

Effectiveness of CIPAA Implementation in Construction Industry from the Perspective of Contractors in Malaysia

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Abstract

Purpose: As an effort to reduce the default payment problems, the enactment of the Construction Industry Payment and Adjudication Act (CIPAA) 2012 was endorsed by the government and CIPAA is put into implementation in handling default payment problems. This paper aims to analyze contractors' perception on the implementation of CIPAA in handling default payment issues and to examine contractors' opinion on the effectiveness of the provisions set out in the CIPAA in solving payment issues among contractors

Design/methodology/approach: A questionnaire survey was employed, and data were collected from 139 Class A contractors in Selangor.

Findings: The result show that majority of the contractors support on the implementation of CIPAA and agree that CIPAA is an effective method in solving default payment issues. Apart from being an effective method, the findings also provide insights into how the implementation of CIPAA offers greater benefits to the contractors beside solving disputes over payment in projects.

Research limitations/implications: The findings of this study are limited in the State of Selangor only. While most contracting companies and several megaprojects are in the Selangor state, the findings of this study cannot be used to generalize the population of the study.

Practical implications: This study benefits several key players in the construction industry, namely the contractors, subcontractors, consultants, and project owners in solving payment issues.

Originality/value: This study contributes to the understanding of perceived effectiveness in the implementation of CIPAA in solving payment issues, involving contractors in Malaysia.

Keywords: CIPAA, Dispute Resolution Method, Payment Issues, Construction Industry, Effectiveness

Introduction

The Malaysian construction industry contributed three to five per cent of the aggregated economy Gross Domestic Product (GDP) for the country in the last two decades (Khan, Liew, & Ghazali, 2014). The industry has significantly contributed not only to the country's economy, but the rapid growth of infrastructures and country development are also benefitted from the industry. Currently, the Malaysian construction industry is undertaking multiple megaprojects, in both civil engineering construction and building construction. For instance, the development of Mass Rapid Transit (MRT) which cost RM50 billions was one of the projects that have contributed to the Malaysian economy. According to Mohsen and Heydar (2013), one of the most significant issues regarding construction projects is to ensure that the project finished on time. However, issues concerning payment, such as late payment, non-payment and underpayment have still occurred among the contractors in the construction industry, which also could affect project duration and project performance.

The payment issues of late payment, non-payment, and underpayment are among the most pressing concerns for contractors (Mohamed, Natasha, Zuhairi, & Khuan, 2014). Abdul, Rozana, and Saeed (2016) reported in their study that 91% of respondents agreed that late payment is one of the most critical issues in managing a project. This is because the consequences of payment issues can have a ripple effect, impacting the progress of a project, as well as the suppliers, sub-contractors, and construction workers. It is not uncommon for contractors to complain that they are not being paid on time or that payments are released too late by the client. If contractors fail to receive their payments regularly and/or in a timely manner, it can lead to delays in project completion, cash flow problems, slow company growth, and reduced productivity.

In an effort to address payment issues in construction project management, the Malaysian government has enacted the Construction Industry Payment & Adjudication Act (CIPAA) 2012. This act was first passed by the Malaysian Parliament and published on 22 June 2012, becoming statutory and operational on 15 April 2014 (Hadi, Othman, & Dadi, 2018). The Masters Builders Association of Malaysia (MMBAM), Persatuan Arkitek Malaysia (PAM), Board of Engineers Malaysia (BEM), Construction Industry Development Boards (CIDB) and other similar institutions have all supported the enforcement of CIPAA. This act provides a mechanism for regular and timely payment, accelerated dispute resolution, and remedies for the recovery of payment (AIAC, 2014). CIPAA covers all disputes arising out of non-payment of works, services rendered, or materials provided under a written building contract. Additionally, construction contracts such as construction work contracts and consultancy contracts can also benefit from CIPAA, allowing contractors to more easily resolve payment issues in their projects.

As previously mentioned, one of the key advantages of the Construction Industry Payment and Adjudication Act (CIPAA) is its ability to provide a much faster resolution to payment disputes in the construction industry (AIAC, 2014). This is clearly demonstrated in Clause 12, Part 2 of CIPAA, which stipulates that the Adjudicator must make a decision on a dispute within 45 working days. Furthermore, CIPAA encourages contractors to fulfill their obligations in order to protect their rights and reduce payment disputes between parties in the construction project. This is outlined in Clause 29, Part 4, which states that contractors and parties to the contract must not breach the terms of the contract. Additionally, CIPAA facilitates improved project cash flows and regulates payment conduct in the construction

industry, thus proving to be a valuable tool in strengthening the Malaysian construction industry.

However, there are limited studies conducted regarding the effectiveness of CIPAA as a mechanism for payment acceleration in the construction industry. For continuous improvement and better implementation purpose, the usefulness of CIPAA mechanism in significantly need to be understood and justified. Therefore, the objectives of this study are twofold: 1) to analyze contractors' perception of CIPAA in handling default payment issues, and 2) to examine contractors' expectations regarding the effectiveness of the provision set out in the CIPAA. It is hoped that the findings of this study will not only benefit the students and future researchers, but also the policy and decision makers in the construction industry in understanding the implementation of CIPAA as a mechanism to assist and accelerate payments issues among the contractors.

The organization of this paper is as follows; it starts with an introduction to the paper and the research problem, followed by literature review and research methodology. The paper further developed with results and discussion section and end with the conclusion for the study.

Literature Review

Payment Issues

It is widely accepted that payment issues in the construction industry cannot be overlooked. These payment issues have a significant impact on project stakeholders, particularly contractors, suppliers, workers, and society. According to Mohamed et al. (2014), when contractors fail to receive payment on a regular and timely basis, it can lead to project delays, reduced profitability for the company, and even liquidation in extreme cases. These payment issues include non-payment, underpayment, and late payment. Most importantly, it is clear that payment issues in the construction industry have a significant impact on project stakeholders. When contractors fail to receive payment on a regular and timely basis, it can lead to project delays, reduced profitability for the company, and even liquidation in extreme cases.

Underpayment occurs when a contractor receives less money than the value of their work. Although the contractor can take legal action against the client for the underpayment, it is an uncommon court case in the construction industry. On the other hand, non-payment occurs when no payment is made to the contractor, even after the project activities have been completed. This can be particularly detrimental for contractors, as it can lead to a significant disruption in cash flow from the top of the hierarchy down the chain (Mohamed et al., 2014). Late payment is when the contractor receives payment or a certificate beyond the agreed payment period. This can have a negative impact on cash flow and the quality and timeliness of the project (Hadi, Othman & Dadi, 2018). The underlying factors behind these payment issues are varied, including delays in certification, clients' poor financial management, local attitudes/culture, and clients' poor governance in business (Mohamed et al., 2014).

Introduction to CIPAA

Payment issues are a common occurrence in the construction industry worldwide, including Malaysia. To address this issue, many developed countries have implemented payment acts, such as the Australia Building and Construction Industry Security of Payment Act 2002, which was designed to resolve payment problems in the Australian construction industry. The growth of the Malaysian construction industry has brought about many positive developments and great opportunities, but it is not immune to disputes related to payment. In a similar vein, the Malaysian government has established the Construction Industry Payment & Adjudication Act (CIPAA) 2012 to reduce the burden of contractors in handling payment issues in projects. Royal Assent and Gazette adopted CIPAA as Act 746 in Malaysian law, and it has been in operation since April 2014, nearly ten years after its establishment.

Prior to the introduction of the Construction Industry Payment and Adjudication Act (CIPAA), payment disputes in the construction industry were typically resolved through arbitration or litigation, both of which are known to be lengthy and expensive processes. This protracted dispute resolution process often caused contractors to experience cash flow issues and disruption to their business operations while waiting for the dispute to be resolved.

The Kuala Lumpur Regional Centre for Arbitration (KLRCA) has been converted into the Asian International Arbitration Centre (AIAC). Professor Datuk Sundra Rajoo, the Director of AIAC, has stated that the Construction Industry Payment and Adjudication Act (CIPAA) seeks to facilitate cash flow in the construction industry through compulsory statutory adjudications. AIAC is responsible for setting the standards of competency and criteria for adjudicators and provides the necessary training courses to interested parties to become certified adjudicators. Furthermore, AIAC empowers and lists qualified adjudicators on the AIAC adjudicator panel.

Benefits of CIPAA

Yat (2016) highlighted that adjudication is the most favored approach to dispute resolution in the construction industry. This is due to the fact that adjudication offers a much swifter process than litigation and arbitration. If the claims process is expedited, contractors can focus on other tasks without any hindrance while the adjudication is in progress. In Malaysia, CIPAA is a dependable adjudication as they also provide a relatively speedy resolution to disputes.

CIPAA is a swift and efficient method for resolving disputes, as the adjudicator is required to make a decision within 45 days, as stipulated in Clause 12 Adjudication and Decision. This is in stark contrast to the arbitration system, which can be a lengthy and laborious process (Chang, 2016). Arbitration can be a lengthy and laborious process, involving the need to choose an arbitrator, preparing and exchanging legal documents, and providing in-depth evidence to support the dispute. The procedure can include multiple hearings or meetings where both parties present their respective cases, question witnesses through cross-examination, argue on points of law, and respond to questions from the arbitrator. After all parties have had a chance to be heard, the arbitrator will typically write a decision based on his or her findings of fact. The complexity of this process requires trained professionals for each side: lawyers familiar with arbitration law and practice in the jurisdiction as well as witnesses knowledgeable about specific issues related to the case. Despite its difficult nature,

arbitration remains an attractive option for settling disputes due to its advantages over traditional court proceedings such as lower costs, greater control over who is deciding the dispute at hand, and an expedited resolution timeline.

CIPAA is a well-established cost-effective method of dispute resolution which offers parties the ability to resolve their issues efficiently and expeditiously. It provides a more structured approach to dispute resolution compared to traditional adversarial proceedings by limiting the number of court appearances and marshalling resources. This integrated procedure enables effective collaboration between all stakeholders including lawyers, mediators, expert opinion and accountants resulting in an informed decision through comprehensive disclosure of evidence and other documents with sound legal advice in a timely fashion. Furthermore, CIPAA ensures that costs are proportionate as it allows for early evaluation on merits rather than prolonged litigation costs.

In 2005 and 2007, amendments were made to the Housing Grants, Construction and Regeneration Act (HGCRA) to ensure on-time payments through adjudication. This cost-effective and time-efficient solution was introduced in the United Kingdom to address payment issues in Malaysia (Joanna, 2011). The amendments were made to reduce the burden on claimants by shifting the adjudicators portion of the payers costs, as well as to allow claimants to seek compensation for work suspension.

The confidentiality of the parties under CIPAA is also secure. Clause 20 of the Act states that “The adjudicator and any party to the dispute shall not disclose to another person any declaration, admission of documents made or produced for adjudication”, ensuring that the proceedings are conducted privately and confidentially. However, there are some exceptions to this, such as if the disclosure is required for the application of an adjudication decision or arbitral proceedings, if the data is already publicly available, with the authorization of the other party, or if disclosure is required under the Act for any purpose.

Adjudication is known as flexible, which the adjudication will not hinder the further resolution of disputes. According to Rajoo (2012), The parties to the conflict shall have the flexibility to terminate the adjudications by written agreement or arbitration or subsequent decision of the court. However, where arbitration or court decides on the disputed matter, the adjudication proceedings must be terminated. Statutory adjudication is essentially a process prescribed by CIPAA, as a dispute resolution platform. Statutory adjudication is a compulsory and statutory process that can commence without the parties' consent and prevails, to the contrary, over any other agreements between the parties.

Any construction contract must include the statutory right of adjudication, even if it is not explicitly stated in the contract. This provision applies to all construction projects, including those involving written supply, services, and consulting. The claimant may initiate the CIPAA adjudication process without the consent of the contracting parties (Zicolaw 2014). The adjudicator's decision is temporarily binding until the parties refer the dispute to arbitration or litigation in court. The parties must abide by the adjudicator's conclusion and must pay the amount in dispute, unless the High Court stays the execution. The Payment Act provides security for any disputed claim, ensuring that the adjudicator's decision is enforced.

Method

This research employed a quantitative approach to measure the outcomes of the study, as it is more objective than other methods (Naoum, 2013). A survey was conducted to assess contractors' perceptions of CIPAA and their expectations of its effectiveness in the Malaysian construction industry. The questionnaire was divided into four sections: Section A, which focused on the respondent's particulars (4 questions); Section B, which focused on CIPAA's ability to solve payment issues (6 questions); Section C, which examined the effectiveness of CIPAA (9 questions); and Section D, which explored contractors' perspectives on CIPAA implementation. A Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree) was used to gauge respondents' levels of agreement for Sections B, C, and D. The questionnaires were distributed via both online platforms and self-administration to the targeted contractors. To ensure the reliability of the study instrument, Cronbach's alpha was tested before further analyses were performed.

The study respondents were Malaysian contractors from Class A in the state of Selangor. Selangor state was chosen as the study location because major contracting companies are located within the Klang Valley. Besides, some major and big scale projects are currently ongoing in the Selangor state which enhance the opportunity and increase the possibilities to include relevant and significant companies as study respondents. Class A contractor usually handling mega project in Malaysia as they have unlimited project tender (more than RM10 million). They are expected to dispute and use CIPAA to resolve the dispute as they are handling mega projects in Selangor. For this study, the convenience sample was used since it is a low-cost method to collect data. The questionnaires were administered in two methods: 1) personal administration and 2) online platform. Both methods were used to increase the response rate of the study and to ensure the data can be collected in a timely manner. The data collection lasted for two months.

Based on the Ministry of Works website, there are a total of 2,181 Class A contractors registered under the Pusat Khidmat Kontraktor (PKK) in Malaysia. For this study, 442 Class A contractors located in the Selangor state were identified. The sample size was calculated using G*Power (Faul, Erdfelder, Lang, & Buchner, 2007). G*Power reported a sample size of 132 for one-way ANOVA, given ($f^2 = .35$, $\alpha = .05$ and number of groups = 3), and a sample size of 54 for multiple regression, given ($f^2 = .35$, $\alpha = .05$ and number of predictors = 3) (Faul et al., 2007). To ensure a 100% response rate, 180 questionnaires were distributed to the study respondents within a two-month data collection period.

Findings and Discussion

139 sets of questionnaires were returned from the 180 questionnaires distributed. Since the sample size calculated using G*Power was 132, 100% response rate was achieved in this study. Section A of the questionnaire were asking for demographic data of the respondents. Questions include academic qualification and respondent experience in the construction industry. Table 1 provides a summary of the respondent particular for this study.

Table 1: Respondent's Particular

Respondent Particular	Item	Respondent	Percentage
Types of Projects Undertaken	Oil and Gas	2	1.44%
	Landscape Construction	1	0.72%
	Electrical Construction	2	1.44%
	Civil Construction	56	40.29%
	Building Construction	78	56.12%
Respondent Gender	Female	21	15.11%
	Male	118	84.89%
Academic Qualification	SPM	33	23.74%
	Sijil Kemahiran	8	5.76%
	Diploma	18	12.95%
	Degree	74	53.24%
	Master	5	3.60%
	PhD	1	0.72%
Years of Involvement	>16	78	56.12%
	11-15	38	27.34%
	<3	23	16.55%

Reliability Test

To ensure the accuracy of the data obtained, a Cronbach's Alpha analysis was conducted. The purpose of using Cronbach's Alpha is to measure the internal consistency and identify the correlation between a group of items (Dornyei and Taguchi, 2010). Cronbach's Alpha is a reliability coefficient, and any value equal to or greater than 0.7000 is considered satisfactory. The collected data was analyzed using SPSS software, focusing on CIPAA's ability to resolve payment issues, the effectiveness of CIPAA, and the contractor's perspective on CIPAA implementation. The results of the analysis were tabulated in Table 2 below.

Table 2. Cronbach's Alpha Results

Item	Cronbach's Alpha	N of items
CIPAA in solving payment issues	.868	6
Effectiveness of CIPAA	.911	9
Contractor Perspective Towards CIPAA Implementation	.907	5

The Cronbach's Alpha value for CIPAA in solving payment issues, the effectiveness of CIPAA and Contractor Perspective Towards CIPAA Implementation are 0.868, 0.911 and 0.907 respectively, indicating a high level of internal consistency among the group of variables. High level of internal consistency will prove how closely related in a group data. This questionnaire is consisted of answered by contractors that have experience with CIPAA in handling payment issues.

CIPAA in Solving Payment Issues

Section B of the questionnaire concerns with the perspective of contractors on CIPAA as a mechanism to solve payment issues in the construction industry. Respondents were asked to answer using Likert scales on various items regarding the implementation of CIPAA in a project. The mean and standard deviation of each item in the Section B are tabulated in Table 3.

Table 3. Mean and Standard Deviation of CIPAA in solving payment issues

Item	CIPAA in solving payment issues	Mean	Standard Deviation
1	Adjudication is an interim decision to resolve payments quickly	4.2230	0.0785
2	Contractor may suspend or slow the progress of the work if the adjudicated amount is partly or full not paid.	4.1727	0.0764
3	CIPAA allows for the winning party to request for direct payment from the principal.	4.1871	0.0768
4	CIPAA requires that payment be made within thirty (30) days of receipt of the invoice, unless agreed otherwise.	4.2086	0.0767
5	An adjudicative party may represent itself (without a lawyer) unless there is reference to the court proceedings for the stay of the enforcement / adjudicator 's decision.	4.0360	0.0813
6	CIPAA prohibits conditional payment and therefore all accepted work done must be paid in full.	4.2158	0.0698

Based on Table 3, the six items of CIPAA in solving payment issues are listed with their respective means and standard deviations. The highest mean score was 4.2230 indicated by the statement that the adjudication is an interim decision to resolve payments quickly. This has shown that most of the respondents agree the CIPAA adjudicated and expedited the payment process, enabling the contractors to receive the payment faster. According to Yat (2016), if the claims' process is fast, the contractors can focus on other activities without experience any obstruction while the adjudication is in progress. Thus, it is essential to resolve the payment issues as quickly as possible so that the contractors could focus on the other project activities without obstruction.

The next highest mean score is respondents agree that CIPAA prohibits conditional payment (mean score: 4.2158) and therefore, all accepted work done must be paid in full. However, CIPAA provides a conditional payment provision where one party's obligation to make payment is conditional upon that party having received payment from a third party (Chang,2016). Other than that, one party's responsibility to make payment is conditional upon the availability of funds or drawdown of financing facilities of that party (Rajoo,2016). With this condition, the contractor will receive the full payment if the work is done unless they receive payment from a third party or experience a drawdown of financing facilities.

In like manner, the respondents agree that CIPAA requires that payment be made within thirty (30) days of receipt of the invoice unless agreed otherwise with the mean score of 4.2086. Thus, the duration of CIPAA is less consume than arbitration and litigation. Arbitration usually takes one to five years, while litigation takes two to seven years. According to the Rajoo (2016), the adjudicator should rule on the dispute and deliver the decision within 45 days. However, CIPAA requires the payment to be made within 30 days, which means that after 45 days, CIPAA will give another 30 days for the payment to be done. These show that, if contractors refer to receive the payment fast while the process to settle up is on-going, CIPAA is the right choice for contractors to choose as a dispute resolution method.

Respondents also agree that CIPAA allows the winning party to request direct payment from the principal (mean score: 4.1871). These can be seen on Section 30 of CIPAA; the principal shall provide the party against whom the adjudication decision was taken with a written notice to show proof of payment and state that the direct payment will occur after the expiry of ten working days of the notice service. (Rajoo,2016). In the absence of proof of payment demanded, the principal shall pay the adjudicated sum in his favour to the party which received the decision of adjudication. In conclusion, if the contractor wants to get paid quickly, CIPAA provides direct payment through the principal where the contractor does not have to wait long to get payment back.

Other than that, the respondent agrees with the 4.1727 mean scores that the contractor may suspend or slow the work's progress if the adjudicated amount is partly or full not paid. According to Clause 29, CIPAA decreases the rate of work progress or suspension of results (Rajoo,2016). This is because, If, according to an adjudication decision, the adjudicated sum has not been paid in whole or in part after receipt of the adjudicated decision, a party may suspend the performance of any construction work or construction consulting services under a construction contract or reduce the rate of progress of implementation. With the facilities provided by CIPAA, it can reduce the contractor's financial burden to focus on other projects.

Lastly, respondent agrees that an adjudicative party may represent itself (without a lawyer) unless there is a reference to the court proceedings for the stay of the enforcement/adjudicator's decision (mean score: 4.0360). Therefore, unless a stay of execution is applied to the court process, a party to the adjudication may represent itself. This adjudication determination shall remain binding and enforceable unless it is annulled by the High Court, settled between the two parties involved; or superseded by means of an arbitration or court (Sieng 2015). These means, contractors can save their finances without appointing a lawyer to solve the problems faced; thus, making CIPAA is the most cost-efficient in solving disputes.

Effectiveness of CIPAA

Section C of the questionnaire concerns with the effectiveness of CIPAA as a mechanism to solve and accelerate payment issues in the construction industry. Respondents were asked to answer using Likert scales on various items regarding the effectiveness of CIPAA implementation in a project. The mean and standard deviation of each item in Section C are tabulated as shown in Table 4 below.

Table 4. Mean and Standard Deviation of CIPAA Effectiveness in Solving Payment Issues

No	CIPAA in solving payment issues	Mean	Standard Deviation
1	CIPAA provide speedy dispute resolution process compared to arbitration and litigation.	4.3453	0.0815
2	CIPAA is less cost compared to arbitration and litigation.	4.0360	0.0813
3	CIPAA provide statutory rights for adjudication compared to arbitration and litigation.	4.1151	0.0805
4	CIPAA provide confidential process compared to arbitration and litigation.	4.0576	0.0962
5	CIPAA is a flexible procedure in solving dispute compared to arbitration and litigation.	4.1511	0.0866
6	CIPAA provide remedies which can slow and suspend work compared to arbitration and litigation.	4.0576	0.0871
7	CIPAA allow for pre agreement of adjudicator compared to arbitration and litigation.	4.1511	0.0750
8	CIPAA provide enforceable by court judgement compared to arbitration and litigation.	4.2086	0.0774
9	CIPAA provide revision of under-valuation claim compared to arbitration and litigation.	4.0288	0.0984

According to the mean score, the highest mean score is 4.3453, which respondent agree that CIPAA provides speedy dispute resolution process compared to arbitration and litigation. Based on the objective of the CIPAA, they want to control timely and regular payments, with adjudication as a speedy dispute settlement, and to resolve the recovery of payments in the construction industry. According to Sieng (2015), Any delay in settlement of the dispute could further worsen the weaker party's financial capacity, resulting in a severe cash flow to the contractor and further down the contractual chain. The effectiveness of CIPAA in solving payment issues quickly seems essential for the contractor to apply in solving the dispute.

Besides, the respondent agrees that CIPAA provides enforceable by court judgement compared to arbitration and litigation and CIPAA provide revision of under-valuation claim compared to arbitration and litigation (mean score: 4.2086). According to Clause 28, Part 4 of if the debt is not released to the winning party, CIPAA enables the adjudicator's decision to be turned into a high court decision. If the contractor obtains a court judgement against the company, they can file for a winding-up petition under the Companies Act 1965. This allows any creditor, including a contingent or prospective creditor, of the company to file for a winding-up petition against the defaulting company. CIPAA is also able to amend or correct any number under the claim or approved claim. According to the respondent, the effectiveness of CIPAA that provide enforceable by a court judgment and provide revision of under-valuation claim seems useful.

Other than that, the respondents also agreed, with mean score value of 4.1511, that;

- i. CIPAA provide statutory rights for adjudication compared to arbitration and litigation
- ii. CIPAA is a flexible procedure in solving dispute compared to arbitration and litigation.
- iii. CIPAA allow for pre agreement of adjudicator compared to arbitration and litigation.

Under CIPAA, adjudication is not a requirement of arbitration, litigation or any alternative dispute settlement; however, if either party wants to invoke adjudication, it is a privilege to legislative rights. This means that, if no adjudication provision is included in the contractual agreement, CIPAA permits legislative protection for adjudication. Besides, adjudication also provides for flexible processes where, unlike arbitration and litigation, a lawyer is not needed for the adjudication process. With the consent of both parties, which illustrates how flexible CIPAA is, adjudication haring can also be terminated at any time. Lastly, CIPAA requires the appointment of an adjudicator by consent of the parties to the adjudication, and if no agreement is reached, pre-agreement of the adjudicator may be decided by the parties., then the director of KLRCA shall appoint an adjudicator (Clause 21, Part III of CIPAA).

Next, CIPAA provides confidential process compared to arbitration and litigation and CIPAA provide remedies which can slow and suspend work compared to arbitration and litigation (mean score: 4.0576). The parties to the dispute can remain confidential as adjudication is not an open hearing as litigation. To maintain confidentiality, the entire adjudication process is performed privately. (Clause 20, Part II of CIPAA). It is necessary to continue the company in the long term, as all contractual issues between them will remain confidential, and any disagreement will be resolved respectfully (Kamarulzaman, 2015).

Suhana and Rosli (2010) stated in their study the contractor is not able to suspend the contract works without any contractual statutory right to suspend the work unless the employer has not paid for them within the contractually allowed period if the contractual contractor has agreed to suspend the works before payment is made. In this respect, if the work is suspended, the contractor shall be convicted to repudiate the contract by a court. Moreover, if there is an explicit contractual provision, the contractor cannot slow his job because the worker's payment was not paid or unnecessarily postponed. Therefore, CIPAA stated that if the adjudicated amount is not paid in whole or half within fourteen days, the contractor must issue a notice of intent to slow down or cancel the job.

Lastly, the respondent agrees that CIPAA is less costly than arbitration and litigation (mean score: 4.0360). Compared to arbitration or litigation, the adjudication costs are relatively lower since the time needed is limited. Adjudication is a cost-effective dispute resolution method compared to arbitration or litigation, as it involves a limited period of time. The Construction Industry Payment and Adjudication Act (CIPAA) offers a relatively inexpensive process, as it is governed by express provisions outlined in the Act (Rajoo, 2012). Unlike other dispute resolution methods such as arbitration and litigation, arbitration can take one to five years while litigation two to seven years. The cost for arbitration and litigation is also expensive compared to CIPAA which are for arbitration the cost can take RM100,000 to RM500,000, for litigation RM100,000 to RM 600,000 while CIPAA only takes RM50,000 to

RM100,000 for parties' cost for both sides. Contractors who want a quick solution and cheaper, it is not recommended to use arbitration and litigation method because this process can take years to complete and consume higher cost for the time being.

Contractor Perspective Towards CIPAA implementation

Section D of the questionnaire focuses on the contractors' perspectives on the implementation of CIPAA in project management. Respondents were asked to answer a series of questions using Likert scales, which were then tabulated to provide the mean and standard deviation of each item, as shown in Table 5. This data provides valuable insight into the effectiveness of CIPAA in project management.

Table 5. Mean and Standard Deviation of Contractors' Perspective Towards CIPAA Implementation

Item	Contractor perspective towards CIPAA implementation	Mean	Standard Deviation
1	CIPAA helps to ease contractor's cash flow compared to arbitration and litigation.	4.2590	0.0844
2	CIPAA promotes professionalism and integrity among construction parties compared to arbitration and litigation.	4.1942	0.0756
3	CIPAA offers lower fees by having a dispute resolution procedure compared to arbitration and litigation.	4.0719	0.0827
4	CIPAA is increasing the value of human capital in the construction industry compared to arbitration and litigation.	4.2590	0.0787
5	CIPAA provides non-payment legal remedy compared to arbitration and litigation.	4.1871	0.0911

The highest mean score is 4.2590 which are respondent agree that CIPAA helps to ease contractor's cash flow compared to arbitration and litigation and CIPAA is increasing the value of human capital in the construction industry compared to arbitration and litigation. CIPAA is enforced, and its regulations are said to be sufficiently comprehensive to address cash flow problems, encourage payment and speed up the settlement of disputes (Ameer 2006 and Fong 2012). By fostering professionalism and integrity practises among contractors, construction professionals, and customers, CIPAA has improved the reputation of the construction industry image. The value of human capital in the construction industry will be enhanced and relate with the item two; CIPAA promotes professionalism and integrity among construction parties compared to arbitration and litigation with a mean score of 4.1942.

Besides, the respondent also agreed that CIPAA provides non-payment legal remedy compared to arbitration and litigation (mean score: 4.1871). As regards the remedial provisions under the Act, the applicable remedies include interest on late payment, termination of works, direct payment of principal, recovery of the judgement debt and other rights or remedies available under the Construction Contracts or any other written statute, such as the deregistration of business licences. Of all the related features of CIPAA that have

been highlighted, it can undoubtedly help contractors, especially when there is a payment problem.

Lastly, the respondent agrees that CIPAA offers lower fees by having a dispute resolution procedure than arbitration and litigation (mean score: 4.0719). CIPAA offers lower fees by having adjudication as a dispute resolution method as the cost of adjudication is relatively lower than arbitration and litigation. CIPAA lower fees are around RM8,000 to RM90,000, which is cheaper than arbitration and litigation fees around RM50,000 to RM300,000.

Conclusion

The effectiveness of CIPAA is identified, and the perception and expectation of the contractors are identified. The data from this study will enable construction industry players, particularly small and medium-class contractors, to explore the alternative dispute resolution method of CIPAA, which can be beneficial in the event of cash flow issues caused by late or non-payment from their clients. Overall, this study has been conducted to its aim. The construction industry players can use this data to further develop themselves in terms of CIPAA. This will help them when facing cash flow problems from their clients.

However, the constraint also happens while conducting this research. Some may not seem to be aware that the current CIPAA Act already in place to protect their rights is being enforced. For the CIPAA to be successfully implemented and many of the contractors aware with it, it is suggested that the government conduct more awareness schemes. Building awareness is an essential part of educating contractors to improve their understanding of CIPAA consequences. Some may not seem to be aware that the current CIPAA Act already in place to protect their rights is being enforced. Awareness schemes are essential in order for the government to successfully implement and many of the contractors aware with it

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