

**SIMULATION MODELING FOR OPERATIONS IMPROVEMENT  
AT A LEADING BANKING HUB**

A thesis submitted to the Graduate School in partial  
fulfillment of the requirements for the degree  
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By  
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## ABSTRACT

This study focuses on the utilization of simulation software to model the process flow of a banking hub. It is aimed at analyzing whether the management's goal towards a better delivery standard is feasible, and if so, how it could be achieved.

Statistical analysis is carried out to ensure that the model built could represent the actual scenario. Having proved such, an analysis of the current situation is done and weakness identified – enabling determination of whether that the management's goal bound by their defined constraints is feasible or not.

Having proven that the goals are not achievable, further studies are carried out using What-If analysis and recommendations on other available options will be presented. Finally, future studies and recommendations on how the study could be better improved shall also be discussed.

Keywords: Simulation, Modeling.

## ABSTRAK

Kajian ini akan mengfokuskan kepada penggunaan perisian simulasi untuk membina sebuah model yang merupakan proses di sebuah pusat perbankan. Tujuannya ialah untuk membuat analisis samada matlamat pihak pengurusan boleh dicapai, dan jikalau boleh, bagaimana.

Analisis secara statistik juga digunakan untuk membuktikan model tersebut berupaya mewakili situasi sebenar. Selepas pembuktian, analisis secara mendalam terhadap situasi semasa akan dijalankan supaya kelemahannya dapat ditentukan, seterusnya untuk mengenalpasti samada matlamat pihak pengurusan boleh dicapai.

Setelah membuktikan bahawa matlamat pengurusan tidak boleh dicapai, penyelidikan selanjutnya pula akan dijalankan dengan "What-If Analysis" supaya alternatif yang lain dapat dikenalpastikan. Akhirnya, kajian lanjutan serta cadangan untuk meningkatkan keberkesanan kajian ini juga akan dibincang.

Kata kunci: Simulasi, Model.

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## **Chapter 1**

### **INTRODUCTION**

#### **1.1 Introduction**

SeaBank, one of the leading financial institutions in the world today has a global reach of more than 100 countries around the globe since 1997. Among its long list of world first, is the successful setup of their regional processing centers in various parts of the world. SeaHub is one such center in Malaysia that handles all transactions from all SeaBank branches in Asia Pacific. It was set up in the early 1990s to reap from the advantage of economic of scale via centralized resources of highly skilled staffs. It had been a major success in the industry term, where a lot of other banks had tried to follow suit since it does make a lot of sense coming from cost control point of view.

The last few years had many other banks doing the same thing, though not all were successful. With the many of them reaching the same level of competitiveness, SeaHub now has to embark on new initiatives that will help boost their “superiority” that they had long enjoyed. In this highly saturated market, SeaHub has to ensure that their initiative will far differentiate them from competitors and more importantly, will not incur additional cost as SeaBank does not anticipate any growth in business for the next coming year. And they have to act fast.

#### **1.2 SeaHub Operations and The Need for Efficiency**

SeaHub operation could be likened as a back-office of SeaBank. That said, it means that all customers going to SeaBank only sees the person at the counter (front office)

The contents of  
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