a motivating factor and this influences them to deliver to their best hence making them productive. This is an important indicator that prompts many contractors in the construction industry to consider the system instead.

- Again, subcontracting is considered a low-cost business: because paying of workers’ social security benefits is usually missing during the negotiations as discussed

earlier in this thesis. This in effect makes labour-only subcontracting business relatively cheaper to management. no long-term commitment: going in for a subcontract gives more flexibility than depending on permanent workers. Instead of keeping workers for long and paying them for no work done, temporal workers with unique expertise could be deployed to deliver it for a short time. Since the contractor at all times is not boarded about the issue of spending extra money to fulfil certain obligations such as payment of workers' retirement benefits, spending on injuries, extra time allowances and among others then it puts him or her in the comfort zone to break even. Institutions and/or companies become less effective in regulation simply because, the employer or company therein is not always directly involved in the recruitment of these individuals and so liabilities if any do not directly affect the company, hence the employer is free. However, this point raises serious arguments because liability in whatever form affect every structure of a company and thereby stampedes the smooth running of business hence reducing productivity and making the company less competitive. Stock (1996) wared into the argument that workers become liability to the entire company when there is no training to help employees understand and apply new technology.

- Flexibility is one of the key factors that enable subcontracting in Ghana's construction industry. Many contractors find this much more comfortable and simpler because it is far easier to recruit labours and also terminate their work without any dire consequences on the part of the contractor and/or the firm. Belcourt (2006) outlined financial expansion, easy access to quality service, easy access to specialities, new technology and Strategic focus as the major reasons why people or companies practice labour subcontracting.

3. MARERIALS AND METHODS

3.1 Research Design

For the purposes of this study, descriptive survey design was used to explore the research problem. This was used because the study was

intended to observe the situation as they occur naturally.

3.2 Participants

The population of the study involved the individual house owners who were either still building their houses or just finished building and moved in and the estate developers who live and work in the Metropolitan. The purposive sampling technique was adopted to sample 190 individual house owners for the study while census was the sample technique use for the 42 estate developers. Questionnaires were administered to the various respondents through a research team that was recruited and trained.

3.3 Source of Data/instruments

In order to achieve accuracy, the study relied on both primary and secondary data sources. With secondary data, the needed information was sourced from published journals, relevant books and other online information. Whiles the primary data were obtained through structured questionnaires submitted to the various respondents. Two structured questionnaire were used to collect data from both individual house owners and estate developers.

3.4 Data Collection Procedure

Before data was gathered from the estate developers and the selected individual house owners, the researcher received an approval and an introductory letter from the department of construction and wood Tecnology of Akenten Appiah-Menka University of Skills Training and Entrepreneurial Development-AAMUSTED. This together with the ethical clearance the researcher received made the data gathering quite easy. The researcher also recruited and trained 10 friends who were interested and willing to help in the identification and administration of the questionnaires to the right respondents.

3.5 Data Analysis

For the sake of accuracy, descriptive analysis which is meant for the mean value ranking was used to establish the factors. The cut of mean of the variables measuring the drivers was established to be 3.5. For that matter, any variable that obtained a mean of 3.5 and above was regarded as a factor. The variables were donated as; 1=insignificant, 2=less significant,

3=moderately significant, 4=significant and 5=very significant. The independent sample t-test was employed to establish whether there is any statistically significant difference between the individual house owners and the estate developers.

4. RESULTS

4.1 What are the Drivers of Labour-only Subcontracting in the Housing Delivery in Ghana?

As indicated in the Table. 1, the analysis of the responses revealed that all the items are significant drivers of labour-only subcontracting based on their various means and the corresponding standard deviations which are above 3.5 cut off point. Out of the 30 items on the scale, only 14 items were perceived as drivers of the LOS. Even though 14 of the items were regarded as drivers, among the 14 items,

there were some drivers which scored higher means and these items are; items 1,2,3, and 4 thus: (item 1) increase in productivity with the mean score of (M=4.48) and Standard Deviation of (SD= .82), (item 2) Technical know-how (M=4.13, SD=1.15), (item 3) It is flexible and convenient (M=4.04, SD=1.09) and (item 4) Poor competencies of permanent labours M=4.01 with a Standard Deviation SD of 1.09. This also means that, from items 15 to 30 were not considered as significant drivers of the LOS practice in Ghana according to the responses from the individual house owners.

It could then be inferred that increase in productivity, technical know-how, It is flexible and convenient and Poor competencies of permanent labours among others are the most significant drivers of the use of labour only Subcontracting (LOS) on the part of the individual house owners.

Table 1. Responses of individual house owners on the drivers of the use of labour-only Subcontracting (LOS)

| S/N. | Items | N | Mean | Std. Deviation | Interpretation |
|----------------------|---|------------|-------------|----------------|-----------------|
| 1 | Increase in productivity | 190 | 4.48 | .82 | Significant |
| 2 | Technical know how | 190 | 4.13 | 1.15 | Significant |
| 3 | It is flexible and convenient | 190 | 4.04 | 1.09 | Significant |
| 4 | Poor competencies of permanent labours | 190 | 4.01 | 1.09 | Significant |
| 5 | Service reliability | 190 | 3.97 | 1.15 | Significant |
| 6 | Risk avoidance | 190 | 3.81 | 1.30 | Significant |
| 7 | Quality and cooperation | 190 | 3.81 | 1.29 | Significant |
| 8 | Value for money | 190 | 3.68 | 1.24 | Significant |
| 9 | Trustworthiness | 190 | 3.68 | 1.34 | Significant |
| 10 | Job site cleanness during and after work | 190 | 3.67 | 1.33 | Significant |
| 11 | Reputation | 190 | 3.66 | 1.25 | Significant |
| 12 | Creativity and innovation | 190 | 3.63 | 1.25 | Significant |
| 13 | No vandalism | 190 | 3.57 | 1.40 | Significant |
| 14 | Construction techniques | 190 | 3.50 | 1.16 | Significant |
| 15 | Legal awareness and compliance | 190 | 3.47 | 1.30 | Not Significant |
| 16. | strict adherence to health and safety (HS) | 190 | 3.47 | 1.28 | Not Significant |
| 17. | Lack of ready funds/cash | 190 | 3.46 | 1.41 | Not Significant |
| 18. | Work is faster with this system | 190 | 3.45 | 1.38 | Not Significant |
| 19. | Labours hungry for work | 190 | 3.43 | 1.46 | Not Significant |
| 20. | More accessible | 190 | 3.43 | 1.10 | Not Significant |
| 21. | Main contractor's poor management ability | 190 | 3.42 | 1.22 | Not Significant |
| 22. | Specialty | 190 | 3.41 | 1.46 | Not Significant |
| 23. | No extract time payment | 190 | 3.40 | 1.47 | Not Significant |
| 24. | High prices of materials | 190 | 3.39 | 1.32 | Not Significant |
| 25. | Because payments are hourly | 190 | 3.32 | 1.35 | Not Significant |
| 26. | Evidence of project done | 190 | 3.27 | 1.42 | Not Significant |
| 27. | Minimal labour agitations | 190 | 3.27 | 1.42 | Not Significant |
| 28. | The clarity in estimated cost of contract | 190 | 3.26 | 1.33 | Not Significant |
| 29 | The use of environmentally friendly tools and equipment | 190 | 3.24 | 1.24 | Not Significant |
| 30. | High demand for the labour only activities | 190 | 3.14 | 1.39 | Not Significant |
| Mean of means | | 190 | 3.58 | 1.28 | Significant |

Source: field survey, (2023)

Table 2. Responses of Estate developers on the drivers of the use of labour only Subcontracting (LOS)

| Items | N | Mean | Std. Deviation | Interpretation |
|--|-----------|-------------|----------------|----------------|
| 1 Increase in productivity | 42 | 4.97 | .15 | Agreed |
| 2 Quality and cooperation | 42 | 4.88 | .50 | Agreed |
| 3 Lack of ready funds/cash | 42 | 4.83 | .43 | Agreed |
| 4 It is flexible and convenient | 42 | 4.69 | .78 | Agreed |
| 5 Reputation | 42 | 4.57 | 1.08 | Agreed |
| 6 Construction techniques | 42 | 4.45 | .86 | Agreed |
| 7 Service reliability | 42 | 4.35 | 1.14 | Agreed |
| 8 Value for money | 42 | 4.19 | 1.08 | Agreed |
| 9 Work is faster with this system | 42 | 4.00 | 1.03 | Agreed |
| 10 Trustworthiness | 42 | 3.92 | .74 | Agreed |
| 11 Risk avoidance | 42 | 3.90 | 1.16 | Agreed |
| 12 Strict adherence to health and safety (HS) | 42 | 3.88 | 1.23 | Agreed |
| 13 Minimal labour agitations | 42 | 3.85 | 1.31 | Agreed |
| 14 Poor competencies of permanent labours | 42 | 3.83 | 1.20 | Agreed |
| 15 No vandalism | 42 | 3.69 | 1.09 | Agreed |
| 16 More accessible | 42 | 3.69 | 1.02 | Agreed |
| 17 No extract time payment | 42 | 3.66 | 1.09 | Agreed |
| 18 Evidence of project done | 42 | 3.64 | 1.26 | Agreed |
| 19 High demand for the labour only activities | 42 | 3.61 | .98 | Agreed |
| 20 Technical know how | 42 | 3.61 | 1.10 | Agreed |
| 21 Creativity and innovation | 42 | 3.59 | 1.34 | Agreed |
| 22 Because payments are hourly | 42 | 3.52 | 1.08 | Agreed |
| 23 High prices of materials | 42 | 3.40 | 1.23 | Disagreed |
| 24 The use of environmentally friendly tools and Equipment | 42 | 3.38 | 1.26 | Disagreed |
| 25 Specialty | 42 | 3.50 | 1.46 | Disagreed |
| 26 Legal awareness and compliance | 42 | 3.19 | .83 | Disagreed |
| 27 Main contractor's poor management ability | 42 | 2.14 | 1.31 | Disagreed |
| 28 The clarity in estimated cost of contract | 42 | 1.78 | 1.33 | Disagreed |
| 29 Labours hungry for work | 42 | 1.71 | 1.31 | Disagreed |
| 30 Job site cleanness during and after work | 42 | 1.66 | 1.30 | Disagreed |
| Mean of means | 42 | 3.66 | 1.06 | Agreed |

Source: field survey, (2023)

From the analysis in Table 2 it could be observed that 22 items out of the 30 items obtained the cut off mean of 3.50 and above and these are items 1,2,3,4,5,6,7,8,9,10,11,12,13, 14,15,16,17,18,19, 20,21,22 which could then be considered as drivers to the use of labour- only subcontracting. Considering the mean of means of 3.66, the overall scale is an indication of significant drivers of labour-only subcontracting. Even though the respondents agreed to 22 items as drivers, based on the means and the standard deviation, Increase in productivity recorded (M=4.97, SD=.15), Quality and cooperation (M=4.88, SD=.50), Lack of ready funds/cash (M=4.83, SD=.43) and It is flexible and convenient (M=4.69,SD=.78) are considered as the most significant drivers among the rest of the items in the scale. However, the items with the serial numbers 23, 24, 25, 26, 27, 28, 29, and 30 deviated from the cut of mean of 3.5 and might not be considered as significant drivers of labour only subcontracting LOS.

On the part of the Estate developers, increase in productivity, Quality and cooperation, Lack of ready funds/cash as well as flexible and convenient are established as the most significant drivers of the use of labour-Only Subcontracting in Ghana.

4.2 Is there Any Significant Difference between Individual House Owners and Estate Developers Based on the Drivers of Labour Only Subcontracting in Ghana?

To find out whether significant difference exist between individual house owners and the estate developers, independent sample t-test was conducted to compare the responses of the individual house owners and estate developers in terms of the drivers of Labour-only subcontracting. Independent sample t-test was adopted for this analysis because; only two groups (individual house owners and estate developers) were involved in the study. The analysis are presented in Table. 3 below.

Table 3. Independent sample t-test on the Drivers of labour only subcontracting

| Participants | N | Mean | SD | Df | t-value | p-value |
|-------------------------|-----|---------|--------|--------|---------|---------|
| individual house owners | 190 | 104.332 | 15.663 | | | |
| Estate developers | 42 | 106.511 | 10.261 | 88.995 | -1.118 | .266 |

Source: field survey, (2023)

As indicated in Table. 3, the results established from the independent sample t-test performed to compare the individual house owners and the estate developers in the housing delivery in terms of the drivers of LOS in Ghana. The results from the analysis was $t(88.995) = -1.118$, $p=.266$. Since $p>0.05$, At a significant level of 0.05, the results disclosed that there was no statistically significant difference between individual house owners ($M=104.3$, $SD=15.6$) and Estate developers ($M=106.5$, $SD=10.2$) in terms of the significant drivers of the labour-only subcontracting (LOS) in Ghana. This implies that the respondents share similar views in terms of what actually drives the labour-only subcontracting in Ghana in relation to housing production.

5. DISCUSSION

It could be realized that several drivers of labour-only subcontracting in Ghana were established from the study conducted. Variables that obtained the highest mean score from the analysis would be discussed as factors in relation to the research questions. The factors that have been established from the results are discussed below.

5.1 Drivers of Labour -Only Subcontracting in Housing Delivery in Ghana

On the part of the responses of the individual house owners it was revealed that an increase in productivity was a very significant driver of labour-only subcontracting in the country. This implies that individual owners believe that desire to increase productivity at the work call for the adaptation of the labour-only subcontracting (LOS). This finding is in tandem with the work of Filguiras [38] who established that workers are much interested in what they are given at the end of the day which keeps them from idleness this thinking alone serves as a motivating factor and this influences them to deliver to their best hence making them productive. It is therefore based on this premise that an increase in productivity is an important indicator that prompts many

contractors in the building construction industry to consider the system instead.

The study also revealed that technical know-how derives labour only subcontracting in Ghana. This means that the skills possess by subcontractors influence the decision to hire the labour during the period of contraction. This finding is in line with the findings of Belcourt (2006) who outlined financial expansion, easy access to quality service, easy access to specialities; new technology and Strategic focus as the major reasons why people or companies practice labour subcontracting. In this sense, house owners in Ghana hire labour subcontractors when they require new technologies and strategies in dealing with contraction related issues.

Flexibility and convenience were also identified as a driver by the individual house owners and the estate developers who took part in the study. The results indicated that since labour-only subcontracting is quite flexible and convenient hence, individual house owners and estate developers preferred to go in for it as a better alternative. The finding of this study concurred with the findings of Amor-s et al. [39] findings who argued that labour-only subcontracting (LOS) is the most appropriate system for the construction industry in general as it is flexible in terms of managing and labour control. On this score, it could be maintained that the level of flexibility of labour-only subcontracting remains one of the driving forces for its adoption in the construction industry. Simizu and Cardoso [40] also indicated that labour only subcontracting comes with minimum commitment. In this sense, the level of commitment associated with labour-only subcontracting arouse the individual house owners' interest to always want to utilise the services of labour-only subcontracting. According to Wells (2001), labour-only subcontracting is flexible when it comes to recruiting these artisans in the construction industry because of this; many building contractors have found it easier and simple working and recruiting workers informally.

On the part of the estate developers, it was established also that quality and cooperation is a significant driver of labour-only subcontracting. This means, estate developers may prefer to hire the services of subcontractors when they demand quality and cooperation at work site. Dutra and Filgairas [38] who indicated that instead of keeping workers for long and paying them for no work done, temporal workers with unique expertise could be deployed to deliver it for a short time. The results obtained from the estate developers also indicated that lack of ready funds/cash drives the labour-only subcontracting business in Ghana [41-43]. This means that when estate developers lack ready funds to secure the services of the main contractors, they therefore go in for the subcontractors since payment there is moderate and flexible as indicated. This is in tandem with the assertion made by Dutra and Filgairas [38] who argued that since the contractor at all times is not boarded about the issue of spending extra money to fulfil certain obligations such as payment of workers' retirement benefits, spending on injuries, extra time allowances and among others then it puts him or her in the comfort zone to break even. In this score, estate developers always want to stay comfortable from the financial demands of the formal labour hence they rather prefare the services of the LOS.

6. CONCLUSION

It was concluded that since flexibility and convenience as well as quality and cooperation are considered as drivers to the use of labour only subcontracting, estate developers and individual house owners would prefer to hire the services of subcontractors. Finally, it was concluded that if measures are taken to address the issues surrounding the used of labour-only subcontracting, the smooth housing delivery would be enhanced while youth unemployment will also be reduced drastically across the country. It was also concluded that an increase in productivity couple with quality and cooperation are some of the major driving forces of labour only subcontracting in Ghana.

7. RECOMMENDATION

- To pave way for the labours to further enhance their expertise, the ministry of works and housing should formalize the labour-only subcontracting in Ghana for easy access to regular in-service training from experts. By this, training centers

should be made available in all the sixteen regions across the country to enroll the youth on these programs at no cost.

- It was also recommended based on the findings that since iincrease in productivity drives labour only subcontracting in Ghana, government ought to empower the subcontractors by way of in-service training to further enhance teir capacity.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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