

Factor's Affecting Building Information Modelling In India

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Abstract- Any scholar has supported Building Information Modeling (BIM) as the best technology for improving construction procedures. For a number of reasons, the majority of construction firms do not adopt BIM. The purpose of this paper is to look into the barriers to BIM implementation in the construction industry. A systematic questionnaire was created to study the research objectives utilizing a quantitative manner. The questionnaire was distributed by Link, and 53 people completed it successfully, although the acceptance of BIM is still in the nascent stage in India.

Keywords- Building Information Modeling, Construction, construction industry, PEB, Virtual design concept.

I. INTRODUCTION

BIM was defined by PAS 1192-2:20131 as 'Building Information Modelling' and as a 'process of designing, constructing or operating a building or infrastructure asset using electronic object-oriented information'. This definition infers a number of statements that clarify BIM:

- It is a process, not a single technology solution or software. In fact, it is a collaborative process enabled by technology
- It covers the whole life-cycle from designing through to constructing and operating an asset
- It equally applies to buildings or infrastructure assets

BIM awareness is growing globally as a result of the benefits it provides to the AECO business. More than 65 countries have investigated and implemented BIM. The Indian AECO business employs almost 35 million people, receives the second-largest amount of foreign direct investment in the service sector, and contributes roughly 11.1 percent of India's GDP. Recent Indian government initiatives, such as develop in an Asian country, are assisting in the expansion of the AECO business. Several megaprojects have recently been undertaken, including high-end freeways or expressways, railway line train lines, and a proposed passenger train project between two Indian cities, notably Bombay and Ahmedabad. In the process of ongoing design improvement, construction, operation, and maintenance of our built environment, BIM is playing a crucial

role in transforming the industrial landscape. BIM helps with better visualisation and cognition of design by decreasing design faults, enabling better building operations planning, assisting with the construction process, and providing a data-rich platform for facility management and maintenance. It also serves as an effective collaboration tool, supporting the project team in cooperating and collaborating to create superior built environment assets.

II. BODY OF PAPER

Design communication is evolving from a 2D to a fully integrated 3D digital interface. Building Information Modeling (BIM) is a model-based design concept in which buildings are virtually built before they are built in the field, with data models organised for complete integration of all relevant factors in the building lifecycle, as well as managing information exchange between AEC (Architects, Engineers, Contractors) professionals to strengthen the interaction between the design team. BIM is a body of knowledge about information that is used to make decisions throughout its existence. There's a lot more to learn about the tool's capabilities and implications.

As a result, there has been limited research on building information modelling in the Indian setting. This study endeavor will scientifically measure the perceptions of the Barriers to BIM implementation in the construction industry in India, as well as provide a practical insight into this market.

Objective of the Study

The proposed study will explore the role of Factors which are affecting building information modeling techniques in India. It is an area where not much research has been conducted in the Indian context.

Research Methodology

The research purpose and objectives were established, and a questionnaire was constructed. The key sections of the report questionnaire, as well as the objectives.

The Portion is concerned with the respondents' personal information. Questions about the respondent's level of education, sort of work, and position, as well as employment

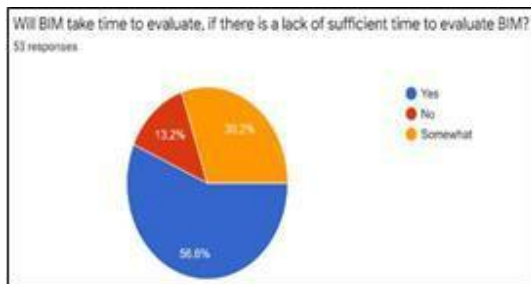


Figure 1: BIM Evaluation
(Author Self)

Challenges facing the sector from traditional ways of working

- Rudimentary exchanges of information by way of briefing, proposals and pricing
- Task and activity programming not commonly shared or consistent across team members
- Subjective decisions (design, project management, etc) based on information inferred from ambiguous, often partial, data that is ultimately unverifiable
- Cost data that is inconsistent across the project and not sufficiently transparent
- Failure to engage early with the parties who will subsequently operate the built assets
- Lack of commitment to timeframes and deadlines
- Late notification of problems without the necessary supporting data
- Inconsistent communication across the project (written or verbal instructions and feedback)
- Lack of a proper system of capturing and utilising 'lessons learned' from project to project

III. CONCLUSIONS

Professionals and organizations should start preparing now, or at the very least educate themselves on the benefits of BIM and how a BIM-enabled business can better serve the industry. BIM has become a need, whether for economic, environmental, or other reasons. It's crucial to remember that BIM is more than simply software; it's also a human activity that leads to large process improvements in the physical environment.

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