

Impact of Successful Timely Completion of Construction Projects on the Economic Development of Sri Lanka

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Abstract

The construction industry is identified as an income-driven sector, especially in developing countries. However, in the Sri Lankan construction industry, the vital factor of 'on-time project completion' is not been achieved at all times. Since, the public sector projects are not being completed within the anticipated duration, their expected outcomes are not well-received, resulting in a form of unconstructive economic development.

The purpose of this study is to resolve the highlighted problem statement – the impact on the economic development in Sri Lanka, if the construction projects were successfully timely completed – through achievement of the laid down objectives. The main objective is to illustrate the impact of the successful timely completion of construction projects on the economic development of Sri Lanka. The research employs a qualitative research methodology, delving on semi-structured interviews. The impact of successful timely completion of construction projects on the economic development of Sri Lanka are determined through a detailed literature survey. The potential implementations to mitigate adverse time impact on public sector construction projects are identified, by analyzing the qualitative data through a content analysis, using frequency tables gathered from a sample of 30 professionals.

The data covers the wider Sri Lankan construction industry, obtained through conducting comprehensive interview sessions. The major findings deliberate a greater impact from the specified time factors that derives the project's successful completion on the economic development of Sri Lanka. It concludes with key mitigating implementations such as contracting qualified/competent parties, increased ethical professionalism of parties and proper supply chain management etc. This research is conducted to provide key implementation factors for the Sri Lankan construction industry, aiming to achieve timely project completion and enhance contributions to the national economy, while also guiding future studies.

Keywords: *Timely Completion, Economic Development, Construction Industry*

Introduction

The economic development of Sri Lanka has been examined by numerous researchers over the years, revealing the country's foundational potential for rapid economic growth. Despite its moderately-strong economic performance, Sri Lanka remains a middle-income developing nation (The World Bank, 2021). The construction industry, whether in developing or developed countries, plays a crucial role in the national economy, with the success of construction projects directly impacting industry vitality and, consequently, economic progress (Aibinu & Jagboro, 2002). The Sri Lankan construction industry is recognized as an income-generating sector, facilitating the transformation of available resources into urbanized infrastructure and service facilities (Rathnayake & Ranasinghe, 2020).

The successful completion of a project is evaluated based on the achievement of key performance measures, with time, cost and quality being the primary criteria for a project's success. For a construction project to be deemed successful, it must meet all established success criteria. However, achieving timely project completion remains a significant challenge within the Sri Lankan construction industry. As a developing nation, Sri Lanka currently has numerous large-scale construction projects underway, primarily managed and overseen by the public sector.

The public sector bears significant risk as the accountable party for large construction projects, especially when these projects fail to meet anticipated completion timelines. Delays can prevent the public sector from achieving the expected outcomes, potentially leading to negative impacts on the country's economic development. Conversely, timely completion of publicly-managed construction projects could positively influence Sri Lanka's economic growth, given the strong linkage between the construction industry and the national economy. Based on recorded statistics, the construction industry is ranked third in terms of contribution to the national economy, with an input of LKR 190,372 million in 2018, accounting for 9% of the total. However, this contribution saw a decline in 2020 due to the impacts of the Covid-19 pandemic (Department of Census and Statistics, 2020).

Based on all the foregoing, the purpose of this research study therefore, is

1. To ascertain specific time factors that drive the successful completion of a construction project and contribute to key indicators of economic development.
2. To identify the impact of the successful timely completion of construction projects on the economic development of Sri Lanka.
3. To evaluate the advancements and implementations that could be practiced as a construction industry to mitigate adverse time impact on the construction projects.

Given that Sri Lanka is still a developing country, the untimely completion of construction projects — particularly those managed by the public sector — has led to numerous adverse impacts on projects, stakeholders, and the nation's construction industry, ultimately hindering national economic growth. Poor performance and project inefficiencies are among the most significant drawbacks, severely undermining the overall success of the Sri Lankan construction industry. Most public sector construction projects in Sri Lanka face significant failures and incur high, unrealistic expenses due to delays and lack of efficient project delivery. Consequently, this research holds substantial relevance for the construction industry. This issue has also been a subject of continuous study by construction researchers globally, drawing enthusiastic focus in many countries (Dolage & Rathnamali, 2013).

The construction industry holds a critical position in the national economy, serving as a major contributor. By enhancing productivity through cost-effectiveness and adherence to project timelines, it helps reduce national financial expenses (Aibinu & Jagboro, 2002). However, in Sri Lanka, no construction project — regardless of type, scope, size or location — has been completed successfully without encountering time overruns. Given this view, this research is crucial for the Sri Lankan construction industry and other developing countries, as it promotes an effective and efficient economic balance and a productive construction sector.

Research Context

The construction industry of a country relies on the continuous development, construction or modernization of buildings, infrastructure, industries and specialized projects by both public and private sectors. Such factors reflect the nation's development status. As a well-known economic contributor, the construction industry provides numerous benefits, such as employment opportunities and income growth for beneficiaries within the country. This

underscores the strong link between the construction industry and various economic activities, resulting in both direct and indirect impacts on other sectors. Ofori (2000) argues that the development of a country's construction industry is a deliberate process, especially in the developing nations. It is aimed at increasing construction capacity and efficiency to meet national construction demands, and also support economic and social development goals. Anaman and Osei-Amponsah (2007) reinforce this perspective, emphasizing that the industry plays a crucial role in balancing and utilizing resources effectively. They highlight how efficient construction and infrastructure development drive increased employment opportunities, and contribute to national economic growth.

In Sri Lanka, performance of the construction industry is considered a barometer of national economic development, as it ranks fourth in terms of national economic contribution. However, recent challenges, including labor shortages, a lower volume of construction projects, high cost fluctuations, and limited competence among foreign contractors, have burdened the industry. These issues were further exacerbated by the COVID-19 pandemic, resulting in a decline in Gross National Income from 6.9% of GDP (LKR 683,371 million) in 2019 to 6.2% of GDP (LKR 592,963 million) in 2020. The industry's growth rate and economic contribution dropped sharply, from 4.0% growth in 2019 to -13.2% in 2020 and from 0.3% contribution to growth in 2019 to -0.9% in 2020, respectively (Central Bank of Sri Lanka, 2020).

These statistical values and available literature demonstrate that the construction industry is a vital component of a country's economic development. This highlights a substantial relationship between the construction sector and national economic growth in developing countries like Sri Lanka.

Indices of Economic Development

The contribution of a country's construction industry to national economic development has led to improvements in productivity, efficiency and effectiveness within the sector. This is particularly evident through sustained cost and time management, which contributes significantly to cost savings (Aibinu & Jagboro, 2002). Several past studies have identified and ranked various indicators to measure visible economic development. These economic development indices illustrate the positive impact on the national economy driven by the continuous growth of the construction industry (Aibinu & Odeyinka, 2006).

In a Nigerian study, Oke et al., (2016) identify and rank major indices of economic development. These are increased technological usage, infrastructure development, employment demands, public sector expenditure, rapid urbanization and the use of local resources. Additional factors are the export of local products, industrialization and the growth of industrial entrepreneurship. These aspects serve as essential indicators of economic development in a developing country, and are significantly impacted by changes within the construction industry, particularly through the successful completion of construction projects.

Specific Time Factors Driving Successful Completion

Aibinu and Jagboro (2002) specify that the success of a construction project is determined by the success of its performance. Performance is defined as the process of assessing specific targeted goals to indicate the current state of the project, and predict its status at completion. Over the years, many scholars identify key 'time factors' that drive successful project completion. These factors, as reviewed by Aibinu and Odeyinka (2006), include resource unavailability on-site, delays in payment processing, prolonged defect rectification, and unrealistic or inaccurate project scheduling.

Several later studies examine key indicators of these time factors. Enshassi, Mohamed and Abushaban (2009) state that resource shortages, delayed payments to material suppliers, and delays in resource delivery contribute to on-site resource unavailability. Kaliba, Muya and Mumba (2009) on the other hand, note that delays in scheduled payments result primarily from slow

submission and evaluation processes for payment applications, as well as delayed payment release by the employer. Given this view, Palaneeswaran (2006) identifies timely detection, resolution of defect-related disputes and defect rectification as critical factors impacting project completion. Additionally, Al Nasser (2015) observes that unrealistic initial time planning, poor activity scheduling and inadequate time management negatively affect project performance timelines. In a recent study, Oke et al. (2016) examine specific time factors influencing project completion. Several factors are identified and ranked under key categories; cost, productivity, time and quality. These categories are recognized as core functions of project performance and act as benchmarks for evaluating project success. In this study, the specific time factors influencing construction completion are identified, with resource availability on-site ranked as the top factor determining timely project success. The next highest factors include the time taken for payment processing, followed by the time required for defect rectification, and finally, initial project planning and scheduling. On-time completion is considered the most critical element in measuring a construction project's performance (Oke et al., 2016).

Impact of the Successful Timely Completion on Economic Development

Extant literature supports a direct relationship between the construction industry and national economic development. It confirms that the successful completion of construction projects drives growth within the entire construction industry. This finding highlights that the productivity of the construction industry directly contributes to national economy (Oke et al., 2016). Researchers have explored the discussed statement and its adverse impact on the construction industry and national economy. Aibinu and Jagboro (2002) emphasize the importance of understanding the extent to which delays can negatively affect project completion. They further identify key impacts on the Nigerian construction industry from delayed projects, including time and cost overruns, claims and disputes, arbitration, abandonment as well as litigation.

Akram et al., (2015) assess time overruns in construction projects within developing countries, focusing on the public sector. More recent study by Amarasinghe (2016) asserts the causes of delays in government-funded infrastructure projects in Qatar. There is no prior study examining the impact of specific time factors influencing construction completion on a country's economic development. This includes both the positive impact on both construction industry growth and national economic growth, if construction projects are completed on time. In other words, there is a lack of research assessing the effects of successful, timely project completion on Sri Lanka's economic development in the context of this study (Dolage & Rathnamali, 2013).

In this light, it could be concluded that this study area remains unexplored in the Sri Lankan context, though its findings could encourage timely project completions. These completions would positively impact both construction industry growth and national economic development. The insights gained may motivate construction professionals to adopt strategies that prevent time overruns. As a key contributor to the economy, the construction industry boosts productivity through cost-effectiveness and adherence to schedules, reducing financial expenses (Aibinu & Jagboro, 2002). Given this, the study focuses on assessing the impact of timely project completion on Sri Lanka's economic development.

Methodology

The intention of this research is to ascertain the impact on the economic development of Sri Lanka by taking up successful timely completion of construction projects. To achieve the aforesaid, qualitative data was collected. A mixed method research was adopted here, owing to its ability to provide a diversified methodological approach, which in turn allows a broader perspective than the mono-method. The selection of the research methodology is largely in

compliance with the research objectives outlined within the study, which would then be accommodated in the development of the research problems satisfying the purpose of the study (Snyder, 2019).

The population sample taken up is as follows. Primary data is collected using a mixed method approach. The target group includes construction professionals in consulting, contracting and government firms, engaged in Sri Lanka's public sector projects. The data is gathered through semi-structured interview sessions with these professionals. The sample is segmented using a purposive sampling technique for semi-structured interviews. This approach gathers comprehensive data by capturing interviewees' opinions, recommendations and solutions to address the study's problem. Sampling is based on profession, experience and involvement in public sector construction projects. With a targeted outcome in mind, a purposive sampling technique is applied, resulting in a sample of 30 professionals.

The data collection approach is outlined as follows. A detailed literature survey is conducted to gather data on specific time factors that drive the successful completion of construction projects and key indices of economic development. The survey also examines their impact on project success and economic growth. Additionally, the study collects descriptive opinions and recommendations from researchers on crucial aspects of the study. Implementation strategies to mitigate adverse time impacts are also assessed. Semi-structured interviews are conducted with a sample of 30 professionals, in order to gather detailed data. The data is to subjectively comprehend areas such as applicable theories, individual aspects, recommendations and other practical-based data. The interviews are conducted with professionals who are currently in practice, for better reliable and quality data. Hence, the semi-structured interviews are primarily designed with open-ended questions. These questions aim to identify potential implementations in the construction industry that could help mitigate the adverse time impact on public sector construction projects. The data analysis and presentation methods here are elaborated further. The qualitative data collected through the interviews and open-ended questions in the questionnaire were analyzed using content analysis technique, and further subjected to a frequency analysis. These analyzed frequencies allow distinguishing the most and least recommended implementations to mitigate adverse time impact towards public-sector construction projects in Sri Lanka.

Results and Discussions

For the semi-structured interviews delving on purposive sampling, 10 nos. of experts and well-experienced construction professionals were selected for the interviews. The group consisted of project quantity surveyors, project managers and project engineers engaged in public-sector construction projects, with more than 10 years of industrial experiences.

The advancements and implementations that could be practiced in construction industry to mitigate the adverse time impact to the construction projects is discussed under Table 01. The qualitative data collected through open-ended questions in the questionnaire were less-comprehensive, but were at the acceptable level. This set of data was analyzed using content analysis with frequency tables. On the other hand, the data collected through semi-structured interviews were descriptive and comprehensive. Therefore, such data was compiled into a single set. The common responses from both the semi-structured interview with 10 nos., and the questionnaire surveys with 30 nos. of responses were able to be categorized in to eleven general terminologies.

Mitigating Implementations		
Implementation	Frequency	%
Proper Resource Allocation and Utilization	14	35 %
Proper Supply Chain Management Techniques	20	50%
Proper Quality Management Techniques	12	30%
Adherence to Contractual Consequences	9	23%
Usage of Modern Construction Models	11	28%
Proper Feasibility Study	15	38%
Continuous Project Funding	18	45%
Qualified and Capable Contracting Party	30	75%
Increased Professionalism of Project Parties	25	63%
Management of Governmental Impact	11	28%
Management of Social Impact	8	20%

Table. 01: Mitigating Implementations
Source: Authors (2024)

Table 1 illustrates that the factors of contracting qualified and competent parties, increased ethical professionalism of parties, proper supply chain management and enabling continues project funding etc. were the mostly resorted to implementations.

Moreover, it could be said that by conducting proper feasibility study, the allocating and utilizing proper resources, employing proper quality management techniques, increased usage of modern construction models, proper management of governmental impacts, proper adherence to contractual consequences and proper management of social impact could all be achieved.

In-detail implementations to mitigate the adverse time impact caused by non-timely resources availability at site were resulted as implementation of proper supply chain management in public sector construction projects that achieved the highest frequency mitigating implementation of 50%. Several statements were made by interviewees. One of them was that for shortages of materials caused by seasonal changes, proper material management techniques

Should be adopted. Another explained that for companies unable to rely upon the Just in Time (JIT) techniques, additional stocks allocation should be implemented. Further, during discussions, many stated that the uncertainties of time caused during importing materials leads to unavoidable delays. However, it was commonly viewed that contractors could adopt to utilize available local resources and/or stock a fixed amount of resources at the commencement of construction.

Proper resource allocation and utilization in public sector construction projects reached the second highest frequency mitigating implementation at 35%. Many insights were specified by professionals with regard to this aspect too. The general perception was that proper planning of allocating and utilizing of the resources according to the project programme could be implemented with the involvement of well-experienced, capable and expert professionals capable of identifying and understanding the resource requirements of the project. Also, it could be stated that the Sri Lankan construction industry has not become successful in attracting local labor due to overreliance upon labor-hiring companies that import labor from other location. However, issue this could be overcome by better-attracting local labor to the construction industry by providing proper training, benefits and remuneration. The resource shortages felt during construction due to the tendency of importing materials could also be mitigated by allocating locally-produced resources.

To mitigate the adverse time impact caused by non-timely payment processing of scheduled payments, continuous project funding for public sector construction projects was identified as the most effective mitigating implementation, with a frequency of 45%. Interviewees shared several perspectives on this aspect. One professional emphasized that ensuring continuous financial funding with an unbroken cash flow could lead to the timely and successful completion of public projects. This could be achieved by conducting thorough cost feasibility

studies before project commencement. If a stable cash inflow is not assured during the financial analysis, it is considered better not to initiate the project, as delays would likely result in cost and time over runs.

Adherence to contractual consequences during public sector construction projects emerged as the second most frequent mitigating implementation under this aspect, with a frequency of 23%. A few interviewees noted that enforcing contractual consequences – such as the contractor's right to suspend work, reduce the rate of progress, or claim delays – could significantly mitigate or entirely avoid certain delays caused by the employer or the engineer (Consultant). To mitigate the adverse time impact caused by prolonged defect rectification of completed works, industrial professionals recommended contracting qualified and capable contractors for public sector construction projects. This implementation attained the highest frequency under this aspect, with 75%. Most interviewees highlighted this factor during the discussions.

A common perspective was that the appropriate tendering process should be applied during contractor selection. This includes a proper and regulated pre-tendering process, where contractors' capacities, pre-qualifications, and past similar experiences are thoroughly evaluated by skilled and experienced professionals. Such an approach ensures that only the most suitable, competent, and efficient contractors are selected for the project. Interviewees also noted that with capable contractors, construction projects are more likely to progress smoothly, achieve successful performance, and be completed on time. Furthermore, they expressed concern that foreign-funded public projects often face delays due to inefficient and incompetent contractors assigned under loan agreement provisions, which mandate the use of foreign contractors. They suggested that if Sri Lanka could negotiate these terms more effectively, the country has several highly competent and efficient contractors in its construction industry capable of undertaking these projects successfully. Implementing proper quality management techniques in public sector construction projects was identified as the second most effective mitigating measure, with a frequency of 30%. Several interviewees suggested that contractors could adopt quality management practices using Total Quality Management (TQM) techniques. These practices should focus on achieving a 'first-time-right' approach. While achieving this fully in the Sri Lankan construction industry might be challenging, avoiding repetitive work remains crucial. Repeated tasks directly impact project timelines. By employing competent staff and experienced quality supervisors, and implementing a well-structured TQM plan, 'first-time-right' outcomes could be achieved to some extent, improving project efficiency. This study identified that implementing proper feasibility studies before commencing public sector construction projects is the most effective way to mitigate the adverse time impact caused by inaccurate and unrealistic project time planning. This approach achieved the highest frequency under this aspect, with 38%. Professionals highlighted several perspectives on this issue. They emphasized the need for thorough feasibility studies during the initial planning stages. These should include proper analysis and realistic time estimations conducted by qualified personnel. Scientific studies were also recommended for planning. However, it was noted that contractors often overpromise during the tender process, claiming they can meet the client's timeline to secure the project. To counter this, professionals suggested implementing scientific assessments and time analysis during the briefing, design, and tender stages. This approach ensures realistic timelines, leading to timely and successful project completion. Some interviewees highlighted strategies to mitigate the adverse time impact caused by governmental involvement. Proper management of governmental impact in public sector construction projects was identified as a key mitigating measure, with a frequency of 28%. The outlined strategies included allocating sufficient time for obtaining approvals and consents, finalizing documentation, and resolving external issues before project commencement. In the Sri Lankan context, a recurring issue is deliberate delays by authorities, development agencies, and other government bodies in processing required consents, even when all necessary submissions are provided. Interviewees also stressed that contracting parties should

remain prepared for sudden changes and adopt resilience in response to new governmental resolutions. These strategies aim to minimize disruptions and ensure smoother project progression.

To mitigate the overall adverse time impact on public sector construction projects, ethical professionalism among project parties was identified as the most effective implementation, with a frequency of 63%. Many interviewees emphasized this factor. They suggested that professionals should ethically perform their duties and responsibilities within the industry. Ethical practices, prioritizing proper execution of duties, could significantly reduce project delays. Proper utilization of project funds for their intended purpose was also highlighted as a key factor in avoiding delays. Additionally, avoiding professional negligence and reluctance to make decisions would greatly favor timely project completion. Interviewees further clarified that projects should engage competent, experienced, and suitable professionals. These individuals must possess the capacity, stability, knowledge, and diligence to make the right decisions at the right time. They noted that maintaining proper discipline and ethics, along with positive contributions and feedback, would help meet project constraints effectively. The use of modern construction models ranked second, with a frequency of 28%. Some interviewees pointed to the emerging use of Building Information Modelling (BIM). They asserted that BIM resolves cost- and time-related issues by improving stakeholder relationships and reducing unnecessary costs and time on projects. This approach would mitigate much of the adverse time impact. Management of social impact was the least frequently mentioned strategy, with a frequency of 20%. Few interviewees brought up this aspect, suggesting that delays caused by societal concerns could be mitigated through proper awareness and acknowledgment. Providing information about the project's purpose, benefits, and impacts to the community could help address these issues effectively.

Conclusion and Recommendation

The conclusion of this study is summarized as follows. The primary research objective – to assess the impact of successful and timely project completion on Sri Lanka's economic development – was statistically achieved. The data collection through a literature survey and semi-structured interviews effectively supported the analysis needed to meet this objective. From the secondary data, the study identified specific time factors influencing the successful completion of construction projects. Additionally, economic indices measuring the country's development were analyzed. The impact of achieving timely project completion on national economic development was forecasted. Recommendations were made to enhance project outcomes by involving professional expertise, ensuring more effective project execution. The identified factors and indices for the Sri Lankan situation were extracted from past studies pertaining to several other developing countries such as Nigeria. Such studies were able to identify and rank substantial indices of economic development pertaining to respective geographic locations of the countries in question.

The applicability and relevance of the aforesaid factors and indices to the Sri Lankan construction industry was verified during the interviews with Sri Lankan construction industry's well-experienced professionals with their expertise. Furthermore, the semi-structured interviews with well-experienced expert construction professionals with public sector engagement enabled the identification of the mitigating implementations that could be adopted within the Sri Lankan public-sector construction projects. Such implementations could be put into practice by the Sri Lankan construction industrial professionals, using content analysis with frequency analysis.

The study yields recommendations, based on the following findings. The construction industry is commonly regarded as an economy-generator, specifically in developing countries, with developing economies. It is capable of stimulating and productively utilizing locally-produced resources, facilitating rapid domestic and infrastructure constructions, while attracting local labor

forces, in order to eventually achieve efficiency. Previous studies that assessed key challenges and the most critical problems faced by construction industry wielded the general overview that in a developing country, the problems faced were continuous shortage of resources, inadequate investments, social-economic pressure, varying governmental/political priorities, and finally, institutional barriers. Even the solid interrelationship between the national and construction outcomes were directed, deriving that the growth of an economy in turn, stimulates rapid growth of construction industry than the national outcome and *vice versa*.

Therefore, in order to motivate the Sri Lankan construction industry to successfully and timely complete construction projects – as achieving this feat solidifies the visible contribution to the national economy – this research proposes several recommendations. The long-term recommendations to achieve mitigating implementations which were identified by construction industry professionals in Sri Lanka, were based on the perspectives of well-experienced and expert construction professionals. The best practices to mitigate adverse time impact on the construction projects were derived consequently.

The identified measures could be easily implemented with skilled management processes, capable/competent decision-making and through the contribution to the project by ethical professional parties that are well-experienced. Such is needed to guarantee productive performance of construction professionals and projects in the industry.

The successful completion of projects with regard to all project constraints such as time, cost and quality could be achieved with a properly-guided layout and well-experienced expert industrial professionals. In order to increase the usage of new technologies to successfully complete construction projects, new construction-related technologies are emerging. They seek to achieve successful timely completion of construction projects through proper maintenance and balance between the projects constraints. This is achieved by avoiding and mitigating adverse impacts of the project performance factors on project completion. Therefore, adaptation and utilization of construction-integrated technologies, software and modelling such as Building Information Modelling (BIM) as well as other digital construction tools, the successful completion and delivery of projects could be effectively and productively accomplished as planned.

Further, to standardized proper guidelines, there are other means to redirect the adverse impact on construction projects. This can be achieved by formulating/imposing contractually-conditioned clauses, rules, obligations, guidelines, liabilities and disciplinary actions. Upon contract, through the established conditions of contract, the parties of the contract abiding by the aforesaid, are in a position to enable successful completion of construction projects. By doing so, they can render a positive contribution to the construction industry, and in turn, national economy.

As for the short-term recommendations of allocating capable expert resources and reasonable time, carrying out of a feasibility study in a scientific manner, prior to the planning and commencing of the project, could lead to its successful completion. Previous studies have shown that in order to accomplish an effectively positive performance, the following measures should be adhered to. First, all personnel pertaining to the project should get fully-involved in project activities, without drawing limitations in terms of their scope of work. Secondly, the effective enforcements by government agencies and regulatory bodies should be sustained. Third, formation of the contractors' qualification to test their relevance, adequacy and competence in order to assure their capabilities to perform prior to awarding is vital. The void of knowledge pertaining to the aforesaid has a direct impact on performance of construction contracts, which in turn plays its part on the development of national economy. With relation to the Sri Lankan construction industry, capable, experienced personnel with expertise need to conduct feasibility studies to determine the most feasible and practicable options before project commencement. This can redirect a majority of adverse impacts away from such projects with solidified risk management plans. Further, in order to achieve a productive and effective output, a reasonable amount of time should be allocated for in-detailed comprehensive scientific feasibility studies

conducted by the most qualified construction professionals selected for the purpose. They should be selected by evaluating their capabilities, experiences, expertise and skills relevant to the projects in question. Also, when capable and competent contracting parties are appointed to a given project, such could be productively and successfully completed by the most capable and competent hands. When selecting a contracting party to a project, proper and correct tendering process should be accompanied through an in-detailed and comprehensive evaluation of their technicality and past experience. Contractors with similar project experience are well-acknowledged based on the flow of the particular project. They should be capable of taking efficient and effective decisions, when necessary. With a strong technical background, a skilled workforce becomes competent to complete any construction project successfully. In order to form a strong linkage between the site progression and project stakeholders involved, any deviations from the planned project's construction progress should be identified through a continuous inflow of information, updates and especially, reporting from site. This productive synchronization of the site progress and project stakeholders allows up-to-date information sharing and reporting among the parties, enabling an efficient monitoring of project progress, and identification of project's deviations. Given this, effective counter actions and decisions could be taken leading to a smooth project flow, ensuring its successful completion. The study carries a number of limitations. This study was largely limited to the successful timely completion of construction projects in the Sri Lankan construction industry, eliminating the other project performance constraints such as cost and quality parameters. The variables of this study were extracted only through the literature reviews of past studies, limiting other practical aspects that could be applicable to the Sri Lankan construction industry.

Foremost, the study was conducted during a severe pandemic, which significantly influenced the responses, opinions, and perspectives of the interviewees. Their views were primarily shaped by the prevailing circumstances in the country at that time.

Therefore, these research findings would be mostly valid and applicable during a similar situation in the national economy of the country as well as the construction industry which is in a recovery stage from a striking downturn. Hence, when the construction industry and economic development of Sri Lanka experience rapid growth, these findings, recommendations, and implications may not be practically applicable. Several study areas were identified for further exploration and development, including the involvement of project stakeholders in non-timely construction project completion in Sri Lanka, the impact of non-timely construction project completion on other performance constraints, implementations to mitigate adverse time impacts during construction, the causes of delays in foreign-funded projects in Sri Lanka, and the problems faced by the Sri Lankan construction industry due to unethical practices by industry professionals.

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