MANAGEMENT INFORMATION SYSTEM FOR A GRADE-1 BUILDING CONTRACTOR

by

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A PROJECT REPORT SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF ENGINEERING IN CONSTRUCTION MANAGEMENT

JULY 1995

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ABSTRACT

This report is the outcome of a study carried out to evaluate the Management Information Systems used by Local Contractors, with grade I listing, registered with the Institute for Construction Training and Development (ICTAD), with the aim of improving same to enhance their Planning and Progress Control functions, after identifying the probable flaws.

The Construction Industry in Sri Lanka encounters much greater challenges today than anticipated a decade ago, due to factors such as shortage of resources, more stringent regulations and controls, rapidly changing technologies, very heavy competition and high social demands. This necessitates a dynamic and efficient Construction Management System through which quick and accurate decisions could be taken by the Top Management. Planning and Progress Control are two key functions of any Construction Management System, which to a great extend depend on accurate data and smooth flow of information.

The survey carried out and interviews conducted during this study revealed that Data Management and Flow of Information were the two main problems identified by the local contractors, which were affecting their Planning and Progress Control functions.

Therefore, it was decided to carry out a case study using a model construction organization, identify the problems in their Management Information System that are affecting the Planning and Progress Control functions, obtain the current practices of similar organizations in the industry by way of questionnaire surveys, and, recommend remedial measures for this organization using these data and others collected from Literature surveys.

The major findings of this study are:-

(a) Lack of a data base.

(b) Inability to retrieve appropriate information.

(c) Ineffective information system

(d) Lack of a division, to co-ordinate the flow of information, and to analyze the collected data.

(e) Poor analysis of information.

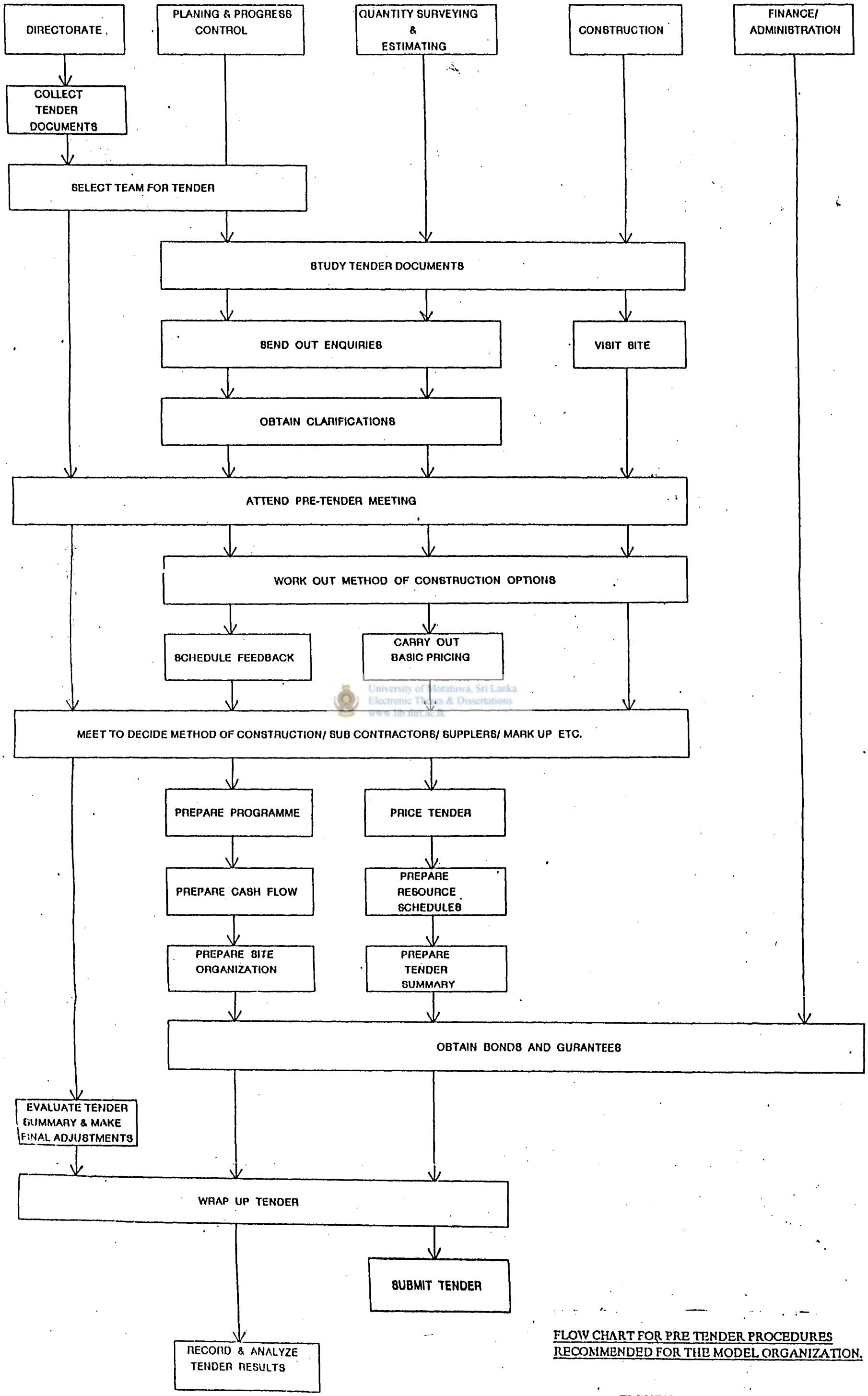
(f) Lack of appropriate and timely corrective actions.

(g) Very poor control on performance.

Though the above findings are specific to the model organization, a similar study of another organization would lead to identifying its specific problems in the information system so that remedies could be sought to improve their Planning and Progress Control functions.

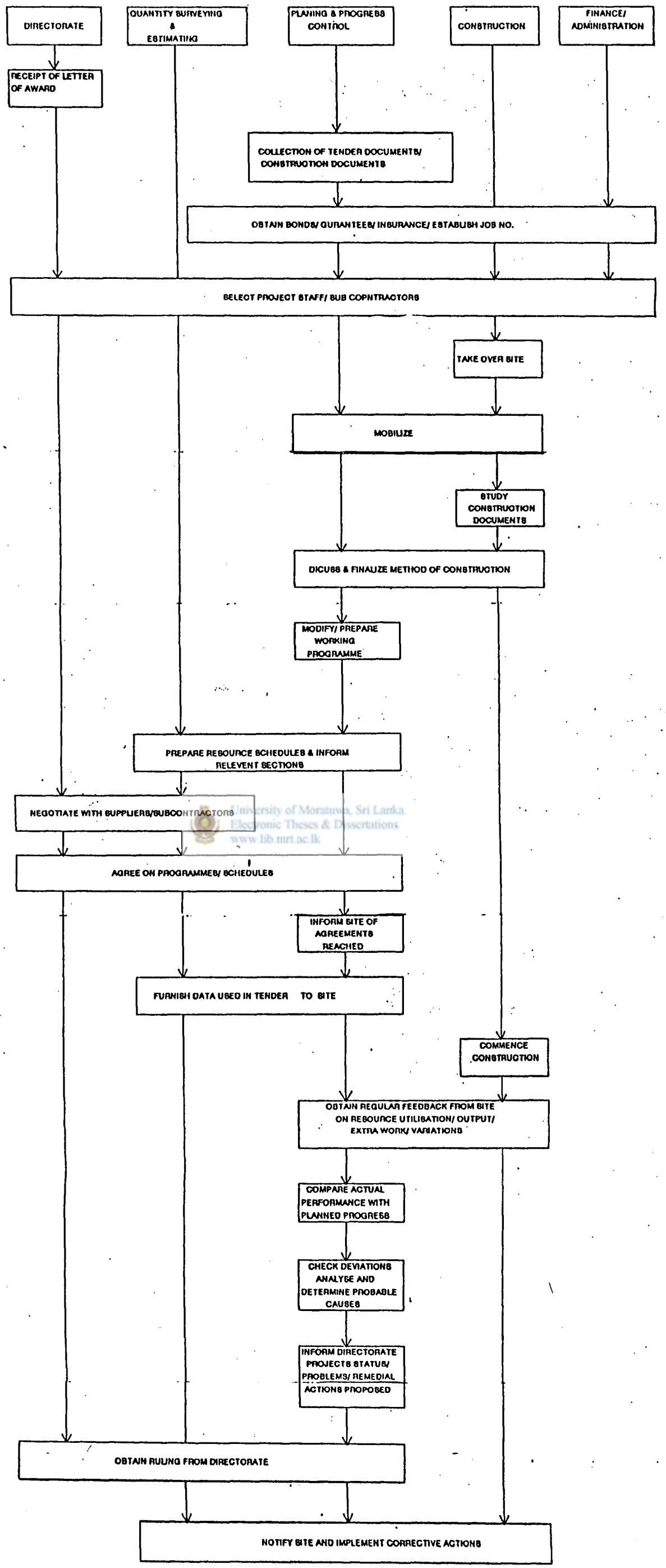
For any information system to be effective and successful, it should be an integrated Man/Machine system for providing information to support the operation, management and decision making functions in an Organization. It should utilize computer hardware and software, manual procedures, management and decision models, and a data base. (Davies, 1974)

The flow charts proposed for the model organization using the existing functional units are shown in figures 1 and 2 in the next two pages. Figure 1 shows the procedures recommended for Pre-Tender stage and figure 2 covers the Post Tender procedures. By entrusting specific responsibilities to the already defined divisions in this organization, it is possible to get the system operating effectively and successfully, without over stressing any one unit, and thereby improve the Planning a Progress Control capabilities.



FLOW CHART FOR PRE TENDER PROCEDURES RECOMMENDED FOR THE MODEL ORGANIZATION.

FIGURE 1



FLOW CHART FOR POST TENDER PROCEDURES RECOMMENDED FOR THE MODEL ORGANIZATION.

FIGURE 2

ACKNOWLEDGEMENT

I am extremely grateful to the Management of Tudawe Brothers Limited for releasing me to follow this course of study, inspite of the consequences to the Company, and granting me an opportunity to make my contribution, atleast in a small way, to the Construction Industry.

My sincere thanks are also due specially to the Managing Director and Director, Finance and Administration of Tudawe Brothers Limited for granting me a free access to every information I required to make this study a success.

This study would not have been possible if not for the valuable guidance and the leadership on the directions of research provided by the research supervisor Mr. Justin De Silva. I wish to express my sincere gratitude to him as well.

My colleagues in the industry, who willingly permitted me to pick their brains and experiences, too cannot be ignored at this juncture. Every bit of information collected at the discussions and meetings held with them, has made its contribution in formulating the proposed improvements. As they did not wish to be identified, I take this opportunity to thank every one of them for their valuable contributions.

I should also thank my colleagues working abroad, in international Contracting Firms for their contributions by sending various formats and systems adopted by those firms, in response to my requests, which were helpful in developing the formats proposed.

Finally, my thanks go to each and every member of staff at Tudawe Brothers Ltd. for accommodating my interviews during their busy schedules and assisting me in every possible way to successfully conclude my study and produce this report.

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