

## Factors leading to failures of infrastructure development projects in Pakistan: A systematic literature review

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### ABSTRACT

Public sector development projects are found to have poor reputation in terms of completion within assigned cost and time. Almost every 2<sup>nd</sup> project is impacted by financial burdens and time delays. The aim of this literature review is to highlight the potential factors that impact the completion time and estimated cost with respect to public sector infrastructure development projects in Pakistan. 39 sub-factors have been identified from 32 existing research which are then classified into 8 main factors. The main factors include administrative issues, improper financial plans, market risks, input cost estimates, poor corporate governance, legal issues, technical matters errors, and environmental issues. The results of this systematic literature review will provide policymakers with oversight on how to formulate effective strategies regarding cost cutting and timely execution of the infrastructure development projects in Pakistan.

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## 1. Introduction

The success of the public project is significant in escalating the economy as it is linked with the growth of other sectors of the economy (Rum & Akasah, 2012). Public sector infrastructure development projects have been described as complex and indeterminate in nature owing to their dissimilarity with other projects (Aljohani, Ahiaga-Dagbui, & Moore, 2017). In cases where two public sector projects are exactly similar in nature, practically the chances that the project will be completed for exactly repeating the series of the execution process is found to be very low (Allahaim & Liu, 2015). This is because most of the factors related to public sector development projects are site-specific (Andric, Mahamadu, Wang, Zou, & Zhong, 2019). It is observed that many countries have raised the level of investments related to public projects over the years even then poor evidence regarding the completion of public projects within budgets and time are present till now (Adam, Josephson, & Lindahl, 2017). Completion delays and cost escalations have been observed as common problems in project management offices (PMO's) that have been discussed in existing studies from time to time. Apart from these two potential factors, there are many unexpected factors that may have adverse impact on the time and cost of the project leading to uncertainties about project success (Sun et al., 2015). Many authors define costs increment as a degree subject to which the actual cost of the public project deviates from the estimated budget (Asiedu, & Adaku, 2019; Pinheiro Catalao, Cruz, & Miranda Sarmento, 2019) leading an increase towards the completion time of the project. Public sector development projects facing variations in budgeted and estimated costs have more propensities to come to default, impacting all the parties related to the project (Narayanan, Kure, & Palaniappan, 2019). For instance, the cost of channel tunnel project was exceeded to 80% higher than

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anticipated (Mahmud, Ogunlana & Hong, 2021), the cost estimates of Great Belt Link was exceeded upto 54% (Flyvbjerg, & Bester, 2021). Similarly, the over-applied cost was observed in the public project of Humber Bridge of UK in which the anticipated cost was 175% below than actual cost of completion (Smith, 2019). In developing countries, the importance of public sector development projects can be estimated by the fact that these projects are used as a medium to uplift the economy at par upto the level of a developed economies (Isa, Saman, & Preece, 2015; Choudhry et al., 2014).

Keeping in view the above arguments in consideration, cost burden must be considered significant in the management of public sector development projects around the globe to avoid delays in project completion. The chances that the budgeted cost would be different from actual costs are dependent on many factors like size and nature of the public project (Odeck, 2004; Singh, 2009) and location of the public project (Cantarelli, Flyvbjerg, & Buhl, 2012). Almost every study conducted in this respect claims that previous findings are not at all times appropriate for individual countries. Therefore, an urge to develop new methodology to handle these issues is the need of the day.

## 2. Methodology

This study employs a systematic review process to achieve the research objectives. Systematic review is an attempt which helps to draw conclusions by minimizing bias (Nawaz et al., 2018). Previous studies have made great attempts to identify the factors causing and impacting the overall budget of the public sector development projects. In contrast, the aim of the present research is to highlight these studies for the identification of potential factors impacting project completion and affecting budgeted costs. By the identification of problematic factors, effective strategies can be suggested which would help to improve the time and cost performance of public sector development projects leading towards the enhanced chances of successful and timely completion of the project. An extensive literature review is developed to accomplish the objectives of the study keeping into consideration the studies conducted from 2016-2020 in Pakistan.

This section explains about review protocols, search strategy, filtering criteria and quality assessment for briefing the literature review. The review methodology is taken from the study of Opoku et. al., (2015) who defined a five steps process for determining the systematic literature review. The five steps methodology includes followings:

- Determination of objectives and scope of the systematic literature review
- Briefing Search strategy and review protocols
- Filtering criteria
- Procedure for quality assessment and;
- Data reporting

The specified objectives of this literature review are to:

- Explore the factors identified by previous literature leading to delays in completion of construction projects
- Uncover the factors identified by previous literature leading to increase in cost and time delays

To conclude the determined objectives of the study, the established databases like Scopus, Science Direct, Springer, Web of Science, Emerald Insight, Jstor, google scholar and Inderscience as suggested by prior review studies are considered. Total 75 articles were retrieved related to causes of cost variations in construction projects (retrieved on 15<sup>th</sup> of November, 2021). In most of the articles, the key term cost overrun was utilized but all retrieved papers were not equally relevant to be put into the current study for analysis a filtering criteria is applied to screen out the relevant papers with respect to the objectives of the current study.

The research articles which provide the discussion regarding identifying the factors of cost enhancements and time delays are included. The study included published journal research articles/ papers while working papers and articles with no citations were excluded from the list of selected research articles. The articles related to the economy of Pakistan focusing on public sector development projects were included. After applying all these filters, 32 relevant studies from 2016-2020 were extracted for inclusion in current research.

## 3. Synthesis of Results

The delays in the completion of infrastructure projects are the major reasons for cost accumulation found around the globe (Enrica, Purba, & Purba, 2021). The need to investigate the issues which impact the progress of infrastructure projects completion arises to explore the associated risks that may occur, so that project parties can take appropriate and timely actions to anticipate and avoid the chances of risks for timely completion.

**Table 1**

Existing Literature of Identified Factors Related to Cost and Time Delays in Construction Projects

Sr. No	Authors	Project	Methodology Used	Identified factors	No. of Factors
1	Hanif et al., (2016)	Hydropower Project	Survey Approach	Errors and omissions in design Changes in scope Changes in design	38
2	Matin, (2016)	Water Construction Projects	Index Methods	Payment difficulties Changes in Material cost Changes in Law	44
3	Joiya et al., (2016)	Construction Project	Regression Analysis	Cost of the Project Quality of the Planning	30
4	Batool et al., (2017)	Hydropower Projects	Index Methods	Delay in civil work Delays in fund release by Government Inadequate Law & order Poor time management Poor Planning	35
5	Akram, et al., (2017)	Roads and Bridges	Average Index (AI)	Inadequate planning Poor scheduling Fluctuations in material prices Insufficient fund provision Inaccurate budget estimates Delayed payment Poor financial control on work site Delays in decision making Frequent changes in designs Project Governance Practices	34
6	Hussain, et al., (2017)	Rural Areas Project	Survey Approach	Shortage of labor lack of skilled labor Increase material price Financial Problems	26
7	Ahmed, et al., (2018)	Construction Project	Average Index (AI)	Slow Payment Inflation	102
8	Khan, et al.,	Northern Areas Project	Survey Approach	Ill Planning of Infrastructural Project	23
9	Maqsoom, et al., (2018)	Construction Project	Questionnaire	Changes & Improvements to Standard Draw- Bad Performance of Suppliers Shortage of Technical Staff Material Price Fluctuation In time Availability of Material	113
10	Sohu, et al., (2018)	Building Project	Average Index (AI)	Financial Difficulties Poor Information Flow Inflationary Pressure on Inputs Scheduled delays in project design Improper site management Financial problems	64
11	Akhund, et al., (2018)	Construction Project	Average Index (AI)	Delays in payments Issues about land usage Improper feasibility Natural conditions Inadequate contractor Insufficient data collection Delays in decision making Design mistakes Poor site management	48
12	Hussain, et al., (2018)	Building Projects	Spearman's rank correlation	Delays in payments Issues about land usage Improper feasibility Natural conditions Inadequate contractor Insufficient data collection	52
13	Akhund, et al., (2018)	Joint Venture Projects	Average Index (AI)	Lack of enforcement of legal laws Undefined organizational goals Less availability of information to partners Labor price escalation Material price fluctuation Poor consideration of market risks Improper project planning and budgeting	48
14	Iqbal et al., (2019)	Construction Projects	Index Methods	Delays in Bidding Slow Payments Frequent Changes in Orders	50
15	Kamal et al.,	Building Projects	Index Methods	Inadequate project management	35

**Table 1****Existing Literature of Identified Factors Related to Cost and Time Delays in Construction Projects (Continued)**

Sr. No	Authors	Project	Methodology	Identified factors	No. of Factors
16	Sohu, et al., (2019)	Highway Projects	Average Index (AI)	Inadequate planning Frequent design change Wrong budget estimate Shortage of skilled labor Delays in decision making	30
17	Akhund, et al., (2019)	Construction Project	Index Methods	Wrong or improper design Inaccurate estimation Variation in scope of work Poor resource management Change of orders	35
18	Zafar, et al., (2019)	Highway Projects	A fuzzy synthetic evaluation	Stakeholder interference Insecurity threats Inexperienced contractors Unproductive workforce Ineffective project planning Contractual arrangement Construction materials shortages Force majeure Monitoring & control Worksite issues Inflationary effects	32
19	Zaffar, Khan, & Ahmad (2019)	Health Sector Projects	Thematic Modelling	Poor cost estimation Issues from contractor's side Resistance by the stakeholders for change Lack of understanding on the part of Consumer about the Rapid changes in technology Poor resettlement plan for local people	45
20	Azam et al., (2020)	Hydropower project (DBD)	Average Index (AI)	Compensation of land Threat of cultural heritage Ecological impacts Delays in obtaining permissions from Governmental bod-	25
21	Memon, Memon, & Soomro, (2019, 2020)	Construction Project	Interview and Questionnaire	Financial difficulties High cost of inputs Inadequate planning Slow flow of information	55
22	Rashid, (2020)	Construction Project	Index Methods	Poor Corporate Governance	37
23	Shaikh, (2020)	Mega Construction Project	Average Index (AI)	Financial Management issues	29
24	Farid et al., (2020)	Construction Project	Average Index (AI)	Delays due to unforeseen impediments Payment delays from Client Unreasonable and inflexible decisions	33
25	Nazeer & Shah, (2020)	Karachi Construction Project	Survey Approach	Fluctuation in price of raw material Additional Work Improper planning Inappropriate government policies	42
26	Sohu, Ansari, & Jhatial, (2020)	Construction Project	Average Index (AI)	Improper estimation Faults in design Delays in approval from Government Poor project planning, Incompetent contractor Communication gap Natural risks	34
27	Pham, Kim, & Vien, (2020)	Transmission Line Construction Project	Survey Approach	Lack of communication between parties Delay in obtaining permits from Governmental agencies Shortage of technical personnel	74
28	Khan & Umer, (2020)	CPEC	Index Methods	Change in design Procurement issues On-site has significant impact on delays	20
29	Herrera et al., (2020)	Roads Projects	Index Methods	Changes in design Price variation of materials Inadequate project planning Project scope changes Design changes	38
30	Khan, et al., (2021)	Construction Project	Survey Approach	Poor stakeholders management Lack of governance Inadequate planning	15
31	Sohu, Jhatial, Jamali, Buller, & Bhatti, (2021)	Construction Project	Average Index (AI)	Frequent design change Wrong budget estimate Shortage of skilled labor Delays in decision making Court stay orders	33
32	Idrees & Shafiq, (2021)	Construction Project	Interview and Questionnaire	Relocation of public facilities Land acquisition Low quality drawings Rework Errors at bidding stage Poor project management	48

Table 1 explains the studies conducted in the past on infrastructure development projects in Pakistan and highlights the major factors related to each project which cause cost accumulation and impact timely completion of the project. Among others, most of the researchers claim that major hindrance in the timely completion of the infrastructure project is the improper planning, frequent changes in design, delays in taking permissions from government bodies and financial difficulties. While, shortage of skilled labor, timely availability of the raw materials, wastage at worksite and inflation are found to be biggest factors which accelerates financial difficulties leading towards high cost. Almost every researcher in this regard agrees that having good corporate governance can help to resolve these issues and can have a significant impact on project completion time. Fig. 1 shows the relative literature included in current study with respect to year of publications. It is obvious that most of the studies in infrastructure projects are conducted in the year 2019 followed by 2017 and 2018. This is because our collected data comprises the years from 2016-2021, so most of the research is done during 2017-2019 which is also the pre-COVID phase. After the spread of the COVID-19, including others, the shortage of skilled labor and availability of the raw materials have been the most common factors which impacted the completion time of the construction projects.

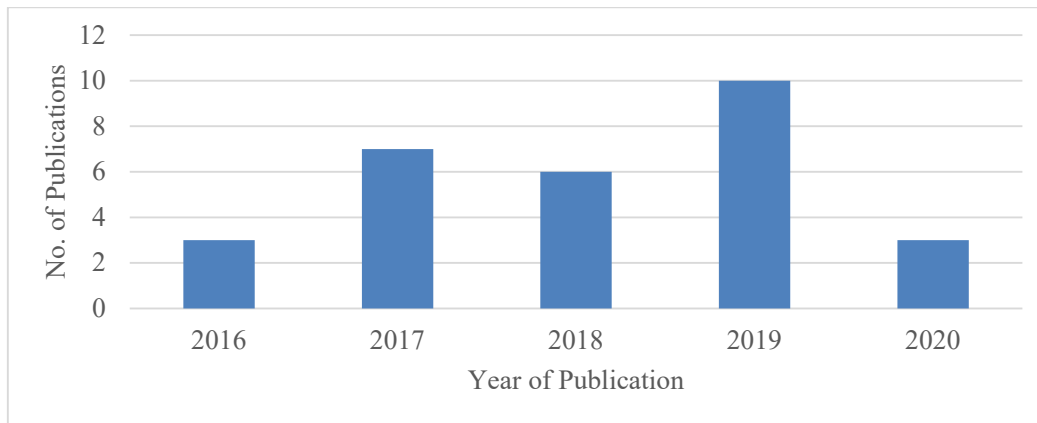


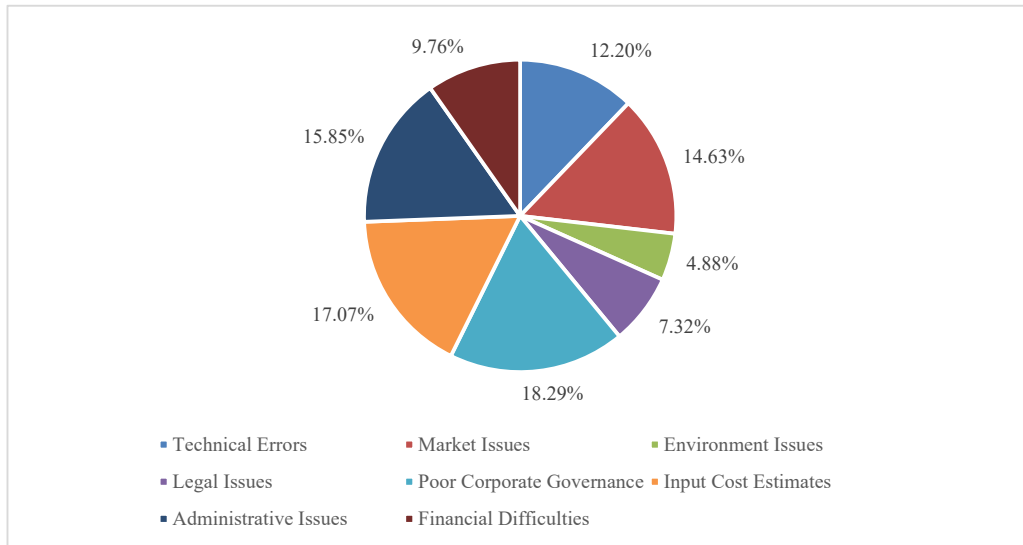
Fig. 1. Studies in Year of publication

**Table 2**  
Identified Factors of Cost and Time Delays

S. N	Main Factor	Type of Factors	
1	Administrative Issues	Inadequate Planning Poor Scheduling In time Availability of Material Supply Chain Management	Lack of Coordination Between Parties Experience of Handing Contract Relationship of Managers and Labors
2	Financial Difficulties	Insufficient Fund Provision Inaccurate Budget Estimates	Delayed Payments Wastage on Worksite
3	Market Issues	High Rates of Interest Inflation	Exchange Rates fluctuations
4	Input Cost Estimates	Fluctuations in Material Prices Bad Performance of Suppliers Long Period for Tendering Lack of Sufficient Manpower	Errors at Bidding Stage Shortage of Skilled Labor Involvement of Bureaucracy
5	Poor Corporate Governance	Poor Financial Control on Worksite Delays in Decision Making Fraudulent Practices and Kickbacks	Poor Information Flow Poor Stakeholders Management
6	Legal Issues	Issues about Land Usage Lack of Enforcement of Legal Laws	Improper Land Acquisition Court Stay Orders
7	Technical Errors	Frequent Changes & Improvements in Designs Scheduled Delays in Project Design	Improper Site Management Delays in Contractual Procedures
8	Environment Issues	Involvement of Competitors Delays in obtaining Permits from Government Political Instability	Economic Instability Effects of Weather

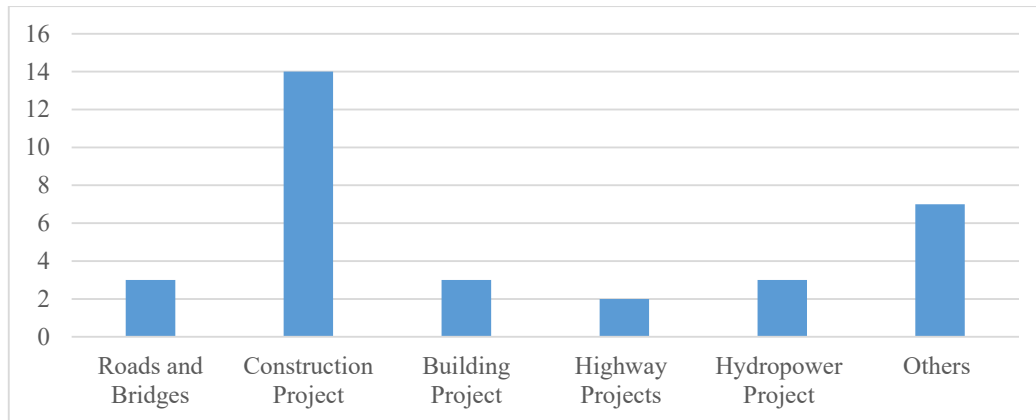
Majority of the existing research is linked with developing the understanding that why infrastructure projects fail more frequently and hence they seek to classify some of the hidden reasons which make these projects difficult to handle and manage, including uncertainty (Stinchcombe & Heimer, 1985; Miller & Lessard, 2000; Lenfle & Loch, 2010), size of the project (Flyvbjerg, 2017), complexity of the project (Brady & Davies, 2014), urgency for completion (Shenhar & Dvir, 2007), and structure of the organizational (Scott et al., 2011) as well. Table-2 indicates the list of the identified factors impacting the projected cost and completion time pointed out by each study. For the objective of the current study, the identified factors have been distributed into 8 main categories so that sub-factors can be adjusted accordingly. To avoid duplication, the sub-factors have been put into one category. Table-2 presents the details in this regard.

Fig. 2 shows the distribution of each main factor contribution towards project completion delays. The most common factor which leads to cost increments in infrastructure projects is poor corporate governance (18.29%), followed by input cost estimates (17.07%). Management related to administrative issues (15.85%) and market factors (14.63%) are the important factors that need to be addressed during the planning process to avoid project delays. It may be assumed that managing poor financial control on worksites, delays in decision making and symmetric information flow among parties can help to overcome the chances of infrastructure project failures.



**Fig. 2.** Factors affecting progress of infrastructure projects

Fig. 3 represents the types of infrastructure projects studied during the study period. It is obvious that general construction projects without highlighting the nature of the projects are studied most. This is because, taking into consideration only one project can infer about the causes of specific projects under studies. Therefore, most of the researchers have a view to find generic factors that impact project success. While, other projects category include joint venture projects, rural areas projects, other cities projects like Karachi and Gilgit Baltistan, and health sector projects etc. There are rare projects initiated in the time period of the study like roads and bridges, dams, hydropower highways and building projects etc. Therefore, these have not been explored more.



**Fig. 3.** Types of infrastructure project

While, most of the studies have been published in the journals related to engineering and technologies (see Table 3 for reference). It is clear that since this area of work is mostly related to engineering and technology, journals having scope of engineering and technology fields can be more interested in publishing papers with these objectives. The techniques applied by the majority of the respondents is given in Table 4 below. It is clear from the results of table-4 that most of the papers have adopted average index methods (34.37%) to identify factors related to project completion. While others have adopted survey (28.12%) and relative importance index (21.87%) approaches to reach study conclusions. Other includes thematic modeling analysis, regression analysis, fuzzy synthetic evaluation and spearman rank correlation etc.

**Table 4**  
Journal Wise Contribution of the Papers

Name of the Journal	No. of Papers
Applied Sciences	1
Advancement of Construction Management and Real Estate	1
Buildings	1
Engineering, Technology & Applied Science Research	6
International Journal of Construction Management	2
Indian Journal of Science and Technology,	1
International Journal of Civil Engineering and Technology	1
International Journal of Experiential Learning & Case Studies	1
International Journal of Integrated Engineering,	1
Journal of Culture, Society and Development	2
Journal of Construction in Developing Countries	2
Journal of Engineering, Project & Production Management	1
Journal of Governance and Integrity	1
Journal of Public Affairs	1
KSCE Journal of Civil Engineering,	1
Management Science Letters	1
Mehran University Research Journal of Engineering & Technology	2
Pakistan Journal of Engineering and Technology,	1
Pakistan Journal of Science	1
Renewable and Sustainable Energy Reviews	1
Research Journal of Engineering, Science & Technology, Nawabshah	1
Sustainability	1
International Journal of Sustainable Construction Engineering & Technology,	1

**Table 4**  
Methodology Applied

Sr. No.	Methods	No. of Studies	%age contribution
1.	Average Index Methods	11	34.37%
2.	Survey Approach	9	28.12%
3.	Importance Index Methods	7	21.87%
4.	Others	5	15.62%

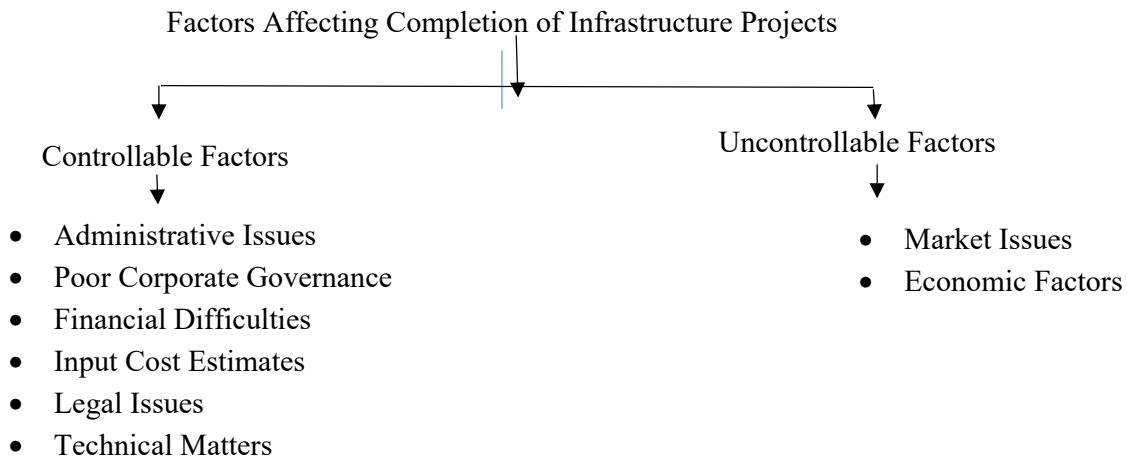
Established as management project offices (MPO's), infrastructure development projects can be directed by client team, contractor, or as joint ventures, or alliance of stakeholders (including owners, clients, sponsors, bidders, contractors, suppliers, and key stakeholders) that effort in association for a limited time period on shared activities within dynamic settings (Merrow, 2011). Then, this literature review has taken a theoretical approach to identify the factors with respect to the stakeholders' intentions into the project. Table 5 shows the stakeholders contribution at each stage towards project failures.

**Table 5**  
Stakeholder's Perspective of Infrastructure Projects Failures

Owner	Poor information flow Delays in decision making Lack of experience Delays in Contractual Procedures and payments	Labor	Shortage of skilled labors Relationship of Managers and Labors Delays in payments Lack of Coordination with labors Labors protections and rights
Contractor	Financial difficulties Poor scheduling Poor Financial Control on Worksite Delays in obtaining Permits from Government	Material	Shortage of materials in market Supply Chain disruptions Late tendering Wastage of materials at worksite Variations in prices of materials Unexpected rise in demand
Consultant	Poor corporate governance Delays in site inspections Inadequate planning Lack of experience Lack of enforcement of legal laws Court Stay Orders	Equipment	Equipment breakdown during process Less Skilled Labor Wrong equipment at worksite Lack of technical equipment
Designer	Insufficient survey Inexperience designing team Delays in procuring design documents Frequent changes in designs Continuous improvements in designs	Environment	Involvement of Competitors Economic Instability Political Instability
Natural	Effects of Weather conditions Effects of unexpected pandemic	Others	Issues about Land Usage Improper Land Acquisition Involvement of Bureaucracy

Based on the study discussion, it is concluded that completion of infrastructure development projects is dependent on two factors which can be classified as controllable and uncontrollable factors. Cumulative number of factors identified in each

study is equal to 116. After the management of duplicate factors (similar factors reported in different studies) and defining factors having similar meaning into one factor (like shortage of skilled labor, lack of technical labor, inadequate labor etc.), the total number of sub factors are reduced to 39 factors.



**Fig. 5.** Major Factors of Infrastructure Projects Failures

Fig. 5 depicts the distribution of controllable and uncontrollable factors. These sub-factors are then classified into controllable or uncontrollable factors based upon their nature.

#### 4. Controllable Factors

The controllable factors are divided into 6 sub-categories namely administrative issues, poor corporate governance, financial difficulties, input cost estimates, legal issues and technical matters.

Poor corporate governance is ranked at the top of the reasons that accounts for the projected delays in the completion of infrastructure projects. Poor financial control on worksites, poor information flow, delays in decision making, poor stakeholders' management and fraudulent practices and kickbacks, all are considered governance related issues that lead towards project failures. Since, good corporate governance assists a project to reduce susceptibility of costly financial crises, reduce cost of transaction as well as cost of capital, the fair and transparent governance may lead to timely completion of infrastructure projects without having any variations between actual and budgeted costs.

The major reasons observed under administrative issues are related to inadequate project planning, lack of coordination between dealing parties, poor scheduling of projects, inexperience in handling contracts, shortage of in time availability of material, relationship of managers and labors and issues related to supply chain management. The planning phase is the mother of all phases. This phase must be developed with precaution because all inter-related series of operations are then bound to follow the planning phase and any variations in the planning phase due to any factor like disruption of supply chain operation or poor scheduling may cause infrastructure development projects to be delayed.

Further, financial difficulties are a function of insufficient fund provision, delayed payments, inaccurate budget estimates and wastage on materials at worksite. These all four reasons not only cause a delay in timely completion but also lead towards increase in project costs. Similarly, the fluctuations in material prices, errors at bidding stage, bad performance of suppliers, shortage of skilled labor, longer periods for tendering, involvement of bureaucracy and lack of sufficient manpower are major reasons that generate input costs wrong estimates.

While in development projects, the importance of legal issues cannot be ignored. Legal issues are always found specific to the project and in most cases arise from the issues about land usage, improper and inadequate land acquisition, lack of enforcement of legal and local laws and stay orders from court about ongoing projects all cause increase in estimated cost and completion time. The real time example of legal issues is mostly related to orange line projects that have remained on court stay for a period of more than two years leading to delayed completion and almost 3 times higher cost than anticipated.

Technical matters also add a lot, having an impact on the timely completion of the infrastructure project. The common technical issues collected from previous literature are frequent changes & improvements in project designs, improper site management, scheduled delays in project design and delays in contractual procedures.

Further, the study attempts to differentiate each sub-factor at different levels of project completion stage. Normally, three phases are involved in the project completion process namely planning, operational and construction phase. The project failure factors at each stage of project completion are given in Fig. 6.



Planning Phase	Operational Phase	Execution Phase
Designing issues Inadequate planning	Operational issues Maintenance issues Supply chain issues Long period for tendering Market issues Fraudulent practices Involvement of competitors	Construction issues
	Lack of labor issues Natural issues Financial difficulties Macroeconomic risks Involvement of bureaucracy	
	Poor corporate governance Legal issues Stakeholders' management Permits from government Poor information flow Poor scheduling Lack of Enforcement of Legal Laws	

**Fig. 6.** Project Failures Factors at Each Stage of Project Completion

## 5. Controllable Factors

The factors put under the category of uncontrollable are those which are beyond the discretion of the project management to control such factors. Like any change in interest rates during the phase of project completion may disturb whole budget and cost estimates. Similarly, an abrupt change in inflation rate and exchange rates may also have an adverse effect on the project completion. Along with market factors, environment factors also contribute towards the project implementation phase. In this regard, a pure monopolistic environment has less impact compared to an economy where there is more involvement of competitors. Further, economic and political instability, delays in obtaining permits from the government, effects of bad weather, natural catastrophe also have an adverse effect on the completion of the infrastructure project.

## 6. Conclusion

Regarding geographic position, extensive work has been done in the continents of Asia and Africa to determine the causes of failures in infrastructure development projects. Even though several reasons may exist affecting infrastructure projects success in terms of time completion and cost overrun and are also thoroughly studied, still no agreement is available about the deviant factors in infrastructure development projects from past literature. While, the work that has been done is not able to provide a clear picture about nature of the project, which leads towards the general mis-understanding about the conclusion and hinder the generalizability of the established base.

A thorough investigation of the research concerning the factors causing failures in development projects has been established in this paper. This current research included articles from established journals since 2016, emphasizing that an increase is evident in the number of publications in Pakistan regarding research on infrastructure projects. Failures of infrastructure development projects in terms of scheduled delays and cost escalations have been an intense research area among current researchers with the aim of developing a strong base for the future studies, but majority of the work has focused on time deviations and cost overrun. Thirty nine sub-factors have been recognized and the majority of the factors found to belong to the operational phase, including factors legal, technical, governance, supply chain management and financing difficulties.

Existing literature has raised many arguments in favor and against the causes and treatments of poor infrastructure project performance. These findings of the current research classified the literature under two major themes and 8 major factors. Keeping in view the definition of each theme, the study identifies those reasons which are controlled by the organizations or not. Then, these two dimensions are further divided into eight major factors (six under controllable and 2 under uncontrollable dimension) and their major causes of poor project performance is discussed.

Table-6 provides the relative ranking of the relevant factors studied in previous literature with respect to their impact on the failures of the infrastructure development projects. As per the obtained results, it is clear that in Pakistan, the first two causes of the project failures are financial difficulties and poor corporate governance issues which impact the success of the completion of the projects more than any other factor. Similarly, keeping in view the inflation trend in the country, the input cost estimates also contribute towards the failures of the projects due to cost overrun at 3<sup>rd</sup> level. Next at the management or operational phase, poor corporate governance practices also have a significant impact on the successful completion of the project.

**Table 6**  
**Ranking of the Relevant Factors**

Factors	No. of Papers	%age	Rank
Financial Difficulties	32	96.87%	1
Administrative Issues	30	93.75%	2
Input Cost Estimates	32	90.65%	3
Poor Corporate Governance	24	75.12%	4
Legal Issues	22	68.75%	5
Economic issues	19	59.37%	6
Market issues	12	37.50%	7
Technical Matters	09	28.12%	8

While keeping in view feedback from existing literature and obtaining results from systematic literature review, it is important to manage accurate financing during the operational phase, handle administrative issues and improve the stakeholders' understanding about project performance and there is a need to input substantial efforts in this regard. It is then concluded by suggesting that systemic reviews about the performance of the infrastructure development projects must be conducted by taking into account some of the divergent dimensions which may seem to impact project performance.

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