

## **IMPROVING THE PROCUREMENT OF CONTINGENT CONSTRUCTION ARTISANS THROUGH SOCIAL NETWORKING FOR CONSTRUCTION PROJECTS IN NIGERIA**

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### **ABSTRACT**

*The application of social networking in contingent artisans' procurement in sustainable construction development is on the increase across the globe. However, studies have shown that no artisan just work into a construction site without first establishing a network with those on that site. This study is concerned with ways of improving the procurement of contingent labour through social networking for construction projects in Nigeria using Federal Capital Territory (FCT) Abuja as a case study. The aim is to improve the procurement of contingent construction artisans through social networking for construction projects. A purposeful sampling survey using two different sets of questionnaires was adopted for the study. The responses obtained were analyzed using various statistical methods including simple percentage, ranking method and Spearman's coefficient of rank correlation. From the result, it is clear that the two most important encourages effective networking among contingent construction artisans are free flow of information and use of recruitment agencies. This is closely followed by regular meeting and interaction should be organised. The major improvement factors to social networking as a means of procurement of contingent construction artisans are availability of information and removal of every form of barriers that limit social networking, also there should be trust among artisans and employers.*

**Keywords:** Contingent labour, construction artisans, social networking, procurement of contingent labour, Nigeria construction industry

## INTRODUCTION

All societies are built from social groups rather than individuals. These social groups are constituted by attitudes, beliefs, identities, and values. Relationships seem to play an important role of connecting people combining to form networks which can be advantageous as they are likely to give access to social resources and opportunities. However, Narayan (1999) observed that most societies are divided by class, caste, religion, and ethnicity. It can be argued that these groups differ in their level of access to social resources and job opportunities. The social networks related to job opportunities to which people connect may determine the level of access to information about job opportunities. Job seekers are challenged to increase their connections as it can result in more chances of getting valuable information about job vacancies. Construction industry is one activity that can be accessed by social networks (Lekarapa & Root, 2014).

Applebaum (1999) observed that most construction workers in any locality rarely walk onto a project without being known previously by their employers and if they are not known by their employers they are known by other members of their trade. This observation indicates that there are informal social networks which are formed within the artisans' community.

Pistaferrri (1999) argues that highly skilled workers may also use more formal job search methods and expect to be successful with a high probability while low skilled workers may have no better alternative than to rely on social connections and family networks to find work. The artisans/craft workers can be argued to be of low class and some of the low paid personnel in the construction industry therefore the composition or the type of their networks may be friends, relatives, neighbours, colleagues, acquaintances, etc. These networks play an essential role and are more critical in job search. Artisans may seek job opportunities by using different methods, whereby individuals seeking jobs read newspapers, go to employment agencies, browse in the web and mostly mobilise their local networks of friends and relatives (Calvo-Armengol & Zenou, 2005).

Lekarapa (2013) offers a formal model in which workers locate jobs through both personal contacts (weak and strong ties) and formal (impersonal) methods.

Some authors like Vertovec (2002) argue that the forms and characteristics of these networks may depend on their composition: friends, relatives, kin, acquaintances and professional colleagues. Mitullah and Wachira (2003) found that in Kenya people wishing to join the construction sector need to have relevant networks for linking an individual to resources required and site operation. Assaad (1998) has had the similar observation in Egypt. This makes the issue of networks in construction sector a universal phenomenon and one worthy of investigation in the Nigeria construction industry. Assaad (1995) further observes that craft workers tend to reside in communities with significantly high index of concentration of construction workers. The high concentration of craft workers can be argued to facilitate the formation of informal networks between the employed and unemployed craft workers and may increase easy access to job information.

Loosemore (1998) adds that this formation of networks can be viewed to provide individual members with social capital. Since the construction industry is characterised as project-based, the artisans normally have to seek for a new job after the completion of each project, therefore the high stock of social capital gained from previous projects can facilitate the job-seeking and may increase the chances of getting the next job.

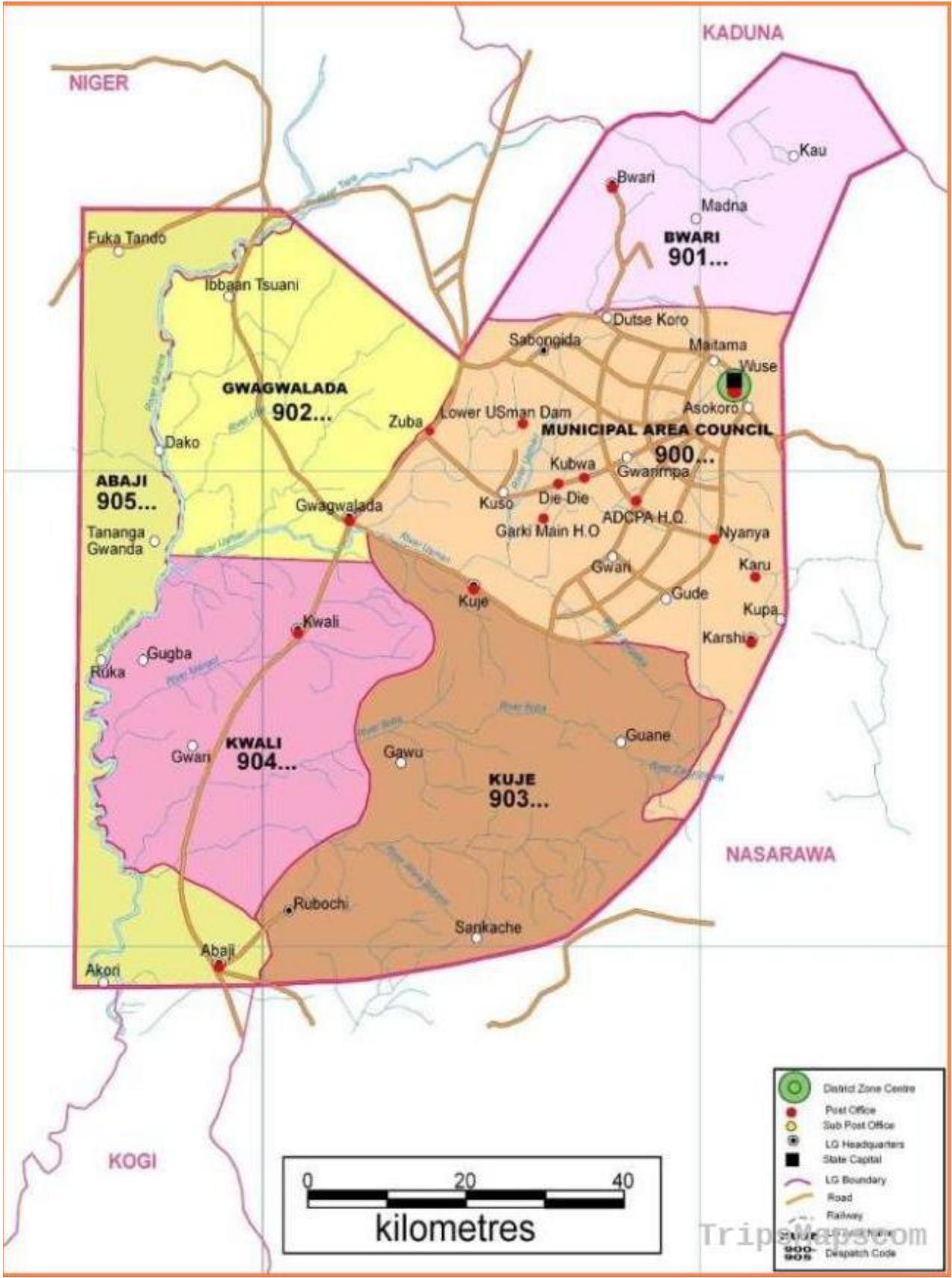
The above arguments suggest that construction artisans use different methods to seek jobs. The methods include checking with friends and relatives, using networks of personal contacts, social capital gained from previous projects as well as using media.

*The application of contingent artisans for construction projects and their procurement through social networks is on the increase across the globe; with the adoption of the 2030 Agenda for Sustainable Development, the initiative has become even more prominent (Max, 2019) yet none of the studies on informal construction sector in Nigeria has examined the methods of procurement of contingent construction artisans neither have sought out ways of improving the procurement of contingent construction artisans for construction projects through social networking. This improvement in procurement of contingent artisans through social networks is needed as it has direct influence on the sustainability of project objectives such as project budget, delivery period, quality, project safety, environmental sustainability and satisfaction of contracting parties. ILO (2002) had stated that statistics on informal sector are needed as a tool for evidence-based policy making and advocacy. In Nigeria, such statistics are not available and where they exist there are little research works that provide such statistics about informal sector workers/artisans procurement methods for construction projects in Nigeria. The paper therefore aims to fill this gap by examining the existing procurement methods used by contingent construction artisans in Nigeria and seek ways to improve the contingent labour procurement methods through social networking.*

## **METHODOLOGY/DATA PRESENTATION**

*This study is concerned with ways of improving the procurement of contingent labour through social networking for construction projects in Nigeria using Federal Capital Territory (FCT) Abuja as a case study. Abuja is the Capital City of Nigeria, geographically located in the center of the country; at the 2006 Abuja had a population of 1,406,239, making it one of the ten most populous cities in Nigeria. Abuja has witnessed a huge influx of people into the city which has led to the emergence of satellite towns such as Karu Urban Area, Suleja Urban Area, Gwagwalada and other smaller settlements. In 2012, the population of Abuja was 2,245,000 making it the fourth largest urban area in Nigeria behind Lagos, Kano and Ibadan. The population density of FCT is 190/km<sup>2</sup> (500/sq mi). The Federal Capital Territory (FCT) is bordered by the states of Niger to the West and North, Kaduna to the northeast, Nasarawa to the east and south and Kogi to the southwest. The City lies between latitude 8.25 and 9.20 north of the equator and longitude 6.45 and 7.39 east of Greenwich Meridian. The map of Abuja is shown in Plate 1.*

The study was designed to examine the role of social networking in improving the procurement of contingent construction artisans for construction projects in Nigeria using Abuja as a case study. The study centered on the interaction between employers of labour, hiring firms and construction artisans. The interaction is between employers of labour and construction artisans that work on contingent bases, the method of social networks used in sourcing of artisans that work on contingent basis and the hiring firms. The data was collected by the use of questionnaires. Two sets of questionnaires were administered using purposful sampling technique. The responses obtained were analyzed using various statistical methods including simple percentage, ranking method and Spearman's coefficient of rank correlation. One set was for the employers of artisans and the other set for the artisans themselves. The two sets of questionnaires sought similar information on construction artisans' mode of procurement. The purpose was to sample opinions of the main stakeholders and compare their responses to obtain balanced opinions.



**Plate 1: The Map of FCT Abuja, Nigeria.**

**ANALYSIS AND DISCUSSION**

**Factors That Encourages Social Networking among Contingent Construction Artisans**

The ranking of effective social networking factors from employers and artisans perspectives (Table 1) shows, that the free flow of information, regular meeting and interaction sections and the use of recruitment agencies are some strong factors that can enhance the effectiveness of social network, while mobile popup, unions formation and website for recruitment are some of the least factors that enhance effective social networking according to the survey. The views of employers and artisans are a little different on factors that enhance the effectiveness of the social networking with the correlation of 54.3% (Table 2).

**Table 1: Social networking factors**

FACTORS	Employers Perspective		Artisans Perspective	
	Mean score	Rank	Mean score	Rank
Free flow of information	4.71	1	4.26	1
There should be regular meeting and interaction	4.20	2	3.62	3
Unions should be formed and properly organized	3.73	3	3	6
Mobile popup	3.44	6	3.18	5
Recruitment agencies	3.59	4	3.79	2
Website for recruitment	3.51	5	3.38	4

**Table 2: Correlation ranking of employers’ and Artisans’ view on social networking factors**

Factors			Ranked data for artisan	Ranked data for employer
Spearman's rho	Ranked data for artisan	Correlation Coefficient	1.000	.543
		Sig. (2-tailed)	.	.266
		N	6	6
	Ranked data for employer	Correlation Coefficient	.543	1.000
		Sig. (2-tailed)	.266	.
		N	6	6

This value indicates an average (54.3%) agreement

### Ways of Assessing the Quality of Work done by Contingent Construction Artisans

The responses of employers and artisans to the question on method of assessing quality of work done (Table 3) indicates that; both employers and artisan rate delivery on scheduled quality as 1<sup>st</sup> and delivery on scheduled time as 2<sup>nd</sup> with the correlation of 70% (Table 4).

**Table 3: Method of Assessment of quality of work done**

REASONS	Employers		Artisans	
	Mean score	Rank	Mean score	Rank
Delivery on schedule quality	4.46	1	4.08	1
Quantity of work done	3.66	5	3.82	3
Client satisfaction with construct process	4.37	3	3.41	4
Accidents frequency/ Health and safety on site	4.05	4	3.31	5
Delivery on schedule time	4.41	2	4.05	2

**Table 4: Correlation ranking of employers' and Artisans on how to assess the quality of hired artisan**

Reasons	Ranked data for artisan	Ranked data for employer
Spearman's rho	Correlation Coefficient	.700
	Sig. (2-tailed)	.188
	N	5
Ranked data for employer	Correlation Coefficient	1.000
	Sig. (2-tailed)	.188
	N	5

### Ways of Improving Effectiveness of Social Networking in the Recruitment of Construction Artisans

The responses of employers of artisan and artisans themselves on the question of effectiveness of social networking in the recruitment of qualified construction artisans (Figure 1) indicate that there is enough social networking among construction artisans and employers as it relates to sourcing of qualified construction artisans. The responses of employers and artisans on how to improve the effectiveness of social networking in the procurement of qualified contingent construction artisans (Table 5) indicate that; while employers rank barriers should be removed as 1<sup>st</sup> and availability of information as 2<sup>nd</sup>, artisans ranked availability of information as 1<sup>st</sup> and there should be trust among artisans and employers; both employers and

artisans rank as 3<sup>rd</sup> recruitment should be open and based on merit. Table 6 gives the rank correlation of employers' view to that of artisans at 50 % which is just an average agreement.

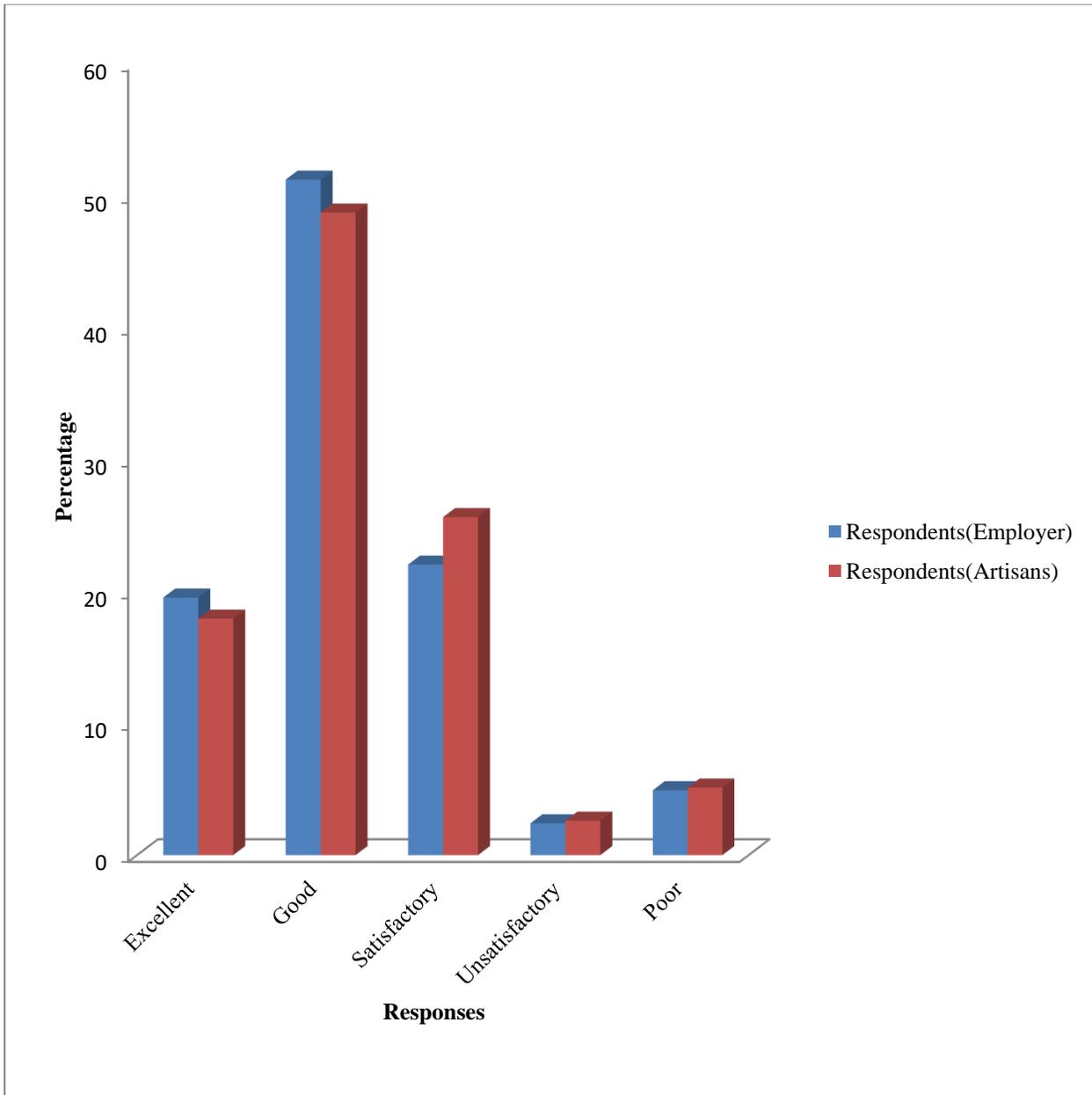


Figure 1: Level of Effective Social Networking

**Table 5: Improving Social Networking in the Procurement of Qualified Construction Artisans**

IMPROVEMENT FACTORS	Employers		Artisans	
	Perspective	Perspective	Perspective	Perspective
	Mean score	Rank	Mean score	Rank
Availability of information	4.56	2	4.00	1
Barriers should be removed	5.02	1	3.82	5
There should be trust among artisans and employers	4.27	4	3.87	2
Improved economy	3.76	8	3.54	4
Recruitment should be open and based on merit	4.32	3	3.85	3
Making the cost of technology cheaper and accessible	4.05	6	3.23	8
Create more interactive forum among artisans	3.78	7	3.36	7
Organisation of training by employers and professional body	4.20	5	3.79	6

**Table 6: Correlation ranking of employers' and Artisans view on improvement of social networking**

Improvement factor	Ranked data for artisan	Ranked data for employer
Spearman's rho	Correlation Coefficient	Correlation Coefficient
	1.000	.500
	Sig. (2-tailed)	.207
	N	8
	Ranked data for employer	Correlation Coefficient
	.500	1.000
	Sig. (2-tailed)	-
	N	8

An average (50.0%) agreement in the ranking of employers and that of artisans.

## **DISCUSSION OF RESULTS**

Networking among contingent construction artisan is needed as information about job availability can be accessed through the interaction using the networks the artisans belong to. The responses of employers of artisan and artisans on effective social networking factors show that employers of artisan ranked “free flow of information” and “regular meeting and interaction section should be organised” as the two most important factors effective social networking, whereas artisans ranked “free flow of information” and “the used of recruitment agencies” as the two most important factors. *The findings indicated that a well-developed social network is key to sustainable project delivery. A well improved and organised contingent artisans harnessed through effective social network in consultations with stakeholders serves as a blue prints that guides in the execution of the projects to avoid eventualities and help to face sustainability related problems that may affect the achievement of project objectives.* It can be inferred that the employers opinion agree with the assertion of Granovetter (2005) that more novel information about job flow to individuals and that both prospective employers and employees prefers to learn about each other from personal sources whose information they trust. On the other hand artisans view agrees with the assertion of Van Breugel , Van Olfen and Olie (2005) that as a response to competitive pressures for increased flexibility and reduced costs, many organisation are enforcing into non-standard work arrangement such as using workers sourced through labour-hire agencies in place of directly hired labour; this also agrees with the assertion of (Calvo-Armengol and Zenou 2005) that artisans may seek job opportunity using different method, whereby individual seeking jobs read newspapers, go to employment agencies, browse in the web and mostly mobilizes their network of friends and relative for information.

## **CONCLUSION AND RECOMMENDATIONS**

*The study evaluated the level of social networking among contingent construction artisans with sole purpose of improving the procurement of contingent construction artisans through social networking for construction projects in Abuja, Nigeria. The study developed a ranking scale to show the level of effective social network and also a ranking scale that show the improvement factors on ways to improve social networking among contingent construction artisans.*

The study revealed that free flow of information, regular meeting and interaction section and the use of recruitment agencies are the most important factors in effective social networking for sourcing of contingent construction artisans. Availability of information, removal of barriers, trust and open recruitment based on merit are the main ways of improving the effectiveness of social networking in the recruitment of qualified contingent construction artisans.

*The concept of contingent artisans procurement is very effective in sustainable construction development as it help to save cost, time, associated risk, and implication for the society and environment. Hence construction projects can run within budgeted perimeters thereby helping to achieve sustainability of such a project if this concept is well harnessed and one of such ways it can be harnessed is when these artisans are are able to build well organised social networks.*

## REFERENCES

- Applebaum, H. (1999). *Construction workers, USA*. Westport, Connecticut, Greenwood Press.
- Assaad, R., (1998). Kinship ties, Social Networks and Segmented Labor Markets: evidence from the Construction Sector in Egypt, *Journal of Development Economics*, 52, 1 – 30
- Calvo-Armengol, A. & Zenou, Y., (2005). Job Matching, Social Network and Word-of-Mouth Communication, *Journal of Urban Economics*, 57, 500 – 522.
- Granovetter, M., (2005). The Impact of Social Structure on Economic Outcomes, *Journal Of Economic Perspectives*, 19(1), 33 – 55.
- ILO (2002). *Decent Work and the Informal Economy*, Report VI, International Labour Conference, 90th Session, ILO, Geneva.
- Lekarapa, M., (2013). *Investigating Informal Social Networks in Construction Artisans in The Western Cape*, Unpublished Dissertation, University of Witwatersrand, Johannesburg
- Lekarapa, M. & Root, D., (2014). The efficacy of informal social networks in job search among construction artisans from various ethnic groups in the western cape, *8th CIDB Post Graduate Conference on Construction Industry Development, University of the Witwatersrand, Johannesburg, South Africa*, 521 – 535
- Loosemore, M., (1998). Organisational Behaviour during a construction crisis, *International Journal of Project Management*, 16(2), 115 – 121.
- Max, A. (2019). Public-Private Partnerships for Sustainable Development: Exploring their Design and its Impact on Effectiveness. *Sustainability*, 11;1087-1094
- Narayan, D. (1999). Bonds and Bridges: Social Capital and Poverty, *Poverty Group*, Prem World Bank.
- Pistiferri, L. (1999). Informal Networks in the Italian Labor Market, *JIE Classification Codes: J33, J64*.
- Van Brengel G, Van Olffen W & Olie R (2005). Temporary liaisons: The commitment of temps towards their agencies. *Journal of Manangement studies* 42(3), 539 – 566.
- Vertovec, S. (2002). Transnational Networks and Skilled Labour Migration, *This paper was given at the following Conference: Ladenburger Diskurs "Migration" Gottfried Daimer –und Karl Benz-Stiftung, Ladenburg*.

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