การนำระบบบริหารทรัพยากรองค์กรไปใช้ในธุรกิจสี

นาย รณฤทธิ์ ตั้งคารวคุณ

วิทยานิพนธ์นี้เป็นส่วนหนึ่งของการศึกษาตามหลักสูตรปริญญาวิศวกรรมศาสตรมหาบัณฑิต

สาขาวิชาการจัดการทางวิศวกรรม ศูนย์ระดับภูมิภาคทางวิศวกรรมระบบการผลิต

คณะวิศวกรรมศาสตร์ จุฬาลงกรณ์มหาวิทยาลัย

ปีการศึกษา 2548

ISBN 974-17-5511-2

ลิขสิทธิ์ของจุฬาลงกรณ์มหาวิทยาลัย

IMPLEMENTING AN ENTERPRISE RESOURCE PLANING SYSTEM IN A PAINT BUSINESS

Mr. Ronnarit Tangkaravakoon

A Thesis Submitted in Partial Fulfillment of the Requirements
for the Degree of Master of Engineering Program in Engineering Management
The Regional Centre for Manufacturing Systems Engineering
Faculty of Engineering
Chulalongkorn University
Academic Year 2005

ISBN 974-17-5511-2

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481568

Thesis Title	IMPLEMENTING AN ENTERPRISE RESOURCES PLANNING SYSTEM IN A PAINT BUSINESS
By	Mr. Ronnarit Tangkaravakoon
Field of Study	Engineering Management
Thesis Advisor	Assistant Professor Manop Reodecha, Ph. D.

Accepted by the Faculty of Engineering, Chulalongkorn University in Partial Fulfillment of the Requirements for the Master's Degree

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รณฤทธิ์ ตั้งคารวคุณ : การนำระบบบริหารทรัพยากรองค์กรไปใช้ในธุรกิจสี
IMPLEMENTING AN ENTERPRSIE RESOURCE PLANNING SYSTEM IN A PAINT
BUSINESS อ. ที่ปรึกษา: ผศ .ดร.มานพ เรี่ยวเดชะ, 169หน้า. ISBN 974-17-5511-2

วิทยานิพนธ์ฉบับนี้มีวัตถุประสงค์หลักในการติดตั้งระบบบริหารทรัพยากรองค์กรเพื่อที่จะปรับปรุงจำนวนของการสูญเสียโอกาสทางการขายซึ่งมีสาเหตุเนื่องมาจากความไม่แม่นยำของระบบฐานข้อมูลและข้อมูลของสินค้าคงคลัง ระบบสารสนเทศและขั้นตอนการทำงานที่ไม่ทันสมัยของบริษัทกรณีศึกษา วิทยานิพนธ์ฉบับนี้เริ่มจากการศึกษาค้นคว้าความผิดพลาดของระบบบริหารทรัพยากรองค์กรในอดีตเพื่อที่จะหลีกเลี่ยงหลุมพรางหรือจุดอันตรายที่จะเกิดขึ้นระหว่างการติดตั้งระบบ จากนั้นจึงได้ทำการศึกษาทบทวนงานเขียนที่มีประเด็นเกี่ยวข้องเช่น ค่าใช้จ่าย การเปลี่ยนแปลงที่จะเกิดขึ้น

งานหลักของวิทยานิพนธ์ฉบับนี้เริ่มจากการวิเคราะห์สภาพแวดล้อมทางธุรกิจโดยการการวิเคราะห์แบบ สวอต (SWOT) และ เพสเทล (PESTEL) ต่อจากนั้นจึงได้ทำการศึกษาเกี่ยวกับข้อด้อยของขั้นตอนการทำงานทางธุรกิจในปัจจุบัน ยุทธวิธี การออกแบบระบบวิธีการลงระบบในรูปแบบต่างๆ และการวิเคราะห์ต้นทุนของระบบดังกล่าว ตามด้วยการศึกษาการปรับปรุงโครงสร้างขั้นตอนทางธุรกิจและวิธีบริหารการเปลี่ยนแปลง

หลังจากที่ทำตามขั้นตอนที่กล่าวมาแล้วนั้นจึงเข้าสู่เริ่มต้นขบวนการโครงการการลงระบบความแม่นยำของสินค้าคงคลัง และ การสูญเสียโอกาสทางการขายเป็นตัวชี้วัดความสำเร็จของโครงการนี้ โดยการที่จะเก็บข้อมูลของรายการสิ่งของควบคุมเป็นเวลาสิบวันการทำการ วัดจะเกิดขึ้น ข้อมูลชุดเดียวกันนั้นจะถูกให้ผ่านขั้นตอนการทำงานทางธุรกิจตามระบบเก่าและระบบสารสนเทศใหม่ที่มีการรวมศูนย์ข้อมูลและการปรับปรุงโครงสร้างขั้นตอนทางธุรกิจ จากการผ่านระบบใหม่ผลลัพธ์ที่ได้คือฐานข้อมูลขอสินค้าคงคลังมีความแม่นยำมากขึ้น และมีผลให้มีการสูญเสียโอกาสทางการขายให้น้อยลง ในผลสำเร็จนั้นยังมีผลประโยชน์ทางอ้อมซึ่งเป็นนามธรรมเช่นการปรับปรุงการสื่อสารภายในองค์กรและความพึงพอใจของลูกค้าที่สูงขึ้น

ภาควิชา ศูนย์ระดับภูมิภาคทางวิศวกรรมระบบการผลิต ลายมือชื่อนิสิต .....
สาขาวิชา การจัดการทางวิศวกรรม ลายมือชื่ออาจารย์ที่ปรึกษา .....
ปีการศึกษา 2548

457 16261 21 : MAJOR ENGINEERING MANAGEMENT

KEY WORD: PAINT / RESOURCE PLANNING/ ERP/ TOTAL COST OF OWNERSHIP/ ENTERPRISE RESOURCE PLANNING SYSTEM/ ERP SYSTEM

RONNARIT TANGKARAVAKOON: IMPLEMENTING AN ENTERPRISE RESOURCE PLANNG SYSTEM IN A PAINT BUSINESS. THESIS ADVISOR: ASST. PROF. MANOP REODECHA, PH.D. , 169 pp. ISBN 974-17-5511-2

The main objective of this thesis was is to implement an ERP (Enterprise Resource Planning) system in order to improve the high number of lost sale opportunities through the inaccuracy of the case-study company's inventory database and the outdated information system and business processes.

The preliminary of this thesis started off with finding how ERP systems implemented had failed in the past. This was done in order to avoid the pitfalls of ERP system implementation. Then related literature was reviewed which includes such issues as cost, change, implementation and business processes reengineering management. The main work of the thesis starts of with the analysis of the current company's operation environment using strategic tools such as SWOT and PESTEL analyses. Then there were the studies of the current business processes and theirs flaws, the studies of various implementation methods, and strategy, system design, and project costing analysis. These were followed by business process reengineering and change management.

After all the mentioned steps had been done, the project implementation began. The success of this project was measured with inventory accuracies and the loss of sale orders. These were done through collecting the data of the control items for ten operating days. The same set of data were run on the old information system and business processes and another being the integrated information ERP system and new reengineered business processes. With the new system and more effective business processes inventory data are much more accurate which results in lesser lost of sale opportunities. There are also other intangible benefits of the system such as the improved inter-department communication and higher customer satisfaction.

Department The Regional Centre for Manufacturing Systems Engineering Student's signature .....

Field of study Engineering Management Advisor's signature .....

Academic year 2005

ACKNOWLEDGEMENTS

Upon the completion of this thesis, I would like to share the success of this thesis completion with the following distinguished person because without them this thesis would be impossible.

I would like to express deep gratitude to my thesis advisor Assistant Professor Manop Reodecha, Ph.D., whom I am grateful for the guidance, time, patience and every piece of advice right from the beginning through to the completion. I would also like to express my gratitude to the members of committee to the thesis Professor Sirichan Thongprasert, Ph.D. and Seeronk Prichanont, Ph.D., for the touch of perfection to the thesis in making this a flawless piece of work.

Secondly, I thank Delta Paint Co., ltd for relevant data and the team from Datamat DBA for the information on the ERP system.

Thirdly the administration at Chula-Warwick, P Samnao, P Pueng, and P noo.

Personally, to friends, Supichet for those sleepless thesis night, Kittipong for those supports during close calls, Rasara Tantayanon for all her heartedly motivation support, Tiwa for all the rides around the campus and finally friends of Chula-Warwick with all their motivation and pep talk when morale was low.

Last but not the least, it is impossible to acknowledge my parents enough for their endless and tireless support towards my education since the kindergartens days, without them I would not have made it to these days. Thank you.

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