Civil and Environmental Research
ISSN 2222-1719 (Paper) ISSN 2222-2863 (Online)
Vol 2, No.8, 2012

Comparisons of Procurement Characteristics of Traditional and Labour-Only Procurements in Housing Projects in Nigeria

Olabode Ogunsanmi

Department of Building, University of Lagos, Lagos

* E-mail of corresponding author: bode_ogunsanmi2004@yahoo.co.uk

Abstract

Procurement characteristics of Traditional and Labour-only are compared in some selected states of Nigeria. The objective of this study is to examine if procurement risks, generation of claims, variations to original design, control of sub--contractors and procurement prospects are the same for both methods. The study obtains its primary data through the use of designed questionnaires that are sent to clients, contractors and consultants. In all, 120 questionnaires were sent to these respondents who recently completed their housing projects based on the two methods. Results of the study indicate that there is no significant difference between both methods in terms of risks of value for money, getting good satisfaction, generation of more claims and variation to original design while a significant difference exists between both methods in risk of timely completion of project. Labour-only method demonstrates less risk of timely completion of project than the Traditional method. Characteristics of both methods are not significantly different from each other when control of sub-contractors, benefits of getting good quality material and workmanship, satisfaction with co-ordination and planning. improved relationship between project team and timely delivery of project are benefits of comparisons. Labour-only differs significantly from Traditional method in terms of prospect of getting good value for money spent on the project. This study concludes that there are various types of risks inherent in use of both methods in housing projects and Labour-only method indicates characteristics of early completion of project and prospects of getting good value for money. Recommendations of the study are that clients, contractors and consultants should use Labour-only for execution of their future housing projects and also they are at liberty to use any of the two methods as they best satisfy their requirements. Implications of this study to policy makers and other stakeholders in the construction industry is that Labour-only method should be explored for use in large and complex projects as significant cost savings can be achieved, timely delivery of project and good value for money are equally achievable with the use of the method. Results of this study serve as a springboard for further research in perfecting the use of Labour-only method for construction projects.

Keywords: Comparisons, Procurement characteristics, Traditional and Labour-only procurements, Nigeria.

1. Introduction

It is fundamentally believed by most construction industry practitioners and key players in the area of housing that most of the available procurement methods now in use in the construction industry offer little or no differences in their characteristics to the clients. Client's choice for a procurement method is dictated primarily *b* the inherent risks, generation of claims, and other derivable prospects inherent in this method. Sometimes, it is argued that in view of the available taxonomy of procurement methods in the construction industry whether certain procurement forms are best suited for particular clients. In support of this argument it is clearly indicated that it was still difficult and relatively uneasy to match client requirements with available procurement systems in the market. Rowlinson and Newcombe (1986) investigated the influence of procurement forms on project performance. This study found out that the propounded hypothesis that certain procurement forms are most suited to particular clients was true. In view of this, Computer Expert system was proposed to match clients requirements with available procurement system. Furthermore, a critical look at this issue reveals that for a proper match of available procurement forms with clients it may be necessary to examine in details the procurement characteristics possessed by these procurement methods. It is in line with this that informs the present comparisons of the

procurement characteristics of Traditional and Labour-only procurement in housing projects in Nigeria. Risks, propensity to generate more claims, ability to offer variations to original design and flexibility to offer control of sub-contractors on site are inherent prospects offered to the clients by both Traditional and Labour-only procurement in housing constructions. On the premise of this, a comparisons of both methods characteristics in term of risks, claims, variations to original design, control of sub-contractors on site and procurement prospects is embarked upon to enable clients choose the most appropriate procurement form that best suit their requirements. This study aims at comparing the procurement characteristics of both Traditional and Labour-only methods in some housing projects in Nigeria. These two procurement methods have often been used for housing projects in Nigeria but their potential characteristics have not been exploited. The various characteristics that is inherent in use of both methods that is responsible for their frequent choice for use in most projects amongst other competing available procurement methods in Nigeria is investigated in the present study. On this premise, the procurement characteristics of both methods are compared for clients to choose the more appropriate one that best suits their requirements. Objective of this study is to examine if procurement risks, generation of claims, variations to original design, control of subcontractors and procurements prospects are the same for Traditional and Labour-only procurements.

2. Concept of Procurement characteristics in use in Construction projects

Inherent in any procurement method are certain characteristics that enabled such methods to be noted for use. Amongst these characteristics are associated risks to both the client and the contractor for using this procurement method. Clients risk could be defined as the uncertainties or the likelihoodness that a procurement method will give value for money spent at the end of the project, if also good satisfaction would result from using the methods and whether the method would enable timely completion of the project.

According to Naoum (1991) a contractor's risk for using a procurement method could also be defined as setting a lump sum tender at the outset to the client and such tenders could not guarantee low or high profit depending on the contractor's management of this risks. It must be emphasized that issue of risks are difficult to define, and also not easy to measure. Naoum (1991) puts it that claims are additional money collected by the contractor over the contact sum in the process of executing the project on site that may result from variations or changes made to original design by the client or Architect. The procurement method used for a housing project can enhance the generation or otherwise inhibits the occurrence of such claims in a project. The design process utilized by the procurement method is also a critical suspect to issue of claim generation.

In addition, the generation of such claims also depends on how articulate the initial design of the project is. Claims will normally result if the Architect allows too much flexibility to the design that enables changes to be ordered several times by the client. Claims are quantified or measured in monetary terms. Ogunsanmi, lyagba and Omirin (2001) explains that procurement flexibility is the ease with which variation to original design and specifications can be effected throughout the construction process. Variations can be ordered by both client and Architect in the course of construction and how relatively easy for the contractor to conform to such variations and effect such in the process of construction is a main issue in area of procurement flexibility. Similarly, procurement profitability is also defined as the contributions made to the profit of the contractors by the procurement method in use for a project execution. However, it must be emphasized that both procurement profitability and flexibility are concepts that are not well measured in Literature on procurement for now but are important dominant characteristics in any procurement method. Ogunsanmi (2001) indicates that project procurement problems can affect procurement performance; this study draws on the fact that procurement problems of a project consist of ineffective co-ordination of the project, lack of control of sub-contractors on site, lack of team relationships on the project, ineffective planning and communications within the project are glaring problems that can significantly influence ordination, improved public relations as well as timely delivery of project. Procurement prospects are attractions inherent in any procurement method for the advantages of the clients and other stakeholders that will use this method. The order of importance of these prospects to the clients and stakeholders can be a major determinant factor in their choice of any the procurement methods for their project execution.

3. Procurement Methods in use in Construction projects in Nigeria

Variants of the procurement methods in use in construction projects in Nigeria include Traditional, Design and Build, Project Management, Construction management, Management Contracting, Labour-Only, Direct-Labour, and other Discretionary procurements such as Alliancing, Partnering, and Joint Ventures. Studies confirming the use of these procurement methods in Nigeria include Ogunsanmi, lyagba and Omirin (2003), Ibiyemi, Adenuga and Odusami (2005), Ojo, Adeyemi and Fagbenle (2006), Babatude Opawole and Ujaddighe (2010) and Dada (2012). This present study will only discuss two out of these main procurement methods in use in Nigeria as follows:

3.1 Traditional procurement

Traditional procurement is a method of acquiring new units of housing in which a client selects an Architect and other consultants for the design of the project and later a building contractor is also selected, who has contractual relationship with the client and executes the project to completion. This definition is in agreement with the studies of Rowlinson (1987). Naoum and Langford (1987), Grierson (1988), Franks (1990), Bennett (1992), Hutchinson and Putt (1992) and Masteman (1992). Different studies on procurement methods in use in Nigeria have also confirmed the dominancy of the Traditional procurement method. Recent studies of Ogunsanmi et al (2003), Ibiyemi et al (2005), Ojo et al (2006), Babatude et al (2010) as well as Dada (2012) all documented this phenomenon in housing projects in Nigeria. In particular, Ogunsanmi et al (2003) explains that clients can easily understand the operations of the Traditional procurement method in addition to their financial commitments towards their projects long before their design developments are completed. In the views of Ibiyemi et al (2005) the Traditional procurement method is not a suitable method for fast tracking projects because of its sequential nature that projects are designed before being constructed. This is a major disadvantage for this method of procurement as it does not support fast tracking. However, Babatunde et al (2010) indicates that separation of design, tendering process and construction phases in Traditional procurement method should be viewed as separate tasks in which the design must be completed before construction phase starts. This study hence, draws on this sequential feature to classify Traditional procurement method as Design-Bid-Build system. This is another nomenclature for the Traditional procurement method. Dada (2012) also indicates that Traditional procurement method has been reported for use in project delivery in many countries of the World in which Nigeria is one. Precisely, this study confirms that Traditional procurement method has long being used by both public and private sectors of the Nigerian economy. This study compares perceptions of stakeholders on some issues of Traditional procurement method germane to them and the Nigerian economy .The study finds out that all the issues compared on Traditional procurement method are the same for all stakeholders. This present study compares not perception issues on Traditional procurement but inherent characteristics of the two dominant procurement methods in use in Nigerian construction industry.

3.2 Labour-only procurement

Labour-only procurement is a method of acquiring new units of housing in which the client selects an Architect and other consultants, or no consultants at all are used, but a main contractor or sub-contractor is employed on "Labour-only" basis. The client purchases all the necessary building materials for the use of the building contractor to execute the project to completion. This definition of Labour-only is in agreement with past works of Butler (1979), Ward (1979), Baker (1980) and Ojimelukwe (1991). Recent research efforts in documenting the use of the method in Nigeria are evidenced from research works of Ogunsanmi, Iyagba and Omirin, (2003); Samatania Consult Limited, (2012); Babatunde, Opawole and Ujaddughe, (2010) and Dada (2012). In Nigerian construction industry Labour-only procurement has recently been accepted by stakeholders for use in their various construction projects. According to Ogunsanmi et al (2003) this method has found more patronage not only in Nigeria but also in some other sub-Saharan countries of Uganda, Zimbabwe, Botswana, Kenya and South Africa. Many private individual projects of different constructions types ranging from residential, religious, social and other specialized buildings had been procured through the use of Labour-only method. In addition, Ogunsanmi et al (2003) in comparing the performance of Traditional and Labour-only procurements in some housing construction projects comes to the conclusion that Traditional procurement is better in overall performance whereas Labour-only takes shorter time to achieve the design preparation processes as well as the building time. In the views of Department of Building and Housing (2012) Labour-only is used by clients for better control of their building process as well as strategy for saving money on projects. This situation of using Labour-only in projects also agrees with the postulates of Ogunsanmi et al (2003). Similarly, other contemporary study on Labour-only such as Hardie (2007) has indicated that the use of the method by clients involves commitment of time, energy and diplomacy by the client to achieve the project. This study also confirms that most people engage Labour-only Builder to save money on their projects. Equally, Samatania Consult Limited (2012) identifies the use of Labour-only with minor alteration/modification works involving repairs, maintenance and refurbishments. It further indicates that the downturn of the Nigerian economy of the 1980 through 1990 has forced building employers/promoters to expand the scope of use of Labour-only for construction of new projects. It is in support of this advocacy that the study of Babatunde, Opawole and Ujaddughe (2010) mentions that concept of Labour-only has since been applied to construction of large projects in Nigeria. This present study compares characteristics of Labour-only with Traditional procurement in housing construction projects in Nigeria.

4.0- Research Methods

Literature review was conducted for the purpose of identifying procurement characteristics of Traditional and Labour-only methods for this study. This forms the basis of designing four sets of questionnaires for the client, users of project,

consultants and contractors who constituted the population of the study as to elicit the primary data from these respondents. Respondents must have just completed recent projects based on Traditional and Labour-only procurements. The research area of the study covers Lagos, Oyo, Ogun, Kwara, Anambra, Enugu, Delta, Abuja, Rivers and Abia states of Nigeria. Sample for the study was selected using systematic sampling technique. Some recently completed projects based on Traditional and Labour-only procurements in these states were compiled and selecting every third project from this list using the systematic sampling approach generated 39 Traditional projects and 25 Labour-only projects. In all, 120 questionnaires were sent to various clients, users of project, consultants and contractors who participated in these projects. 64 responses were obtained from Architects, Engineers, Quantity Surveyors and Building Contractors that were used for the analysis of this study. Descriptive statistical tools such as percentages and mean item scores as well as inferential tools such as chi-square were used for drawing inferences on possible relationships, contribution, dependence or otherwise between the variables of procurement risks, generation of more claims, variations to original design, control of sub-contractors and procurement prospects for the study.

5.0 Findings and Discussions

Table 1 presents the characteristics of Consultants / Designers that participated in this study in all the selected states of Nigeria. This table shows that 36% of the respondents are Structural Engineers that have used Traditional procurement before, 33% of the respondents are Quantity Surveyors, 28% of these respondents are Architects while the remaining 3% are contractors. For Labour-only procurement 40% of the respondents are Architects, 32% are Building contractors, 16% of these respondents are Quantity Surveyors while the remaining 12% of these respondents are Structural Engineers.

Table 2 displays the nature of appointment of consultants using both Traditional and Labour-only procurements. This Table clearly shows that for designers using Traditional procurement, 53% of these respondents are appointed as outside consultants while the remaining 47% of these respondents are in-house consultants. For Labour-only method 54% of the respondents are employed as in-house consultants while the remaining are 46% of these respondents are employed as outside consultants. These results could possibly be explained from the fact that Traditional procurement relied heavily on consultants, especially Architects and Engineers to drive these projects who are not necessarily in-house but appointed as outside consultants. Similarly also, it can be inferred for Labour-only procurement that by the nature of this procurement it requires employing more in-house consultants rather than outside consultants.

Table 3 presents the tendering procedures used in both Traditional and Labour-only procurements. This table indicates that for Traditional procurement 79% of the projects used selective tendering approach, 18% of these projects used negotiated tendering approach while the remaining 3% of the projects were procured using open tendering method. For Labour-only procurement 83% of the projects were procured through negotiated tendering, 13% of the projects were procured through selective tendering while the remaining 4% used open tendering approach. Reasons for this results could be that usually most contracts in Labour-only are negotiated with the contractors based on labour aspects of the project. Whereas contractors compete with each other in Traditional procurement for which contractors can be selected for such projects.

Characteristics of the project category sampled for this research study are summarized in Table 4. This table reveals that for Traditional procurement 81% of the projects are new works and the remaining 19% are refurbishment projects. Also 90% of the projects are building projects while the remaining 10% are civil engineering projects. For Labour-only procurement 88% of these projects are new works while the remaining 12% of these projects are refurbishment projects. Also 96% of these projects are building projects while the remaining 4% of these projects are civil engineering projects. From these results it can be inferred that majority of project category in Traditional procurement are new works and building projects and also for Labour-only procurement they are made up of new works and building projects. These results also point to the fact building projects are still significantly constructed in the selected states of the country in spite of the economic recession glutting the country.

The descriptive results for comparing the procurement characteristics of both Traditional and Labour-only procurements are presented in Table 5. It appears that 60% of the respondents who have used Labour-only procurement say there is risk of lack of getting good value for money from this procurement method, while 40% do not confirm this risk. 60% of the respondents that have used Labour-only procurement indicate inherent risk of getting good satisfaction from this procurement method, while 40% were in affirmative. 64% of the respondents of Labour-only procurement confirm the risk of untimely completion of the project while 36% were in affirmative. Also 44% of Labour-only procurement respondents say that this procurement gives risk of generation of more claims while the remaining 56% of these respondents do not confirm this risk.

Labour-only affirm that it results in risk of lack of control of sub-contractors on site while the remaining 20% of these respondents do not confirm such risk. For Traditional procurement 60% of the respondents affirm that Traditional procurement generates risk of lack of getting good value for money from this procurement method 40% of these respondents do not confirm this risk. 56% of these respondents affirm the risk of getting good satisfaction from the projects while 44% of the respondents are in affirmative of this risk. 68% of the respondents on Traditional procurement confirm that the method generates risk of untimely completion of the project while the remaining 32% of these respondents do not confirm this risk. Also 44% of Traditional procurement respondents say that this procurement gives risk of generation of more claims while the remaining 56% of these respondents do not confirm this risk. 76% of the respondents that have used Traditional procurement say that this method results in risk of variation to original design while the remaining 24% of these respondents do not confirm this risk. Also 88% of the respondents that have used Traditional procurement affirm that it results in risk of lack of control of sub-contractors on site while the remaining 20% of these respondents do not confirm such risk. These above results indicate that Labour-only generates more of risk of getting good satisfaction from such a procurement method while Traditional procurement generates more of untimely completion of projects, variations to original design and lack of control of sub-contractors on site. These results on Traditional procurements confirm the long over held risk of time overrun and lack of flexibility and as well as instituting strong controls on sub-contractors participating in such projects. Labour-only may be better if it can be used to enable clients good satisfaction for their money invested in such projects.

Table 6 presents the Chi-Square test results for comparisons of Labour-only and Traditional procurements

Results presented in this Table 6 indicate that for risk of value for money, risk of good satisfaction, risk of generation of more claims and variations to the original design the calculated Chi-square values (X^2_{cal}=3.18,0.00, 0.97) are lower than the tabulated value (X^2_{tab}=3.84) hence the results are not significant. They all support the null hypothesis. It can hence be inferred that there is no significant difference between Traditional and Labour-only procurements when risk of value for money, risk of getting good satisfaction, risk of generation of more claims and risk of variations to original design are of the essence. While for risk of timely completion of project the calculated chi-square value (X^2_{cal} =8.50) is higher than the tabulated value (X^2_{tab}=3.84) hence the result is significant. This implies accepting the alternative hypothesis. This also infers that a significant difference exists between Traditional and Labour-only procurements in terms of risk of untimely completion of project. This also suggests that Labour-only procurement is less risky than Traditional procurement when time of project completion is of essence.

Table 7 presents the descriptive results of prospects in Labour-only and Traditional procurements. From Table 7. it is revealed that of the five factors that define the benefits accruing to use of Labour-only procurements, satisfaction with co-ordination and planning (MIS = 0.78) ranks first, good value for money spent (MIS = 0.75) ranks second while the least rank benefit is improved relationships (MIS = 0.60). In Traditional procurement satisfaction with co-ordination and planning (MIS = 0.72) ranks first, getting good value for money (MIS = 0.69) ranks second while the least rank benefit is improved relationship (MIS = 0.57). These results infer that both Labour-only and Traditional procurements are better when prospecting of satisfaction with co-ordination and planning is of essence. Practitioners using both methods are equally satisfied with this prospect.

Table 8 also presents inferential results for comparisons of prospects of both Labour-only and Traditional procurements than the tabulated value (X^2_{tab}=3.84, 31.41) hence the results are not significant they only support the null hypothesis. This null hypothesis is now accepted. This infers that there is no significant difference between Traditional procurement and Labour-only method when prospects of control of sub-contractors on site, good quality materials and workmanship, satisfaction with co-ordination and planning, improved relationship between project team and timely delivery of projects are of the essence. Also, from the results in Table 8 it is clear that for prospect of value for money the calculated chi-square value (X^2_{cal}=38.75) is greater than the tabulated value (X^2_{tab}=31.41) hence the result is significant. This implies accepting the alternative hypothesis. This also infers that a significant difference exists between Traditional procurement and Labour-only method when prospect of value for money is of the essence. From the descriptive results Labour-only seems to be better than Traditional procurement in this instance.

6.0 Conclusions of the study

In view of the above findings, the following conclusions are deduced from the study:

There are various types of risks inherent in the use of both Labour-only and Traditional procurements in construction projects. However, Labour-only demonstrates less risk of untimely completion of project than Traditional procurement. Traditional procurement has being along age procurement method that has demonstrated high risk of untimely completion

of projects as confirmed by many studies and usually results in time overruns. There are also several benefits and prospects accruable to the use of both methods in construction projects. Importantly, use of Labour-only procurement offers prospects of getting of good value for money spent on the project than Traditional procurement that is characterized with cost and time overruns. This study recommends Labour-only procurement for use of clients, contractors and consultants for their construction projects as the method at its best ensures timely completion of the project as well as offering good value for money spent on the project than Traditional procurement. Since this research study establishes that both procurement methods generate fewer claims and also offer good satisfaction with co-ordination and planning of projects, clients are hence advised to use any of the two methods for their housing constructions projects but selecting any one that best satisfies their requirements. Implications of this present study for policy makers in government, client organizations and private investors who will be exploring full potentials of both methods for their project execution is to utilize and experiment with Labour-only procurement for large and complex projects as significant cost savings can be achieved from such Endeavour. Projects can be completed on time and good value for money spent on the project can be a prevalent benefit. Since this investigation covers few selected states in Nigeria, the results of the study can be a spring board for further research in perfecting the use of Labour-only procurement for housing construction projects.

References

Babatunde, S. O. Opawole, A.& Ujaddugbe, I. C. (2010).An Appraisal of Project Methods in the Nigerian Construction Industry. *Civil Engineering Dimension,* 72(1), 1-7

Benett, J. (1992). Procurement Systems for Building. In P. Brandon (Ed.) in Quantity Surveying Techniques -New Directions BSP Professional Books. Uk

Butter, J.I. (1979). Elements of Administration for Building students. 2nd Edition, Anchor Press Ltd, London.

Baker, E.M. (1980).The Practice of Site Management" *Chartered Institute of Building Publications,* 70,86-91.

Dada, M.O. (2012). A second look: Stakeholders' Perceptions of some issues in Design - Bid-Build Procurement Practice in Nigeria. *Journal of Sustainable Development* 5(T), 55-63.

Department of Building and Housing, (2012). Dealing with trades people. Types of Contract. Retrieved on 22nd January, 2012 from www.consumerbuild.org.nz/trades people _ types contract php

Franks, J. (1990). Building Procurement systems. A guide to Building project management. *Chartered Institute of Building Publications.* Ascot. U.K.

Grierson, J.J. (1998). Building Technology 3, Part 2, Nene College, Northampton, London.

Hardie, J. (2007). Labour-only vs Full building contracts. Retrieved on 22nd January, (2012) from www.tyshowhomes.co.nz/index.php/ps__ programme/article/pi

Hutchinson, K. and Putt, T (1992). The use of Design and Build procurement methods by Housing Association Housing Business Research Group. Faculty of Urban and Regional Studies, University of Reading, Reading, U.K

Ibiyemi, A.O., Adenuga, A.O. and Odusami, K.T. (2008). Comparative Analysis of Design and Build and The Traditional Procurement methods in Lagos, Nigeria. *Journal of Construction 2(2),* 2-6.

Masterman, J.W.E (1992). An Introduction to Building Procurement systems. E & PN Spon. Publishers, London, U.K.

Naoum, S. G. (1991). Procurement and Project Performance: A Comparison of Management and Traditional Contracting.

The chartered Institute of Building Occasional paper, 115, Englemere, Ascot, U.K

Naoum, S.G. and Langford, D.A. (1987). Management Contracting. In Lansey and Peter Harlow (Eds) in *Managing Construction Worldwide 1,* 92-94.

Ojo, S.O; Adeyemi, A.Y and Fagbenle, O.I (2006). The Performance of Traditional Contract Procurement on Housing Projects in Nigeria, *Civil Engineering Dimension, 8* (2), 81-86.

Thesis of Department of Building, University of Lagos. Lagos.

Ogunsanmi, O.E.(2001), "A Comparative Study of the Performance of Traditional and Labour-only Procurement in some selected states of Nigeria", Department of Building Seminar, University of Lagos. Lagos.

Ogunsanmi, O.E.; lyagba, R.O.A and Omirin, MM. (2003). A Comparative study of the Performance of Traditional and Labour-Only Procurement in Nigeria. *Journal of the Nigeria Institute of Building* 12-27.

Ojimelukwe, C.A. (1991). Effects of Sub-Contracting Practices on the Nigerian Construction Industry. An unpublished M.Sc. Dissertation of the Department of Building, University of Lagos, Lagos.

Rowlinson, S.M. and Newcanbe, R. (1986). The Influence of Procurement form on Project Performance. In Advancing Building Technology, *Proceedings ofCIB 86 Conference,* U.S.A. September 8, (pp 3617-3624)

Samatania Konsult Limited, (2012). Labour-Only Contract Retrieved on 22"[d] January, 2012 from Samtaniakonsultltd.com/our__services/labour-only contract.

Ward, P.A. (1979). Organizations and Procedures in the construction Industry. Macdonald and Evans Limited, London, U.K.

Brief Biography of the Author

Olabode Emmanuel Ogunsanmi (Dr.) is a Senior Lecturer in the Department of Building, Faculty of Environmental Sciences, University of Lagos, Lagos. Nigeria. He is a registered Professional Builder with the Council of Registered Builders of Nigeria and also a corporate member of the Nigerian Institute of Building. His research interests include construction procurement methods, project management and construction Technology.

Table 1: Characteristics of Consultants/Designers using both Traditional and Labour-only procurements

Types of Consultants/Contractors	Traditional Procurement Frequency	Percentage (%)	Labour-only Procurement Frequency	Percentage (%)
Architect	11	28	10	40
Engineer (Structural)	14	36	3	12
Quantity Surveyor	13	33	4	16
Contractor	1	3	8	32
Total	**39**	**100**	**25**	**100**

Table 2: Nature of Appointment of Consultants

Nature of Appointment of Designer	Traditional Procurement Frequency	Percentage (%)	Labour-only Procurement Frequency	Percentage (%)
In-House Consultant	17	47	13	54
Outside Consultant	19	53	11	46
Total	36	100	24	100
Contractor	1	3	8	32
Total	**39**	**100**	**25**	**100**

Table 3: Tendering Procedures used in both Traditional and Labour-only procurements

Methods Tendering	Traditional Procurement	Percentage (%)	Labour-only Procurement	Percentage (%)
Open	1	3	1	4
Selective	31	79	3	13
Negotiated	7	18	19	83
Total	**39**	**100**	**23**	**100**

Table 4: Descriptive results of Project category in both Traditional and Labour-only procurements

Project category	Traditional Procurement Frequency	Percentage (%)	Labour-only Procurement Frequency	Percentage (%)
New Works	29	81	22	88
Refurbishment work	7	19	3	12
Total	36	100	25	100
Building Project	35	90	23	96
Civil Engineering Project	4	10	1	4
Total	**39**	**100**	**24**	**100**

Table 5: Descriptive results for comparisons of Labour-only and Traditional procurement for risk generation

Variables	Labour-only	Yes	No%	Traditional	Yes	No%
Risk of lack of goods value for money	25	60	40	25	60	40
Risk of getting good satisfaction	25	60	40	25	56	44
Untimely completion of project	25	64	36	25	68	32
Generation of more claims	25	64	56	25	44	56
Variations to original design	25	64	26	25	76	24
Lack of control of sub-contractor on site	25	80	20	25	88	12

Table 6: Chi-square test results for Comparisons of Labour-only and Traditional procurements for risk generation

Variables	X^2_{cal}	X^2_{tab}	Sig	Decision
Risk of value for money	3.18	3.84	NS	Accept H_0
Risk of getting good satisfaction from project	0.00	3.64	NS	Accept H_0
Risk of untimely completion of project	8.50	3.64	S*	Accept H_0
Generation of more claims	0.00	3.64	NS	Accept H_0
Variations to original design	0.97	3.64	NS	Accept H_0

Table 7: Descriptive results of Derivable prospects in Labour-only and Traditional procurements

Prospect variables	Labour-only procurement Mean item score (MIS)	Overall ranking	Traditional Procurement Mean item score (MIS)	Overall ranking
Getting good value for money	0.75	2	0.69	2
Quality materials and workmanship	0.72	3	0.61	4
Satisfaction with coordination and planning	0.78	1	0.72	1
Improved relationship	0.60	5	0.57	5
Timely delivery of project	0.67	4	0.67	3

Table 8: Chi-square test results for Comparisons of Labour-only and Traditional procurements in prospects generation

Variables	X^2_{cal}	X^2_{tab}	Sig	Decision
Prospects of Control of sub-contractor on site	0.00	3.84	NS	Accept H_0
Prospect of value for money	38.72	31.41	S	Accept H_1
Prospect of good quality materials and workmanship	28.63	31.41	NS	Accept H_0
Prospect of satisfaction on co-ordination and planning	13.25	16.92	NS	Accept H_0
Prospect of improved relationship between project team	20.53	31.41	NS	Accept H_0
Prospects of timely delivery of project	12.87	31.41	NS	Accept H_0