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Study of Building Construction Project

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ABSTRACT

*This paper explores explanations for possible causative patterns and suggestions for strategies to compress the construction durations of various types of building projects, on the basis of the lessons learned from recent "**NOIDA (Multi Storage Building)**"based surveys and research findings. A review of the literature from different states is first provided — on the factors affecting construction durations, reasons for project delays and existing statistical models for duration forecasts. This is followed by the presentation of a regression-based model — developed from NOIDA public housing construction project data — for predicting the durations of the primary work packages in the building process and the overall completion period. Finally, the principal survey results of three parallel investigations which sought out the critical contributors to faster construction in NOIDA within each of three different building sub-sectors — public housing, public non-residential buildings and private sector buildings — are presented and discussed. Both similarities and differences are noted among the many perceived important contributory factors and factor categories, across the various types of industry practitioners, i.e. clients, consultants and contractors. Based on the factors identified as significant from the above recent research findings, specific technological and managerial strategies for reducing construction periods (increasing construction speed) in particular building sub-sectors are formulated in order to improve the construction time performance of local building projects. The research methodology developed for the reported investigations can well be extended to similar studies in other sub-sectors in NOIDA, as well as in other countries for international comparisons so as to expand our existing body of knowledge of the critical success factors in compressing the building construction process.*

I.INTRODUCTION

Construction Management is both an art and a science, and is something that is usually quite hard to do. It is hard because one has to look at a broad range of variables, and try and guess what effect each variable will have on a construction project. For example, a construction manager in the middle of a project will have to take into account many problems like as the availability or non-availability of key equipment like cranes, some materials are out of stock just when they are needed &so on.Process of construction is a very long time process ,in which first we check the quality of soil & excavation of soil after that footing can be generated that is the base of the

Building after that column and beam can be designed and finally slab can be designed. This is the main physical work on building construction except that the finishing,painting ,electricity and water system can be planned.

II.BUILDING CONSTRUCTION AND PLANNING

There are the various authors who gave their perception about the building construction project.The design and engineering process within a shipbuilding project is dividedsomehow unclear delimitation particularly in engineering. The Design department, usually a separated group inside the company, is the one involved within the through a project from the beginning and ends with an approved class package from the Class Society.The detail engineering phase coordinated by the TC located at the outfitting yard is planned based on a drawings list containing several hundred items to be allocated per entity involved within the project, due to a lack of necessary resources.

The planning phase of the whole project is by now containing a Master Plan including a Milestones Plan and the activities allocated to each of the major entities involved within the project: Design department; Engineering; Basic Design; Hull yard; Outfitting yard; Piping; Electro; HVAC (Heating, Ventilation and Air Conditioning); and Accommodation. These entities are involved both in the 3D modeling and production phases and are responsible for planning their own activities according to the Master Plan.U.S. Department of Energy estimated that buildings in the United States accounted for 73.6% of total electricityexpenditures, and 40% of the total carbon emissions in 2012. Thus, new building technologies shouldconstantly be introduced to minimize consuming electricity and harmful impact of the building on the surroundingenvironment. Building, and emphasized on the green technologies with buildings, in order to increase ventilation control,enhance temperature control, enhance lighting control, and increase day-lighting. Thus, green technologies cansignificantly be correlated with high level of productivity and performance in the buildings. There are manyequipment and tools, which are the results of the investigation and development of the green technologies.

III.GREEN MATERIALS

Another main aspect of sustainable buildings is green materials. It is very important to know that construction industry uses large quantities of natural resources today. In fact,construction activities utilize **60** percent of the rawmaterials, and similarly **60** percent of the nation's surplus and non-hazardous solid waste are belonged toconstruction industry in the USA. There are some materials that can be used in constructing buildings, aswidely known green materials. These materials are recyclable, reusable and to prevent wasting energy in the houses, likewise, salvaging building materials and reusing them can save energy and reduce greenhouse gas emissions.

Essoussi and Linton (2010) stated that the process of buying green is stilldifficult to understand. Generally, consumers express a concern for theenvironment, but their attitudes do not always translate into a purchasingbehavior. Further, attitudes in relation to concern for the environment have notbeen explicitly analyzed and the relationships between green attitudes andvalues and behavior are still ambiguous.Understanding the mechanism of perception of green products is useful for anumber of reasons: from the consumer perspective, a product that isenvironmentally preferable relative to comparable products is a green product(Bonini & Oppenheim, 2008; Chen, 2001; Hopkins & Roche, 2009; Tseng &Hung, 2013), similarly for building design – a green building is environmentallypreferable relative to comparable

conventional buildings. Perception of greenproducts has long been studied in the field of marketing which eventuallyestablished a sub discipline known as green marketing. In building design andconstruction practices, perception of green building has received little attentionin the literature; instead, numerous studies discuss the users' satisfaction andcomfort in green buildings through post occupancy evaluations (Altomonte &Schiavon, 2013; Baird & Field, 2013; Hitchings, 2009; Huang et al., 2012; Lee &Guerin, 2009; Liang et al., 2014).

IV.CONCLUSION

In building construction project we define all parts of the building that can be performed for construct the building. There are the many process for construct the building like as footing, design a column,design of beam and after that slab and finally design the roof. We also keep in mind the quality of soil in which the building constructed and also the property of cement and concrete. We also check the quality of reinforcement that can be used in building. Finally after construct the building finishing can be done properly and check the prevention from the accident and also take appropriate safety measures.

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