



## Assessing the implementation level of business process reengineering factors in Malaysian Islamic banks

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### ABSTRACT

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The main objective of this study is to assess the level of implementation of BPR factors in Malaysian Islamic banks. BPR factors are operationalized by change management, BPR strategy alignment, customer focus, management commitment, IT investment, and adequate financial resource. The study used descriptive research design and data were collected using structured questionnaire. Simple random sampling technique was used and Sixty Four (64) questionnaires were administered in the Head Offices of Islamic Banks in Kuala Lumpur. A proportionate simple random sampling was used for sample selection of the respondent in the Headquarters of Islamic banks Malaysia. The data collected was processed for descriptive and inferential analysis. Frequencies and descriptive analysis was conducted to ascertain the implementation level of BPR factors in Islamic bank. The findings revealed that BPR factors such as Change Management, Strategy alignment, Management Commitment, Customer Focus, Information Technology (IT) Investment, Process redesign, Adequate Financial Resources, Less Bureaucratic Structure have a moderate means level. This impliedly indicated most of the respondents agreed that the BPR factors do have significance contribution towards the performance. The outcome of this study would provide important insights to both managers and researchers for further understanding on the implementation level of BPR factors in Malaysian Islamic banks. The study provided necessary suggestions on new area of research recommended for future researchers.

#### Keywords:

Business reengineering factors, Islamic banks, Malaysia

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## 1. Introduction

The progressive globalization of financial markets requires market participants to make changes to their operational processes beyond local to global competitiveness. This trend has led many banks in developing countries to improve customer service quality, speed, reduce operating costs, and enhance profitability performance. Innovative banking services and personalized portfolio

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management are evolving as the market consolidates due to mergers and acquisitions of up-to-date strategy. As a result, the focus is no longer on cutting costs alone, but rather on simultaneously improving services to customers. In other words, the processes must not only be more efficient, but also more customer-friendly as well.

Attempts are being made to adopt approaches in the financial sector that have proven effective in other industries, particularly those in manufacturing. One of these approaches is known as BPR. BPR is a major management approach that focuses on doing things in a better way that is clearer and easier to achieve a radical improvement on quality, speed, customer service, and reduction in cost. The focus of reengineering is on the process of redesign, which relates to doing things better and clearer. One of the primary goals of the financial service industry is to enhance processes and customer service performance through the management approach of cost reduction, improving quality, speed, and customer service for profit maximization. Therefore, management scholars argue that organizations can become proactive in operation by adopting the BPR to achieve a remarkable improvement in organizational performance [1, 2].

BPR is a popular management tool for dealing with rapid technological and business changes. It was introduced by Hammer, as radical redesigns of processes in order to gain significant improvements in cost, quality, and services. BPR creates changes in people (behavior and culture), processes and technology [3]. It does not seek to alter or fix existing processes, but forces companies to ask whether or not a process is necessary, and then seeks to find a better way to do it. BPR integrates all departments into a complete process that has been designed to fulfil a specific business goal. Hence, successful implementation of BPR enables organizations to achieve dramatic gains in business performance.

BPR helps banks to deal with new economic challenges and change the traditional processes to improve their customers' satisfaction. BPR is a management discipline for analyzing and redesigning current business processes and their components in terms of efficiency, effectiveness and added value to the objectives of the business. The conduct of the BPR steps is planned to gather and process business requirements in support of a modernization effort for a defined area. The BPR starts with planning activities that include the creation of a BPR team, the development of a BPR scope document and an examination of the proposal that relates to a given area, examines the existing and future business process and improves it accordingly. The successful implementation of BPR depends on how the project fits to the organization cultural norms, and IT.

Reengineering of operational processes undertaken in the bank should be handled by the project management expertise within the IT department. Therefore, this study uses the resource-based view (RBV) of the firm, to assess the level of implementation of BPR factors as resources to enhance the service-delivery process, produce new products, processes, strategy, and work faster, eliminate all communication barriers within the organization, and empower workers to link up with customers and suppliers to achieve the competitive advantage. Hence, this study core research question is to assess at what level does Malaysian Islamic bank implement BPR factors?

## **2. Literature Review**

### *2.1 Business Process Reengineering Factors*

Business Process Reengineering can be defined as "the analysis and design of workflow and processes within and between organizations" [4]. BPR has three key target categories: Customer Friendly; Competitive edge; Effectiveness and Efficiency at the managerial and production floor level. Besides these, the rapidity of technological change also promotes innovation and improvements in business processes. Through advanced technology, companies are able to diminish the time available

to develop new products and introduce them to the market. BPR factors in the present study have been adapted based on the scope of study and fit to the framework of the best practices of BPR in Islamic banks is shown in Figure 1. These BPR factors are essential elements to the successful transformation process in organization as discussed:

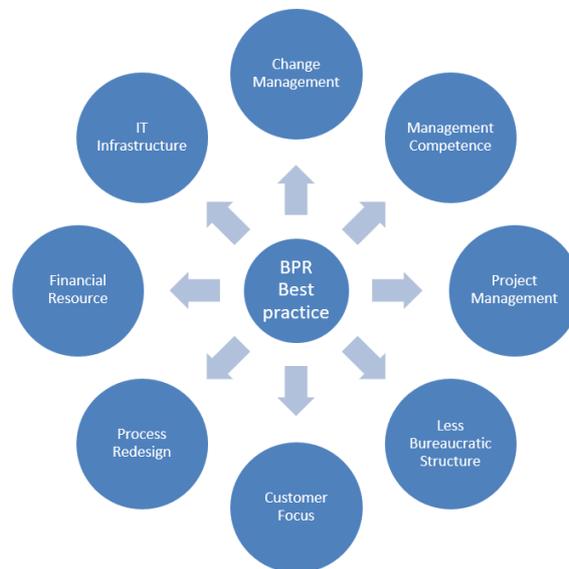


Fig. 1. The framework of the best practices of BPR in Islamic banks [5]

### 2.1.1 Change management

Change management is the discipline of managing change as a process, with due consideration that we are people, not programmable machines. It is about leadership with open, honest and frequent communication. It must be okay to show resistance, to voice issues, and to be afraid of change. Organizations do not change. People change, one at a time. The better one manages the change, the less pain one will have during the transition, and the impact on work productivity will be minimized. Terziovski *et al.* [6] argued that the key challenges for successful implementation of reengineering projects are changing attitudes and culture, ensuring extensive communication and dealing with resistance to change from middle management. Kok and Stanley [7] argued that change management can provide a good setting for fundamental change as a result of BPR implementation through the active involvement of people in redesigning the process for change [8, 9].

### 2.1.2 BPR project management

BPR project management refers to the extent of the alignment of project strategy with the corporate strategy, effective use of consultants, effective planning and project management techniques and adequate identification of values and performance measures of the project [10]. Successful project implementation is highly dependent on effective project management. New processes would be created to define jobs and responsibilities across the existing organizational functions [1]. Morrison *et al.* [11] clarify that strategic alignment is a method to understand the relationship between process and strategy. Other than that, strategic alignment is able to convince the organization to look forward for the future. Others researcher such as Cheng and Ida [12] found

there is no significant relation. It means that, to successfully manage Islamic banking, manager of banks should align all the process with BPR project to ensure there is under control.

### 2.1.3 Top management commitment

Top management commitment ensures that employees contribute towards the successful achievement in remarkable organizational performance as a result of the implementation of projects in the organization. A lack of commitment in organizations may result in a lack of resources and funding that terminates redesigning of the processes. The significant management commitment was proved based on findings result by previous researchers [12, 13]. Effective in management commitment toward the management teams of bank will influence the performance and managerial practices directly will affect the organizational success [14]. In other words, the commitment from top management will ensure that all of the employees to doing better and improve the banks performance. Top management leaders should have a clear knowledge about the company's situation. In addition, they should have enough knowledge of the project and a realistic expectation of the results [15, 16].

### 2.1.4 Customer focus

Customer focuses on the external orientation are based on customer research, competitive analysis, analysis of customer requirements on products/services, and firms that are able to meet customer demand to achieve a competitive advantage over their competitors [17]. Customer requirements and expectations should be defined and measured, and processes should be defined broadly in terms of customer values. An innovative organization requires customer involvement during BPR [18]. Organizations should gather information from their customers to drive the BPR projects. This helps them to recognize their customers' needs [19]. Previous researchers found that there is a strong relationship with performance of Islamic bank. The findings from Ringim *et al.* [20] demonstrate that customer focus does not directly influence the overall performance of banks in Nigerian setting. Also, empirical evidence showed that high level of customer loyalty does not lead to increase profitability [21].

### 2.1.5 IT infrastructure

This study defines IT infrastructure as the extent of the organization's expenditure on IT infrastructure, IT personnel training, IT consulting, IS maintenance, computers and software, effective alignment of IT infrastructure and building an effective IT infrastructure, proper IS integration, effective reengineering of legacy IS, increase IT competency, and effective use of software tools, which are the most important factors that contribute to the improvement of operational performance of a bank. Organization requires IT infrastructure because IT will integrate and connecting other department together and minimize the errors and will put the all system together [22-24]. By integrated and linked together, every process and activity will be solve it immediately. Furthermore, Akhavan *et al.* [25] stated that IT is very vital to help organization crafts and executes BPR as a strong technique in management.

### 2.1.6 Process redesigns

Process redesigns of the organization process orientation includes: appropriate level of process knowledge, documentation of existing processes, appropriate selection of core processes and use of prototypes are critical to process redesign that should have a direct impact on customer value and cost to help bank improve performance [26-28].

### 2.1.7 Financial resources

The recapitalization of banks was aimed at ensuring adequate financial resources for the banks to conduct their business effectively. The weak capital base cannot adequately provide a cushion for the risk of lending to entrepreneurs without collateral. BPR is normally an expensive project and requires a huge amount of money [29]. In order for BPR to happen successfully, the organization needs to have an adequate amount of funding, sufficient to implement change and to back up unpredictable circumstances.

### 2.1.8 Less bureaucratic (flatter) structure

The organizational structure should be flatter to enable BPR in terms of it encouraging creativity and innovativeness in the organization, as well as the need for less bureaucracy, and more participation and empowerment in the organization. McAdam [30] suggested that organizations could implement less bureaucracy to encourage innovativeness. It also supported by Hall *et al.* [31] and Peppard *et al.* [32] where, they are suggested ways to achieve successful results in BPR implementation by significantly changing the organization's structure, with emphasis on cross-functional work teams. Organizational structure should be flexible in order to avoid the failure of BPR implementation, as discussed in [33, 34].

## 3. Research Methodology

### 3.1 Research and Sampling Design and Data collection Strategy

This study used non-experimental design (survey), Probability sampling techniques using the quantitative method of administering the questionnaire and analysis. Using organization as the unit of analysis because this study focuses to measure the organizational performance [35]. The population of the study is the Islamic banks Headquarters (HQs) in Malaysia. A total population of sixteen (16) organizations are participating in the Islamic banking scheme (Islamic full-pledge & Islamic window of conventional bank) registered with the Bank Negara Malaysia. In this study, researcher were distribute four (4) questionnaire for every banks. In parallel with other researchers' opinion [13, 17, 36, 37] they are suggested to select multiple respondents to avoid bias, balanced the perspective of BPR variables, and concern with negative or positive feeling about the research topic [17]. Hence 64 questionnaire were distribute to all Islamic banks HQs. The target respondents are those who in the position of top managerial level which seems to be knowledgeable on the issues addressed and able to represent their organization. The respondents also have an experience and understanding about BPR [17].

In an attempt to get the completed questionnaire returned as quickly as possible, the hand delivery and collection method was chosen; which is expected to give a high response rate. Hand delivery and collection are an efficient method in an environment where a research culture is not sufficiently developed. For instance, research has shown that the rate of return of mailed

questionnaires is between 3 per cent and 4 per cent [38]. Furthermore, a representative sample in the probability sampling design guarantees the equal and independent representation of data being chosen.

### *3.2 Measurement Instruments and Operationalization of Variables*

Questionnaires are considered one of the most appropriate data collection instruments for survey research [38]. Hence, a structured questionnaire, which consists of closed-ended questions, would be used. However, in order to ensure the adaptation of the questionnaire was done properly, the researcher would conduct face validity before a pilot test of the instrument. The adapted questionnaire measures the level of implementation of BPR factors (change management; management commitment; IT infrastructure; less bureaucratic structure; project management; customer focus; effective processes redesign, and adequate financial resources) in Malaysian Islamic banks. The six-point type rating scale was used in measuring responses for the questions [39].

The questionnaire designed for this study would consist of two (2) main sections. Section A would consist of questions regarding the degree of BPR factor's implementation and consists of statements about the BPR factors, adapted and modified mainly from the findings of [24, 40, 41]. Section B: Demographic data asked about the personal and organization background of the respondents.

### *3.3 Data Analysis Technique*

Statistical Package for Social Science (SPSS) version 21.0 was used to process the data for cleaning and screening of outliers. Firstly, descriptive analysis is important to avoid any test which is violated. Descriptive analysis includes mean, range of the scores, standard deviation, kurtosis and skewness [42]. Next is validity. Validity analysis is applied by researcher to measure what are needed to measure [43]. Validity analysis can establish by insert data for factors analysis [35]. Validity is becoming the essential answer about how the social reality can be measure in line of arrangement of origin researchers. Fourthly, normality test is prerequisite for analysis and it conducted to ensure the survey is normal distributed [44].

## **4. Presentation of Results and Discussions**

### *4.1 Data Screening*

In this study only 42 of complete questionnaires from 64 or 65.6% provide feedback and successfully collected to be analyzed by the researchers. Nevertheless, the researchers were able to use 35 of questionnaires to be analyzed after the process of data cleaning. Pallant [42] also recommend that 30 set of questionnaire are acceptable to run the statistical analysis.

### *4.2 Descriptive Analysis*

Descriptive analysis had been applied in this study to perform frequency analysis and to determine the value of mean. At the beginning of this chapter, researcher was elaborating in details about frequency analysis. For a clear indication, a total of 64 questionnaires were distributed to executive level or top management in which represent Islamic banking HQs. However, the researcher only gained back 42 or 65%. At the end of study, the researcher only used 35 set of questionnaires to make an analysis after the process of data cleaning and elimination.

Frequency analysis was one of the important analyses in research development. Frequency analysis is being conducted to gain the total number of participation in this study with the differences of respondents' values and background. In Section four, there was seven questions that related to the demographic of respondents and background of their banks.

Based on 35 samples that successfully collected by the researcher, researcher can effectively analyzed the different demographic between respondents. Demographic information was divided into two categories namely personal information and BPR information. In term of personal information, the gender composition showed that 51.4% were male and 48.6% were female. The composition of gender is shown in Table 1.

**Table 1**  
 Composition of Respondents by Gender

Gender	Frequency	Percentage (%)
Male	18	51.4
Female	17	48.6

The next part was concerned about the implementation BPR result to reengineer their operation process. The respondents were answered either YES or NO. Based on the finding, all the Islamic banking in Malaysia were using the result from BPR to reengineer the operation process. Table 2 shows the detail of analysis.

**Table 2**  
 Composition of Respondents by BPR result as reengineer operation process

Years of Experience	Frequency	Percentage (%)
YES	35	100
NO	0	0

The following part is about the operation that management restructure in Islamic banking. In that part, respondent will answer more than one answers. The finding show that most of the Islamic banking restructure their operation process in term of Branch operations' (CSO and Teller). Table 3 shows the composition of the organization restructure.

**Table 3**  
 Composition of the organization restructure

	Frequency
Branch operations' (CSO and Teller)	20
Electronic banking service (ATM, POS)	8
Processes related to Islamic financing	4
International Operations (L/C, FX, etc.)	2
Other support services (FINCON, AUDIT and Legal)	1

With regards to the objectives of BPR implementation, the results show that, most of the respondents agreed that BPR will increased the revenues. While the lowest percentages (11.4%) received for item "Proactive approach to prepare the organization". The composition of respondents based on objective of BPR is shown in Table 4.

Next, the category of Islamic banking was divided into three categories such as Local Commercial Bank, Foreign Bank, Developmental Finance. Local Commercial Bank presented only 71.4%, while

Foreign Bank and Developmental Finance was 14.3%. All the composition of banking category is shown in Table 5.

**Table 4**  
 Composition of the Objective of BPR

	Frequency	Percent
Increasing revenues	11	31.4
Improving the quality of customer service	10	28.6
Reactive approach to competitive pressure	5	14.3
Reducing operating cost	5	14.3
Proactive approach to prepare the organization	4	11.4

**Table 5**  
 Composition of Respondents by the category of Islamic banking

Category of Islamic banking	Frequency	Percentage (%)
Local Commercial Bank	25	71.4
Foreign Bank	5	14.3
Developmental Finance	5	14.3

With regards to the job title, most of respondent is SM/MGR (14 respondent), Executive Director /General Manager (13 respondent), Head of Department (6 respondent) and the Deputy General Manager/AGM (2 respondent). Table 6 shows the Composition of Respondents by Job Title.

**Table 6**  
 Composition of Respondents by Job Title

Job Title	Frequency	Percentage (%)
Executive Director /General Manager	13	37.1
Deputy General Manager/AGM	2	5.7
SM/MGR	14	40.0
Head of Department	6	17.1

Lastly, respondent were answer about the size of organization. Size organization will divided into 4 groups. The result will show on table 7. The highest respondent come from 299 – 100 number of branches.

**Table 7**  
 Composition of Respondents by the size of banks

Job Title	Frequency	Percentage (%)
1000 – 500 number of branches	6	17.1
499 – 300 number of branches	9	25.7
299 – 100 number of branches	14	40.0
99 – 01 number of branches	5	14.3
Others	1	2.9

Descriptive analysis becomes the common and general trends in measuring the instrument in data analysis. Descriptive analysis is summarizing all of the data and explains what occurred on data samples. The full analysis of descriptive on this study is shown in Table 8.

**Table 8**  
 Summary of Descriptive Analysis

Items	Mean	Standard Deviation	Skewness	Kurtosis
<b>Dependent variable (DV)</b>				
Islamic banking performance	4.5667	.34715	.157	-.187
<b>Independent variable (IV)</b>				
<b>BPR factors</b>				
1. Change Management	4.6222	.38697	.135	-.129
2. Strategy alignment	4.7571	.51623	-.189	-.469
3. Management Commitment	4.7388	.49908	-.143	.402
4. Customer Focus	4.6357	.45107	-.185	-.430
5. IT Investment	4.6343	.43246	-.234	.132
6. Process redesign	4.5714	.36987	.222	-.307
7. Adequate Financial Resources	4.6238	.33661	-.058	-.732
8. Less Bureaucratic Structure	4.5543	.51125	.102	-.483

## 5. Discussion of Findings

In the light of this study, findings on level of implementation of BPR factors by Islamic Banks in Malaysia indicated that Islamic banks in Malaysia have implemented BPR. They have restructure their operations process in terms of branch operations (CSO and Teller Services) which was seen as a proactive approach that will translate into improving their revenue and improve quality of their customer services, as well as reduction in operating cost. The category of Islamic banking was divided into three categories such as Local Commercial Bank, Foreign Bank, Developmental Finance. Local Commercial Bank presented only 71.4%, while Foreign Bank and Developmental Finance was 14.3%. For a clear indication, a total of 64 questionnaires were distributed to executive level or top management in which represent Islamic banking HQs. However, the researcher only gained back 42 or 65%. At the end of study, the researcher only used 35 set of questionnaires to make an analysis after the process of data cleaning and elimination.

In addition, the finding on descriptive analysis in Table 8 shows that Change Management mean = 4.622, standard deviation of 0.38697 indicating that the Islamic banks in Malaysia have effective reward and recognition system that motive their employees. The employees were involved in the implementation of business process reengineering as their respective Management were open to suggestions for positive changes. The employees were empowered to initiate and recommend suggestions for processes improvement as a result of effective training and education of new in newly introduced operational processes in their organizations. There were effective communication from top to bottom and employees clearly understood the norms, values and organizational culture.

Strategy alignment mean = 4.7571, standard deviation of 0.51623 shown that the respective Islamic banks operating in Malaysia have aligned the BPR strategy with corporate policies of the institutions, staff were clear on the new initiative of organization process reengineering project as key performance indicators were established for each employee.

Management Commitment mean = 4.7388, standard deviation of 0.49908, indicates that top management of Islamic banks in Malaysia were totally committed throughout the implementation of BPR project in their organizations. They encourages process changes initiatives for competitive advantage from BPR Team and external consultants. The top Management of the Islamic banks in Malaysia were committed to employee's contributions to the organization achievement of remarkable improvement through business process redesign.

Customer Focus mean=4.6343, standard deviation of 0.45107 demonstrated that the Islamic banks used customers feedback to redesign their processes in order to meet their changing demand for new products and services. The Islamic banks were innovative and always find ways to add value to their customers need.

Information Technology (IT) Investment mean=4.6343, standard deviation 0.43246 shows the level of Islamic bank strategy for investment in Information Technology infrastructures purchased for hardware and soft wares for operational processes. The Islamic banks also, achieve high level of proper integration of I.T and make effective use of software tools.

Process redesign mean=4.5714 standard deviation 0.36987 indicated the level of redesign of processes for efficient service delivery and evaluation of operational process gaps in Islamic banks. Adequate Financial Resources mean=4.6238, standard deviation 0.33661 shows the level of capitalization for Islamic banks in Malaysia. The banks have sufficient reserve and volume of deposits that will attract customers for financing and investment. The organization strong capital base provides a cushion for the Islamic bank risk assets financing for Mudarabah, Musharakah and Ijarah products.

Less Bureaucratic Structure is mean of 4.5543 while standard deviation the value is 0.51125 demonstrated the Islamic banks level of bureaucratic structure that encourage creativity and offer equal involvement of employees representation in the decision making process.

Therefore the descriptive analysis of the BPR level of implementation indicated that the Malaysian Islamic bank implementation of level of BPR factors is satisfactorily and adequate toward the achievement of quantum improvement of cost and cycle time reduction, generation of more revenue and profit through effective and efficient improvement of work flow and transaction of Islamic banks.

## 6. Conclusions

Based on the finding on descriptive analysis, the mean for Islamic banking performance was 4.5667 and the standard deviation is 0.34715. While skewness for performance is 0.157 and for kurtosis is -0.187. While, the finding for BPR factors show that the mean for Change Management, Strategy alignment, Management Commitment, Customer Focus, Information Technology (IT) Investment, Process redesign, Adequate Financial Resources, Less Bureaucratic Structure is 4.6222, 4.7571, 4.7388, 4.6357, 4.6343, 4.5714, 4.6238 and 4.5543. While for standard deviation the value is 0.38697, 0.51623, 0.49908, 0.45107, 0.43246, 0.36987, 0.33661 and 0.51125. In term of skewness the highest value for BPR factors is 0.222 (process redesign) while for kurtosis the highest value is 0.402. Overall summary for mean, standard deviation, skewness and kurtosis as shown in table 8.

## 7. Limitation of the Research

For this study, several limitations have been pointed out by the researcher. The limitation of the study includes:

1. The study is only focusing on full-fledged Islamic banking and Islamic window of conventional bank without involved the norm of Islamic finance company under Islamic banking. The sample size is small and limited.
2. This study is just are cross sectional design where the survey is about the perception of respondent in a short time. This study can't prove the longitudinal relationship
3. This study only focusing on survey questionnaire method without combine with interview. The limitation to collect data is one factor that the result is not really strong.
4. The findings cannot be generalized in a larger context across the cultures of other countries, and business environments may give a different relationship between BPR factors and organizational performance.

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