



Extension of Time In Construction Projects

ABSTRACT

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Timely complementation of project is highly focused. With an aim to assess the consequences of time extension in terms of project's performance i.e time and cost based on cases of Nepal. The questionnaire contained statements on practices adopted of Eot in construction field, consequences of Eot in the project's cost and time and impacts of Eot in the project's performance through literature review. Also, the impacts of Eot in the project's performance were tested through Hypothesis test method. Total of four statements from practices adopted in construction, seventeen statements from the consequences of Eot and Four statements from the impacts of Eot in projects performance were established and administrated on twelve projects for collecting the information. The identified results were analyzed with Relative Importance Index (RII) and Ranking. The significant impacts of cost, time and quality were tested on project performance by Regression as set Hypothesis. Overall RII of practices adopted of Eot in construction field as timing of Eot claim varied from maximum 0.813 to minimum 0.74. The RII of consequences of Eot varied from maximum 0.920 to minimum 0.600. Architect too busy with other tasks attend the bottom position based on overall RII rank value.

Keywords: Construction, Extension of Time, Impact, Consequences, RII index

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INTRODUCTION

Projects have become more time-constrained in recent decades, and the capacity to complete on time has become an increasingly crucial factor in projects. There is a focus on time performance, often with heavy liquidated damages (LADs) for lateness, by leveraging main contractor try to push delay risk onto the down line contractor (Williams, 2003).

Delays are a common issue of disputes leading as one of the most prevalent and expensive sources of issues in most of construction projects. There are several factors that might create delays in the construction sector, some of which are unavoidable

Extension of Time In Construction

(Alkass et.al, 1995, Othman et.al, 2006, Ahuja et.al, 1994). As a result, it would be good to produce a guideline to explain which events are eligible for EOT and which are not.

As a result, it is critical, especially when dealing with client delays, to determine his eligibility for EOT and right to appropriate EOT within contract finish date. The contractor may be susceptible to Liquidated Damages (LAD) for causes outside his control, but within the control of the customer. As a result, EOT exists, they are extremely difficult to prepare for, both theoretically and practically (Williams, 2003).

On a project, planning strategies are frequently utilized to anticipate the risk of EOT. There are numerous issues with it (Alkass et.al, 1995). The issues may have arisen as a result of the techniques' incapacity to do retroactive analysis, as well as the use of incorrect techniques. As a result, a more scientific way to analyzing the EOT in a plausible model is required. It can assist avoid unwanted disputes or contract breaches caused by a skepticism in the process of requesting a time extension.

Furthermore, local practice in Nepal is doubtful when it comes to seeking and judging time extensions. For both, there is no set technique or protocol Clients and contractors. As a result, it is critical to disclose local EOT practice before recommending measures to reduce EOT claims. This study aims to assess the consequences of time extension in terms of project's performance i.e time and cost based on cases of Nepal.

LITERATURE REVIEW

Empirical Reviews of Delays and Extension of Time

Bayissa, (2018) concluded that the weighted RII of elements uncovered that: delay to convey the site (Right of way issue), monetary issues inspections, equipment accessibility and failure, suspension of work by proprietor or contractor furthermore, climate conditions were the most delay causing components of road construction projects in Oromia, relevant to ORA street projects. Impacts of construction delay have been likewise being researched in similar way and the outcomes were determined utilizing RII. Consequently, Time and Budget invade have been discovered to be the two most predominant impacts brought about by delays in Oromia streets development projects appropriate to ORA road projects.

In Nepal, Mishra and Bhandari, (2018) in their study had stated that the main considerations that influence the execution of the project as indicated by the positioning based on RII for the apparent perspective on the owner, consultant, the contractor on elements influencing the exhibition are based on design issues, materials deficiency, quality issues, time consuming decision process, construction approach, supply of skilled and unskilled labour, payment issues, ineffective site management, lack of consistency in contract documents, organizational instruction flaws, productivity issue, change orders, unexpected site situation, climate issue, administrative updates that influence the execution of project. 28 distinct elements influencing the execution of the work were found.

Mishra et al. (2018) expressed that material related factor was the main elements among different categories for the delay in development projects, since the worth of relative

importance index was most noteworthy in material related variables followed by different factors. This reality without a doubt remains constant for the development projects as the short of material stock would consistently have a lot of attribution for delays in development despite of having great planning and coordination guaranteed. The second significant factor being the consultant, client and contractor related factor, and so on in this investigation. Regarding the apparent impacts of the delay in the development projects held by the respondents, the likely impact of the project delay was cost overrun followed by arbitration, etc. Undoubtedly, the increment of the expense was most significant impact of any deferred projects. Clearly, long the project extends, more prominent the expense required for the activity of the task. All projects under investigation had been provided with expansion of time dependent on the Public Procurement Act (PPA) 2063 and Public Procurement Regulations (PPR) 2064. As per the information accessible, all activities in this examination were discovered to be postponed because of Natural Catastrophes (Rain, Wind, Earthquake and Flood), Land issue, Strikes, Scarcity of the materials and design changes.

Hanif et al, (2014) stated that with the use of these questionnaires and reviews, the causes of delays have been discovered and ranked. For the sake of evaluation, a variety of techniques have been used. The major goal of this study was to investigate the extension of time claims as a result, to examine various techniques that are employed in Pakistan Hydropower, as well as to look into the reasons for the assessment's delay submitting an EOT. Research uncovered that the defer in break installment endorsements, land procurement issues, postpone in issuance of development drawings, absence of standard timetable and unfortunate plan were among the main contributing elements prompting Extension of Time Claims.

Alnass et al, (2014), expressed in the subject Guideline for planning exhaustive expansion of time (EoT) guarantee that on the grounds that the undertaking group is constantly bustling managing site issues and other task requests, it turns out to be more challenging for them to enough report the postponements and disturbance occasions as the venture turns out to be more convoluted. A period expansion guarantee or disturbance guarantee ought to satisfactorily show causality and responsibility, as well as help in exhibiting the degree of time-related harms experienced as an immediate consequence of the defer occasions depended on, for the workers for hire to find true success. The recording of deferrals and interruptions is a unique interaction that requires progressing support from the arranging group, as well as help from any remaining divisions.

In Malaysia, Lian et al, (2012) in The Assessment of Applications for Extension of Time Claims in Malaysian Construction Industry had expressed that expansion of time (EOT) has turned into a normal development movement in many tasks, particularly when standard types of agreement are utilized, and it is perceived as a passable postpone in customary development contracts. The worker for hire and managing engineer every now and again spend a significant amount of time verifying and assessing the delays. For such evaluations, a variety of methodologies have been used. However, the efficacy of the approaches used has been a key element in encouraging foreign companies to invest in Malaysia's building industry.

Consequences of time extension in terms of projects time and cost

The defer in development projects colossally affected time and cost overwhelm. It likewise causes dangerous circumstance among proprietor and worker for hire like debate, case, discretion, and some of the time absolute relinquishment of the task (Assaf & Al-Hejji, 2006). Be that as it may, cost overwhelm was considered as the main impact which may suspended or even end the venture before fulfillment.

Kikwasi (2012) expressed that the effects of deferral were differing concerning the gatherings' view for instance proprietor thought postpone implies loss of income and absence of administrations, on the other hand worker for hire thought about it as deficiency of cash.

An examination led by Bayissa, (2018) showed the impacts of the deferral in the construction business of projects delays in Oromia Roads Authority (ORA). Researcher found eight potential normal impacts which emerging in many nations because of deferral. These impacts were Cost overrun, Time overrun, Disputes, Total abandonment of project, sub-graded quality project and poor public relations.

Mishra & Aithal (2020) contemplated that every one of the projects of water supply chosen for the study were time overrun as the impacts of delay factors in construction. Because of the active coordination and inclusion of respective Users' Committee, the time overrun of the projects were found not exactly the government exclusively carried out project. Variety, Social issues like Bandhs, strikes and debates, Delay in choice, site ownership and regular cataclysms were tracked down the central point in delay the execution of water supply projects.

Approval of EOT

If the reasons stated in the application are proven to be true after a thorough examination, the EOT can be approved (PPMO, 2019) as: The Officer who approved the Procurement can approve an EOT of up to 15% of the initial Project length. The Departmental Chief can approve EOTs that are greater than 15% and up to 25% of the initial Project Duration. The Secretariat of the Concerned Ministry/Entity can approve EOTs of more than 25% but less than 50% of the initial Project Duration. There can be no EOT that exceeds 50% of the initial Project Duration. The Contract should be cancelled due to such requirements.

Following hypothesis was tested to analyze the impact of time extension on project (Mishra, 2019):

Ho: There is no impact of time extension on projects.

H1: There is an impact of time extension on projects.

These hypotheses were tested by using regression analysis followed by ANOVA test, which w signified whether the impact exists between independent and dependent variable.

METHODOLOGY

Research Design

The action was carried to develop possible solution of the highly observed problem of delay in construction projects and the research questions was oriented to investigate the Practices adopted in extension of time in construction industries in Nepal.

Literatures reviews, of delays on construction projects and time extension, consequences of extension of time and impact of time extension on projects and other relevant journals had been studied in this process.

This study was carried out through a detailed questionnaire scheduled. This study was an action research type. Concerning the study approach, two kinds of procedures was utilized in study: quantitative and qualitative approach. Quantitative examination was picked to know respondent's views towards time extension techniques and its consequences and impacts and rank them in construction projects Likewise; qualitative data were additionally added for a top to bottom clarification of the consequences of Eot, the impacts of delay.

Projects Selection for collecting data

Based on accessibility considering convenience and representation of all over the Nepal , 15 projects from high priority projects were selected for the study viz: 1.Sikta Irrigation Project, 2.Babai Irrigation Project, 3.Ranijamara Kulaiya Irrigation Project, 4.Bheri Babai Diversion Multipurpose Project, 5.Upper Tamakoshi Hydropower Project, 6.Budi Gandaki Hydropower Project, 7.West Seti Hydropower Project, 8. Gautam Buddha International Airport, 9.Pokhara Regional International Airport, 10. Lumbini Area Development Project, 11.PushpaLal Mid Hill Highway, 12. North South Koshi Highway Project, 13.North South Karnali Highway Project, 14.Kathmandu Terai Fast Track Project, and 15.Melamchi Water Supply Project

Sample collection and Sample Size

It was tough to access the concerned stakeholder from already completed projects however; it was easy to reach ongoing projects. So, 5 number of client, consultant and contractor representatives were accessed from each project. Altogether, it became 225 responses.

Data Collection

The primary data was obtained through scheduled questionnaires along with personal interviews with people involved. Field observations: chosen construction projects was visited once to check whether the development of these projects was in smooth speed or not. In like manner likewise be checked, regardless of whether what timings in the Eot claim were done. The consequences from extension of time were checked over actual factor that causes extension of time with the Earned value analysis. The impacts of extension of time were tested by hypothesis testing. Questionnaires: Questionnaire Survey was finished by visiting individuals legitimately and filling without anyone else's input. Interviews: Interview Survey was done by visiting individuals legitimately and

Extension of Time In Construction

asking each individual perception. The secondary data collection was obtained through: Contract Document and agreement paper of projects, Running Bills, Document of Infrastructure office advancement, Department of Roads, Other distributed and unpublished writing, reports and diaries papers, Internet and sites.

Validity and Reliability

For the validity the content validity method was used. The questionnaire prepared was evaluated by experts as senior engineers, supervisors as pilot study and also compared with different literatures. The opinion from different groups was collected and the questions that should be administered for the study of extension time was chosen among the many questions in the questionnaire survey. For the reliability test the Cronbach alpha method was used (Ritter, 2010).

Data Analysis

Time Extension Practices Adopted

The first step of this research was to analyze practices of extension of time adopted in construction projects under selected projects. To assess the types of techniques or practices adopted of extension of time; monthly reports, quarterly reports, trimester reports of projects progress and contract documents and claims for extension of time and other relevant documents related to the project was reviewed at the time of desk study. The practices adopted in time extension in construction industries was listed and individual reactions to the poll which were then appointed with a numerical code were carried out.

The positioning of variables in every classification depended on the RII to decide the level of connection on positioning the components among the gatherings. This area identified with inquiries on the variables that cause delays in ventures. The 5point Likert-type semantic rating scale was utilized to rate their discernments as 5 highest marks to strong agreement and 1 lowest mark to show strong disagreement (Preedy and Watson, 2015).

This research had fulfilled the stated objectives of the study which can be shown in matrix in the Table 1.

Table 1. Research Methodology Summary

Research Objective	Data Required	Data Collection Tools	Data Analysis Tools	Reliability
To analyze the time extension of project practices adopted in construction field	Timing of Eot in construction a. Within a sensible time from the date of accommodation of subtleties of guarantee by the project workers b. 21 days of the finish of the reason for delay (Clause 120 of PPA 2007) c. Within 21 days from the date of the postpone occasions d. At the finish of development period	Contract Documents, monthly reports, quarterly reports, trimester reports letter of claims evidence of delay and other relevant documents related to the project delay	Relative importance index (RII), Ranking	The Cronbach alpha for Questionnaire was found as 0.8287 which is greater than 0.8. The techniques adopted could be ranked on main basis.
To assess the consequences of time extension in terms of project's time and cost.	Types of consequences of time extension in Schedule Financial consequences	Site Observation Checklist Questionnaire Interview	Relative importance index (RII), Ranking	The Cronbach alpha of the questionnaire for contractor was found as 0.8052, for consultant was found to be 0.8103 and for client was found to be 0.8046. Alpha value of all the three parties more than 0.8, showing internal consistency.
To analyze the impacts of extension of time (EOT) on performance.	Hypothesis: H01: No impact of time extension on projects. Ha1: There is an impact of time extension on projects.	Observations	a. regression analysis and ANOVA test	The Cronbach alpha for impact of Eot on performance was found as 0.8031. Alpha value more than 0.8, showing internal consistency.

RESULTS

Time extension practices adopted in construction field

The response of survey can be analyzed as given in Figure 1.

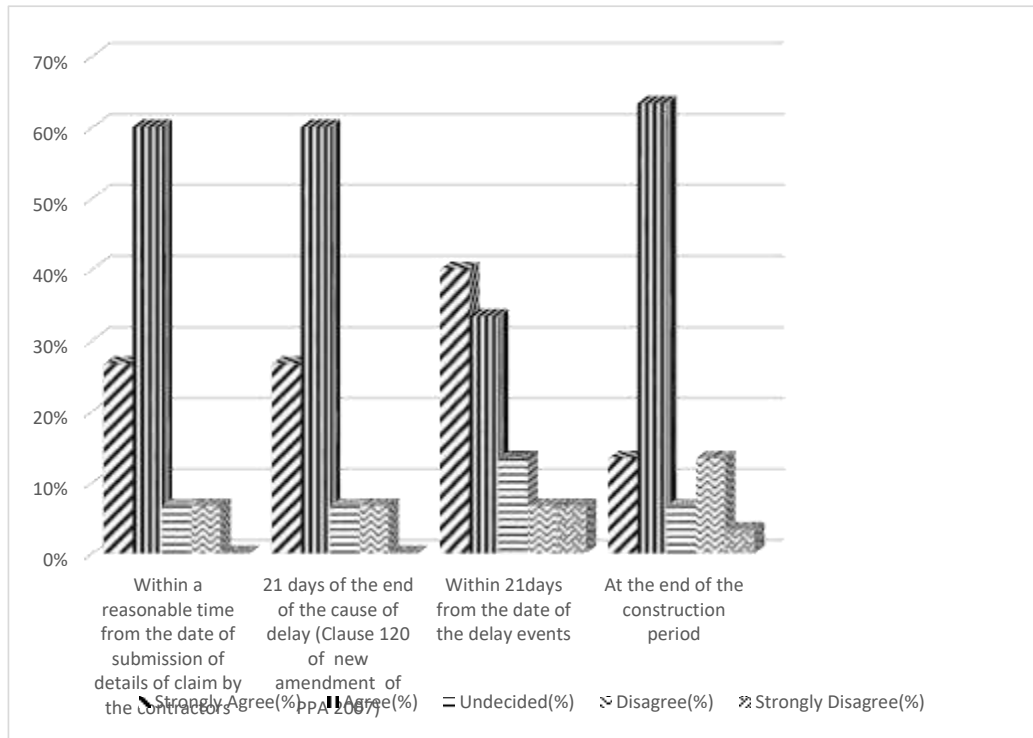


Figure 1. Bar graph for timing of assessment in evaluating Eot claim

Figure 1 shows that 27% of respondents emphatically concurred, 60% of respondents concurred, 7% of respondent uncertain and 7% of respondents differ that the client finishes the assessment inside a reasonable time from the date of accommodation of a detail guarantee by the worker for hire. Though 27% of respondents firmly concurred, 60% of respondents concurred, 7% of respondents uncertain and 7% of respondents differ that the Eot in Construction Projects of Nepal for the most part embraced were in 21 days of the finish of the reason for delay (Clause 120 of PPA 2007). Similarly, 40% of respondents unequivocally concurred, 33% of respondents concurred, 13% of respondents unsure, 7% of respondents differ and 7% of respondents emphatically differ that the client completes the evaluation in somewhere around 21 days from the date of the postpone occasions and 13% of respondents firmly concurred, 63% of respondents concurred, 7% of respondents unsure, 13% of respondents differ and 3% of respondents emphatically differ that the client does the appraisal of Eot toward the finish of the development time frame.

In the vast majority of the cases, the client does the evaluation inside a sensible time from the date of accommodation of a detail guarantee by the worker for hire had RII of 0.81333. This is like Malaysian development projects, where a concentrate by Yusuwan

and Adnan (2013). The Eot in Nepal generally embraced were in 21 days of the finish of the reason for delay (Clause 120 of PPA 2007) conveyed RII 0.81333, in somewhere around 21 days from the date of the defer occasions had RII 0.78667 and toward the finish of the development time frame had RII 0.74000.

Consequences of time extension in terms of project's time and cost

Seventeen reasons for Eot were identified from literature review. The 45 questionnaires were administered and the result from the analysis based on RII is shown in Table 2. The reasons for Eot were computed and ranked based on RII value.

Table 2. RII of reasons for Eot claim

S.N.	Causes for Eot	RII and Rank							
		Client	Rank	Consultant	Rank	Contractor	Rank	Overall RII	Overall Rank
1	After date claim Submission	0.82667	4	0.6933	14	0.7867	8	0.769	9
2	Ineffectively submission with absence of subtleties and specifics	0.82667	4	0.627	16	0.7200	11	0.724	13
3	Assortment of pertinent realities from site records to lay out the standard of the case and evaluation/tedious to actually take a look at records	0.81333	6	0.800	4	0.8667	4	0.827	3
4	Delay examination strategies utilized by contractor different with the technique utilized by the Architect	0.80000	7	0.733	10	0.8000	7	0.778	7
5	Delay in approval by employer	0.77333	9	0.800	4	0.7733	9	0.782	6
6	Contractor submits global claim	0.74667	12	0.840	2	0.6133	15	0.733	12
7	Hold on for the rest of occupation on the grounds that genuine deferral still up in the air until end of delay or construction	0.85333	2	0.7733333	8	0.8667	4	0.831	2

Extension of Time In Construction

S.N.	Causes for Eot	RII and Rank							
		Client	Rank	Consultant	Rank	Contractor	Rank	Overall RII	Overall Rank
8	Employers attitude/interference from employers	0.69333	13	0.68	15	0.6400	13	0.671	15
9	As persuasive elements to project worker (nonappearance of EOT might come down on project worker to perform more effective)	0.85333	2	0.8133333	3	0.7067	12	0.791	5
10	The impacts are not known/couldn't predict that an occasion would create a setback until the delay happened	0.96000	1	0.8	4	1.0000	1	0.920	1
11	No reasonable rule/pre-contract arrangement for surveying EOT claim	0.80000	7	0.8666667	1	0.5733	16	0.747	11
12	Deficient Personnel to aid appraisal process/absence of encounters	0.60000	17	0.7066667	13	0.4933	17	0.600	17
13	Designer new to delay investigation strategies	0.62667	16	0.7866667	7	0.7333	10	0.716	14
14	Architect too busy with other tasks	0.64000	14	0.6266667	16	0.6400	13	0.636	16
15	Delay in approval of contractors, consultant, materials suppliers by client	0.76000	11	0.76	9	0.8800	3	0.800	4
16	Delay in providing required evidence for the claim of eot by contractors	0.77333	9	0.7333333	10	0.8267	6	0.778	7
17	Resolvment of Eot claim within 15 days by employer after the claim of Eot	0.64000	14	0.7333333	10	0.9333	2	0.769	9

RII examination and positioning in Table 1 showed the primary reasons of Eot as the impacts are not known/couldn't predict that an occasion would create a setback until the postponement happened was found. Additionally, hold on for the rest of occupation on the grounds that genuine deferral not entirely set in stone until end of postponement or development and assortment of applicable realities from site records to lay out the guideline of the case and measurement/tedious to check records procured second significant reasons. Similarly, defer in endorsement of project workers, expert, as persuasive elements to worker for hire (nonattendance of EOT might come down on project worker to perform more proficient), were the vitally top five reasons for Eot as the results.

This is conversely, with what had been drilled in Malaysian development projects, where a concentrate by Yusuwan and Adnan (2013), found that inadequately accommodation by worker for hire/absence of subtleties and specifics, Late Submission of guarantee by the worker for hire, Collection of significant realities from site records to lay out the rule of the case and evaluation/tedious to check records, Delay examination strategies utilized by worker for hire different with the technique utilized by the Architect, Delay in endorsement by Employer were the primary drivers of Eot guarantee. The consequences on the project's cost and time were from causes of extension of time and also from the factors that delays the projects.

Impacts of extension of time (EOT) on project performance

To test this hypothesis, Regression was used to find out if there is impact exists between Eot and Project performance.

Table 3. Regression to Find Cost Impact of Eot on Project Performance

<i>Regression Statistics</i>						
	Multiple R					0.82
	R Square					0.67
	Adjusted R Square					0.66
	Standard Error					0.30
	Observations					30.00
<i>Anova</i>						
	Df	SS	MS	F	Sig. F	
Regression	1.00	5.01	5.02	57.05	0.000	
Residual	28.00	2.46	0.09			
Total	29.00	7.47				
	coef	Std. error	t stat	P value	Lower 95%	Upper 95%
Intercept	1.12	0.45	2.51	0.02	0.20	2.03
Mean Respon of Project Performance	0.77	0.10	7.55	0.00	0.56	0.97

Extension of Time In Construction

The Examined (F) esteem was equivalent to (57.05) with plausibility esteem (0.00) and it is lower than the particular worth (0.05), and that shows there is a critical effect exists between cost effect and Project execution. Thus, the invalid speculation was not acknowledged: There is an effect of cost on Project execution because of Eot. Comparatively for time and quality, test has been finished as displayed in Table 3.

Table 4. Results of hypothesis testing

S.N	Hypothesis	F	Sig. F	Impact
1	Impact of cost on Project performance	57.05	0.00	Impact Exists
2	Impact of time on Project performance	65.27	0.00	Impact Exists
3	Impact of quality on Project performance	123.09	0.00	Impact Exists

The calculated F value is higher than the significant f value. Therefore, all the null hypotheses are rejected and alternative hypothesis were selected i.e. There was impact of cost, Time and quality on project performance during EoT in given below the Table 4.

DISCUSSION

The results obtained from study were compared with different literature. For the objective of practices of Eot adopted in Nepalese construction industries Within a reasonable time from the date of submission of details of claim by the contractors and 21 days of the end of the cause of delay (Clause 120 of PPA 2007 were the main practices adopted followed by Within 21 days from the date of the delay events and at the end of the construction period.

Yusuwan & Adnan (2013), led concentrate on Assessing Extension of Time Application in Malaysian Construction Industry: Views from experts, communicated that the respondents of the study were next mentioned to express the planning of appraisal of EoT claims in light of four recognized timings regarding PAM 2006 arrangements. Apparently, generally speaking, the planner does the evaluation inside a sensible time from the date of accommodation of a detail guarantee by worker for hire. The respondents were then approached to express their favored strategy in assessing EoT claims.

Azad et al. (2019), performed research on Influence Factors in Extension of Time Claims and stated that incomplete documents/drawing, financial difficulties of client, lack of skilled labour, defective works, shortage of manpower, poor site management and supervision, mistakes during construction, change order, labour injuries/accident in site, changes in drawings/specifications, improper planning, conflict between parties, poor subcontractor performance were the main factors for extension of time. The findings in this study were in similar to the findings of Yusuwan & Adnan (2013) and also with Azad et al. (2019).

RII examination and positioning in Table 1 showed the primary reasons of Eot as the impacts are not known/couldn't predict that an occasion would create a setback until the postponement happened was found. Additionally, hold on for the rest of occupation on the grounds that genuine deferral not entirely set in stone until end of postponement or development and assortment of applicable realities from site records to lay out the guideline of the case and measurement/tedious to check records procured second significant reasons. Similarly, defer in endorsement of project workers, expert, as persuasive elements to worker for hire (nonattendance of EOT might come down on project worker to perform more proficient), were the vitally top five reasons for Eot as the results.

This is conversely, with what had been drilled in Malaysian development projects, where a concentrate by Yusuwan & Adnan (2013), found that inadequately accommodation by worker for hire/absence of subtleties and specifics, Late Submission of guarantee by the worker for hire, Collection of significant realities from site records to lay out the rule of the case and evaluation/tedious to check records, Delay examination strategies utilized by worker for hire different with the technique utilized by the Architect, Delay in endorsement by Employer were the primary drivers of Eot guarantee. The consequences on the project's cost and time were from causes of extension of time and also from the factors that delays the projects.

The outcomes acquired from study were contrasted and different writing. For the target of outcomes of time expansion as far as undertaking's time and cost the impacts are not known/couldn't predict that an occasion would create a setback until the postponement happened was found the high level for example rank one. Likewise, hold on for the rest of occupation on the grounds that genuine deferral still up in the air until end of postponement or development and assortment of significant realities from site records to lay out the standard of the case and measurement/tedious to check records gained the second and third position. In like manner, postpone in endorsement of workers for hire, expert, as persuasive variables to worker for hire (nonattendance of EOT might come down on project worker to perform more effective) were the principal bunch factors got from results.

Yusuwan & Adnan (2013), led concentrate on Assessing Extension of Time Application in Malaysian Construction Industry: Views from experts, communicated that unfortunate accommodation of cases by the worker for hire (e.g., missing subtleties and data), late accommodation of cases by the worker for hire, and assembling significant realities from field records to lay out the standard of the case were positioned most elevated by respondents as explanations behind late assessment of Eot claims. These outcomes propose that the fundamental reasons that might delay the assessment interaction are firmly related with the administration of activities records. It recommends the viable agreement organization with coordinated record keeping prompts fruitful undertaking the executives, yet in addition expands the possibilities of an effective legally binding case. While there is no assurance of getting everything, at any rate, appropriate verifiable proof and satisfactory supporting documentation will work with claims the

Extension of Time In Construction

executives, assisting with decreasing struggles and questions that outcome from unacceptable cases goal.

This is conversely, of the concentrate in Nepalese development enterprises with what had been drilled in Malaysian development projects, where a concentrate by Yusuwan & Adnan (2013), found that inadequately accommodation by worker for hire/absence of subtleties and specifics, Late Submission of guarantee by the project worker, Collection of significant realities from site records to lay out the standard of the case and evaluation/tedious to check records, Delay examination techniques utilized by project worker different with the strategy utilized by the Architect, Delay in endorsement by Employer were the primary drivers of Eot guarantee.

Mishra et al. (2020), drove focus on Dispute of the Contracts: A Case from Sikta Irrigation Project, Banke, Nepal, and saw that as: Major factors impacting the undertaking execution recognized were Normal Catastrophes, Rainfall and Pre-storm, Land Issue, Blockade, Shortage of the materials, Configuration change and Coronavirus Lock down. Things (1), (2), and (3) above are viewed as power majeure under their individual agreement records. Thing (4) is likewise delay-related occasions that are the sole liability of the Customer. Thing (5) is likewise a postpone related occasion because of the Covid - 19 Covid and lockdown. So for the above occasions, the project worker is all liable for time expansions. Right now, it ought to be noticed that all undertakings surveyed followed the General Contract Conditions of the Office of Government Oversight Standard Bid Document for Schedules and Time Extensions. EOT1, EOT2, EoT3 for all tasks were conceded as per Section 56 of the Public Procurement Act and Section 120 of the Public Procurement Rules. Likewise, the study had identified the causes that leads to the claims of extension of time as natural catastrophe, land issue, scarcity of materials, Covid-19 lockdown etc., similarly, this study also identified almost similar results.

The results obtained from study were compared with different literature. For the objective of impacts of extension of time (EOT) on project performance the hypothesis test was done and all the null hypotheses are rejected. In the case of construction projects in Nepal, time overrun was the norm rather than the exception. Cost excess arose from the time overrun. All of the projects chosen for study were time overrun (Mishra & Aithal, 2020). Likewise, the study had identified the impacts due to time extension in time overrun, cost overrun, similarly, this study also identified almost similar results.

Mishra et al. (2020), concentrated on in appraisal of time-cost model of general wellbeing structures in Nepal and expressed that the undertaking time and cost of the Public Health Buildings projects in Nepal were considerably related ($p = 0.599$). For the expectation of time and cost parts of comparative undertakings, a condition was created: $\text{Time} = 487.5 (C/79.96)^{0.293}$ (time is addressed in days and cost in million NRs.). By combining the immediate and indirect expenditure esteems, the venture's total time-cost relationship could be determined which showed that due to time extension there is impact on time, cost and quality. Stated in the study it had identified the impacts due to

time extension in time overrun, cost overrun, similarly, this study also identified almost similar results.

CONCLUSION

Thus, from this study, it can be concluded that overall construction projects face delays due to delay factors and extension of time is required. The study identified the practices of extension of time adopted in construction filed. Inside a sensible time from the date of accommodation of subtleties of guarantee by the workers for hire and 21 days of the finish of the reason for delay (Clause 120 of PPA 2007 were the main practices off extension of time adopted in Nepal followed by Within 21 days from the date of the delay events and at the end of the construction period. The results of Eot as the impacts are not known/couldn't predict that an occasion would create a setback until the postponement happened were found. Similarly, hold on for the rest of job on the grounds that genuine delay not entirely settled until end of delay and assortment of important realities from site records to lay out the rule of the case and evaluation/tedious to actually look at records acquired second major reasons. Likewise, delay in approval of contractors, consultant, As persuasive elements to project worker (nonappearance of EOT might come down on project worker to perform more effective), were the main top five causes of Eot as the consequences.

The consequences on the project's cost and time were from all factors of extension of time and also from the factors that delays the projects. The impacts of extension of time (EOT) on project performance, hypothesis test was done and all the null hypotheses are rejected and alternative hypothesis were selected: There is impact of time, cost and quality on project performance during extension of time.

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Extension of Time In Construction

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