Journal of Construction Project Management and Innovation Vol. 1 (1): 27 - 45, (November) 2011 ISSN 2223-7852 © Sabinet 2011

# CAUSES AND EFFECTS OF DELAYED PAYMENTS BY CLIENTS ON CONSTRUCTION PROJECTS IN GHANA

#### Samuel K. Ansah

Department of Building Technology, Cape Coast Polytechnic, P.O. Box AD 50, Cape Coast, Ghana E-mail: <a href="mailto:skansah@hotmail.co.uk">skansah@hotmail.co.uk</a>; Tel No. +233(0)246769673

#### **Abstract**

Delayed payments of work done by clients on construction projects in the Ghanaian construction industry are considered to be a factor of significant concern. It causes severe cash-flow problems to contractors and this can have a devastating effect down the contractual payment chain. It is not uncommon to find a contractor or sub-contractor who has not been paid what is due to him threatening to suspend work under the contract until the balance due to him is paid in full. The practice of efficient and timely payment in construction projects is a major factor that can contribute to the success of a project. This study was conducted to identify the causes and effects of delayed payments for work done in the Ghanaian construction industry. In order to obtain indicative data for the study, questionnaires were designed and distributed to a randomly selected sample of 210 individuals among contractors, subcontractors and clients in the Ghanaian construction industry. In total, 174 completed questionnaires were returned and then analysed statistically. The Relative Importance Index was used to determine the ranking of the results of the study. Employers' poor financial management, conflict among parties involved in the contract, and delay in certification are some of the potential causes of delayed payment identified in the study. Withholding or delaying payment creates financial hardship for the construction companies and its impacts are sometimes so harsh that some companies have to close down. To improve the payment situation, the findings of the study suggest that there must be enforcing clauses of delayed payment in contracts, i.e. levying charges on overdue payments and the establishment of a payment department which would be responsible for keeping records of the history of delayed payment and penalties given to those who fail to pay on time as stipulated in the contract.

Keywords: delayed payment, construction industry, Ghana

#### INTRODUCTION

The rapid increase of delayed or late payment issues nowadays have gone to the point that it tends to decrease the good image of construction industry in Ghana and these are considered as a factor of significant concern to all the players in the industry.

Literature reviews indicate that late payment creates some kind of domino effect in the construction industry (Lip, 2003; Nicholas, 2005; Langdon and Seah Consultancy, 2003). For instance, if the employer makes a late payment to the contractor, the payment due to the subcontractors or suppliers who are contractually bound to supply goods or services will also be late. This state of affairs never brings justice to contractors and subcontractors (Artidi and Chotibongs, 2005).

It shall be established that in the event of the owner or the developer failing to make progress payments to the contractor within the time stated in the contract, by notifying the owner, the contractor may urge the owner to effect a progress payment. If the owner still fails to pay after receipt of the contractor's notice, the owner may negotiate with the contractor for payment on deferred terms. If the owner and the contractor come to an agreement, the owner shall pay interest on overdue accounts. However, if both parties fail to come to an agreement and the contractor is unable to continue his work, the contractor may suspend work and the owner shall bear the liability for breach of contract.

Lim (2005) indicated that there are various avenues available to improve the payment problem in the industry and some of these options have been incorporated in the construction contracts or statutes in the other developed countries such as payment of stipulated interests, eradication of the 'pay when paid' clause, liens and payment bonds. Although adequate payment mechanisms are provided in many standard forms of construction contracts for work done, a chronic problem of delayed payment issues in the construction industry still remains. This research was, therefore, conducted to determine the causes and effects and to establish contractual and/or alternative remedies to resolve or mitigate the problems regarding delayed payment in the Ghanaian construction industry.

## STATEMENT OF PROBLEM

Delayed payments for work done affect many players in the Ghanaian construction industry, whether in government or privately funded projects. It causes severe cash-flow problems especially to contractors and has a devastating knock-on effect down the contractual payment chain. This problem could possibly lead to a formal dispute resolution such as 'arbitration' or 'litigation' and those processes are very costly and take a long time.

The problems of delayed payment are felt not only in a developing country, as in the case of Ghana, but also in developed countries, such as the United Kingdom and Australia, just to name a few. For instance, a survey of the payment performance in Britain has shown that the construction industry, in particular, is prone to a culture of late payment, with payment of moneys due to subcontractors and suppliers being made, on average, 53 days after receipt of invoices or applications for payment have been rendered (Johnston, 1999).

#### LITERATURE REVIEW - WHAT IS PAYMENT IN THE CONSTRUCTION INDUSTRY?

Payment is a sum of money paid to someone in return for goods, work done or services rendered. In the construction industry, payment is the sum of money paid to contractors after their work for certain projects has been successfully completed. In a typical engineering and construction contract, it is apparent that the contractor has promised to carry out all the works under the contracts. On the other hand, the employer must keep his side of the promise by giving necessary consideration to payment when due which in most cases comes in monetary form.

Payment is considered as the life blood of the construction industry because construction projects often involve very large capital outlay (Ameer-Ali, 2005). It is very obvious that a healthy and consistent disbursement of money is a critical point in determining contractor performance. In order to ensure the flow of the work activities under the contract and its eventual successful realisation, construction contracts have to be drafted. Most of these standard forms of contracts contain specially drafted clauses which govern all aspects of the subject of payment under the contract; these clauses have been reduced to the following principal categories:

#### Interim or progress payment

During contract periods, the most common method used is interim payments or the so-called progress payments. In Standard Forms, the interim or progress payments are effected by the issuance of 'interim certificates'. An interim certificate is actually the periodic certification for the payment due to contractor. The failure of the certifier to issue the relevant 'interim' certificates in line with the stipulation of the contract can expose his employer to a possible claim of breach of contract by the contractor (Singh, 2003). The frequency of periodic payment could be varied from a fortnight to a month. The actual duration is normally the period as agreed to in the contract conditions signed.

#### Stage payment

The term 'stage' payment is used when the payments are made at specific stages of work. This mode of payment is often used in small lump sum contract without quantities where a proportion of the total sum is agreed to be paid over in a number of stages. These proportions are fixed and do not depend upon any re-measurement of work. Nevertheless, the applications of this mode of payments are also applied in turnkey, design and build contracts as well as contracts involving repetitive works.

#### Advance payment

This is the sum of money paid to the contractor by the employer well before the work involved is executed. This practice is usually done in public works contracts. The main purpose of implementing this scheme is to assist the contractor to start up and finance the contract without having to resort to unnecessary and costly external borrowings.

#### Payment after completion

This is the method of payment to contractor triggered by the achievement of the contract milestone of practical or substantial completion and/or the so-called handing over of the works to the employer. Hence, unless such stage is reached and certified by the contract administrator, the contractor is not entitled to any payment whatsoever. In using this method, the contractor is basically financing the works to a large degree, which costs would eventually build into the contract sum. The employer must also be prepared to shoulder this burden as well as be in a position to source and effect payment ultimately of a sizeable lump sum amount upon the taking over of the works.

#### CAUSES OF DELAYED PAYMENT

There are many factors that are said to be causing the delayed payment problems in construction industries (Nazir, 2006). There is a need therefore to identify the contributing factors which lead to a situation of delayed payments. Based on the literature review various factors have been identified as the potential causes of delayed payment. These include:

- Employer's poor financial management: It is anticipated that employers' poor financial management could cause them to have insufficient operating funds when they are obliged to pay the payees. Payment is considered as the life blood of the construction industry because construction projects often involve very large capital outlay (Ameer-Ali, 2005).
- Employer's withholding payment: As provided in many standard forms of contract, the employer may withhold payment to the main contractor or subcontractor for a variety of reasons. Such reasons are major defective construction work, disputed work, failure to comply with any material provision of the contract, third party claims filed or reasonable evidence that a claim will be filed, and failure to make timely payments for project resources (Reeves, 2003). These reasons may cause the employer to refuse to make payments which will result in delayed payments.

- Conflict among parties involved: 'Payment, not unexpectedly, has always been the main subject of disputes' (Adballa and Hussein, 2002). It is anticipated that conflict if unsettled will escalate into disputes which can also cause delayed payment.
- The use of 'pay when paid' clause in sub-contracts: The 'pay when paid' clause in contracts could cause delayed payment issues especially to the subcontractors (Ameer-Ali, 2005).
- Local culture/attitude: Before the introduction of the Housing Grants, Construction and Regeneration Act 1996 (HGCRA) the construction industry in the UK was prone to a culture of late payment where a delay of 53 days in making payment after the receipt of invoice was not uncommon (Johnston, 1999).

Other causes of delayed payment identified by the researcher include:

- Delay in certification
- Disagreement on the valuation of work done

A few works published on this issue worldwide have stated that the delayed payment problems could be due to contractors, clients and sometimes the contractual matters in the contract provision used (Reeves, 2003; Adballa and Hussein, 2002; Artidi and Chotibongs, 2005).

# **DELAYED PAYMENT CAUSED BY CONTRACTORS**

Most of the time, contractors would blame clients when they receive late payment; however, contractors also contribute to this situation. In his work Reeves (2003) stated that one of the main reasons for delayed payment is when there are errors in submitting claims. This includes claims without adequate supporting documents, wrongly calculated claims and those submitted without using the correct procedures. When this is the case, contractors need to resubmit the claims after making the necessary corrections. Another factor contributing to delayed payment is when contractors fail to agree with the valuation of work on site (Adballa and Hussein, 2002). This would then result in conflicts between clients and contractors which could lead to dispute resolution and hence, delayed payment occurring.

#### **DELAYED PAYMENT CAUSED BY CLIENTS**

According to Reeves (2003), the main factor contributed by clients is when they take longer than the stipulated time in terms of the contract to certify the claim. This might be because they have become increasingly subject to claims arising out of their design and construction administration services. There are cases where clients are wrongfully withholding the payment. Most of them do this to obtain some kind of 'gift' from contractors once they disburse the payment (Adballa and Hussein, 2002). Hence, contractors often have to tolerate this kind of action in order to secure their payments which should not be happening.

#### DELAYED PAYMENT CAUSED BY CONTRACTUAL MATTERS

There are cases where contract agreements do not bring any justice to both main contractors and subcontractors (Artidi and Chotibongs, 2005). One good example is when for instance, the 'paywhen-paid' clause is often used in contract agreements between main contractors and subcontractors or between housing developers and main contractors (Adballa and Hussein, 2002).

'Pay-when-paid' or also known as 'back to back' method of payment never brings justice to the second parties (Artidi and Chotibongs, 2005). Often second parties would get delayed payment or even worse, no payment at all. But the real situation is, it still exist in the industry, often in the non-standard construction contracts. It may be worthwhile to note that in England, this type of provision in construction contracts has been rendered unenforceable (Housing Grants, construction and Regeneration Act 1996). The policy of 'pay-when-paid' was also rejected during the drafting of Construction Industry Development Board in 2002 in Malaysia. The general contractor uses these strategies to insulate himself/herself from any liability in the event of being sued by subcontractors at any time or in the event of non-payment by the owner.

#### IMPACTS OF DELAYED PAYMENT

The cascade system of payment starts from the financial institution to main contractor to sub-contractor and so on down the chain (Latham, 1994). The insolvency of one party in the payment chain could cause severe impacts to parties down the contractual chain. The difficulties are further compounded by the fact that it is a normal practice to include 'pay-when-paid' clauses provision in

the subcontractor's contract. The burden of the main contractor's delayed payment due to his own faults will be shifted to the subcontractor as well and this in turn will affect the subcontractors' cash flow.

Lack of payment to contractors is a common cause of disputes in the construction industry. According to Artidi and Chotibongs, (2005), all the problems in the construction industry begin when payment in the exact amount due by the date shown on the statement is not received. Disagreements then lead to arguments as relationships sour, and the stage is set for conflict; finger-pointing, blaming and judging, buck-passing and lawyers. Projects exceed initial time estimates and costs escalate and extensive delays are experienced.

Delayed payments never bring justice to contractors and subcontractors (Artidi and Chotibongs, 2005). Its effects are sometimes so harsh that some companies have to close down. One of the biggest consequences would be the interest due on capital borrowed. Contractors often borrow working capital from banks in order to finance their construction operations and invariably have to pay interest on these borrowings.

Contractors are highly dependent on regular interim payments from employers during the course of construction to help discharge the debt so accrued. Therefore, when a contractor does not receive interim payments on time or in accordance with the terms agreed or for the proper amount, the interest he or she needs to pay in the form of finance charges to the bank will invariably increase. Delayed payment will also affect the contractor's performance. He may lose his workers. He might not have sufficient funds to tide him over until such time as conflict is resolved and the next payment is received in terms of the contract. The construction process will be delayed and the list goes on. But one thing is for sure: delayed payments or non-payment to contractors have a negative influence on the overall construction process. It should be understood that 'the practice of efficient and timely payment in construction projects is a major factor that can contribute to a project's success' (CIOB, 2004).

Subcontractors are also affected by delayed payments. Subcontractors are often paid late by main contractors because of the fact that 'pay-when-paid' and 'pay-if-paid' clauses are included in most contract forms. The consequences of the subcontractors being paid late are grave. In such situations, some subcontractors tend to increase their quotations which in turn increases total project cost, an undesirable condition for owners. It should be possible to improve subcontractor payment practice if developers pay main contractors on time, and in turn main contractors pay their subcontractors as soon as possible after completion of the subcontract work. The possible impacts of delayed payment have been identified as follows:

- Creates financial hardship: It is anticipated that delayed payment can create financial hardships for the contractor.
- Creates a negative chain effect on other parties: As stated by Davis Langdon and Seah Consultancy (2003), 'the construction payment blues have domino effects'. A delayed payment by one party may affect the entire supply chain of payment of a construction project.
- Creates cash-flow problems: It is universally accepted that delayed payment affects the contractor's cash flow, which in turn can affect the progress of the works and profitability (Naseem, 2005).
- Results in a delay in completion of projects: According to Abdul-Rahman and Berawi, (2006), a financial problem is confirmed by the view of top management in the survey as being the main cause of delay, in addition to manpower shortage.

Other possible impacts have been identified by the researcher, and include that delayed payment:

- Leads to bankruptcy or liquidation
- Leads to abandonment of projects
- Results in formal dispute resolution, e.g. litigation/arbitration
- Creates negative social impacts

#### REMEDIES FOR DELAYED PAYMENT

All standard forms of contract provide a period of time, which is referred to as period of honouring certificate, for the employer to pay for the total value of work executed plus unfixed materials and goods to the contractor. The period of honouring certificates depends on the kind of standard form of contract adopted. Failure on the part of the employer to pay the contractor within this period will

constitute a breach of contract. Generally, the fact that a breach of contract has been committed does not automatically bring the contract to an end. Parties to a contract are bound by the terms, to which they have agreed, and e.g. the case of delayed payment by the employer does not give the contractor the right to treat the contract as being at an end; it is regarded as a minor or normal breach. Thus, the contract still subsists and the contractor is obliged to proceed with the carrying out of the works regularly and diligently and of course in a good and work-like manner (*Articles of Agreement and Condition of Contract for Building Works*, 1988).

The remedies available for the innocent party, i.e. the contractor, are to commence an action for the recovery of moneys owed together with any interest payable, or to start arbitration proceedings to claim for damages. However, if the employer persistently refuses to pay the contractor despite many interim certificates having been issued by the contract administrator, the contractor may treat the employer's failure to pay as a repudiation of the contract and it is open for him to accept the repudiation and then to treat the repudiation as an offer to rescind the contract altogether. Under these circumstances, the employer's absolute refusal in performing his part of bargain is regarded as fundamental breach that goes to the root of the contract (*Articles of Agreement and Condition of Contract for Building Works*, 1988).

All standard forms also provide clauses which deal with the right of one party to determine the employment of the other party due to specified events stipulated in the contract and mechanisms to be followed should the event occur. It should be noted that in the event of determination, the contract itself does not come to an end but remains in being, albeit in modified form (Lim, 2005).

It must also be noted that the contractor is not entitled to determine his own employment due to employers' failure to pay in a timely manner unless it is clearly provided in terms of the contract. However, it should be emphasised that the contractor can still use the common law route to determine his contract employment, provided that the breach is so serious that it goes to the root of the contract.

Many standard forms provide that the right of determination should be exercised 'without prejudice to any other rights and remedies' which means that the innocent party has the option of whether to use the contractual termination clause or common law termination or both. However, should the aggrieved party exercise the common law right, such a right should be exercised with a great deal of care because if the court feels that right to have been wrongly exercised in which the breach on the part of the other party (defaulting party) does not amount to repudiation (fundamental breach) the court in turn will decide that the aggrieved party has acted in repudiation by accusing the other party of having repudiated the contract and this will give the option to the other party to rescind the contract. Nevertheless, the employer will be guilty of repudiating the contract if the employer clearly shows his intention of not paying the contractor in any event or of having continuously failed to pay the certificate of payment (*Articles of Agreement and Condition of Contract for Building Works*, 1988).

Lim (2005), has indicated that there are various avenues available to improve the problem of delayed payments in the industry and some of these options have been incorporated in the construction contracts or statutes in the other developed countries, such as payment of stipulated interest, suspension of works, right to slow down work, eradication of the 'pay-when-paid' clause, right to refer dispute to adjudication, the creation of right to a lien, creation of a trust account and payment bonds.

#### RESEARCH METHODOLOGY

The principal method used to collect information for this study was the questionnaire survey. The choice of using this method was made based on a variety of factors, including the type of information to be gathered and the need to protect the privacy of the participants. Often, confidentiality is necessary to ensure that participants respond honestly. Since the subject of the research is payment, confidentiality is very necessary. Again, the questionnaire survey was deemed as being the most appropriate way in gathering all the information from different parties for this study. The questionnaire was designed according to the objectives of the research by reviewing literature dealing with delayed payment and other relevant topics. The questionnaire was intended to:

- Identify the causes of delayed payment
- Identify the impacts of delayed payment
- Investigate the remedial action that will be taken to improve situation and project performance due to problems related to delayed payments

The survey was carried out to obtain indicative data from carefully selected respondents across the construction industry in Ghana. These include contractors, subcontractors and clients who are directly involved in the execution of construction projects in Ghana. The reason for choosing contractors and subcontractors is because they are the ones who are directly affected by problems related to delayed payments. One hundred and seventy (170) outstanding main contractors and subcontractors registered as Class D1 through Class D4 were randomly selected for the study using the Directories for Building, Construction and Civil Engineering in Ghana. A few clients within the study area were also contacted for information regarding clients on payment issues since they are the principal employers. Given this scope, questionnaires were distributed to a random sample of 90 contractors 80 subcontractors and 40 clients in the Ghanaian construction industry. In total, 210 questionnaires were distributed to the respondents across the construction industry in Ghana. The respondents were asked to express their perceptions of the causes of delayed payment, impacts thereof and strategic action to be taken to solve the problems.

Questionnaires were mailed with self-addressed envelopes and at the same time also e-mailed to the respondents. This was done in order to ensure that the targeted persons received the questionnaires and because it was much easier to collect the completed forms afterwards. These methods of communication led to the return of 174 completed questionnaires, 87 of which from main contractors, 66 from subcontractors and 21 from clients. Data collected were then analysed statistically. The structured data are summarised by calculating frequencies, percentage, relative index, standard deviation, and ranks. The Relative Importance Index was used to determine the ranking of the causes, impacts and action taken by contractors to overcome the problems related to delayed payments. The Relative Importance Index (*I*) was calculated as:

$$I = \frac{\sum_{i=1}^{5} WiXi}{\sum_{i=1}^{5} Xi}$$

where:

*i* = response category index = 1, 2, 3, 4 and 5 for 'Disagree', 'Slightly agree', 'Moderately agree', 'Strongly agree' and 'Extremely agree', respectively

 $W_i$  = the weight assigned to the *i*th response, as = 1, 2, 3, 4 and 5, respectively

 $X_i$  = frequency of the *i*th response given as percentage of the total response for each cause

#### **RESULTS AND DISCUSSIONS**

The list of factors presented in the questionnaire which contributed to the causes, impacts and remedial measure of delayed payment were obtained from previous works.

Findings of the survey were analysed to provide a better understanding of the issues of delayed payment in the construction industry. The results of this study were generated from all the responses received and discussed based on the categories provided in the questionnaire as follows:

# Causes of delayed payment

This division discusses the factors that caused delayed payments problems in Ghanaian construction industries. The factors are divided into 3 groups which are contractor-related factors, client-related factors and factors related to contractual matters. Each of these categories was then analysed and the results are shown in Tables 1, 2 and 3.

# Contractor-related factors

The Relative Importance Index and ranking for contractor-related factors as chosen by main contractors, subcontractors and clients, respectively, are shown in Table 1.

# JCPMI Vol. 1 (1): 27 - 45, (November) 2011 Table 1

Relative Importance Index and ranking (R) for contractor-related factors

		Main C		Sub-	Con	Cli	ents
No.	Contractor-related factors	In	R	In	R	In	R
i.	Contractor's delay in submitting claims	3.30	1	3.32	1	3.88	5
ii.	Contractor submits claims with errors	2.53	2	2.97	2	4.46	2
iii.	Contractor submits claims without adequate supporting documents	2.01	3	1.67	5	4.22	4
iv.	Contractor's failure in submitting a new (corrected) claim	1.67	7	1.47	7	4.48	1
V.	Contractors' failure to agree to the valuation of work	1.82	6	1.90	4	2.95	6
vii.	Contractors' failure to follow the certain procedure / guidelines in claims	1.87	5	1.57	6	1.82	7
viii	Contractors' failure to understand the contract agreement	1.99	4	2.20	3	4.42	3

# Client-related factors

The Relative Importance Index and ranking for client-related factors as chosen by main contractors, subcontractors and clients, respectively, are shown in Table 2.

Table 2
Relative Importance Index (*In*) and ranking (*R*) for client-related factors

		Main C		Main C Sub-Con		Clients	
No.	Client-related factors	In	R	In	R	In	R
i.	Clients' poor financial management.	4.86	1	4.72	2	1.62	5
ii.	Clients' poor financial sources/condition	4.84	2	4.78	1	2.02	4
	Clients' failure to cultivate a good payment attitude among						
iii.	its employees by wrongfully withholding the payment	4.64	3	4.65	3	3.55	1
iv.	Clients' delay in certification.	3.90	4	4.28	4	2.65	2
v.	Clients' disagreeing on the valuation of work done	2.16	5	2.15	5	2.40	3

*Factors related to contractual matters* The Relative Importance Index and ranking for factors related to contractual matters as chosen by main contractors, subcontractors and clients, respectively, are shown in Table 3.

Table 3
Related Importance Index (In) and ranking (R) for factors related to contractual matters based on respondent business

			Main C		Sub-Con		ents
No.	Factors related to contractual matters	In	R	In	R	In	R
i.	Contracts used are too complicated to be understood by						
	both parties	2.45	3	2.45	3	1.75	3
ii.	Contracts used are not comprehensive enough in terms of payment aspects	3.37	2	3.60	2	2.15	2
iii.	The use of 'pay-when-paid' clauses	3.56	1	3.80	1	2.55	1

From Tables 1, 2 and 3, a new table was developed to reflect the factors that were rated highly by each of the group of the respondents. The results are as shown in Table 4.

Table 4
Relative Importance Index (*In*) and ranking (*R*) of delayed payment factor categories

			Main C		Sub-Con		nts
No.	Delayed payment factors category	In	R	In	R	In	R
i.	Contractor-related factors	2.17	3	2.16	3	3.75	1
ii.	Client-related factors	4.08	1	4.12	1	2.45	2
iii.	Factors related to contractual matters	3.13	2	3.28	2	2.15	3

As reflected in Table 4, the contractor-related factors were the highest ranking group to clients. This is mainly due to the contractors' failure to submit new (corrected) claims, submission of claims with errors, and failure to understand the contract agreement. These three factors were ranked among the top three in this group by the clients. It was interesting to learn that contractors' delays in submitting claims and submitting claims with errors were the two most important factors in this category chosen by both the main contractors and subcontractors.

Both main contractors and subcontractors have a level of agreement in choosing client-related factors as top factors affecting delayed payments. This is mainly due to clients' poor financial management,

clients' poor financial condition and clients' failure to cultivate a good payment attitude among its employees by wrongfully withholding the payment, which ranked the top three most chosen factors by main contractors and subcontractors. Clients on the other hand ranked the failure to implement good 'payment' attitude among its employee contributed most to the delayed payment problems. It is also worth noticing that clients' delay in certification and clients' disagree on the valuation of work done are of more important factors to clients than contractors.

Factors related to contractual matters were considered important and ranked second by both main contractors and subcontractors. They ranked each of the factors equally. The use of 'pay-when-paid' clauses in most of the contract was chosen as the top factors that caused delayed payment problems. Clients also chose the use of 'pay-when-paid' clauses as the top factor in this category.

# Delayed payment impacts on projects

This section discussed the impact of delayed payment on construction projects and also the impact it had on the company itself. The result was also analysed based on the 3 respondent groups using the Relative Importance Index and ranking as indicated in Table 5.

Table 5
Relative Importance Index (In) and ranking (R) for impacts of delayed payment based on respondent business

		Main C		Sub-	Con	Clie	ents
No.	Impacts of late payment	In	R	In	R	In	R
i.	Delay in project's progress	4.30	1	4.08	5	4.68	2
ii.	Extension of time for project	3.56	5	2.85	7	4.55	3
iii.	Low quality works due to contractor's uncertain financial condition	2.36	7	4.07	6	4.89	1
iv.	Abandonment of the project	3.14	6	4.20	3	4.49	4
v.	Creates negative relationship among parties	3.64	3	4.15	4	4.22	5
vi.	Creates financial hardship for the company	3.62	4	4.75	2	3.95	6
vii.	Subcontractors refuse to continue works on the project	3.82	2	4.78	1	2.88	7

Main contractors ranked the top three impacts of delayed payments as 'delay in project's progress'; 'sub-contractors refuse to continue works'; and 'creates negative relationship among parties in contract'. Meanwhile subcontractors ranked 'sub-contractor refusing to continue works on the project'; 'creates financial hardship for the company'; and 'abandonment of the project' as top three most likely impacts of delayed payments. In reality, abandonment of the project might not happen because of delayed payments but it may happen because of non-payment. The researcher concluded here that abandonment of the project because of delayed payment might occur if the delayed payment problems were too severe, like the delay of payments over a period of more than 5 months. Severe cases of delayed payments like this might lead to abandonment of projects by subcontractors.

Clients on the other hand ranked impacts of delayed payment as 'low quality of works'; 'delay in project progress'; and 'extension of time for project' among the highest. While an extension of time may be considered normal to projects experiencing problems with delayed payments, low quality of works on the other hand cannot be accepted. In this study, contractors gave high priority to quality work even when the payment was delayed because they gave the lowest rank to the consequences of low quality of works. This means that the contractors disagree with the fact that low quality of work decreases with delayed payments (Nazir, 2006).

#### Actions taken by contractors to overcome delayed payment

This section discussed the actions taken by contractors to overcome the problems caused by delayed payments. In the questionnaire, only contractors and subcontractors are asked to select the action taken by them to overcome the delayed payment problems. The actions were then ranked as shown in Table 6.

Table 6
Relative Importance Index (*In*) and ranking (*R*) of action taken by contractors and subcontractors to overcome delayed payment problems

		Main C		Sub-Con	
No.	Action taken by contractor to overcome delayed payment	In	R	In	R
	problems				
i.	Follow-up with clients using formal procedure	4.25	2	3.53	3

JCPMI Vol. 1 (1): 27 - 45, (November) 2011

ii.	Follow-up with clients by direct communication only	4.40	1	3.45	4
iii.	Slow down the construction work at site until payment is received	1.68	6	4.68	2
iv.	Suspend the construction process until payment is received	2.09	5	4.88	1
v.	Apply interest charge to the overdue payments	1.57	7	1.58	7
vi.	Applying loan to utilise project	3.20	3	1.82	5
vii.	Initiate arbitration or litigation	2.13	4	1.80	6

The highest ranking action selected by main contractors in case of delayed payments was to do 'follow-up with clients by direct communication'. Not surprisingly, the second highest action chosen would be to 'follow-up with clients using formal procedure'. The highest ranking action chosen by subcontractors, on the other hand, was to 'suspend the construction process until payment is received'. However, there is a big index difference between main contractors and subcontractors on this action. Main contractors personally ranked this action among the lowest.

# **CONCLUSIONS**

It was realised that client-related factors were the highest ranking group to contractors in the study. According to the contractors, the most frequent causes of delayed payment by clients are: 'Clients' poor financial management'; 'clients' poor financial sources/conditions'; and 'clients' failure to cultivate a good payment attitude among its employees by wrongfully withholding the payment'. On the other hand, the clients also related the most frequent causes of delayed payment by contractors as: 'Contractors' failure in submitting a new (corrected) claim'; 'contractors submit claims with mistakes'; and 'contractors' failure to understand the contract agreement'. It was also identified that delayed payment is sometimes caused by disagreement on the valuation of work done between client and contractor. Delayed payment most likely will cause undue cash-flow problems for the contractors and this would have a devastating knock-on effect down the contractual payment chain. Failure to receive payment in a timely manner could expose contractors to a greater risk of failing to complete construction projects on time. The survey results indicate that the most serious effects of delayed payment are: 'Delay in project's progress'; 'creates financial hardship for the company'; 'sub-contractors refuse to continue works on the project'; and 'creates negative relationship between clients and contractors'.

Most of the respondents (contractors and subcontractors) agreed that a mechanism for avoiding or reducing delayed payment needs to be taken in the form of contractual or statutory rights. According to the literature review, the 3 most preferable alternative remedies for securing payment debt from the employer are: 'Right to speedy dispute resolution mechanism, for example, adjudication'; 'a right to suspend work'; and 'a right to regular periodic payment'. However, according to the study results, the 3 remedial actions of delayed payment chosen by the main contractors are: 'Follow-up with clients by direct communication'; 'follow-up with clients using formal procedure'; and 'sending notice letter via company's lawyer'. Subcontractors, on the other hand, prefer to take the following actions: 'Suspend the construction process until payment is received'; 'slow down the construction work at site until payment is received'; and 'follow up with clients using formal procedure'. It was found that the method of applying overdue (interest) charges was very rare in the construction industry. Arbitration or litigation was also least likely to be chosen because it usually takes a long time to resolve disputes using these methods.

The study concluded that professional bodies and government agencies should study and amend the existing standard forms of contract to provide protection and to promote well-balanced allocation of risk and a fair contract to all related parties. It should also be made mandatory for employers' financial capacity and credit rating to be made transparent to facilitate contractors in selecting employers who are credit-worthy and to improve the chances of the contractor being paid. Perhaps, an increased sense of professionalism in the construction industry could overcome some of the problems related to delayed payment.

#### RECOMMENDATIONS

To improve the situation regarding delayed payments in the construction industry, the findings of this research must be addressed by a joint effort of all participants in the construction industry. This calls for:

i. Enforcing clauses of delayed payment in contracts. Applying charges to overdue payments could be determined in the same way as late delivery charges have been applied.

ii. Developing payment departments for every contractor to report any delayed payment problems. This department would be responsible for keeping records of every client with a history of delayed payments. These clients would be subject to penalties if they fail to pay on time as stipulated in the contract. This department should be mindful of the fact that time is of the essence and should be in a position to settle any problems in this regard as soon as possible.

#### **REFERENCES**

- Abdul-Rahman, H. and Berawi, M.A. (2006). Delay mitigation in the Malaysian construction industry. *Journal of Construction, Engineering and Management, ACSE*, 132 (2): 125-133. Adballa, M.O. and Hussein, T.B. (2002). Causes of construction delay: Traditional contracts. *International Journal of Project Management*, 20: 67-73. Ameer Ali, N.A.N. (2005). Construction industry payment and adjudication act, reducing payment default and increasing dispute resolution efficiency. International Forum on Construction Industry Payment Act and Adjudication, 13 & 14 September 2005, Kuala Lumpur Convention Centre, Kuala Lumpur, Malaysia.
- Articles of Agreement and Condition of Contract for Building Works (5<sup>th</sup> edn.) (1988). Accra, Ghana. Artidi, D. and Chotibongs, R. (2005). Issues in subcontracting practice. *Journal of Construction Engineering and Management ACSE*, 8: 866-876. CIOB (Chartered Institute of Building) (2004). Construction Act consultation: Improving payment practices, 14th October, 2004 (Accessed August 8, 2005).
- Davis Langdon & Seah Consultancy (2003). Construction payment blues Why that domino effect? Executive Summaries for the Practitioner, 3 (3): September 2003. Johnston, S. (1999). Debts and interest in the construction industry, a guide to the Late Payment of Commercial Debts (Interest) Act 1998. Thomas Telford Limited: London.
- Latham, M. (1994). Constructing the team. HMSO: London
- Lim, C.F. (2005). Malaysian construction industry The present dilemmas of the unpaid contractors. International forum on Payment Act and Adjudication. Kuala Lumpur: CIDB and ISM.
- Lip, E. (2003). Construction payment blues Why that domino effect? Davis Langdon and Seah Consultancy: *Executive Summaries for the Practitioner*, 3: 1-4.
- Nicholas, N. (2005). Late payment culture creates domino effect. *Accountancy Age*, 30 June 2005. <a href="http://www.vnunet.com/articles/print/2139274">http://www.vnunet.com/articles/print/2139274</a> (Accessed February 13, 2006).
- Naseem, N.A. (2005) Construction Industry Payment and Adjudication Act: International Forum on Construction Industry Payment Acts and Adjudication. Kuala Lumpur: CIDB and ISM.
- Nazir, N.Z. (2006). Late payment problems among contractors in Malaysia.

  Unpublished Masters Dissertation (Construction Management), Faculty of Civil Engineering, Universiti Teknologi Malaysia, Skudai, Malaysia.
- Reeves, K. (2003). Pay up. JUBM Construction News and Views, 1/2003: 4-6.
- Ir. Harbans Singh K.S. (2003). Engineering and construction contracts management Post commencement practice. Lexis Nexis Business Solutions: Singapore.