

BUSINESS PROCESS ANALYSIS AND IMPROVEMENT
FOR INFORMATION SYSTEM DESIGN



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การวิเคราะห์และปรับปรุงกระบวนการทางธุรกิจสำหรับการออกแบบระบบสารสนเทศ

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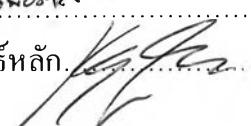
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งานวิจัยนี้มีวัตถุประสงค์เพื่อวิเคราะห์และปรับปรุงกระบวนการทางธุรกิจของบริษัทประเมิน มูลค่าทรัพย์สินเพื่อออกแบบข้อกำหนดซึ่งใช้สำหรับการพัฒนาระบบสารสนเทศ ตามหลักการของวงจรชีวิตการพัฒนาระบบ (System Development Life Cycle) โดยใช้วิธีการวิเคราะห์และออกแบบระบบ (System Analysis and Design) ซึ่งมีขั้นตอนการวางแผนโครงการ การวิเคราะห์การทำงานของกระบวนการปัจจุบัน การค้นหาข้อมูลพร่องของระบบงานปัจจุบัน และการออกแบบระบบงานใหม่ที่สามารถแก้ไขปัญหานั้นๆ ได้ ขอบข่ายของการวิจัยคือการปรับปรุงกระบวนการทางธุรกิจของระบบงานประเมินมูลค่าทรัพย์สินซึ่งเป็นกระบวนการหลักของบริษัท

ในขั้นตอนการวางแผนระบบได้ใช้วิธีการตรวจสอบข้อมูลเบื้องต้น การวิเคราะห์ SWOT และแผนภูมิการวิเคราะห์เหตุผล (Cause and Effect diagram) เป็นเครื่องมือสำหรับระบุปัญหา ซึ่งทำให้พบว่า มีกระบวนการและข้อมูล ที่ไม่เหมาะสมอยู่ในกระบวนการ ซึ่งก่อให้เกิดปัญหาความซ้ำซ้อนของกระบวนการ และการทำงานที่ไม่จำเป็น กับความไม่สอดคล้องและความซ้ำซ้อนของข้อมูล ต่อมาในการวิเคราะห์ระบบเพื่อการค้นหาด้านต้องของปัญหาโดยใช้ผัง UML และ IDEF0 เป็นเครื่องมือ ทำให้สามารถระบุจุดที่จำเป็นต้องได้รับการแก้ไข ในที่สุดได้มีการออกแบบเพื่อกำจัดกระบวนการที่ซ้ำซ้อนและเกินความจำเป็น กับข้อมูลที่ไม่สอดคล้องกันและซ้ำซ้อน และได้ทดสอบด้วยกรณีตัวอย่างต่างๆ ใน Test Case พบว่า ระบบที่ออกแบบใหม่ตอบสนองความต้องการของผู้ใช้งานได้ดีกว่า โดยเปลี่ยนการทำงานโดยคน เป็นการใช้ระบบคอมพิวเตอร์ ผลงานวิจัยนี้จึงเป็นการออกแบบเบื้องต้นที่สามารถนำไปประยุกต์ใช้สำหรับ การออกแบบฐานข้อมูล การสร้างแบบจำลองของระบบ (Prototype) และพัฒนาระบบสารสนเทศฉบับเต็ม รูปแบบ

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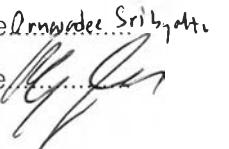
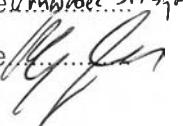
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The purpose of this research is to analyse and improve the business processes of the valuation company in order to deliver a design specification for information system development by using System Development Life Cycle approach. The selected methodology of this research is System Analysis and Design. It is used to plan for project, analyse current processes, find out the weak points, and design new system to fix problems. The scope of this research covers only the business processes improvement of the Valuation System which is core processes of the company.

Primary investigation, SWOT Analysis, Cause and Effect diagram are adopted as problem identification tools in system planning. It is found that there are improper processes and data in current processes that cause duplicated and unnecessary processes, and inconsistent and redundant data. The system is then analysed to find sources of the problems with the aid of the UML and IDEFØ diagramming. From the analysis, points that need to be improved are identified. The improved processes are designed to eliminate duplicated and unnecessary processes, and inconsistent and redundant data. The newly designed system is then tested with test cases. The new design has better response to users' needs by transforming a lot of manual processes to the compute. The result of this research is a primary design specification that is fit to use for designing database, creating prototypes, and developing full-scale information system.

The Regional Centre for Manufacturing Systems Engineering....Student's Signature 
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