

**PROBLEMS FACED BY CONTRACTORS IN SPEEDY  
CONSTRUCTION OF  
PRE- ENGINEERED STEEL BUILDINGS**

By

**Eng. Priyani Jayasena**



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Supervised by

**Eng. Prof. Ananda Jayawardane**



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THESES & DISSERTATIONS

**UNIVERSITY OF MORATUWA**  
Dept. of Civil Engineering, Moratuwa, Sri Lanka.

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STEEL BUILDINGS**

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www.lib.mrt.ac.lk  
Thesis submitted in partial fulfillment  
Of

The requirement for MSc. in  
Construction Project Management

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**The Faculty of Engineering**  
Dept. of Civil Engineering

Supervised by  
**Eng. Prof. Ananda Jayawardane**

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University of Moratuwa

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# ABSTRACT

The concept of Pre engineered building systems, although comparatively new to the Sri Lankan construction industry, has been accepted favorably and successfully in the more developed nations for a variety of reasons. While the PEB systems is rich with features designed to overcome some of the inherent problems attached to the orthodox “brick and mortar” construction method, it invariably has its own unique peculiarities and drawbacks as is to be expected.

A demand for “speed” was created, in the local construction industry, especially as a result of the booming garment industry, which has become one of the prominent contributors to the Sri Lankan economy. This in turn has facilitated an enormous number of new employment opportunities, also in turn demanding expedited completion of factories, in order to begin generating profits in the shortest possible time. While a successful alternative has been found in resorting to PEB systems, this trend has exposed the parties involved in the processes to new and hitherto un-addressed problems.

This research strives to ascertain some of the problems and identify their probable causes, especially from the contractor’s point of view.

An introduction to emphasize the peculiarities inherent in the orthodox, and the PEB systems has been included, for the ease of comprehension and comparison.

A literature survey was carried out to identify the general view, and to give an overview of some similar research that has been carried out in the past.

An “Interviewed questionnaire survey”, was carried out with the contractors, who specialized in this field for the last 10 – 15 years, in order to gather first hand information on prevailing practical problematic situations.

In addition to the questionnaire, personal interviews were carried out to gather more important information from experienced personnel in the industry.

Collected data was tabulated and analyzed statistically to identify the problems and the effects of these problems in the performance of the projects.

Among other aspects contributing to the success of a project, project delays, labour problems, short comings in steel supplier and defects in the pre- engineered building components itself, were felt by many to be more important.

It is felt that the authorities should be more committed to ease some of the difficulties faced by the contractors involved in this type of construction work, by considering pre- engineered building industry as a special category of projects, which have short project duration with a large contract sum, thereby creating unique peculiarities and requirements.



It is observed that in this type of speedy construction of pre-engineered steel building projects, many problems are created due to irregular, impracticable cash flow, unsuitable bill payment methods, out of proportion extra work, improper project contractual methods etc.

It is proposed to enhance the financial stability of the contractor by facilitating low interest loans, subsidized rates for machinery, tools etc, and by initiating a responsible controlling body which could intervene in discrepancies between the client & the contractor to reduce the instances of unethical and unacceptable pressures on the contractor.

To increase the productivity and the performance of the project crew, training of personnel and a proper salary payment scheme like fortnight payment, should be introduced. To ensure success of the industry, the PEB structure and accessories should meet the SL standards. Timely delivery of same & a binding agreement between the supplier and the client will pave the way for trouble free progress of the project.

The above mentioned factors are presented in detailed manner in the coming chapters.



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*Eng. Priyani Jayasena  
University of Moratuwa  
Sri Lanka  
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