Abstract of the Master Thesis

Master's Degree
International Project Management
(Building, Real Estate and Infrastructure)

How can maximum value be delivered through effective BIM process management in the supply chain?

A Cross-Cultural Case Study Based Investigation on a Company in the Formwork Industry

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Abstract

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Valuable Integration of Further Tiers in Construction Projects

19,125

Building Information Modelling (BIM) is an innovative technology platform that is attracting the growing attention of researchers and practitioners alike. However, within the realm of BIM research, a connection to supply chain management (SCM) has rarely been made. This pattern is further highlighted when the focus is put on second-tier suppliers, including formwork manufacturers, as they comprise only a small segment of the overall project supply. Therefore, a pragmatic qualitative approach on the basis of case study research has been adopted for the formwork industry considering multiple sources of evidence. The findings are generalized in two cycles: company-wide and internationally as the companies headquarter is located in Germany but has a worldwide alignment. Overall, the research aims to reduce frictional losses in the second-tier supplier integration. First, the status quo is analysed and improved due to triangulation of all the multiple channels within the data gathering. A concrete flow of information is proposed as part of the research study. Second, a long-term vision is established, considering the digital supply chain management integration of the material, financial and information flows. This is done through interviews and focus groups in all cycles. As part of the long-term vision, a cross-project partnership approach is discussed as an innovative framework for delivery. While SCM integration is characterized as extremely valuable in the inter-company value stream, the adoption of partnership models remains promising but faces a steep challenge in being adopted for the construction industry, especially in the German-speaking legal and economic environment.