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IMPACT OF SOCIAL SUSTAINABILITY ON PROJECT SUCCESS IN THE INFRASTRUCTURE SECTOR IN NORTH INDIA

¹Dr Davinder Walia

Assistant Professor

Faculty of Business Management, IUKL, Malaysia

ABSTRACT

The main purpose of this study is to highlight the importance of social sustainability in the context of infrastructure sector in north India. It has been observed that project delays and cost overruns, have a significant impact on project success of the infrastructure projects. Therefore, an elaborate discussion about the impact of social sustainability on project success is highly imperative in the field of project management.

Primarily, peer reviewed journals have been used to collect information and develop relevant theories and models. The findings of the study highlight that currently there are several infrastructure projects in India, which are facing significant time and cost overruns, due to lack of focus on social sustainability issues by the practising project managers.

I.INTRODUCTION

Sustainability has become an important term that is widely used by professionals across project management. It has been learnt that all projects require sustainability practices to be implemented so that they can consider economic, environmental as well as social impacts of a project. It is important to note the fact that project management has always involved various kinds of sustainability issues. This is the reason why there are large numbers of studies which have been conducted regarding social dimensions of sustainability. In this study, primarily the focus has been laid on studying the infrastructure sector in India.

The concept of social sustainability is related to the human resource which plays a critical role in every project's success. Every project involves engagement of internal as well as external stakeholders. In order to ensure that social sustainability is followed, it is highly important for project managers to prioritise transparency, ethical behaviour, following all necessary rules, international norms and respect for human rights and accountability. Complying with all important occupational health and safety guidelines is necessary for meeting social sustainability (Kumar, & Ghosal, 2022). Traditionally project success was associated more with scope, time and cost of the budget. However, things have changed drastically in project management, as 5 strategic dimensions are considered for project success including project efficiency, business success, planning for the future, impact on customers and team members. It has been noted that there is a significant gap in terms of studies regarding impact of social sustainability on project success, specifically focusing on the infrastructure sector in India. This study will help to bridge that gap by providing recent findings and studies.

India is still considered to be a developing country. Reports highlight that development of wide scale infrastructure projects is a key towards growth and development of the Indian economy. Over the past few years, the Indian government has been giving high priority towards development of new infrastructure projects to boost India's overall development. In recent times, several policies initiated by the government also highlight the fact that they are prioritising development of dams, bridges, power stations, urban infrastructure as well as better roads and highways connectivity. Based on the 2022 reports, it has been estimated that the government of India needs to invest more than 700 billion US dollars to ensure sustainable development of the country. However, government reports highlight that out of 1443 infrastructure projects that are under implementation, 360 have already missed their deadlines, while 347 are expected to cost higher than the initial estimated cost. There are 710 projects which have not been commissioned or their deadline has not been reported. Among the delayed projects, there are several of them which have missed their deadlines from the past four to five years. Based on these understanding, it can be said that project delay is a major problem in the India infrastructure sector (Chotia, & Rao, 2018). This is having a huge financial impact on its project stakeholders. Studies have highlighted that there are multiple reasons behind project delay commonly including technical issues, engineering challenges and non-technical factors such as community and environmental challenges.

It can be said that currently the infrastructure sector in India is undergoing serious problems which is limiting their ability to ensure social sustainability. Therefore, this study will help to highlight important issues relating to the principles of social sustainability and how it is being ignored by project developers and managers in the infrastructure sector in India.

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International Journal of Mechanical Engineering

This study is highly important as the infrastructure sector is expected to play a critical role in the overall development of the Indian economy. Therefore, evaluating social sustainability issues in this Infrastructure will help to highlight several underlying problems that are causing project delays. Along with this, it can be said that this study will be highly significant for project managers across the world as they will get to learn about the negative social impacts of projects and how they should manage substantial challenges. There are several studies which have been published regarding the concept of social sustainability, its principles and common issues. However, this study will lay out a detailed understanding about the same concepts taking real life projects and the entire infrastructure sector of India.

Primary limitation of the study is that it will not be able to highlight different perspectives of various stakeholders involved in the project. It is normally noted that every project success depends upon the stakeholder engagement. However, different stakeholders would not be involved directly in this study. Apart from this, the social sustainability of any project can be measured and evaluated only after its completion, not during its implementation phase. Therefore, there are several infrastructure projects that are still under its implementation, thus, evaluation of social sustainability practices in those projects is not possible.

A. Objectives Are

- To study the social sustainability practices being followed across infrastructure projects in India
- To study social sustainability issues affecting infrastructure projects in India
- To understand different dimensions of social sustainability that influences project success

• To provide recommendation to help project managers across information sector in India to manage social sustainability issues

B. Research Questions Are

- What is the social sustainability practices being followed across infrastructure projects in India?
- What social sustainability issues are affecting infrastructure projects in India?
- What are the different dimensions of social sustainability that influences project success?

• What is the recommendation to help project managers across information sector in India to manage social sustainability issues?

II.METHODS

In the study, primarily the focus has been to follow a secondary data collection process so that different published sources like journal, articles, websites and books could be used for collecting relevant data. It has been noted that following secondary data collection has helped in finding results regarding the research topic as well as discussing about key points. Several studies have already been conducted regarding social sustainability, its practices and various dimensions associated with it. Secondary data collection method is way simpler than a primary data collection and it has helped to analyse various social sustainability issues influencing the infrastructure sector in India.

III.RESULTS

Focus of this section of the study is primarily on social sustainability in the project management success. Important concepts relating to social sustainability and its integration with infrastructure projects have been highlighted below. Along with this, important theories and models regarding sustainability in project management have also been discussed widely.

There are several studies which have discussed widely about sustainability issues in project management, however, they lack necessary knowledge about environmental and social issues. It has been stated that environmental sustainability is highly important so as to ensure project management standards and its integration with different fields of project management. There are multiple issues that have been defined including the internal and external perspective that are necessary to be considered (Montalbán-Domingo et al, 2019). It has been noted that Socialsustainability is more about social infrastructure that is built. It has been agreed that socially oriented practices are necessary to fulfil sustainability guidelines. It has been proposed that social sustainability in infrastructure projects can significantly improve the community quality of life. It primarily involves development of harmonious evolution of civil society which is compatible with cultural and social diverse groups (Schönbornet al, 2019). It has been studied that social infrastructure is necessary for opening the possibilities of Sustainable social development.

According to Ma et al, (2020), it has been stated that the concept of sustainability was developed more than 30 years ago, however it is still considered widely across all areas of operations and project management. It has been learnt that there are various common understandings regarding sustainability and various problems that have been resolved regarding it. Studies have highlighted that the social dimension of sustainability is still ignored by project managers and leaders. In this study, extensively focus has been laid on studying about social sustainability in infrastructure projects to understand its implementation and influence on business practices.

For every country, sustainable infrastructure is considered to be the core pillar of growth and development. It is studied to be directly and indirectly connected with delivering sustainable development goals. Across the world, infrastructure project development has a huge impact on global GDP as it creates huge employment opportunities. Sustainable infrastructure

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development can have environmental implications as it would help to limit carbon emissions and tackle climate change issues. It has been noted that there are various methods available through which sustainable infrastructure can be developed and maintained (Molaeiet al, 2021). In terms of social perspective, sustainable infrastructure can have a direct impact on human life, reducing poverty and helping human rights compliance. Along with that, there are various benefits that are created because of sustainable infrastructure. It has been noted that various authorities and business contacts involved in these kinds of socially acceptable infrastructure lead to improvements in planning, designing, constructing and operational aspects. These entire together have a combined positive impact on environment as well as the entire lifecycle of the project is improved.

Socially sustainable infrastructure projects need to focus on various areas including improvement and working conditions, living standards, development of jobs in the local areas as well as improvement in health and education. It has been learnt that proper checks need to be maintained regarding the labour conditions across business developers, subcontractors as well as proper attention should be given to minimum wage, trade unions, collective bargaining and working hours, all these needs to be considered during the project management. Along with that, proper evaluation of living conditions of workers needs to be checked. Infrastructure projects are primarily developed to reduce the commuting time as well as reduce the overall cost involved in transportation services. Therefore, evaluating the economic and physical benefits of sustainable infrastructure, it should also be evaluated whether they improve living conditions or not. It has been noted that every project should focus on improvement of community reforestation programs evaluating environmental risk management as well as taking into consideration environmental hazards. Creating jobs for the local programs and communities are highly necessary so that the construction site is directly or indirectly involved in the job creation that would help local suppliers, small scale businesses and communities. In order to ensure social sustainability of infrastructure projects, it is highly essential to prevent human rights abuses and address such kinds of issues with strict action and measures.

It has been outlined that the triple bottom line involves perspective about economic, social and environmental aspects of a project management. It has been noted that there are several strategic and tactical perspectives regarding system level innovation business model competitive advantage environmentally sustainable policies and stakeholder engagement. Every project needs to manage their supplies so that they can manage the issue of environmental sustainability. This is the reason why green procurement strategies have become widely followed across different projects. It has been studied that infrastructure projects tend to involve various complexity in terms of the high cost of material equipment services and involvement of different stakeholders. It has been argued that project management involves various social responsibilities as well. Project managers are required to ensure transparency, ethical behaviour, accountability stakeholder participation as well as evaluation of macro social performance to measure the project success (Karji et al, 2019). Based on the recent guidelines, it has been noted that managers need to focus on multidimensional construct to evaluate the project success. It is necessary to move away from the traditional approach which focuses only on complying with time cost and scope of objectives. Rather, it has been stated that project success should be identified by measuring impact on customer and employees, project efficiency and other areas. In recent times, it has been observed that different dimensions related to environment and social sustainability have also been incorporated in the overall concept of project success.

It has been noted that different organisations and groups around the world tend to have different understanding about sustainable development. For instance, the World Commission on Environment and Economic Development considered sustainable development to be integration of three dimensions including environment, social and economic. There are several companies which follow triple bottom line theory to follow agile and efficient strategies regarding project development processes. It has been understood that companies tend to implement various guidelines and associations with project management bodies so that they can provide all the necessary guidelines to the project managers and leaders (Repo, &Matschoss, 2019). The overall focus towards sustainability area is highly increased because of involvement of daily practices and professionals in the project area.

IV.DISCUSSION

Different studies and highlighted that sustainability in project management is an important area of attention. Different research groups have highlighted that triple bottom line provides businesses with the new version to handle sustainability. Project success can be easily related to the objectives and benefits, it has achieved. However, the initial objective and the overall benefits expected from the project should be considered and directly linked to the results obtained. Studies have highlighted the fact that the triple bottom line involves different areas of engineering, administration, which have been collected all together within the three pillars of the triple bottom line. The overall goal of project managers should be to consider variables that implement project management and triple bottom line perspectives.

Based on the above study and discussion, it can be said that there is a strong relationship between sustainability and project management success. It has been evaluated that there are various approaches that are available for project managers to improve sustainable development for the triple bottom line which includes three pillars. It has been understood that project managers need to implement new perspectives in their decision making methods so that they can have a practical contribution to social sustainable development. It has been understood that socially sustainable infrastructure projects can play a critical role in the overall growth and development of a country. The concept of sustainability has been developed several decades ago, however, there are still several challenges and issues associated with it. Project managers need to improve their priorities and follow effective theories and models.

REFERENCES

[1]. Chotia, V., & Rao, N. V. M. (2018). Infrastructure financing and economic growth in India: an empirical investigation. Journal of Financial Management of Property and Construction.
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International Journal of Mechanical Engineering

[2]. Karji, A., Woldesenbet, A., Khanzadi, M., &Tafazzoli, M. (2019). Assessment of social sustainability indicators in mass housing construction: a case study of Mehr housing project. *Sustainable Cities and Society*, *50*, 101697.

[3]. Kumar, A., & Ghosal, A. (2022). Power Sector Infrastructure Management: Issues and Challenges. Infrastructure Planning and Management in India, 91-98.

[4]. Ma, J., Harstvedt, J. D., Jaradat, R., & Smith, B. (2020). Sustainability driven multi-criteria project portfolio selection under uncertain decision-making environment. *Computers & Industrial Engineering*, 140, 106236.

[5]. Molaei, M., Hertogh, M. J., Bosch-Rekveldt, M. G., &Tamak, R. (2021). Factors affecting the integration of sustainability in the early project phases in an integrated project management model. *Research on Project, Programme and Portfolio Management*, 25-39.

[6]. Montalbán-Domingo, L., García-Segura, T., Amalia Sanz, M., &Pellicer, E. (2019). Social sustainability in delivery and procurement of public construction contracts. *Journal of management in engineering*, *35*(2), 04018065.

[7]. Repo, P., & Matschoss, K. (2019). Social innovation for sustainability challenges. Sustainability, 12(1), 319.

[8]. Schönborn, G., Berlin, C., Pinzone, M., Hanisch, C., Georgoulias, K., &Lanz, M. (2019). Why social sustainability counts: The impact of corporate social sustainability culture on financial success. *Sustainable Production and Consumption*, *17*, 1-10.

[9]. Singh, K., Singh, A., & Prakash, P. (2022). Estimating the cost of equity for the regulated energy and infrastructure sectors in India. Utilities Policy, 74, 101327.

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