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Management of the Contract Claim Presentation and Response in Ethiopia: The Case of Addis Ababa

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Abstract: ***This research aimed to investigate the difficulties interrelated to contract claim management from the client, contractor, and consultant's perspective by studying the claim process in public housing construction projects in Addis Ababa, Ethiopia. Both primary and secondary data were collected based on the survey strategy through 72 questionnaires and 250 organizational documents. The data were analyzed using Relative Importance Index, Spearman's correlation Coefficient, framework analysis, and linear multiple regression model. The research findings showed that the most potential sources of claims were: delays in the supply of input materials; design change; weather conditions; undue delay in the release of payment; and failure to give written instruction. In addition, the contractors' main problems in the contract claim management process are high project managers' workload, lack of contract knowledge, late notification of claims, poor communication, and unorganized project office administration. The variables of claim notification, identification, and presentation are positive and significantly affected the project claim management process, whereas claim examination and documentation haven't significance to the project claim management process. The researcher recommended that the three major parties client, the Contractors, and the Consultants shall prevent disputes and minimize claims in the project by attaching through seeking legal advice early, setting up the Disputes Adjudication Board, and improving contract knowledge.***

Keywords: Management, Contract Claims, Public Housing Construction, Addis Ababa.

1. INTRODUCTION

Ethiopia is set to be the fastest-growing construction market and most projects are public infrastructure expenditures. The sector expanded predominantly driven by projects related to road, railway, dam, and residential expansion and the construction sector currently accounts

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for 71.4% of the industries sector. Furthermore, Ethiopia has the third largest number of construction projects underway in Africa and the project values are more than US$19.1bn, and 22% of total investment projects are focused on construction activities and accounting for 19.2% of GDP (Edinger and Ntsoane, 2019). However, the Ethiopian construction industry is still dependent on a conventional approach rather than using an improved and modern management system. The industry is facing challenges of delay, poor quality, cost overrun, and low satisfaction of stakeholders (Garomsa et al., 2019).

The Ethiopian government has constructed one of Africa's biggest state-housing projects, building about 32,000 units per year since 2006. The government launched a housing savings plan with two main objectives: to provide housing for low- and middle-income families, and promote a culture of savings (Bah et al., 2018). As Yifru (2019) explained, the mechanism for financing the project is a bank loan that follows the procedure of first the government borrowing through bond modalities and building the housing schemes in different typologies then the residents who require the houses are expected to save 40% of the total construction cost for the given housing units registered and are allowed to take the rest 60% from a bank as a loan and so then they are benefited to receive the house they registered for. Besides this, Claims are capable of asking for a time addition and cost compensation or mutually requested (Reta et al., 2019). Claimable clauses and susceptible to claims-related clauses are put on in domestic contracts of Public Procurement and Property Administration Agency Contracts for the Federal government of Ethiopia procuring entities (PPAA, 2011). In connection with this, the domestic contracts used are adopted from FIDIC (1999) conditions of contract. Considering that claims are unavoidable in every construction project, and more or less, construction projects are not contractually free of claim, even though effectively accomplished (Ysuwan and Adnan, 2013).

The three main parties' the employer, contractor, and consultant are responsible for carrying out the project claim management. Therefore, each party would participate in its tasks over time by developing technical knowledge of contractual claims' effects on the construction project's progress (Zenebe et al., 2019). A better understanding of the proper management of contract terms and applicable laws is believed to be mandatory to help all interested parties play a vital function in the successful completion of projects (Jemal and Mosisa, 2019). Another thing to consider, In the contract management consultant, conducts ongoing inspections to inform the client about the quality, progress, and approval of contract documents and implements a dispute resolution procedure when project claims arise which could increase the cost or time to complete the project (Northwood, 2011).

Claim Management is the process of methodically and professionally running claims in a construction project. Claims lope through the phase of detection, assessment, and improvement of the defects (Khekale and Futane, 2015). The claim process from the approach of contractors and consultants' common procedures, was divided into six phases. The steps are identification notification, examination, documentation, presentation, and negotiation of claims (Bakhary et al., 2015).

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Responding to and examining construction claims includes verifying the truthful and legal case upon which the claim is based (Kululanga, 2001). When the delay exists, steps to resolve the analysis of the Contractor's claim: First, analyzing delays over time and finding out the reasons, secondly, determining their impact on project planning. If a delay occurs on critical task lines, finally, after knowing the construction time claim checking whether to produce a cost claim must be analyzed (Zhang et al., 2015). Simultaneously, Employers would participate regardless of whether they agree or disagree with the increased cost that comes with the time request or alone (Bridges, and McCain, 2018). The absence of proper claim management may result in conflict between the contractor and employer. So, managing project contract claims effectively and efficiently is crucial to public residential building projects Negotiation adds value to claims handling to prevent disputes between contracting parties (Du Preez, 2014). Principally, communication, negotiation, and conflict resolution skills are important for the project's success (Sinha and Wayal, 2007).

2. METHODOLOGY OF THE STUDY

This study intended to investigate the challenges related to contract claim management from the client, contractors, and consultant's point of view by studying general practice in public construction projects. The study area was conducted at Bole Ayat forty-sixty housing projects found in Addis Ababa, Ethiopia. The data were collected from primary and secondary sources. The primary data were collected through a questionnaire from a total of 91 targeted populations 40 contractor project managers, 21 consultant resident engineers, and 11 client project engineers who participated as respondents. The simple form of the random sampling method was applied to this survey; whereas the secondary data were gathered from concerned 16 projects of 250 organizational documents. The data were analyzed by Relative Importance Index, Spearman's Correlation, and Linear-multiple Regression model through statistical tools SPSS and Microsoft Excel. In the meanwhile, the qualitative types of data were conducted with a framework approach. Concerning years of experience in construction 7 (10%) of respondents have less than 6 years of experience, 22 (31%) of them have been working on construction projects for 6-10 years, and 43 (60%) of project managers have an experience above 10-years of experience.

A questionnaire is organized in the form of a priority scale (1 = very low, 2 = low, 3 = medium, 4 = high, and 5 = very high). The Significant Relative Index (RII) method is used to determine the relative importance of various claim factors.

Relative Importance Index (RII) = $((\Sigma W))/ ((A \times N))$

Where:
W = the weight given by the respondents
A = the highest weight
N = the total number of respondents.

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The relative importance index ranking of the contractor and client-consultant agreements of claim factors have been calculated using the Spearman correlation. Spearman's degree correlation method for testing the relation among factors was adopted to show the respondents' degree of agreement. The Correlation method, whose number sort starting -1 to +1, is used to identify clients, consultants, and contractors' perceptions of claims management. A correlation of +1 indicates an agreement, a coefficient close to 0 means there is no relationship and a coefficient of -1 indicates a perfect negative correlation (disagreement). Moreover, the model used in this study is Linear Multiple regression, listed below:

$$Y=\beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 +\beta_4X_4 +e$$

Y is the dependent variable and X is the independent variable

$$Y= \beta_0 + \beta_1CI + \beta_2CN + \beta_3CD +\beta_4CP+\beta_5CP +e$$

Where; β is the value of the standardized coefficient that determines each independent variable's effectiveness in affecting the dependent variable. Y is Disputes in contract claim management, CI is Clam Identification, CN is Claim Notification, CD is Claim Documentation, CP is Claim Presentation, CE is Claim Examination and e is an error term.
Lastly, Gathered organizational documents were analyzed using framework analysis and five steps have already been used. These five stages of the frame analysis are familiarization, identification of a thematic framework, indexing (coding), creating a summary, and interpretation.

3. RESULTS AND ANALYSIS

The result and analysis are listed below as follows:

3.1. Common Grounds for Contractor's Claims

As shown in the table below, the claim's main potential source is the delay in the client's supply of material at an RII value of 0.815. Due to these supplies of material, participation in the progress of a critical path work activity is delayed, causing the project completion date to be later than expected. According to the contract document of the standard contract document for the works contract issued by the PPA Version 1, August 2011 for the national public procurement General conditions of the contract Clause GCC 80.3 stated that, In case of shortage of material, the Contractor may Supply index-based materials with the consent and permission of the employer and complies with all quality requirements set out in the contract. Changing the design from the original design (RII 0.805) is the second reason for possible sources of contractual claims. Three months after the construction started, the building's foundation design has been changed from the Pad footing to the Mat foundation. The third potential source of contractual claims is weather conditions (RII = 0.790). The fourth and fifth cause of the claim is undue delay in the release of payment (RII 0.755) and deficiency in written instructions (RII 0.750) from the client and the consultant. The employer has repeatedly failed to make payments on time or failed to issue the payment certificate.

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Table 1 Common Grounds for Claims

Situation Or Cause	Contractors RII	Rank	Consultants and client RII	Rank
Delay of supply of input materials by the client	0.815	1	0.825	1
Extra work and design change	0.805	2	0.713	4
weather conditions	0.790	3	0.819	2
Undue delay in the release of payment	0.755	4	0.700	5
failure to give written instruction	0.750	5	0.606	6

3.2. Claim Identification

As shown in the table below the first problem in identifying projects' claims is the high workload (RII = 0.820) of the project managers. The presenter of this study visited or observed the projects and found that most project managers do not have a sufficient skilled workforce and focus only on the day-to-day operations; this creates problems for the contractor not to understand the time and cost statement. The second problem with the claim identification is that there is a lack of a sufficient skilled workforce in the project (RII = 0.745). The lack of sufficient qualified staff to detect a claim impacts the success of the project execution. Due to this claim identification problem, contractors cannot obtain additional time and cost extensions. As this researcher at the project site noted, the trained workforce was insufficient to perform claim identification. Most project managers only cover office engineers, construction managers, construction engineers, and surveyors. Finally, insufficient knowledge of the contract (RII = 0.730) and poor communication (RII = 0.655) are, respectively, problems in the claims identification process.

Table 2: Claim Identification

Claim Identification	Contractors RII	Rank	Consultants and client RII	Rank
High workload	0.820	1	0.788	2
Insufficient skilled personnel for detecting a claim	0.745	2	0.694	4
Lacking contract knowledge	0.730	3	0.850	1
Poor communication	0.655	4	0.756	3

3.3. Claim Notification

As shown in the table below, contractors, consultants, and clients have agreed on the late intention of the request for notification to the contractor (RII of contractors = 0.805 and RII of consultants and client = 0.863). Coupled with the contractor notification problem's late intention, contractors' project managers do not have good communication (Contractor RII = 0.675 and Consultants and client RII = 0.830) to facilitate their requests with consultant clients. According to the consultant's response, this communication error was insufficient to prepare

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the notice due to the high workload (RII = 0.838) of the project managers. Third, as stated by the contractor managers, ambiguous notification preparation procedures (RII = 0.605) are among the biggest claims notification problems. But according to the consultants, the lack of knowledge of the procedures (RII = 0.613) is more a notification problem than ambiguous procedures in preparing notifications. Finally, insufficient time to prepare the alert due to a high workload (RII = 0.525) is one problem in the claim notification process.

Table 3: Claim notification

Claim Notification	Contractors RII	Rank	Consultants and client RII	Rank
The contractor didn't give his intention to claim within 28 days	0.805	1	0.863	1
Poor communication to carry on with submitting the notice	0.675	2	0.830	3
Ambiguous procedures in notice preparation.	0.605	3	0.594	5
lack of procedure awareness	0.590	4	0.613	4
Insufficient time to organize the notice (high workload.)	0.525	6	0.838	2

3.4. Claim Documentation

The table below shows respondents' statistical results as a claim documentation factor causing a weak claims management process. First, the table below shows those respondents ranked higher in claims documentation of poor arrangement of office on the site with contractors 'RII value of 0.790 and consultants' RII value of 0.756 as first issue documentation. Both sides have equally indexed the bad office layout on the designated site. Second, the inaccessibility of documents (0.730 RII contractors and 0.519 RII consultants) when needed is another important factor in project file documentation for submitting and evaluating claims. Third, the respondents identified a lack of practice (RII 0.715 contractors and RII 0.756 consultants) to record the data. Finally, the keeping instructions (RII of contractors 0.715 and consultants 0.756) are among the last factors shown in the projects. All contractual claims can only be filed based on abundant fragments of evidence, but the case in this study shows that contractual documents, related letters, and records of work performance are poorly preserved. The result implies that the contracting parties had not paid attention to the site's management and collected documents.

Table 4: Claim Documentation

Claim Documentation	Contractors RII	Rank	Consultants and client RII	Rank
poorly arrangement of offices on the site	0.790	1	0.756	1
Inaccessibility of documents as needed.	0.730	2	0.519	3

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Less practice is used to record data during construction.	0.715	3	0.756	1
Instructions are not kept in well.	0.625	4	0.631	2

3.5. Claim Presentation

As shown in the table below, the main factor in presentation claims is poor communication between the contractor, the consultant, and the client (Contractors RII 0.74 and Consultant RII 0.569). Delay in presenting a claim (RII Contractors 0.690 and RII Consultants 0.806) is the second reason for presenting a contractual claim. The third claim factor arises from ambiguity and clarity (Contractors RII 0.675 and Consultants RII 0.688). The fourth and fifth lawsuits relating to the client's claim are poorly expressed claims (RII Contractor 0.595 and RII Consultants 0.544) and insufficiently qualified personnel (RII Contractor 0.580 and RII Consultants 0.719) from the client and the consultant. The result implies that these projects' claim submissions are not logically structured, unprepared, and not persuasive. For that reason, a claim that was not written in a set-up that emphasizes contract prerequisites has been violated.

Table 5: Claim Presentation

Claim Presentation	Contractors RII	Rank	Consultants and client RII	Rank
Poor communication	0.740	1	0.569	4
Delay to present the claim	0.690	2	0.806	1
Ambiguous & clarity problems	0.675	3	0.688	3
poorly expressed claim	0.595	4	0.544	5
Insufficient skilled personnel	0.580	5	0.719	2

3.6. Claim Examination

As shown in the table underneath, the consultant and client's main factor for presentation claims is late approval (RII Contractor 0.770 and Consultant RII 0.281). Failure to disclose (RII Contractor 0.690 and RII Consultant 0.806) is the second reason for examining contractual claims. The third factor for the examination question is the contract's lack of knowledge (Contractors RII 0.675 and Consultants RII 0.6594). The fourth and fifth lawsuits relating to consultants to examine the claim are the contractor's late submission (Contractors RII 0.650 and Consultants RII 0.644) and incorrect claims (Contractors RII 0.635 and Consultants RII 0.665) by the contractors. The finding implies that the claim report has been filed, even though the contractor, engineer, and employer, all parties involved do not have to follow up on the case and have not immediately responded. Due to this situation, the management team ultimately caused a great waste of time and money.

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Table 6: Claim Examination

Claim Examination	Contractors RII	Rank	Consultants and client RII	Rank
Late approval	0.770	1	0.281	5
Poor communication	0.675	2	0.594	4
lack of contract knowledge	0.650	3	0.644	3
contractor late submission	0.635	4	0.665	2
Poorly expressed claims	0.263	5	0.888	1

3.7. Dispute Resolution

As shown in the table below, the claims dispute's main factor was the lack of collaboration between the parties (Contractor RII 0.730 and Consultant RII 0.769). Lack of negotiation skills (RII 0.725 Contractors and RII 0.881 Consultants) is the second reason for controversy in managing contractual claims. The third-ranked dispute claim factor depends on an individual's behavior (RII Contractors 0.645 and RII Consultants 0.500). The dispute's last indication causes a deficiency in communication between the contractual parties (Contractors RII 0.430 and Consultants RII 0.538).

Table 7: Dispute among parties

Dispute among parties	Contractors RII	Rank	Consultants and client RII	Rank
lack of cooperativeness	0.730	1	0.769	2
lack of negotiation skill	0.725	2	0.881	1
Dependent on the individual's behavior	0.645	3	0.500	4
lack of communication	0.430	4	0.538	3

3.8. Spearman Rank Correlation

The reason for the lack of ranked agreement between clients and contractors is that the response on the classification of the possible sources of claims could be a lack of communication and the difference in exposure and general sentiment to threats of causes of the claim factors that exist between clients and contractors in construction projects.

3.9. Linear Multiple Regression Model

As indicated in the table below the regression result model employed in this research is written as follows:

$$Y = 1.57 + 0.31(CI) + 0.21(CN) + 0.14\ (CD) + 0.16(CP) - 0.07(CE) + \text{error term}.$$

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Table 8: Coefficients and p-value

	Coefficients	Standard Error	t Stat	P - value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	1.57	0.47	3.38	0.00	0.64	2.50	0.64	2.50
Identification	0.31	0.07	4.22	0.00	0.16	0.46	0.16	0.46
Notification	0.21	0.08	2.49	0.02	0.04	0.37	0.04	0.37
Documentation	0.14	0.07	1.88	0.06	-0.01	0.29	-0.01	0.29
Presentation	0.16	0.06	2.73	0.01	0.04	0.28	0.04	0.28
Examination	-0.07	0.07	-0.93	0.35	-0.22	0.08	-0.22	0.08

It is found that the claim identification coefficient (β = 0.31) is the most influential variable followed by claim notification (β =0.21), claim presentation (β = 0.16), and claim examination (β=-0.07) as the least influential factor on the project claim management. But improving claim documentation ((β =0.14) has not shown an impact on minimizing disputes among parties. Moreover, the P-value of notification, identification, and presentation elements were less than 0.05. These independent variables significantly affect project claim management success. However, the p-value of claim documentation and examination variables exceeded 0.05. This result indicates that they aren't significant predictors of project claim management.

3.10. Framework Analysis

According to the organizational document of the contract claim management factors on the project, 32% of claim presentation, 19% of claim documentation, 13% of claim notification, and 6% of claim identification are valued. This result indicates that contractors have difficulty preparing claims under the contract. On the other hand, 21% of examination and 8% of claim dispute results indicate that consulting firms have difficulty handling and resolving claims.

Table 9: Thematic Chart result

Themes	Organizational documents	Percentage
Summation of Theme 1: Documentation	28	19%
Summation of theme 2: Notification	20	13%
Summation of theme 3: Presentation	48	32%
Summation of Theme 4: Examination	32	21%
Summation of theme 5: Dispute	12	8%
Summation of theme 6: Identification	9	6%
Total theme	149	100%

4. CONCLUSION

This study aims to identify issues affecting the management of the contract claim presentation and response processes in public housing projects in Addis Ababa, Ethiopia. Questionnaires were distributed to project managers, resident engineers, and inspectors. Thirty-seven factors were selected in this survey and were categorized into six major variable groups. These groups are notification, identification, documentation, presentation, examination, and dispute

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resolution of claims. The target respondents for this study were clients, contractors, and consultants. The data were gathered based on survey strategy through 72 questionnaires and 250 organizational documents. The data were analyzed using Excel, SPSS software, Spearman's correlation Coefficient, framework analysis, and linear multiple regression model. The results obtained are concluded below: First, The top three highly significant factors for the potential sources of claims are a delay in the supply of construction materials by the client, extra work & design change, and weather conditions. Secondly, the challenges contractors face with presenting claims are high project managers' workload, lack of contract knowledge, late notification of claims, poor communication, and unorganized project office administration. Thirdly, the challenges faced by consultants in handling the response to claims are late approval and poor communication. Finally, found that the client is the major contributor to the potential sources of claims. Generally, this study found that the notification, identification, examination, and presentation variables directly affect public housing projects' success. Therefore, these factors should get adequate attention from the client, consultant, and contractor in the contract claim management process execution.

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