Strategies for Mitigating Untimely Payment Problems in Public Building Projects in Nigeria

Olatunji, S.O.
Department of Quantity Surveying
Federal University of Technology Akure, Ondo State, Nigeria
Correspondence email: olusolaolatunji89@gmail.com

Abstract

Money is a critical factor in birthing construction projects, as it helps contractors and subcontractors meet client's requirement. However, there are anecdotal evidence that the construction industry is characterised with untimely payment and this has proven to be a problem in the delivery of successful projects. The study therefore assessed the strategies for mitigating untimely payment problems in public building projects in Nigeria. Using a quantitative approach structured questionnaire was administered on 289 participants from the Ministry Department and Agencies (MDAs), as well as Contractors and Consultants (Architects and Quantity Surveyors) that have been engaged by Ekiti State MDAs and tertiary institutions in the State. These respondents were selected based on their participation in building projects within the identified area in the last sixteen years. Data gathered were analysed using percentage, mean score and ANOVA test. The study revealed that direct payment, building of safe security payment scheme, and legal and contractual backing are some of the major mitigating strategies for untimely payment problems in public building projects. The study further recommends the enforcement of penalty clauses as stated in condition of contract. Should there be any lateness in honouring certificate; the client would be made to pay interest on payment due that was not paid on time. It is believed that the findings of this study will go a long way in assisting those responsible for the delivery of public building project in achieving timely payment in construction.

Keywords: Building Contracts, Construction Payment, Public Building Projects, Timely Payment

INTRODUCTION

Money plays an essential role in the delivery of construction projects and it is often contractors/subcontractors number one concern. Money helps contractors and subcontractors meet client's desire. Ayodele and Alabi (2011) observed that appreciable number of the key causes of construction project abandonment in Nigeria hovers around money. The issue of untimely payment for work executed has become a serious problem in the construction industry (Ayodele and Alabi, 2011; AbdulRazak, Ibrahim and Ibrahim, 2012, Ewa, 2013 and Okwudili, 2014). This untimely payment which is a default from the client affects the cash flow set up by the contractor on any construction project, and this pose a threat to the successful delivery of a project.

Globally, payment for works, goods and services have always been a contentious issue, largely due to problems surrounding untimely payment and their consequent impact on cash flow for any industry (Ramachandra and Rotimi, 2015). The problem is exacerbated in construction because it is capital intensive in nature, hence requires that the construction contractor be paid on agreed terms in order to maintain a decent cash flow and avoid insolvency. Teku (2014)

affirmed that the problem of untimely payment between client and contractor is on the high side in construction industry when compared with other industries.

This problem cuts across construction industries of many developed and developing countries around the world (Teku, 2014, Ramachandra and Rotimi, 2015; Cheng, Soo, Kumaraswamy and Jin, 2009). To alienate this issue, many construction contracts have incorporated payment terms which if followed, would ease the burden of contractors having to fund construction works. Despite these contractual payment provisions, there still exist problems with untimely payment for building works, leading to cash flow problems and ultimately contractors' insolvency. It is therefore imperative that certain mitigation measures be developed to help alienate this problem in order to have smooth delivery of construction projects. In light of this, this study assessed strategies for mitigating untimely payment in public building projects with a view to providing smooth operation of building works.

Literarily, payment means an amount of money paid to person or group of persons for rendering a service. Hornby (2010) defined payment as an act that is given in cash to someone for carrying out a service. In terms of payment in construction, Ameer-Ali (2005) stated that construction work payment is an amount of money paid for executing a construction work to the stated specification. The payment could be from the client to main contractor, or from main contractor to subcontractor, skilled and/or unskilled labours. It is a fulfilment of agreed promise for performance of duty, obligations, discharge of debt or liability. Construction work payment differs from one construction work to another – the payment is a function of the type of contracts of the construction work.

Sherrif and Kaka (2003) opined that success of any construction project is likely to depend on suitability of the selected payment system for the work as well as project characteristics and client requirements. The study further stressed that over the years, contractors have come up with many strategies for enhancing their cash flow. The strategies include unbalancing and front-end loading (intentionally pricing early work-items higher than normal so as to receive huge payments early in the contract), introduction of efficient management process and information systems, unfair procedure (over-measurement and delay in payment of subcontractors and suppliers). These strategies help to minimize outstanding balance with the client.

Despite these innovations, the construction industry is still bedevilled with delay in payment. According to Odumosu (1992) delay payment in construction project is the inability of the client to pay at required time expected by the contractor and as when due, the amount which ought to have been paid to the contractor in line with aggregate measurement of work carried out to date. If a contract is large costing billions of naira to be expended over several years, it is essential to make a reliable forecast of the likely flow of expenditure. Even where costs are more modest, and contract time correspondingly shorter, it will be to client's advantage to be able to arrange for finance to be available so that the job will progress properly. Supporting this view, Dlakwa and Culpin (1989) showed that financial difficulties of client can translate to delay payment, which is if regular monthly payments are not made to the contractor as to enable him carry out other works, he will find it extremely difficult to repay back loans obtained from banks for the work. This will definitely bring about the stoppage of the work on site and thereby, the possibility of dispute arising will not be questioned. Undervaluation of work and non payment of interim certificate may as well be the cause of dispute and eventually resulting to delay payment.

According to Wong, Kaka, and Fortune (2006) traditional payment method includes interim valuation, stage/milestone payment, advance payment, payment on completion. These payment methods in the construction industry reportedly create risk of payment delays and losses. Alli

(2010) reported that untimely payment accounts for about 11% reduction in profit. Sherif and Kaka (2004) submitted that existing systems does not reward achievements nor distinguish between competent and incompetent contractors. Egan (2002) specifically stated that conventional mechanisms place unfair strain on contract parties. The issue has been persistent since the early 1960's, with constructions parties suffering dire consequences. Many legislative and contractual, and administrative solutions are in use but these measures have not adequately addressed the payment losses experienced by lower tier parties due to the insolvency of upper tiers, especially losses to contractors due to client insolvency (Ramachandra and Rotimi, 2010). For instance, legal provisions in security of payment acts cater for losses due to deferred payments but not for insolvency payment losses (Ramachandra and Rotimi, 2010). Among the legislative and contractual, and administrative solutions deployed thus far but with limitations covers the provision for right to regular periodic payment, right to defined time frame for payment, and right to a speedy dispute resolution mechanism. These solutions are entrenched in contract guidelines on payment contained in standard forms of contract, contract type and procurement method selection, they are incorporated in contracts by concerned parties. Ramachandra (2010) suggested the registration and prequalification of construction parties as a mechanism for preventing losses from upper to lower tiers. Cheng, Kumaraswamy, Soo and Jin (2009) recommended clarity in contractual frameworks. Generally, payment delays and losses create problems of cash flow, stress, and financial hardship to contractors (Ang 2006).

According to Ramachandra and Rotimi (2010) some of the strategies differ from country to country and they range from administrative, contractual to statutory measures. The strategies address the critical risks which cause suffering to construction parties at the lower tier because of the action of the upper tier parties. Ramachandra and Rotimi (2010) further stressed that, most of these measures have been used to protect the owners' risks against contractors and subcontractors default. However, the recent inclement economic climate has changed situations with the contractors and subcontractors requiring protection from project owners, should the owners' default. Therefore, some of mitigating strategies that may require amendment on a case by case basis to incorporate the risks of lower tier parties**.** Namely; legal and contractual provisions, Standard form of contract, Administrative measures.

METHODOLOGY

The research approach is the use of structured questionnaire, administered on the Ministry Department and Agencies (MDAs), Contractors/Sub-Contractors, Consultant Architects and Consultant Quantity Surveyors in Ekiti State. The Engineers were not included in the study population because engineering projects often utilise a condition of contract different from standard condition of contract for building project which is the main focus of this research. The list of the Contractors and Consultants comprises of those that have been engaged by Ekiti State MDAs, as well as tertiary institutions in the State i.e. Federal Polytechnic Ado (FPA), Ekiti State University Ado (EKSU), College of Education, Ikere (COEI) and Federal University Oye (FUOYE). These respondents were selected base on their participation in building projects within the identified area in the last sixteen years (1999-2015).

A total of 65 clients, 115 contractors, 55 Architects and 54 Quantity Surveyors were identified from the five sources exclusive of double or triple usage, thus making the total population of the research 289. Therefore, a total of 289 copies of questionnaires were administered on all respondents identified and 161 were returned with 153 ascertained fit for analysis. This represent a 52% of the total questionnaire distributed which is considered adequate for a survey research (Akintoye, 2000).

The research instrument was piloted among 12 representatives from the four groups (Quantity Surveyors, Architects, Contractors and Clients) selected for the study. The instrument was also tested for its reliability using the Cronbach Alpha test and a value of 0.808 was derived. This shows that the instrument is highly reliable since the degree of reliability of an instrument is more perfect as the value tends towards 1 (Moser and Kalton, 1999).

Analysis of the returned questionnaire was carried out using descriptive and inferential statistical methods as appropriate. Percentile was used to assess the background information of the respondents. The Mean Score of each identified strategy was ranked according to the categories of each respondent while Analysis of Variance (ANOVA) was used to further assess the variance in the mean value of all identified variables.

RESULTS AND DISCUSSION

Background Information of Respondents

Result in Table 1 shows the respondent's background information. From the table it can be seen that 59.5% of the respondents are in public service, 15% are in contracting firms while consultancy firm and subcontracting have the same frequency of 9.8%. Moreover, the table indicates that 34% of the respondents had year of experience between 11–15 years, while only 7.8% of the respondents have year of experience of 1–5 years. The middle level management account for 36.6%, the top management position account for 24.8%, the supervisory level accounts for 17%. Low level management and non–management level account for 7.2% and 14.4% respectively. It is also evident from the table that 41.2% of the respondents are Quantity Surveyors, 30.7% are Builders (working as contractors), and 15.7% are Architects, Director and Assistants Director account for 9.2% and 3.3% respectively. In addition, 49.7% of the respondents have PGD/B.Sc/B.Tech qualification, 25.5% holds HND qualification, M.Sc/M.Tech and Ph.D. qualification accounts for 22.2% and 2.6% respectively. This result implies that the respondents are well equipped both academically and in terms of experience in construction to answer the questions of this research.

Strategies for Mitigating Untimely Payment Problems in Public Building Projects

In assessing the strategies for mitigating untimely payment problems, respondents were asked to provide opinion on their preferences of strategies for mitigating payment problem within traditional procurement method. Data gathered to test the null hypothesis which states that there is no significant difference in stakeholder's strategies to mitigate payment problem in traditional procurement resulted in Table 2. Table 2 provides a summary of the responses and from the table it is evident that consultants, contractors, nominated supplier, public clients from their own views were unanimously agreed that the most significant strategies to mitigate payment problem is direct payment. However from the nominated subcontractor's point of view, legal and contractual provision, payment insolvency bond, retention is the most significant strategies to mitigate payment problem with a mean value of 3.93, 3.93, and 3.93 respectively. Consultant, contractors, nominated subcontractor and nominated supplier were not in agreement within themselves to clarify which of these factors are the least strategies to mitigate payment problems. While the consultant is of the view that prequalification of contract parties with mean value of 3.20 is the least significant strategies, contractor is of different opinion in that bond and agreement is the least significant strategies with mean value of 3.39. Similarly nominated subcontractor perspective is that payment default or insolvency insurance

with mean value of 3.07 is the least significant strategies while nominated suppliers believed that owner's payment guarantee is the least significant strategies with mean value of 2.89.

Table 1: Background information of Respondents

Variables	Frequency	Percentage
Types of respondents' business		
Consultancy	15	9.8
Contracting	23	15
Sub – contracting	15	9.8
Supplier	9	5.9
Public Service	91	59.5
Total	**153**	**100**
Respondents' year of experience		
1 - 5 years	12	7.8
6 - 10 years	42	27.5
11 - 15 years	52	34
16 - 20 years	29	19
Above 20 years	18	11.8
Total	**153**	**100**
Respondents' status or position		
Top management	38	24.8
Middle management	56	36.6
Low level management	11	7.2
Supervising	26	17
Non – management	22	14.4
Total	**153**	**100**
Respondents' profession		
Quantity Surveyor	63	41.2
Architect	24	15.7
Builder	47	30.7
Director/H.O.D	14	9.2
Assistant Director	5	3.3
Total	**153**	**100**
Respondents' highest qualification		
HND	39	25.5
PGD/B.Sc/B.Tech	76	49.7
M.sc/M.Tech	34	22.2
Ph.D.	4	2.6
Total	**153**	**100**

The overall view of the respondents reveal that direct payment with a mean value of 4.16 is the most significant strategies for mitigating payment problems followed by the build and safe security payment scheme with mean value of 3.89, legal and contractual provision and payment insolvency bond with mean value of 3.93 and 3.93 respectively is the most significant strategies. Payment default or insolvency insurance is observed as the least significant strategies with the mean value of 3.55.

Furthermore, it could be observed that consultant, main contractor, nominated supplier, public client, scored direct payment, the building of safe security of payment scheme, legal and contractual, payment of insolvency bond, payment of interest by client and retention very high, this implies that all these significant mitigating strategies would help on mitigating untimely payment problem to enhance project performance, ameliorate subcontractor status of uncertainty when main contractor goes insolvency and help to make efficient and effective payment implementation policy.

This result is in agreement with Ramanchandra (2010) submission that administrative measure such as direct payment, building of safe security payment scheme, legal and contractual condition, payment insolvency bond payment of interest by client, maintaining separate escrow bank account, regular payment guarantee bond and retention proper inspection and confirmation are mitigating strategies use to help to provide security of payment for untimely payment problems. In the contrary, Cheng *et al.,* (2009) asserted that before venturing into discussing possible legislation or other administrative measures as strategy to mitigate untimely payment it is always important not to lose sight of the vital starting that is the written contract itself. Without a clear contractual frame work, legislative or administrative measures to enhance security of payment, whether from the perspective of timeliness or quantum, may be of little utility.

Table 2: Strategies for Mitigating Untimely Payment Problems

	Overall		Consultants		Contractors		Nom Sub contractor		Nomin. Suppliers'		Public Clients'			
Factors	Mean	Rk	Mean	Rk	Mean	Rk	Mean	Rk	Mean	Rk	Mean	Rk	F-Stat	P-Value
Direct payment	4.16	1	4.47	1	3.96	1	3.80	5	4.33	1	4.20	1	1.619	0.172
Building safe security of payment scheme	3.89	2	4.33	2	3.78	3	3.87	4	3.89	4	3.85	3	0.969	0.427
Legal and contractual provision	3.76	3	3.60	7	3.61	6	3.93	1	3.44	9	3.82	5	0.561	0.691
Payment insolvency bond	3.76	3	3.93	3	3.52	9	3.93	1	4.11	2	3.73	8	0.942	0.442
Payment of Interest by client	3.75	5	3.80	4	3.70	5	3.60	7	3.78	7	3.78	6	0.133	0.970
Retention	3.75	5	3.33	9	3.57	7	3.93	1	3.67	8	3.84	4	1.251	0.292
Bond and agreement	3.73	7	3.60	7	3.39	11	3.47	8	3.89	4	3.86	2	1.616	0.173
Maintaining separate escrow bank account	3.67	8	3.73	5	3.52	9	3.40	9	3.89	4	3.73	8	0.511	0.728
Registration and prequalification of contract parties	3.64	9	3.20	11	3.87	2	3.67	6	4.00	3	3.62	10	1.524	0.198
Owner's payment	3.61	10	3.27	10	3.78	3	3.13	10	2.89	11	3.78	6	3.027	0.020*
Payment default or insolvency insurance	3.55	11	3.67	6	3.57	7	3.07	11	3.44	9	3.62	10	1.012	0.403

In spite of mitigating strategies identified by overall ranking, analysis base on grouping categories showed that significant different of opinion are observable. Thus, the hypothesis of no significant different in stakeholder's strategies to mitigate payment problem was tested using ANOVA at 5% level of significance. Table 2 shows that the opinion pertaining to one mitigating strategies was shown to have statistical significant difference, i.e. p-value of 0.020 which is less than alpha value of 0.05 and F-statistics of 3.027. This is owner's payment guarantee that ranked 10th overall. It was ranked 10th by the consultants and nominated subcontractors, 3rd by contractors and 11th by nominated suppliers. The fact that there was

statistically significant difference in scoring this less important and least ranking strategies in mitigating payment has an implication. The implications are that owner's payment guarantee is also critical to project delivery devoid of contractor's loss of profit, insolvency and liquidation, project cost and time overrun, dispute and ultimately total abandonment.

CONCLUSION

The study concludes that direct payment, the building of safe security payment scheme, legal and contractual provisions, payment of insolvency bond, payment of interest by client and retention are crucial strategies for mitigating the menace of untimely payment in public building projects. This implies that these strategies will help enhance project performance, ameliorate subcontractor status of uncertainty when main contractor goes insolvency and help to make efficient and effective payment implementation policy.

The study therefore recommends that the identified strategies should be adopted in the delivery of public building projects as this will go a long way in curbing the problem of untimely payment. Also the enforcement of penalty clauses as stated in condition of contract. Should there be any lateness in honouring certificate; the client would be made to pay interest on payment due that was not pay on time. It is believed that the findings of this study will go a long way in assisting those responsible for the delivery of public building project in achieving timely payment in construction.

References

AbdulRazaq, M., Ibrahim, Y.M. and Ibrahim, A.D. (2012). Investigating the Practice of Cash Flow Forecasting by Contractors in Nigeria. *In:* Laryea, S., Agyepong, S.A., Leiringer, R. and Hughes, W. (Eds) *Procs 4th West Africa Built Environment Research (WABER) Conference*, Abuja, Nigeria, 24-26 July 2012, 47-54.

Akintoye, A. (2000). Analysis of factors influencing project cost estimating practice. *Construction Management and Economics,* 18, 77-89.

Alli, O. R. (2010). Assessment of Payment Systems for Cash Flow Management of Construction Projects in Nigeria. *Unpublished PhD Thesis*, Department of Quantity Surveying, Federal University of Technology, Akure.

Ameer-Ali, N. A. N. (2005). Payment in the Construction Industry: Towards Zero-Default. In *Proc. QS National Convention*,10-11 August 2005, Hilton Kuala Lumpur.

Ang, T. S. S. (2006). *Payment Issues-the Present Dilemmas of Malaysian Construction Industry* (Doctoral dissertation, Univeristi Teknologi Malaysia, Faculty of Built Environment).

Ayodele, E. O. & Alabi, O. M. (2011). Abandonment of Construction Projects in Nigeria: Causes and Effects. *Journal of Emerging Trends in Economics and Management Sciences (JETEMS),* 2 (2), 142-145

Ayodele, E. O. & Alabi, O. M. (2011). Abandonment of Construction Projects in Nigeria: Causes and Effects. *Journal of Emerging Trends in Economics and Management Sciences (JETEMS),* 2 (2), 142-145

Cheng, T., Soo, G., Kumaraswamy, M., & Jin, W. (2009). Security of Payment for Hong Kong Construction Industry–Workable Alternatives and Suggestions. *Building Journal Hong Kong China*, 60-77.

Dlakwa, M.M. and Culpin, M. F., (1989). The Reasons for Overruns in Public Sector Construction Project in Nigeria. *Construction in Nigeria*, December edition 31-34.

Egan, J. (2002). Accelerating the change, Retrieved from www.strategicforum.org.uk/pdf/report_sept02.pdf

Ewa, U. E. (2013). Root Causes of Project Abandonment in Tertiary Institutions in Nigeria. *International Business Research*. 6(11), 149 – 159.

Hasmori, M. F., Ismail, I., & Said, I. (2012). Issues of Late and Non-Payment among Contractors in Malaysia. In *3rd International Conference on Business and Economic Research, Bandung, Indonesia*.

Hornby, A. S. (2010). *Oxford Advanced Learner's Dictionary*. New York: Oxford University Press.

Moser, C. A., & Kalton, G. (1999). *Survey Methods in Social Investigation,* 2nd Edition. Gower Publishing Company Ltd, Aldershot

Odumosu C. O. (1992). Strategies for Minimizing Contractual Dispute. *Seminar Paper* Presented at Lagos Sheraton Hotel, 18- 19 September.

Okwudili, M. E. (2014). The Causes of Abandoned Projects: Niger Delta Development Commission (NDDC) Hostel Project in Nigerian Universities. *Journal of African Studies and Development*. 6 (5), 87-94.

Ramachandra, T. and Rotimi, J. O. (2010). Review of methods for mitigating payment risk in construction. *International Research Conference on Sustainability in Built Environment.* Colombo, Sri Lanka, pp. 198-207.

Ramachandra, T. and Rotimi, J. O. (2015). Causes of Payment Problems in the New Zealand Construction Industry. *Construction Economics and Building,* 15 (1), 43-55.

Sherif, E & Kaka, A (2003) Factors influencing the selection of payment systems in construction projects. *In:* Greenwood, D J (Ed.), *19th Annual ARCOM Conference,* 3-5 September 2003, University of Brighton. Association of Researchers in Construction Management, 1, 63-70.

Sherif, E & Kaka, A (2004). A multicriteria mode for the selection of the Payment System in Construction Projects. In F. Khosrowshahi (Ed.), 20th Annual ARCOM Conference (pp. 1-3).

Teku, A. Y. (2014). *Effects of Delayed Payment on Projects and Stakeholders: A Case Study of Keta Municipal Assembly* (Doctoral dissertation).

Wong, C., Kaka, A. P., and Fortune, C. (2006). A multicriteria Decision making framework for alternative payment systems using AHP Analysis. *Journal of Construction Engineering and Management.* 130 (5), 691-698.