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# BUSINESS PROCESS IMPROVEMENT BY ACTIVITY BASED COSTING

Mr. Korakij Ngaobenjakul

A Thesis Submitted in Partial Fulfillment of the Requirements  
for the Degree of Master of Engineering Program in Engineering Management  
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วิทยานิพนธ์ฉบับนี้มีวัตถุประสงค์เพื่อวิเคราะห์หา ต้นทุนต่อหน่วยของผลิตภัณฑ์งานหล่อ โดยใช้หลักการคิดต้นทุนฐานกิจกรรม เพื่อจัดเตรียมข้อมูลต้นทุนไปสู่ การบริหารกิจกรรม

เทคนิค IDEF0 ถูกนำมาใช้ในการวิเคราะห์กระบวนการธุรกิจ เพื่อช่วยในการออกแบบจำลองของกิจกรรมอันประกอบไปด้วย กิจกรรมหลัก และกิจกรรมรอง การศึกษานี้จะใช้หลักการของ CAM-I Cross ซึ่งแบ่งออกเป็น 2 มิติ มิติแรก จะเป็นการกระจายต้นทุนในแนวดิ่ง (Vertical Cost Assignment View) และในมิติที่สอง จะเป็นมิติของกระบวนการในแนวนอน (Horizontal Process View) การศึกษานี้จะเริ่มจากการกระจายต้นทุนในแนวดิ่ง ซึ่งแบ่งออกเป็น การรวบรวมต้นทุนและการจัดโครงสร้างต้นทุน, การกระจายต้นทุนไปยังกิจกรรม, และการกระจายต้นทุนกิจกรรมไปยังผลิตภัณฑ์ จากนั้น ข้อมูลที่ได้จากขั้นตอนนี้จะถูกนำไปวิเคราะห์ในมิติของกระบวนการ เพื่อหาแนวทางในการปรับปรุงกระบวนการ ทำการปรับปรุงกระบวนการ และประเมินผล

ผลการศึกษาเป็นที่ชัดเจนว่า การคิดต้นทุนโดยใช้หลักต้นทุนฐานกิจกรรม ในมิติแรก สามารถให้ข้อมูลโครงสร้างของต้นทุนผลิตภัณฑ์ที่ถูกต้องและชัดเจนมากขึ้น ซึ่งเปิดโอกาสให้การจัดการมีการตัดสินใจที่ดีขึ้น ในส่วนของมิติกระบวนการผลการศึกษา พบว่า หลังจากทำการปรับปรุงกระบวนการ อัตราต้นทุนกิจกรรม (Activity Cost Rate) ของสองกิจกรรมหลัก ซึ่งได้แก่ กิจกรรม การหลอม และ กิจกรรม สร้างแบบทราย ลดลง 4.21% และ 6.72% ตามลำดับ นอกจากนี้ ผลการศึกษายังพบว่า ผลกำไร (Net Profit) ของบริษัทเพิ่มขึ้นจากเดิม 16.40% ในเดือน มิ.ย. - พ.ย. 2005 ไปเป็น 23.08% ในเดือน ธ.ค. 2005

ภาควิชาศูนย์ระดับภูมิภาคทางวิศวกรรมระบบการผลิต  
สาขาวิชาการจัดการทางวิศวกรรม  
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ลายมือชื่อนิสิต.....  
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KORAKIJ NGAOBENJAKUL: BUSINESS PROCESS IMPROVEMENT BY ACTIVITY BASED COSTING. THESIS ADVISOR: ASST. PROF. SUTHAS RATANAKUAKANGWAN, 132, ISBN 974-17-5152-4

The objective of this thesis is to apply Activity-Based Costing technique to analyze product unit cost structure of casting product in order to provide useful cost information for Activity-Based Management.

The activity modelling – IDEF0 is selected to develop activity model. By using this technique, the major activities and their sub-activities are defined. The study is based on CAM-I Cross methodology, which is divided into vertical cost assignment view (ABC) and horizontal process view (ABM). The first step of this thesis is to perform vertical cost assignment (ABC). This step is divided into collecting and organizing resource costs, assigning resource costs to activities, and assigning activity costs to final cost objects. The second step is to perform horizontal process view. This step will use useful cost information analyzed from the previous step to analyze activities and identify opportunities for improvement. Next, the ways for improvement are purposed and converted into action. Finally, the evaluation of the improvement is performed.

By performing vertical cost assignment view, it is clear that ABC provides clearer and more accurate information of product unit cost. This allows management to have better decisions-making. Finally by performing horizontal process view, the result indicates that the activity cost rate of two significant activities, “melt metal” and “make AMF sand mould” activity, can reduce by 4.21% and 6.72% respectively. Moreover, in financial term, net profit can increase from 16.40% in Jun – Nov 05 to 23.08% in Dec 05.

The regional Centre for Manufacturing System Engineering  
Field of Study Engineering Management  
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Student's Signature.....

Advisor's Signature.....

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