

**BUSINESS PROCESS MANAGEMENT (BPM) FRAMEWORK FOR GIRO
TRANSFER IN MALAYSIA**

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BUSINESS PROCESS MANAGEMENT (BPM) FRAMEWORK FOR GIRO
TRANSFER IN MALAYSIA

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A dissertation submitted in partial fulfilment of
the requirements for the award of degree
of Master of Science (Information Technology - Management)

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DECLARATION

I declare that this dissertation entitled “*Business Process Management (BPM) Framework for GIRO Transfer in Malaysia*” is the result of my own research except as cited in the references. The dissertation has not been accepted for any degree and is not concurrently submitted in candidature of any other degree.

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This thesis is dedicated to my son, Muhammad Aqil; my husband, Mohd Fariqe and my family.

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ABSTRACT

Interbank GIRO (IBG) is the only GIRO transfer in Malaysia provided by Malaysian Electronic Payment Sdn. Bhd. (MEPS). It is an interbank fund transfer system designed to handle a high volume of low-value payment transmitted from the originating bank to another banks (receiving banks). Currently, IBG is adopting batch processing where the electronic fund transfer can either be executed by job scheduler or manual human intervention. Almost everyday, there is delay from originating banks in submitting the IBG files to MEPS. At MEPS, the extension of time will result in non-efficient services and incur loss to the organization. This inefficiency service, thus impact the MEPS distribution processes to receiving banks as per MEPS's Service Level Agreement (SLA). Since the inefficiency caused by the originating bank, the alternative is for MEPS to reduce the processing time by streamlining and automating the processes at MEPS. This study identifies the effectiveness of Business Process Management (BPM) concept to solve the problem. Previous researches conducted have shown that it can solve some of the important key in monitoring, automating and improving the efficiency of the business process. A newly business process for IBG was developed to reduce the number of process, reduce number of resources, lower the risks of delay in submitting the IBG files to receiving banks and reduce the time for the whole IBG processing. To have a standard BPM implementation, a BPM framework is proposed to be applied by MEPS for IBG business processes. With this, it can cater continuous changes in IBG business process in future and achieve the organizational mission and vision.

ABSTRAK

Interbank GIRO (IBG) merupakan hanya satu perkhidmatan pembayaran secara GIRO yang disediakan oleh Malaysian Electronic Payment System (MEPS). Ia adalah sistem pembayaran di antara bank khusus untuk pembayaran secara pukal bagi pembayaran dalam jumlah yang rendah yang dihantar daripada bank penghantar ke bank penerima yang akan mendeposit bayaran ke akaun penerima pelanggan bank. Perkhidmatan ini dilaksanakan di MEPS secara berkala mengikut jadual atau secara manual oleh operator. Hampir setiap hari, terdapat kelewatan di dalam penghantaran fail-fail IBG daripada bank penghantar kepada MEPS. Kelewatan penghantaran fail IBG ini memberi kesan kepada MEPS iaitu tidak mengikut garis panduan perjanjian perkhidmatan dengan bank penerima. Disebabkan kelewatan ini berpunca daripada bank penghantar, salah satu alternatif yang boleh dilaksanakan ialah mengurangkan masa pemprosesan di MEPS dengan menambahbaik dan mengautomat proses IBG. Kajian ini mengenalpasti keberkesanan Pengurusan Proses Perniagaan (BPM) bagi menyelesaikan permasalahan tersebut. Penyelidikan terdahulu mengenai BPM menunjukkan bahawa BPM dapat menyelesaikan beberapa perkara penting di dalam proses pemantauan secara automatik dan meningkatkan kecekapan dalam satu-satu proses. Proses perniagaan baharu untuk IBG telah dibangunkan bagi mengurangkan jumlah proses, sumber dan risiko kelewatan dalam memproses fail IBG dan seterusnya menghantar fail tersebut ke bank penerima dalam tempoh yang lebih baik bagi keseluruhan proses. Untuk melaksanakan BPM, rangka kerja BPM dicadangkan untuk digunakan di dalam proses perniagaan IBG. Ia boleh menjadi petunjuk bagi perubahan yang berterusan di dalam proses perniagaan IBG pada masa depan bagi mencapai misi dan wawasan organisasi.

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LIST OF ABBREVIATIONS

IBG	-	Interbank GIRO
BPM	-	Business Process Management
TQM	-	Total Quality Management
BPR	-	Business Process Re-engineering
ROI	-	Return of Investment
MEPS	-	Malaysian Electronic Payment System
FI	-	Financial Institutions
OFI	-	Originating Financial Institutions
RFI	-	Receiving Financial Institutions
GIRO	-	General Interbank Recurring Order
KM	-	Knowledge Management
BPA	-	Business Process Analysis
ERP	-	Enterprise Resources Planning
CRM	-	Customer Relationship Management
SCM	-	Supply Chain Management
AIIM	-	Association for Information and Image Management
BPMS	-	Business Process Management Suites
BPF	-	Business Process Framework
ITIL	-	IT Information Library
SOA	-	Service Oriented Architecture
ESB	-	Enterprise Service Bus
HRM	-	Human Resources Management
eTOM	-	Enhanced Telecom Operations Map
SIP	-	Strategy, Infrastructure and Product
SAN	-	Shared ATM Network
FPX	-	Financial Process Exchange

ATM	-	Automated Teller Machine
IBFT	-	Interbank Fund Transfer
PKI	-	Public Key Infrastructure
NACHA	-	National Automated Clearing House Association
BPMN	-	Business Process Modelling Notation
CAB	-	Change Advisory Board
ERMS	-	Enterprise Risk Management System
BAFIA	-	Banking and Financial Institutions Act 1989
SLA	-	Service Level Agreement

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CHAPTER 1

INTRODUCTION

1.1 Introduction

In recent years, a lot of new technologies have become available for adopting the process-driven approaches. Researches on business process has been conducted for the objective of improving organization business process. People have heard about Total Quality Management (TQM), Workflow Management and Business Process Re-engineering (BPR), which have been implemented widely with each has important role and objective of improving business performance.

Until recently, the concept of Business Process Management (BPM) has gained major attention in the corporate world and can be considered as a successor to the BPR. BPM is introduced with the similar objective, that is to optimize business process performance in organization. It is now a hot topics discussed in the market as people tend to looks for new ways to master their unruly business process (David M. *et. al.* 2007). In order to compete business effectively in 21st century, many organizations consider BPM to be a vital strategic technology that has the power to decrease costs, increase productivity, provide high-quality customer services levels and realize a respectable return on investment (ROI) for their investment (Mark Travers, 2009). BPM also is considered to be the “next step” after the workflow wave (Young Gil Kim *et. al.* 2005). Forrester Research, Inc. defined BPM as

referring to the designing, executing and optimizing of cross-functional business activities that incorporate people, application systems and business partners (Forrester Research, 2008).

According to a Gartner BPM Survey of more than 50 companies, 78% of the firms reported an ROI of more than 15%. Majority of BPM projects are considered successful. In fact, according to a Gartner 2008 report in which the research firm surveyed organizations that had implemented BPM, approximately 95% of those questioned rated their BPM projects as successful.

As BPM has been use widely and proven successful, this project will explore the important of BPM and how BPM can be implemented to the organization business process that has been selected i.e. IBG business process.

Chapter 1 will focus on the objective, scope of the project, that need to be addressed and the importance of this project in improving organizational business process.

1.2 Problem Background

Nowadays, people are demanding a faster and convenience process to perform day to day activities. Organization is depending on information technology (IT) capabilities to meet this demand. IT was seen as the key enabler in controlling operations while also providing real-time information and analytical tools to continue the steady stream of product innovation required for success in business (Lynda M. Applegate, *et. al.* 2009).

When Interbank GIRO (IBG) introduced in 2000, it has provided a huge different on fund transfer process in Malaysia. The service allow fund to be

transferred electronically without raising physical documents such as cheque and bank draft.

IBG is one of services provided by Malaysian Electronic Payment Sdn. Bhd. (MEPS) for the financial services industry in Malaysia. It is an interbank fund transfer system designed to handle a high volume of low-value interbank payment with maximum up to RM500,000 per transaction. The IBG involves daily exchange of digitised transactions through MEPS IBG system. The IBG system is enabling participating Financial Institutions (FI) to transmit payments to each other. The concept is to debit one bank account and credit another without raising physical supporting vouchers (MEPS, 2011).

IBG is adopting batch processing where the electronic fund transfer can either be executed by job scheduler or manual human intervention. The whole process of IBG takes up about 2 hours from the time that the FI originate transactions to MEPS until the earliest credited to customer account. This process required peoples to execute the tasks whether from FIs or MEPS. Based from MEPS statistics it was found that almost every day Originating FIs are delayed in sending the transactions to MEPS. There were times that the delay is extended until 30 minutes. At MEPS, the extension of time will incur loss to the organization and resulted in non-efficient services.

Due to the delay from the Originating FIs, there are processes that still required human intervention:

1. Approval process at MEPS to allow the extension up to some duration. It involves the approval from the Head of IT and Business. Some cases, when the person to approve is not available or cannot be contacted, the processes to get other person to approve takes longer times.
2. Monitoring of the IBG files submitted by the Originating FIs done manually. The Operator at Data Center has a checklist to check at each of Originating FIs folder every working days.

3. Notification of the delayed files submission. As the Operator needs to check at each of Originating FIs folder, the notification to MEPS is done via email by the Operator.

Due to the above, it has impacting the MEPS distribution processes to Receiving FIs. The Receiving FIs will then receive the transactions late from MEPS as per the Service Level Agreement (SLA). This has caused the receiving FIs unable to do the crediting to the beneficiary faster and beneficiary not able to withdraw the money earlier. Many complaints received by the FIs and were then forwarded to MEPS. As it is cause by the Originating FIs, the other alternative if MEPS can reduce the processing time at MEPS's end for example from 45 minutes to 20 minutes. To achieve this, some of the process i.e. Approval, monitoring and notification processes need to be streamline and automated.

Realizing the complexity of IBG processes, a study on BPM is conducted with the purpose of searching for newtr5 approach and methodology on how to improve the IBG activities to meet customer demands in faster and convenience ways.

1.3 Problem Statement

This project will take a look at Business Process Management approach to overcome the situation.

This project is going to answer the following questions:

“How BPM can help to improve the IBG business process?”

“What is the BPM framework that can help to improve the efficiency of IBG business process?”

1.4 Project Objectives

Objectives of the project study are as follows:

- i. To identify the effectiveness of Business Process Management concept.
- ii. To propose new business process and Business Process Management framework that is suitable for Interbank GIRO.
- iii. To evaluate the new Interbank GIRO business process and Business Process Management framework.

1.5 Scope of the Study

There are 6 scopes of the study have been identified which are as follows:

- i. This project scope only cover Interbank GIRO business processing that runs in Malaysia.
- ii. The project will identify the areas of Interbank GIRO business processes at MEPS that need to be streamlined.
- iii. The Interbank GIRO business processes that will be identified involved at least one transaction (single transaction) between 2 FIs and MEPS.
- iv. This project will focus on the Business Process Management approaches and methodologies study and analysis.
- v. The proposed BPM framework will not cover the middleware software.
- vi. This project will not cover the real implementation of Business Process Management in IBG business process at MEPS Sdn. Bhd.

1.6 Importance of Project

Business Process Management has been proven in most of organization nowadays to improve efficiency of business process. Rob Rowe, System z BPM Marketing Manager, IBM Corporation in his paper provides examples of companies

that have implemented BPM and present the benefits they have gained for example, optimization and streamlining application work flow, automated the operations tasks and enhanced services to meet customer demand.

A study of BPM is believed will be able to improve the business processing in organization in Malaysia by exploring the Interbank GIRO business processes. Overall, the importance of this project can be stated as follows:

- To explore BPM methodology that has been used widely all over the world by the organizations.
- To understand on how BPM can connect people, process and technology and come out with better process.
- To able to know the benefits of BPM to the organization.
- To identify the approaches or techniques of implementing BPM.
- To improve IBG business process.

1.7 Chapter Summary

The goal of this chapter is to introduce the study area of Business Process Management with the selected business process i.e. Interbank GIRO (IBG) processing. The objectives and scopes are stated clearly to provide understanding of the purpose of the project. This chapter describes the importance of this study by addressing the problem background of IBG process.

The next chapter comprises the relevant literature review. It will cover BPM details, the approaches or tools that available and case study of successful BPM implementation by the organization.

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