

Comparing the Final Payment Terms in Different Construction Contracts and Choosing the Best using MADMA^{1, 2}

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ABSTRACT

Architects proficient service in a construction venture, for the most part takes an extensive stretch, it might contain a while or even quite a long while. Amid such long haul, the venture may happen a plenty of changes which may influent the final payment. Therefore, this paper is established to analyze the issue and provide suggestions by making use of Multi attribute decision making method to compare different standard forms such as the Construction Specifications Institute (CSI), International Federation of Consulting Engineers (FIDIC), Engineers Joint Contract Documents Committee (EJCDC), American Institutes of Architects (AIA), and Consensus Docs. Based on this analysis and comparison, the author recommends the use of final payment certificate and set some specific deadline for the owner to make the final payment. Also, the author suggests that the owner and the contractor shall constitute a waiver of claims after making the final payment.

Keywords: Final Payment, Payment Certificate, Construction, Construction Contract, Owner, Contractor, Sub-contractor

INTRODUCTION

Due to the rapid growth of globalization, a greater number of construction companies start to work in an international atmosphere with people from different part of the world and cultures. As we all know, contract plays a very important role from the beginning of the project till the end, particularly for a global construction as it is more manifold and very much complex to control the whole duration. "Basically, a contract is an agreement between two or more people or entities that creates a legal duty or responsibility."³

¹ Editor's note: This paper was prepared for the course "International Contract Management" facilitated by Dr Paul D. Giammalvo of PT Mitratata Citragraha, Jakarta, Indonesia as an Adjunct Professor under contract to SKEMA Business School for the program Master of Science in Project and Programme Management and Business Development. <http://www.skema.edu/programmes/masters-of-science>. For more information on this global program (Lille and Paris in France; Belo Horizonte in Brazil), contact Dr Paul Gardiner, Global Programme Director, at paul.gardiner@skema.edu.

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³ What is a contract? (Online). Retrieved from <https://www.rocketlawyer.com/legal-documents-forms.r/>

One of the most important issue in any construction contract is the payment. Its an issue for both the party making payments and the party receiving them. i.e. Owner and the contractor. "The construction industry has its own rules regarding the payments by way of the Housing Grants, Construction and Regeneration Act (1996) and Part II of the Scheme for Construction Contracts."⁴ "The parties dealing with the construction contracts need to be aware of a number of other issues apply to construction contracts which include retention, loss and expenses, provisional sums, and disputes. In simple words, a construction contract is an agreement whereas the contractor agrees to carry out works for the owner, and in return, the owner agrees to pay the contractor."⁵

Retention

"Retention is when the owner retains the amount from the interim payments it makes to the contractor, as security for future performance. Retention is basically about 3-5% of the contract sum."⁶

Loss and Expense

"It is the term used to describe the additional cost incurred by a contractor due to the result of disturbance to the regular progress of works caused either by risks or breaches of contract by the owner."⁷

Provisional Sums

"Provisional Sums are often included in the contract for the elements of work that has not been fully intended."⁸

⁴ Payment in Construction Contract- An overview (Online). Retrieved from <https://www.lexisnexis.com/uk/lexispsl/construction/document/391372/56M8-D6T1-F186-34S6-00000-00/Payment-in-construction-contracts%E2%80%9494overview>

⁵ Payment in Construction Contract- An overview (Online). Retrieved from <https://www.lexisnexis.com/uk/lexispsl/construction/document/391372/56M8-D6T1-F186-34S6-00000-00/Payment-in-construction-contracts%E2%80%9494overview>

⁶ Payment in Construction Contract- An overview (Online). Retrieved from <https://www.lexisnexis.com/uk/lexispsl/construction/document/391372/56M8-D6T1-F186-34S6-00000-00/Payment-in-construction-contracts%E2%80%9494overview>

⁷ Payment in Construction Contract- An overview (Online). Retrieved from <https://www.lexisnexis.com/uk/lexispsl/construction/document/391372/56M8-D6T1-F186-34S6-00000-00/Payment-in-construction-contracts%E2%80%9494overview>

⁸ Mina Anis Abdelshahid (December 13, 2016). Final Account Procedures <https://www.linkedin.com/pulse/final-account-procedures-construction-projects-mina-anis/>

"Provisional sum refers to an amount inserted in the bill of quantities or contract sum analysis, to cover a certain amount of work in a construction contract which cannot be defined accurately, detailed or valued at the time when the tendering documents are delivered by the owner."⁹

Disputes

Every day, individuals and organizations enter into contracts for building and construction work. Sometimes in the contracts, the disputes arise over payments. "According to Max Wideman, Disputes are disagreements not settled by mutual consent which could be decided by litigation or arbitration."¹⁰

- Interim Application Disputes

"If the interim applications of a sub-contractors are delayed or unpaid, it will suffer serious financial hardship."¹¹

- Final Account disputes

Most sub-contractors find it difficult to finalize their final account applications. They negotiate for a few months and then come to conclusion by accepting a very low sum.

- Initial Debt Letters

"Most of the debtors pay on a properly worded and credible letter from a solicitor demanding payment. Initial debt is a bona fide disagreement between the creditor and the committee as to the existence of the debt or the amount owed by the committee."¹²

Cumulative Impact Claims

"It is a claim that comprises of the 'ripple effect' of several changes to a project, the effects of which were not documented at the time the change was estimated by the contractor. These claims are generally seen on large and complex projects."¹³

In this paper, the author makes use of Dominance method to compare the different statement about the final payment part in the 'Architectural and Engineering Services Agreement' and other standard form such as FIDIC, EJCDC, Consensus Docs, CSI and AIA. The author also analyzes

⁹ Payment in Construction Contract- An overview (Online). Retrieved from <https://www.lexisnexis.com/uk/lexispsl/construction/document/391372/56M8-D6T1-F186-34S6-00000-00/Payment-in-construction-contracts%E2%80%9494overview>

¹⁰ Max Wideman Comparative glossary. (1987) Source: Various original authors quoted in Project Management Body of Knowledge Glossary of Terms, Project Management Institute http://www.maxwideman.com/pmglossary/PMG_D05.htm

¹¹ CornerStone- Payment Disputes (Online). Retrieved from <https://www.birketts.co.uk/insights/legal-updates/cornerstone-payment-disputes-%E2%80%9393-when-is-the-final>

¹² How to handle disputed debts? (Online). Retrieved from <https://www.fec.gov/help-candidates-and-committees/handling-loans-debts-and-advances/disputed-debts-candidate/>

¹³ Kevin Bridston. (March 22, 2011). Cumulative impact claims. Holland & Hart <https://www.hollandhart.com/cumulative-impact-claims-hard-to-describe-even-harder-to-prove>

the problems arising in the Final Payment part in the construction contract and try to resolve the same.¹⁴

To have a clear understanding of the situation and the issues, a Fishbone Analysis has been made.

FISHBONE ANALYSIS

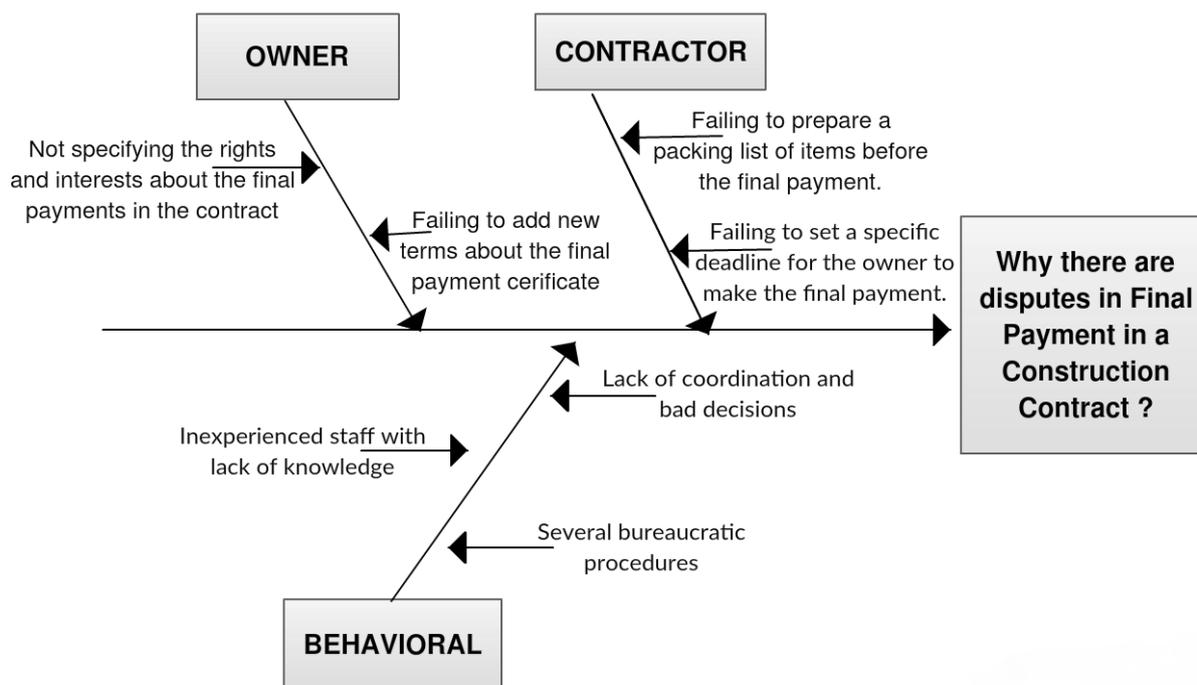


Figure 1. Fishbone Analysis: Why there are disputes in Final Payment in a Construction Contract?¹⁵

The author also has some questions in the construction contract which we must think about more thoroughly,

- [i] When should the final payment due by the owner and the contractor?
- [ii] Do they need a specific deadline to pay the final payment if some changes occur?
- [iii] How to resolve the disputes in Final Payment

In the contract which we have chosen for analysis, it is stated that the final payment needs an acceptance written by the owner. Meanwhile, there are a lot of statements missing in this contract regarding the question we listed above about the final payment part. Therefore, this paper is established to analyze the statement regarding the final payment part in AIA, FIDIC, EJCDC,

¹⁴ Interagency Procurement Working Group (2006) -UN Procurement Practitioner's Handbook
<https://www.ungm.org/Areas/Public/pph/ch03s10.html>

¹⁵ "By Author" (Nov 2, 2018)

Consensus Docs and compare them and find a better more suitable one for the construction contract which we have chosen.

METHODOLOGY

Step 1: Summarize

In this paper, the author's main intention is to compare the Final Payment terms with different standard forms such as AIA, EJCDC, FIDIC, Consensus Docs, and CSI. Meanwhile, resolve the disputes that occur in the final payment part of a Construction Contract and find out a better term in their statement. This can be achieved by making use of the Dominance Method.

Step 2: Feasible Alternatives and Attributes

The following are the alternatives chosen for comparison:

1. Comparing with CSI (Baseline)¹⁶
2. Comparing with AIA¹⁷
3. Comparing with EJCDC¹⁸
4. Comparing with FIDIC¹⁹
5. Comparing with Consensus Docs.²⁰

The attributes chosen for comparison are as follows²¹:

1. Final Payment Certificate
2. Ask for List of items
3. Easy to understand
4. Clear Statements resolving disputes
5. Specific deadline
6. Process Map

¹⁶ Construction Specifications Institute. The Project Resource Manual: CSI Manual of Practice. Retrieved from <https://www.amazon.com/Project-Resource-Manual-Practice-fifth/dp/B005FRI2O4>

¹⁷ The American Institute of Architects (AIA). AIA Document comparative A201 2017- compared to A201-2007. Retrieved from <http://aiad8.prod.acquia-sites.com/sites/default/files/2017-08/A201%202017%20Comparative%20and%20A101%20Exhibit%20New.pdf>

¹⁸ Engineers Joint Contract Documents Committee (EJCDC). Retrieved from <https://www.ejcdc.org/shop/>

¹⁹ International Federation of Consulting Engineers. Why use FIDIC Contracts? Retrieved from <http://fidic.org/node/7089>

²⁰ Consensus Docs. Consensus Docs Guidebook
https://www.consensusdocs.org/FooterSection_Resources/Guidebook

²¹ Wally Zimolong, Esquire Sigman. A Tactical Guide to Avoiding Construction Contract Disputes. Retrieved from <https://www.supplementalconditions.com/files/2012/11/Construction-Contracts-Guide.pdf>

7. Documents Requirement
8. Decision Making Authority

Step 3: Comparison

1. Comparing with CSI (Baseline)

CSI stands for Construction Specifications Institute which was organized by a group of specification writers for the purpose of improving specification practices in the construction and allied industries. Soon, CSI established a standard method for organizing project specifications which became the basis for a wide-ranging constructions communication system.

- "Final payment often requires the processing of a final change order to balance previous payments against the final payment and final contract amount.
- Final payment is suggested by the Architect/Engineer after all project closeout procedures have been completed.
- Upon acceptance of final payment, the contractor waives every claim excluding those previously made in writing, according to the contract conditions in contradiction of either the owner or the Engineer / Architect.
- The owner, in making full payment, waives all claims except those rising from defective work and unsettled liens appearing after final review.
- The Engineer / Architect or the Project Manager is the one who makes the most of the Strategic and Tactical decisions on the project.
- When a dispute arises, the statutes establish the authority for an independent private party, usually a lawyer or a retired judge, to be retained to decide the matter."²²

In this paper, the author uses CSI as the baseline for the construction contract. The CSI statements regarding final payment part and resolving disputes are clear and easy to understand.

²² Construction Specifications Institute. The Project Resource Manual: CSI Manual of Practice. Retrieved from <https://www.amazon.com/Project-Resource-Manual-Practice-fifth/dp/B005FRI2O4>

2. Comparing with AIA

"AIA stands for The American Institute of Architects, and is the most widely used standard form for contracts in the construction industry. In this contract, the following are the terms regarding final payment and resolving disputes in the construction industry"²³

- "The making of final payment must constitute a waiver of claims by the Owner.
- Acceptance of final payment by the Contractor, a Subcontractor, or a supplier, will establish a waiver of claims by that payee excluding those previously made in writing and recognized by that payee as unsettled at the time of final Application for Payment.
- The Contractor shall submit to the Architect a comprehensive punch list of items to be completed or corrected before the final payment.
- When the Architect finds the Work acceptable under the Contract Documents and the Contract fully performed, the Architect will issue a final Certificate for Payment stating that to the best of the Architect's knowledge, information and belief, and on the basis of Architect's on-site visit and inspections, the Work has been completed in accordance with Contract Documents and that the entire balance found to be due the Contractor and noted in the final Certificate is due and payable.
- The Project Manager will be delegating most of his/her authority to the Architect in making the crucial Strategic and Tactical Decisions.
- An interest in assertion will be made in composing, conveyed to the next gathering to the Agreement, and recorded with the individual or substance regulating the intervention. The gathering recording a notice of interest for intervention must affirm in the interest all Cases at that point known to that party on which mediation can be requested.
- The award rendered by the arbitrator will be final, and judgment may be made upon it in accordance with applicable law in any court having jurisdiction thereof."²⁴

In these statements, it states the waiver of claim rights after final payment for both the owner's and contractors. Then, the term recommends a certificate for the final payment. Regarding disputes, the term recommends demanding arbitration in writing.

²³ The American Institute of Architects. Why use AIA documents? Retrieved from. <https://www.aiala.com/why-use-aia-documents-2/>

²⁴ The American Institute of Architects (AIA). AIA Document comparative A201 2017- compared to A201-2007. Retrieved from <http://aiad8.prod.acquia-sites.com/sites/default/files/2017-08/A201%202017%20Comparative%20and%20A101%20Exhibit%20New.pdf>

3. Comparing with EJCDC

"EJCDC stands for Engineers Joint Contract Documents Committee. It creates and updates reasonable and objective standard document that represents the most recent and best thinking in contractual relations between all parties engaged in engineering design and construction projects."²⁵

- "Engineer shall prepare a list of items to be corrected or completed before the final payment and attach it to the certificate.
- The acceptance of final payment will create a waiver by Contractor of all claims and rights against the Owner.
- Project Manager is delegating much of his / her authority to the Engineer in making crucial Tactical and Strategical decisions on the project.
- Contractor shall submit an initial draft of punch list of items to be completed or corrected before the final payment to the Owner and Contractor."²⁶
- "Dispute Resolution Agreement provides that no demand for arbitration will be made later than 30 days after the Engineers final decision. Failure to make written demand within 30 days will make the Architect/ Engineer's final decision binding on both the owner and the contractor."²⁷

In this statement, it is recommended that the contractor prepares a list of punch items to be completed before the final payment and the Engineer attach the punch list of items to the certificate. Concerning the dispute resolution, it is suggested no demand for arbitration will be made later than 30 days after the Engineers final decision.

4. Comparing with FIDIC

"International Federation of Consulting Engineers (FIDIC) contracts have been developed over 50 years as the international standard for the consulting industry."²⁸ There are some terms in FIDIC talking about the final payment part and resolving disputes.

²⁵ National Society of Professional Engineers. EJCDC Contract documents. Retrieved from <https://www.nspe.org/resources/shop-nspe/ejcdc-contract-documents>

²⁶ Engineers Joint Contract Documents Committee (EJCDC). Retrieved from <https://www.ejcdc.org/shop/>

²⁷ The American Institute of Architects (AIA). AIA Document comparative A201 2017- compared to A201-2007. Retrieved from <http://aiad8.prod.acquia-sites.com/sites/default/files/2017-08/A201%202017%20Comparative%20and%20A101%20Exhibit%20New.pdf>

²⁸ International Federation of Consulting Engineers. Why use FIDIC Contracts? Retrieved from <http://fidic.org/node/7089>

- "Payments shall be certified in Final Payment Certificate and an Interim Payment Certificate.
- The amount certified in the Final Payment Certificate shall be paid to the Contractor by the Employer within 56 days after the Employer has received this Payment Certificate.
- The Project Manager is delegating much of his / her authority to the Engineer in making crucial Strategic and Tactical decisions on the project.
- Traditionally disputes were initially determined by the Engineer within 84 days of reference, then by arbitration under ICC rules. Arbitration has to be noticed within 70 days of Engineer's decision or after the period for such decision had expired."²⁹

In FIDIC's statements, it is suggested to certify the payment before making the final payment. Also, it gives a specific deadline to the Owner to make the final payment after receiving the certificate.

5. Comparing with Consensus Docs

"Consensus Docs is the product of 40 leading design and construction industry associations, dedicated to identifying and utilizing best practices in the construction industry for standard construction contracts."³⁰ Here is what it says about the final payment and dispute resolution

- "Within 30 days after trade contractor has submitted a complete and accurate application for final payment, the final payment of the balance of the trade contract price shall be paid to trade contractor.
- Unless the construction manager provides written documentation of unsettled claims with an application for final payment, the acceptance of final payment constitutes a waiver of claims.
- The Project Manager is not delegating any of his / her authority to the Architect in making the crucial Strategic and Tactical decisions on the project. The PM himself makes both Strategic and Tactical Decisions.
- The parties shall submit the matter to the binding dispute resolution procedure designated herein with arbitration using the current Construction Industry Arbitration Rules of the

²⁹ FIDIC- A guide for practitioners. Springer. (online) Retrieved from <https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=3&ved=0ahUKEwjJtsfKhIDXAhWJbFAKHZ2WBIMQFgg3MAI&url=http%3A%2F%2Fxa.yimg.com%2Fkq%2Fgroups%2F2173108%2F1502317645%2Fname%2FFIDIC%2Ba%2BGuide%2Bfor%2BPractitioners.pdf&usg=AOvVaw2n3vgZisQUW3NWivksbz3x>

³⁰ Consensus Docs. Consensus Docs Guidebook
https://www.consensusdocs.org/FooterSection_Resources/Guidebook

AAA, or the parties may mutually agree to select another set of arbitration rule. The administration of the arbitration shall be as mutually agreed by the parties."³¹

Consensus Docs sets a deadline for the owner to make the final payment after the contractor submit the application. And here, the PM himself makes the crucial strategic and tactical decisions on the project. The terms are similar to FIDIC, but FIDIC's statements are very clear and easy to understand.

Step 4: Selection Criteria

By comparison and analysis with the different forms such as CSI, AIA, EJCDC, FIDIC and Consensus Docs, the author gathered much important and useful information regarding the final payment part and dispute resolution. In this paper, the author makes use of "Multi-Attribute Decision Making (MADM) for analysis and comparison."³² Here we are comparing CSI, FIDIC, Consensus Docs, AIA, and EJCDC. Here the alternatives are scored based on the attributes as very high, high, medium, low, very low. The difference in colors, as it goes to complete green then it is positive and as it goes to complete red, then it is negative. The one with the high positive score is selected and the one with a low positive score is omitted.

Table 1. Multi-Attribute Decision Matrix³³:

| SELECTION ATTRIBUTES | CSI | FIDIC | CONSENSUS DOCS | EJCDC | AIA |
|------------------------------------|-----------|-----------|----------------|-----------|-----------|
| FINAL PAYMENT CERTIFICATE | high | very high | very high | very high | very high |
| ASK FOR LIST OF ITEMS | medium | very low | high | very high | very high |
| EASY TO UNDERSTAND | very high | medium | medium | very high | low |
| SPECIFIC DEADLINES | high | very high | medium | very low | very low |
| CLEAR STATEMENT RESOLVING DISPUTES | high | medium | high | high | medium |
| PROCESS MAP | medium | high | high | medium | low |
| DOCUMENTATION REQUIREMENT | medium | high | very high | high | medium |
| DECISION MAKING AUTHORITY | medium | very high | high | very high | very high |

³¹ Consensus Docs. Retrieved from <https://www.consensusdocs.org/>

³² Sullivan, Wickes & Kroelling (2014). Engineering Economics 15th Edition. Retrieved from <http://www.planningplanet.com/guild/gpccar/managing-change-the-owners-perspective>

³³ "By Author" November 2018.

FINDINGS

Step 5: Analysis and Comparison of the Alternatives

To utilize the compensatory approach which we have shown in the above Table 1, we need to represent our alternatives quantitatively for the analysis. So, we will start by converting the relative scoring options (very high, high, medium, low, very low) as dimensionless values.

Table 2. Quantitative Representation of the Attributes³⁴:

| ATTRIBUTES / RELATIVE SCORING OPTIONS | FINAL PAYMENT CERTIFICATE | ASK FOR PUNCH LIST OF ITEMS | EASY TO UNDERSTAND | SPECIFIC DEADLINES | CLEAR STATEMENTS RESOLVING | PROCESS MAP | DOCUMENTATION REQUIREMENT | DECISION MAKING AUTHORITY |
|---------------------------------------|---------------------------|-----------------------------|--------------------|--------------------|----------------------------|-------------|---------------------------|---------------------------|
| VERY HIGH | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| HIGH | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 |
| MEDIUM | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| LOW | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 |
| VERY LOW | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Now, we use the above-mentioned dimensionless values to create a "Relative Weighting" for each of the alternatives.

Table 3. Relative Weighting³⁵:

| SELECTION ATTRIBUTES | CSI | FIDIC | CONSENSUS DOCS | EJCDC | AIA |
|------------------------------------|------|-------|----------------|-------|------|
| FINAL PAYMENT CERTIFICATE | 0.75 | 1 | 1 | 1 | 1 |
| ASK FOR LIST OF ITEMS | 0.50 | 0 | 0.75 | 1 | 1 |
| EASY TO UNDERSTAND | 1 | 0.5 | 0.5 | 1 | 0.25 |
| SPECIFIC DEADLINES | 0.75 | 1 | 0.5 | 0 | 0 |
| CLEAR STATEMENT RESOLVING DISPUTES | 0.75 | 0.5 | 0.75 | 0.75 | 0.5 |
| PROCESS MAP | 0.50 | 0.75 | 0.75 | 0.50 | 0.25 |
| DOCUMENTATION REQUIREMENT | 0.50 | 0.75 | 1 | 0.75 | 0.50 |
| DECISION MAKING AUTHORITY | 0.50 | 1 | 0.75 | 1 | 1 |
| TOTAL | 5.25 | 5.5 | 6.0 | 6.0 | 4.5 |

Now, we use the "Additive Weighting Technique" by ranking each of the attributes based on their importance. The sum of each alternative is compared to the normalized weight of 1.0, which is the score to be reached. So, the attributes are ranked from most important to least important, i.e. Final payment certificate > Ask for a list of items > Specific deadlines > Decision Making Authority > Documentation Requirements > Process Map > Clear statements resolving disputes > easy to understand.

³⁴ "By Author" November 2018.

³⁵ "By Author" November 2018.

TABLE 4. Additive Weighting Technique³⁶:

| SELECTION ATTRIBUTES | RELATIVE RANK/WEIGHT | NORMALIZED WEIGHT | CSI | | FIDIC | | CONSENSUS DOCS | | EJCDC | | AIA | |
|------------------------------------|----------------------|-------------------|--------------|-------------|--------------|--------------|----------------|--------------|--------------|------------|--------------|------------|
| FINAL PAYMENT CERTIFICATE | 8 | 0.8 | 0.75 | 0.6 | 1 | 0.7 | 1 | 0.7 | 1 | 0.7 | 1 | 0.7 |
| ASK FOR LIST OF ITEMS | 7 | 0.7 | 0.50 | 0.35 | 0 | 0 | 0.75 | 0.45 | 1 | 0.6 | 1 | 0.6 |
| EASY TO UNDERSTAND | 1 | 0.1 | 1 | 0.1 | 0.5 | 0.05 | 0.5 | 0.05 | 1 | 0.1 | 0.25 | 0.025 |
| SPECIFIC DEADLINES | 6 | 0.6 | 0.75 | 0.45 | 1 | 0.5 | 0.5 | 0.25 | 0 | 0 | 0 | 0 |
| CLEAR STATEMENT RESOLVING DISPUTES | 2 | 0.2 | 0.75 | 0.15 | 0.5 | 0.1 | 0.75 | 0.15 | 0.75 | 0.15 | 0.5 | 0.1 |
| PROCESS MAP | 3 | 0.3 | 0.5 | 0.15 | 0.75 | 0.225 | 0.75 | 0.15 | 0.5 | 0.15 | 0.25 | 0.075 |
| DOCUMENTATION REQUIREMENT | 4 | 0.4 | 0.5 | 0.2 | 0.75 | 0.3 | 1 | 0.4 | 0.75 | 0.3 | 0.5 | 0.2 |
| DECISION MAKING AUTHORITY | 5 | 0.5 | 0.5 | 0.25 | 1 | 0.5 | 0.75 | 0.375 | 1 | 0.5 | 1 | 0.5 |
| TOTAL | 28 | 2.35 | TOTAL | 2.25 | TOTAL | 2.375 | TOTAL | 2.525 | TOTAL | 2.5 | TOTAL | 2.2 |

Step 6: Selection of the Preferred Alternatives

After ranking the attributes based on their importance with the "Additive Weighting Technique", we could see that the difference between all the attributes has been reduced precisely and the author says that the better choice for the construction contract we were chosen would be "Consensus Docs" and the "EJCDC". Then we can consider the "FIDIC" followed by "CSI" standard form and finally the "AIA".

Step 7: Performance Monitoring and Post -Evaluation of Report.

This analysis has been performed to find the best choice among the chosen alternatives. Based on all the terms we discussed, here are a few suggestions for the construction contract we have chosen to consummate its final payment part.

- State clearly that both the Owner and the Contractor shall constitute a waiver of claims after making the Final Payment. By this, both parties' responsibilities, rights, and interests are specified which in turn could reduce the disputes between them.
- Set a specific deadline for the Owner to make the Final Payment after they receive the Payment Certificate from the Contractor. For instance, 60 days. This could help to protect the Contractor's rights and interests and make sure the Contractor party gets what they earned.
- The Project Manager must be very clear when delegating authority to the Architect or an Engineer in making crucial strategic and tactical decisions. Also, it would be better if the PM himself make all the strategical and tactical decisions on the project instead of delegating them to others.
- Add new terms about the Final Payment Certificate to reach an agreement for the Owner and the Contractor before making the Final Payment. This Certificate can help both

³⁶ "By Author" November 2018.

Owners and the Contractors to avoid disputes and ensure that everything goes well before the final payment.

- Ask the Contractor to prepare a punch list of items which needs to be completed or corrected before making the Final Payment. This term protects the Owner's rights and responsibilities and the Contractor's responsibilities.

CONCLUSIONS

To summarize, the author wants to answer the following questions: When should the final payment be due by the owner and the contractor? Do they need a specific deadline to pay the final payment if some changes occur? How to resolve disputes in final payment? Which terms of final payment are better stated and more suitable to consummate the construction contract?

Through the analysis, we could find that the final payment of construction contract is inadequate when we compare it with CSI, Consensus Docs, FIDIC, EJCDC, and AIA forms. This paper provides a few answers regarding the final payment part based on the comparison. Asking for a list of items before making the final payment, use of final payment certificate, constituting a waiver of claims after the final payment is made, setting a specific deadline for the contractor to make the final payment. These are few suggestions which are helpful to clearly state the rights, responsibilities, and interests of both owner and contractor parties. To conclude with, the author states that the construction contract could be complete by adding these terms to the final payment part.

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