ACI - 0584

INVC 9/2/01

The inventory and purchasing information system plan for Megasteel Sdn Bhd

George Tan Joo Teh

Bachelor of Science with Education University of Malaya 1990

Submitted to the Faculty of Business and Accountancy,
University of Malaya, in partial fulfilment
of the requirements for the Degree of
Master of Business Administration

February 1999



Dimikrefiskan pada 15238

No. Mikrefis 15238

Jumlah Mikrefis HAMSIAH BT. MOHAMAD ZAHARI
HAMSIAH BT. MOHAMAD ZAHARI
UNIVERSITI MALAYA

UNIVERSITI MALAYA

I was motivated into writing this paper when I found that the organisation that I was working in required a new information system to support its new idea in purchasing and inventory function. As an end-user, I believe this paper can be useful to the organisation and bring positive result if implemented. I must express appreciation to my supervisor, Dr. Ainin, for this project paper. Her valuable advice and guidance had helped me in shaping the idea and structuring the thought into place for this information system plan. I must thank her for her time and effort in extending her assistance to me.

I thank Liza for helping me in doing most of the typing work. The support and kind understanding from my fiancée, Christine, keeps me going till the completion of this paper.

I must also thank the staffs of Management Information System department, Accounts department, Material Control department, Purchasing department, and the Production department of Amsteel and Megasteel for their support and co-operation extended to me.

To all my friends and colleagues who had contributed directly or indirectly into this paper. I thank you all.

I hope the evaluation and the suggestion in this paper will contribute positively to the information system planning of Megasteel Sdn Bhd.

Table of Content

S/N	Content Description	Page number
1	Executive Summary	1 ~ 2
2	Introduction Steel industry and Megasteel The difficulties External environment Internal environment Business Strategies	3~7
3	Objectives of Project	8
4	Evaluating Information System Importance IS strategic grid BCG matrix	9 ~ 13
5	Purchasing and Inventory Control System The basic activity and requirement The role of information system	14 ~ 24
6	Information System Development System Analysis Information requirement Hardware architecture Design alternatives	25 ~ 28
7	System - Building Alternatives System life - cycle Prototyping Application software packages End - user development Outsourcing Summary of evaluation	29 30 ~ 33 34 ~ 35 36 ~ 38 39 ~ 40 41 ~ 43 44 ~ 45
10	Information System for purchasing and inventory control using the application package S.W.O.T. analysis	46 ~ 49
44	,	50 ~ 56
11	Suggested Implementation Plan	
12	Conclusion	57
13	References	58

Executive Summary

Megasteel Sdn Bhd is a new steel making plant belong to the local conglomerate The Lion Group. The total investment for Megasteel is worth about two and a half billion Ringgit. It will be the biggest and the most modern steel manufacturing plant in Malaysia. Total workforce will be about five hundred headcount when the plant is running in full production capacity, the small number of workers required is mainly due to the plant automation. The total production capacity is about 2.4 million metric tonnes of steel annually. The goal of Megasteel is to become a high quality flat steel producer having the state of the art technology and strive to become a competitive cost leader in the steel making industry. Besides having the latest technology in production machinery, Megasteel shall also concentrate on the strategic planning of all business functions and this will of course be affected by the economy condition.

The current economy down turn had caused a major financial problem to Megasteel because the bankers are slow in releasing the loan amount to Megasteel. The expenditure for all areas had been cut to a minimum level, merely enough to maintain the daily operations. Consequently, the expenditure for information system had also been cut and this had limited the options available for the development of information system for the current period of operation.

It was determined that purchasing and inventory control should be one of the important functions that should be supported by the information system to achieve the goal of low material cost and inventory cost. Therefore a suitable information system for purchasing and inventory must be chosen based on the resources available in Megasteel.

This analysis is intended to evaluate all the possible options available to Megasteel in the development of information system for the purchasing and inventory control activity. The recommended solution and the approach to be adopted by Megasteel are solely based on the current human resource and financial resource available in Megasteel. Software application package was found to be more suitable for the purchasing and inventory control in Megasteel. This was mainly due to the fact that Megasteel will not be operating in full production capacity in the beginning as the operators needs to go through a period of time for the learning process. Therefore human resource and financial resource has became the main constraint in the development of information system for purchasing and inventory control.

An implementation plan was also recommended in order to carry out the development of information system more efficiently and effectively. Recommendation was made based on the management style and the working culture in Megasteel. Involvement of the top management in the appraisal of the system suppliers is very important as this will help in speed up the decision making process.