



## Influence of Subcontracting Processes on Wages and Workloads in the Building Construction Industry in Nigeria

A. A. Akinwale<sup>1</sup> and O. A. Olusanya<sup>2</sup>

<sup>1</sup>&<sup>2</sup>Department of Employment Relations and Human Resource Management, School of Management Sciences, University of Lagos, Nigeria

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### Abstract

There is a paucity of information on the experience of subcontracted work despite the widespread use of subcontracting in the building construction industry. This study examined the influence of subcontracting processes on wages and workloads in the building construction industry in Nigeria. Data collection for the study was based on a cross-sectional research design with a survey research strategy, including a structured questionnaire and some key informant interviews. A sample of 908 subcontracted workers was randomly selected from 388 building construction sites in Lagos State, Nigeria. Data obtained from the structured questionnaire were subjected to descriptive statistics and regression analysis, while an ethnographic technique was used to analyze the data from the interviews. The regression results ( $\beta = -0.046$ ;  $p < 0.05$ ) showed that to some extent subcontracting processes significantly influenced workers' participation in wage determination; and that the regression results ( $\beta = -0.040$ ;  $p < 0.05$ ) revealed that to some extent subcontracting processes significantly influenced workers' participation in the determination of workloads in the building construction industry in Nigeria. Wages and workloads are inappropriate when the degree of influence of the subcontracting process on workers' participation in the determination of wages and workloads in the building construction industry is considered. These findings imply that working in a subcontracting system could promote the alienation of subcontracted workers from the determination of wages and workloads, thereby showing the need for adequate protection for the affected workers. Therefore, the subcontracted workers in Lagos state should strengthen their associations to achieve justice and decent work in the building construction industry.

**Keywords:** Building Construction; Subcontracted Workers; Wages; Workload.

### 1. Introduction

Subcontracting systems have gathered momentum in different parts of the world since the 19th Century. The available record shows that about 350 million people are directly involved in subcontracting systems across the world, and the number is growing at a fast rate in the cities (Biswas, Bhattacharya & Bhattacharya, 2017:669). Subcontracting was characterized by excess workload and minimum wages for the subcontractors in sweatshops (Goldstein, Linder, Norton & Ruckelshaus, 1999: 1057 Power, 2016:343; Robertson, Di, Brown & Dehejia, 2016:20). Subcontracting is entrenched in the building construction industry where the subcontractors supply the necessary skills and workers for construction work.

This is because the fragmented and specialized nature of construction work necessitates the engagement of different skills required at different times in the construction process (ILO, 2001:15). Thus, the subcontracting system and subcontractors have an important place in the construction industry (Enshassi, Choudhry, Mayer & Shoman, 2008:1520; Yoke-Lian, Hassim, Muniandy & Teik-Hua, 2012:442). Moreover, the highly segmented subcontracting structure in the construction industry serves as a buffer against risk, helps to reduce operating costs, secure competitive advantage and position for maximum profit (Antunes & Gonzalez, 2015:218; Kasapoğlu, 2018:49). This is so because subcontractors are often required to bid for jobs, and the contracting firm tends to select subcontractors with the lowest cost and acceptable quality.

<sup>2</sup> Corresponding Author.

Email address: [oaolusanya@unilag.edu.ng](mailto:oaolusanya@unilag.edu.ng)

In a subcontracting system, the main goal of workers is to gain access to standard employment and adequate income. Thus, the wage is at the centre of an employment relationship involving subcontractors and workers. Wage could also be linked to job satisfaction (Luthans, 2011:142; Aiyetan & Olotuah, 2006; Bamidele, 2011:241). Therefore, issues relating to wages are among the leading causes of conflict in the construction industry in Nigeria (Mitkusa & Mitkusa, 2014:784; Osabuohien & Ogunrinola, 2007:5,18). This assertion is indicative of the importance of wages in any employment relationship. The regulation of wages and other conditions of work in the Nigerian building construction industry is made by the National Joint Industrial Council (NJIC) whose membership comprises some employers' associations and trade unions (Ofili, 2004:41). The employers' association and trade unions in the NJIC include the Federation of Construction Industries (FOCI) and the Nigerian Union of Civil Engineering Construction, Furniture and Wood Workers (NUCECFWW). However, many workers in the building construction industry have been exposed to inadequate income.

Fagbenle, Ogunde and Owolabi (2011:251) found that the Nigerian construction industry is plagued by unfair wages, lack of motivation, and poor communication. These conditions could affect the organizational commitment and quality of jobs, thereby culminating in a threat to the security of lives and properties in the building construction projects. Indeed, a poorly paid labourer may constitute a threat to quality assurance in the building construction project.

This article examines the influence of subcontracting systems on wages and workloads in the building construction industry in Lagos State, Nigeria. Hence, the following research questions are put forward: What is the extent of workers' participation in the determination of workload for the subcontracted workers in the building construction projects in Lagos State, Nigeria? How are wages determined for the subcontracted workers in the building construction projects in the study area? The subject matter of the present article is presented in different sections starting from the abstract and introduction. The next section deals with a review of relevant studies on the determination of wages and workloads in the subcontracting systems. This is followed by methodology, results and discussion of findings. The conclusions and recommendations are presented in the final section.

## 2. Literature Review

### 2.1 *Determination of wages and workloads in the context of subcontracting*

Accumulated evidence in the literature shows that, among others, the issues of wages and workloads have become historically relevant in the explanation of the influence of subcontracting systems in different parts of the world. Subcontracting is an attractive choice for organizations seeking lower factor costs such as wages (Commission of the European Communities, 2009:32). Besides, subcontracting in building construction is a way in which organizations achieve reduced labour cost and

gain collective efficiency through cooperation in the areas of technology, production and marketing (Kongmanila & Takahashi, 2010:99). Nonetheless, Brown, Dearnorff and Stern (2004:283) stress the importance of providing workers with adequate wages to meet their basic needs. Grimshaw (2013:10) also argued that the strenuous conditions that characterize construction work make payment of wages above the statutory minimum an imperative.

Bosmans, Hardonk, De-Cuyper, Louckx, and Vanroelen (2016:13) revealed that with subcontracting, it might be difficult to determine the real employer of workers. Nonetheless, Thakurta (1972:584) proposed that the construction industry should possibly be sheltered through appropriate government policies such as need-based minimum wage, thereby providing some measure of stability in employment and safeguard the interest of workers. Stephenson (2016:1) based on experience in the London Building Construction Industry, observed that structural changes, including the emergence of building contractors, profoundly affected the wages paid to construction workers in London. Similarly, Wages in the construction industry are found to be extremely low in the United Republic of Tanzania (ILO, 2005).

It has been argued that reduction of wages is one of the areas in which contractors cushion the effect of underpricing to win bids; besides, labour subcontracting systems have facilitated low and delayed wages or outright non-payment of wages (Juravich, 2015:2; Shamir, 2016:233; Wagner, 2015:34; Yun, 2010:4). This point was reiterated in Kongmanila and Takahashi (2009:275). Similarly, Bernhardt, Boushey, Dresser and Tilly (2008:6) described subcontracting as an employer 'gloves-off' practice. The 'gloves-off' practice is akin to the deliberate evasion of laws established to protect workers. Furthermore, a study in Massachusetts, USA showed that the misclassification of workers as subcontractors in the residential building construction industry has not only led to increased subcontracting but a reduction in wages (Juravich, Ablavsky & Williams, 2015:4).

Furthermore, Bernhardt et al. (2008:13) suggested that subcontracting is a means to utilize workers temporarily, thereby increasing numerical flexibility and reducing wages through erosion of standard workplace practices. Thus, workers in subcontracting scenarios are not subject to the same working conditions as workers in permanent scenarios. In a typical building construction project, the subcontractors usually negotiate the wages and workloads on behalf of subcontracted workers, who may also negotiate with subcontractors. In this case, subcontractors serve as intermediaries between the owners of building projects or contractors and subcontracted workers in the building construction industry. This arrangement gives subcontractors power to undercut the wages or increase the workloads of subcontracted workers for more profits. This is consistent with Silver's (1986: 240) observation that the capitalist systems of production shape work relations in the construction industry. Workers' abilities or inability to control working conditions in the building construction industry in Nigeria may be considered in this regard.

## 2.2 Workers' participation in the determination of wages

A recent report on the outlook of the construction industry in Nigeria shows the relevance of subcontracting and other important practices and procedures that are taken into consideration from the beginning to the end of a construction project, including the bargaining power of different stakeholders such as contractors, buyers, and suppliers (Market Publishers, 2019:1). However, close observation of the determination of wages in the building construction industry in Nigeria shows that many workers have been alienated from the process (Mabogunje, 2016:11; Silver, 1986:240). Nevertheless, wage determination in the Nigerian building construction industry is also based largely on the collective agreement for workers in the formal sector. Wages, as expressed in the collective agreements, are a function of the prevailing country minimum wage.

Minimum wage plays a significant role in the determination of workers' pay and acts as the bargaining strength of workers (Gavrel, 2015:3). Thus, in studies covering formal and informal workers in Latin America, the Caribbean, India, Argentina, and South Africa; Khamis (2013:3) and Kristensen and Cunningham (2006:1) found that wages increase as minimum wage increases, particularly in countries where the minimum wage is low relative to the average wage. Similarly, the effect of the minimum wage is more pronounced in the informal economy, whereas employment will reduce in the high-skill formal sector. Furthermore, much like the Nigeria building construction industry, which has a large pool of informal labour, Khamis (2013) found that an upward review in the minimum wage led to a substantial increase in informal wage distribution in Argentina.

The determination of pay in labour contracts are commonly based on performance (Abraham, Alvarez-Parray & Forstnerz, 2017:1). Wages are also determined based on circumstances; for instance, wages are often higher for night shifts and other demanding work conditions in the Czech Republic (Arrigo & Casale, 2010:61). In Austria, 'Informal work agreement' is a common means of determining wages (Arrigo & Casale, 2010:37). This is also common in the Nigerian building construction industry, and it is deemed to be binding on the parties. Conversely, workers who participate in the determination of their wages are not likely to contribute their best on the job. Franke, Gurtoviy and Mertins (2014:20) argue that this is a result of negative reciprocity. Nevertheless, the participation of workers in the determination of wages as in other conditions of work occurs at the industry level in Australia (Arrigo & Casale, 2010:33). Similarly, this cooperative approach to wage negotiation is common in the Australian and Italian building construction industry (Arrigo & Casale, 2010: 118).

Furthermore, the official procedures for the determination of wages in Nigeria have been based on minimum wage legislation and the establishment of wage commissions (Fapohunda, Atiku & Lawal, 2012:21). However, market forces largely influence the determination of wages in the private sector of the Nigerian economy. The Nigerian Labour Act (1990:3) defines wages as remuneration or earnings expressed in

terms of money and fixed by mutual agreement or by law. Employers pay wages to a worker for work done or to be done or for services rendered or to be rendered based on a contract. This shows the legality of different procedures, such as collective bargaining and legislation for the determination of wages in Nigeria. Agburu (2012:258) suggested that a fair and equitable wage is critical in an economy like Nigeria; as such, wages are decisive, particularly from the standpoint of family members and dependents of workers. Shin and McGrath-Champ (2009:3) observed that subcontracting systems in the Australian construction industry had placed workers in a weakened bargaining position. They also linked the growth of informal employment to subcontracting systems. This is likely to hurt collective bargaining in the informal sector.

This is consistent with a scholarly description showing that workers in the building construction industry are susceptible to several types of fatal occupational health hazards daily (Biswas, Bhattacharya, & Bhattacharya, 2017:671). Also, workers in the building construction industry are usually recruited from poor socioeconomic backgrounds, and this situation could adversely affect their bargaining power in the negotiation for higher wages or reduction of workloads.

## 2.3 Determination of wages and workloads

The popularity of the doctrine of payment-by-results puts pressure on workers in subcontract systems to emphasize the volume of work done, as a determinant of the adequacy of remuneration. The determination of wages based on work done has been strengthened by the widespread use of managerial prerogative in the determination of wages (Brown, Marginson & Walsh, 2003:3; Marsden, Belfield & Benhamou, 2007:3). Batt, Nohara and Kwon, (2010:18) in a survey of call centre establishments in eight countries found that the use of performance-based pay was significantly positively related to wage.

A close association between workloads and wages can be observed in this regard. However, Ameh and Osegbo (2011:62) found in a survey that among other factors, wages have the least effect on labour productivity on construction sites. This assertion is contradicted by the experience in Henry Ford's automobile factories in 1913, where a wage increase was the strategy for employee retention following high labour turnover. Also, Aniekwu and Ozochi (2010:93) observed that wages and productivity increased with experience in the initial stages of many jobs.

The workload is a function of changes in technology; it is diversified and susceptible to fluctuations in the building construction industry (Commission of the European Communities, 2009:90; Chau & Walker, 1994:374; ILO, 2016:102). Excess workload could be a result of involvement in multiple projects simultaneously (Hidzir, Jaafar & Dahalan, 2015:58). Consequently, subcontractors of various capacities are engaged the building construction process and the role they assume or their workload on each project is a function of their capacity and size of the project (Commission of the European Communities, 2009:18).

### 3. Research Methodology

The data collection for the present article was based on cross-sectional research design with a survey research strategy. The cross-sectional research design was adopted because of its suitability for a survey of the study population in a specific period (Levin, 2006:24). Also, a survey research strategy, an effective method employed in social sciences was adopted in data collection from a representative sample, which is useful in drawing inference from the study population (Bolarinwa, 2015:196; Lynn, Erens & Sturgis, 2012:2; Schell, 1992:2; Mathiyazhagan & Nandan, 2010:34). The unit of analysis comprised informal workers and subcontractors on building construction projects in Lagos State, Nigeria. This group comprises different skilled and semi-skilled

persons recruited from various vocational workshops or conspicuous locations, including Blocklayers, Carpenters, Electricians, Iron-Benders, Labourers, Machine Operators, Painters, Plasterers, Plumbers, Tilers, and Welders.

The primary data were collected via a structured questionnaire and some key informant interviews among informal building construction workers and subcontractors in Lagos State, Nigeria. The secondary data were deduced from the literature, including journals, textbooks, and other relevant documents. The data from the structured questionnaire were analyzed via descriptive and inferential statistics, using the Statistical Package for Service Solution (SPSS), while the interview data were analyzed using an ethnographic technique.

Table 1: Number of Building Plan Approvals in Lagos State (2007-2013)

S/N	Districts	Number of Building Plan Approvals from 2007 to 2013							
		2007	2008	2009	2010	2011	2012	2013	TOTAL
1.	Agbado/Ipaja	36	8	19	30	37	51	42	<b>223</b>
2.	Agege	117	16	31	88	173	160	130	<b>715</b>
3.	Alimosho	148	14	41	72	74	75	83	<b>507</b>
4.	Amuwo-Odofin	187	32	112	137	133	112	70	<b>783</b>
5.	Apapa	25	6	6	14	13	9	16	<b>89</b>
6.	Badagry	16	4	2	8	5	0	0	<b>35</b>
7.	Eko	17	4	9	17	25	22	7	<b>101</b>
8.	Epe	120	4	2	5	1	4	2	<b>138</b>
9.	Eti-Osa	705	384	403	554	394	407	395	<b>3242</b>
10.	Ibeju-Lekki	8	1	5	4	7	25	38	<b>88</b>
11.	Ikeja	139	61	105	122	120	110	213	<b>870</b>
12.	Ikoyi/Victoria Island	350	75	95	147	166	163	135	<b>1131</b>
13.	Ikorodu	846	142	31	55	278	164	149	<b>1665</b>
14.	Kosofe	374	167	302	293	180	184	142	<b>1642</b>
15.	Mushin	55	15	21	16	25	33	33	<b>198</b>
16.	Oshodi-Isolo	316	42	85	108	146	85	78	<b>860</b>
17.	Ojo	58	4	15	17	31	21	22	<b>168</b>
18.	Somolu	97	15	38	39	28	52	37	<b>306</b>
19.	Surulere	46	28	39	40	50	47	35	<b>285</b>
20.	Yaba	62	35	60	85	63	38	42	<b>385</b>
<b>TOTAL</b>		<b>3722</b>	<b>1057</b>	<b>1421</b>	<b>1851</b>	<b>1949</b>	<b>1762</b>	<b>1669</b>	<b>13431</b>

From a list of 13,431 building plan approvals in Lagos State between the years of 2007 to 2013, a sample of 388 building construction sites was selected through the use of Yamane's (1967) formula:

$$n = \frac{N}{1+Ne^2} \quad (1)$$

Where:  $n$  = Sample size

$N$  = Population

$e$  = Sampling Error

Table 2: Selection of Sample Size from the Study Population

Administrative Division of Lagos State, Nigeria	No. of Construction Sites	Estimates of Subcontracted Workers	Sample Size
Ikeja	152	3,090	309
Lagos	152	2,640	264
Badagry	29	1,160	116
Ikorodu	48	1,910	191
Epe	7	280	28
<b>Total</b>	<b>388</b>	<b>9,080</b>	<b>908</b>

A structured questionnaire with some closed-end and open-end questions was utilized for data collection from 908 respondents. At the same time, key informant interviews were conducted among 50 subcontractors, who were randomly selected on sites to uncover their knowledge and experience on the determination of wages and workloads. The probability sampling technique was adopted to give each unit of the study population equal chance of being selected (Cohen, Manion & Morrison, 2007:110; Kelley, Clark, Brown, & Sitzia, 2003:264; Panneerselvam, 2009:192).

The questionnaire was subjected to validity and reliability tests. Some researchers have shown that the validity of a research instrument depends on the operational definition of concepts and its ability to measure what it intends to measure (Bolarinwa, 2015:196; Mohajan, 2017:18). Reliability is the extent of consistency in the use of the research instrument from observation to observation (Bolarinwa, 2015:195; Mathiyazhagan & Nandan, 2010:41). Consequent upon the establishment of validity, the questionnaire was

pretested for reliability through a randomly selected pilot sample. The observations during the pilot survey necessitated the revision of the research instrument in simple English to communicate clearly to the workers. The revision of the research instrument aligned with the fact that the Nigerian Government's policy on the Universal Basic Education was designed to ensure minimum comprehension of the English language among Nigerians (Etuk, Ering & Ajake, 2012:179).

The Cronbach Alpha reliability coefficient of the revised research instrument was 0.722 compared to the initial coefficient of 0.714. The validity and reliability of the search instrument suggest that the findings of this study may be replicated under the same conditions (Boermans & Kattenberg, 2011:2; Wells & Wollack, 2003:2).

#### 4. Results

##### 4.1 Demographic characteristics of the building construction workers

Table 3: Demographic characteristics of building construction workers

Demographic Characteristics	Frequency	Percentage
<b>Sex:</b>		
Male	857	94.4
Female	51	5.6
<b>Highest Level of Education:</b>		
Primary School	241	26.5
Secondary School	548	60.4
Technical College	72	7.9
None (Illiterates)	47	5.2
<b>Occupation in Construction Site:</b>		
Carpentry	108	11.9
Bricklaying	260	28.6
Iron Bending	78	8.6
Aluminium Works	61	6.7
POP	68	7.5
Plumbing	49	5.4
Electrician	46	5.1
Machine Operator	30	3.3
Labourers	208	22.9
<b>Religion:</b>		
Christianity	554	61
Islam	354	39
<b>Marital Status:</b>		
Single	353	38.9
Married	533	58.7
Divorced/ Separated/ Widowed	22	2.4
<b>State of Origin:</b>		
North-Central	103	11.3
North-East	2	0.2
North-West	8	0.9
South-East	88	9.7
South-South	89	9.8
South-West	591	65.1
Foreign Nationals	27	3

Table 3 presents the socioeconomic and demographic characteristics of the respondents on building construction sites in Lagos State, Nigeria. A majority of the respondents were male (94.4 percent) and had secondary school education (60.4 percent), while the bricklayers were 28.6 percent. Similarly, machine operators had the least number of respondents (3.3 percent). The result also shows that there were more Christians (61.0 percent) among the respondents than Moslems (39.0 percent). Additionally, over half of the respondents were married (58.7 percent).

Respondents from Lagos, Osun, Oyo, Ogun, Ekiti and Ondo States in Nigeria predominate (65.1 percent). Indigenes of Benue, Kogi, Kwara, Nassarawa, Niger and Plateau constitute 11.3 percent while those from Edo, Delta, Rivers, Cross-River, Akwa-Ibom and Bayelsa add up to 9.8 percent. Respondents from Abia, Anambra, Imo, Enugu and Ebonyi follow closely with 9.7 percent. Workers from Adamawa, Bauchi, Borno, Gombe, Taraba and Yobe constituted 0.2 percent while those from Jigawa, Kaduna, Kano, Katsina, Kebbi, Sokoto and Zamfara were 3.0 percent. Respondents from neighbouring countries such as Benin Republic, Cotonou, Ghana and Togo were a little short of one percent (0.9 percent).

The data presented in Table 4 show that half of the respondents earned an average of N3,500 per day. Similarly, their average income per month was N78,000, with 50 percent earning up to N80,000. Also, 50 percent of the workers were aged 30 years and had an average of three dependants.

Table 4: Socioeconomic characteristics of building construction workers

Socioeconomic Characteristics	Mean	Median
Income Per Day (₦)	3497.03	3500
Income Per Month (₦)	77838.58	80000
Age (Years)	31.07	30
Number of Dependants	3	3

Table 5 depicts the actors in the subcontracting systems in the building construction industry. It displays the identity of the hirer, distinction between hirer and employer, source of wage as well as responsibility for quality control and timely delivery of work on site. The findings in Table 5 indicate that the subcontractor hired 44.6 percent of the respondents, while the contractor hired 35.9 percent. Also, 14.9 percent of the respondents were hired directly by the owner of the building, although 'other' hired a small proportion (4.6 percent). The majority of the respondents (89.1 percent) affirmed that their hirer was their employer, while 10.9 percent affirmed that the individual that hired them was not their employer.

Similarly, the responsibility for quality control was attributed to the subcontractor, as noted by 40.0 percent of the respondents. Also, 34.9 percent attributed quality control to the contractor, while 14.1 percent attributed it to the owner. However, 11.0 percent affirmed that quality control was done by neither the subcontractor, the contractor, nor the owner. Equally, 38.2 percent credited the responsibility for timely delivery of work in the

building construction sites to the subcontractor; 34.8 percent to the contractor; 15.1 percent to the owner and 11.9 percent credited this responsibility to some other individuals.

Also, 46.5 percent got their wage from the subcontractors; 35.2 percent from the contractors; 14.1 percent from the owners and 4.2 percent got their wage from some other individuals, such as administrative officers or accountants working in the building construction projects.

Table 5: Subcontracting process in the building construction industry

Subcontracting Process	Frequency	Percentage
<b>Hirer:</b>		
Subcontractor	405	44.6
Contractor	326	35.9
Owner	135	14.9
Other	42	4.6
<b>Ever Recognized the Hirer as Employer:</b>		
Yes	809	89.1
No	99	10.9
<b>Responsibility for Quality Control:</b>		
Subcontractor	363	40
Contractor	317	34.9
Owner	128	14.1
Other	100	11
<b>Responsibility for Timely Delivery of Work:</b>		
Subcontractor	347	38.2
Contractor	316	34.8
Owner	137	15.1
Other	108	11.9
<b>Disbursement of Wage:</b>		
Subcontractor	422	46.5
Contractor	320	35.2
Owner	128	14.1
Other	38	4.2

Table 6 reveals that about two-thirds of respondents (65.1 percent) confirmed that they were involved in the determination of their wage. However, 64.0 percent of the respondents noted that the workload was not the basis of wage determination. Besides, only 7.0 percent admitted to holding alternative jobs concurrently (multiple-job-holding); whereas, 93.0 percent of the workers responded in the negative to multiple-job-holding.

Table 6: Determination of wages and workload in the building construction industry

Determination of Wages and Workload	Frequency	Percentage
<b>Workers' Participation in the Determination of Wage:</b>		
Yes	591	65.1
No	317	34.9
<b>Workers' View of Workload as Yardstick for Wages:</b>		
Yes	327	36
No	581	64
<b>Workers' Tendency to Hold Alternative Jobs:</b>		
Yes	64	7
No	844	93

#### 4.2 Test of hypotheses

The results and interpretation of the hypotheses are presented in this section. The p-value of less than 0.05 shows that the alternative hypothesis is statistically significant and is to be accepted.

##### 4.3.1 Hypothesis One

In order to test the hypothesis, which states that the subcontracting process does not significantly affect workers' participation in the determination of wage in the building construction industry, regression analysis was carried out. The results ( $\beta = -0.046$ ;  $p < 0.05$ ) showed that to some extent subcontracting processes significantly influenced workers' participation in wage determination in the building construction industry in Nigeria.

Table 7: Regression of the influence of subcontracting processes on workers' participation in the determination of wages in building construction industry in nigeria

Regression Model	Unstandardized Coefficients		t	Sig.	
	B	Std. Error			
(Constant)	1.728	0.02	84.747	0	
<sup>1</sup> Subcontracting Processes	-0.046	0.01	-0.155	-4.726	0

a. Dependent Variable: Workers' Participation in Wage Determination

##### 4.3.1 Hypothesis Two

In order to test the hypothesis, which states that the subcontracting process does not significantly influence workers' participation in the determination of workload in the building construction industry, regression analysis was carried out. The results ( $\beta = -0.040$ ;  $p < 0.05$ ) showed that to some extent subcontracting processes significantly influenced workers' participation in the determination of workloads in the building construction industry in Nigeria.

Table 8: Regression of the influence of subcontracting processes on workers' participation in the determination of workloads in building construction industry in nigeria

Regression Model	Unstandardized Coefficients		t	Sig.	
	B	Std. Error			
(Constant)	1.768	0.026	68.58	0	
<sup>1</sup> Subcontracting Processes	-0.04	0.012	-0.107	-3.236	0.001

a. Dependent Variable: Workers' Participation in the Determination of Workloads

Data from interviews on workers' participation in the determination of wages and workloads indicates that wage determination varied across crafts in the building construction industry, as shown in the following:

During years of training in aluminium work, you are allowed to follow your master/boss to sit, work and earn; but the earning is not equivalent to the work as he (master/boss) determines your earnings and takes the surplus (Survey, Lagos, Aluminium Worker, Male).

Carpentry work cannot be measured by the amount of work per day, but depends on the original pay and work agreement (Survey, Epe, Carpenter, Male).

The subcontractors most times cheat the painters they employ; as they collect a lot of money for the contract and then pay us a meagre sum of N2500; whereas the pay per day for a painter is N4000 in some places. However, because of unemployment, we have to manage to collect whatever they give us (Survey, Ikeja, Painter, Male).

These narratives confirm that the determination of wages for apprentices in the building construction industry was based on a small proportion of earnings after the master has taken a considerable amount. Hence, these apprentices were made to do much more work than the master paid for. At the same time, carpenters' wages were based on the amount negotiated for a particular job. Subcontractors who paid less sometimes cheated the painters, despite acceptable fixed rate for the job done per day and some of the workers took the meagre wage to avoid being unemployed.

## 5. Discussion

The gender differentials reveal that building construction is a male-dominated industry. The proportion of bricklayers is indicative of the huge requirement for bricklayers throughout the building construction process compared to machine operators. Thus, the more a particular craft is required at different stages in building construction, the more the number of workers on site. Moreover, the high proportion of married individuals in the building construction industry reveals that most of the workers had responsibilities requiring that they continue to work to earn a living. On the premise that in this study, which was, conducted in Lagos State, where the majority of respondents were from the southwest geopolitical zone of Nigeria, the results on state of origin profile of respondents suggests that most building construction workers stayed and worked around or in their states of origin.

The wage is relatively low, given that they lack access to other benefits or protection against hazards on the job. Grimshaw (2013:10) explains that wages in the construction industry must be above the statutory minimum because of the strenuous nature of construction work. This average age provides evidence for a large number of youth workers in the building construction industry in Nigeria. The findings also suggest that subcontracting systems exist in the building construction industry in Nigeria, as suggested by Fagbenle, Makinde and Oluwunmi (2011:254). However, Wells (2006:10) had cautioned against subcontracting chiefly because the drive at minimization of labour costs and overheads could have an adverse influence on workers' welfare.

Workers' hired by 'other' could be either site engineers or site supervisors. A hirer, in this instance, is distinct from an employer in that the hirer is usually the individual whom the worker has the first contact with and from whom the worker gets the offer of a job. Whereas the employer controls and directs the worker in line with oral, written or implied work contract and is obligated to pay wages for work done. The split between those hired by the subcontractor and the contractor revealed multi-layered

subcontracting systems in the study area. The layers of subcontracting could involve contractors, subcontractors, sub-sub-contractors, and sub-sub-sub-contractors (Chau & Walker, 1994:374). Also, the responsibility for quality control indicates that the site engineer or supervisor, who could be a representative of the owner, contractor or subcontractor, depending on the scale of the project, was responsible for quality control of work done in construction sites. The collection of wage from the subcontractor further establishes the role of subcontractors in the determination of workers' wages.

The results of hypotheses testing imply that a high incidence of the subcontracting process will reduce the freedom for workers to decide on the amount of work to be done in exchange for certain wages in the building construction industry. In this context, workers may find it difficult to earn higher wages if the wage is not positively linked with workloads in the industry. Also, workers' experience of lack of synergy between workload and wages in the building construction industry in Nigeria is at variance with the doctrine of performance-based-pay (Batt, Nohara & Kwon, 2010:18). The linkages between the subcontracting process, workload and wages can be observed and understood in this context. Similarly, Bosmans et al. (2016:13) noted that owing to the complexities associated with subcontracting systems, workers' participation in the determination of their wages may not be feasible. However, possession of rare or special skills should confer some advantage to workers..

## 6. Conclusions and Recommendations

This article has established the fact that subcontracting is used widely in the building construction industry in the study area. This article has also established the implications of subcontracting process for an understanding of workers' participation in the determination of wages and workloads in the building construction industry in Lagos State, Nigeria. These contributions can serve as the basis for generalization on the subject of the research.

The fragmented and specialized nature of building construction work necessitates the engagement of different skills required at different times in the construction process. This has been adduced as the main reason for the prevalence of subcontracting systems in the building construction industry. Besides, the use of the subcontracting process in the building construction industry has exacerbated the problem of inadequate wages and excess workloads for workers in the building construction industry in Nigeria.

However, it is noteworthy that unlike the situation in the informal building construction industry, the determination of wages in Nigeria has been characterized by government intervention in the form of the national minimum wage legislation and establishment of wage commissions. Unfortunately, the socioeconomic reality in the informal building construction industry in Nigeria is at variance with the doctrine of payment-by-results, which could have prompted the workers in subcontracting systems to emphasize the volume of work done, as a determinant of the adequacy of remuneration. The findings presented earlier in this article provide statistical

evidence that subcontracting process has produced a significant influence on workers' participation in the determination of wages and workload in the building construction industry in Lagos State, Nigeria. significantly influence

Therefore, the findings in this article suggest the need for workers to find a reliable way of enhancing their bargaining power in order to significantly improve the outcome of their participation in the determination of

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wages in the building construction industry. It is also recommended that workers in the building construction industry should strengthen their associations to achieve justice and decent work in the industry; and that they should be supported by relevant stakeholders such as the Ministry of Employment and Productivity and civil society organisations to achieve justice and decent work in the building construction industry in the informal economy in Nigeria.

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