Analytics Protocol for Data-driven Decision-making in the Construction Industry

Ashwini Jain

Due to the unique nature of the construction projects and association of multidisciplinary fields, it is a challenge for decision makers in the construction industry to make informed decisions in complex situations. The rapid change in technology has led to a tremendous growth in data. The presence of big data has the potential for data-driven decision-making in the construction industry. The Construction Industry is lagging from other industries in technology and analytics applications. Also, within the construction industry it is not clear how we can take advantage of analytics and growing availability of data. Hence, there is a need for a systematic approach to leverage the available data for better decision-making.

This thesis presents the State-of-the-Art of analytics and how it could be used in the Construction Industry. In this thesis, a preliminary study of analytics applications has been done to understand how other industries are using analytics in their decision-making process. Finally, to define a systematic approach for using analytics, a protocol has been developed which will help construction companies to gain a competitive advantage and create business values for their clients.

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