Effect of Business Process Reengineering Factors on Organizational Performance of Nigerian banks: Information Technology Capability as the Moderating Factor

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Abstract

The objective of this paper is to examine the factors or dimensions of BPR that may influence the bank performance. Additionally, it also explores the implementation level of business process reengineering (BPR) in Nigerian financial institutions. A pilot test was conducted to seek these objectives. Instruments content and face validity, and reliability were examined through panel of expert in both academic and practice. The data received from the commercial bank departments was analysed using the SPSS software. The results show that the dimensions of BPR are reliable and valid. In addition, BPR implementation was found in various operations processes in Banks. The research is significant because it explores the level of BRP implementation in Nigerian banks and validates the instrument of various BPR dimensions in which most of these dimensions still need to be further explored.

Keywords: Factors of business process reengineering, Information technology capability, Organizational performance, Banks, Nigeria.

1. Introduction

The progressive globalization of financial markets requiredmarket participants to make changes on their operational processes beyond local competition to global competitiveness.This trend has led many banks in the developing countries to improve customer service quality, speed, reduce operating cost, and enhance profitability performance (Randle, 1995).Innovative banking service and personalized banking portfolio management are evolving as the market consolidates due to mergers and acquisitions of banks and 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 are not only must be more efficient, they also must be made more customer-friendly as well.

In doing so, attempts are being made to transfer approaches that have proven effective in other industries, particularly manufacturing, to the financial sector. One of these approaches is known as Business Process Reengineering (BPR). BPR is a major management approach that can focus on doing thing in a better way that is clearer and easier to achieve a radical improvement on quality, speed, customer service, and reduction in cost (Goll& Cordovano, 1993). Allen (1994) argued that, the focus of reengineering is on the processes redesign, which relate to doing things better and clearer. One of the primary goals of financial service industry is to always enhance processes that would improve customer service performance through the management approach of cost reduction, improve quality, speed, and customer service for profit maximization. Therefore, management scholars argued that organization can become proactive in operation by adopting the business process reengineering (BPR) to achieve remarkable improvement in the organizational performance (Hammer 1990; Davenport & Short 1990).

The process of merger and acquisition in Nigerian financial institutions have resulted these companies to undergo a radical improvement in their operations. However, studies that investigate the level of BPR implementation in this sector are still scarce. In fact, the level of BPR implementation after consolidation period in Nigeria remains unknown. Hence, the current study attempts to investigate the level of BPR implementation among Nigerian financial institutions.

Specifically, the purposes of this paper are: (1) toidentify the dimensions of BPR in Nigerian banks to be used for further research, and (2) to explore the level of BPR implementation among banks in Nigeria.

2. Methodology

Given the fact that this was a pilot study of an on-going research,samples of Nigerian banks and financial institution was randomly selected.The sample size of a pilot study is within a range of few respondents (15-30) but can be increased substantially (Malhotra, 2008). Hence, a total of 105 copies of questionnaire were personally distributed. A total of 100questionnaires were returned out of which 3 were not properly completed and were not considered for analysis. Prior to the distribution of the questionnaire, the draft copies were initially submitted to experts both academics and professionals for face validity and content validity respectively. Sekaran and Bougie (2010) argued that the most popular test of item consistency reliability is Cronbach's alpha coefficient. Hence, Cronbach's alpha test was employed in this study to measure internal consistency reliability of the instrument. The data was analyzed using SPSS version 14 for windows. The pilot test process was completed within the period of four weeks.

Questionnaire is considered to be one of the most appropriate data collection instrument for survey research (Askia, 1999). Hence structured questionnaire, which consists of closed-ended questions, was used. However, in order to ensure the adaptation of the questionnaire was done properly, face validity wasconducted before a pilot test of the instrument.The five-point type rating scale was used in measuring responses to the questions. Five-point rating scale indicates that interviewer bias tends to decrease and data quality tends to increase. The midpoint on the scale gives respondent independence and chance of expressing their views (Krosnick & Fabrigar, 1997). Many literatures found that scale between 5 to 7 points were more reliable and valid than shorter or longer scales (Krosnick & Fabrigar, 1997). However, Dawis, (1987); Garland (1991); and Hughes, (1969) suggested that the decision lays largely on the preference of the researcher and there can be no single best method in scale construction, one may be better for one research problem but not be good for another.
The key variables contained in the study are:
- Change management;
- Process redesign (Innovation);
- Use of information technology (IT); and
- IT capability.

All the construct/variables are uni-dimensional except the change management and I.T capability which are multidimensional and were measured accordingly. The detail of constructs and their corresponding dimensions is depicted in Table 1.

3. Results

There are various types of reliability test; the most common method used inmany studies is internal consistency reliability (Litwin, 1995). The Cronbach's coefficient alpha test was conducted to measure the internal consistency reliability. A pilot study was conducted and the result of the study is summarized in the Table 1. As mentioned earlier, to assess the reliability of the constructs, the average correlation (Cronbach's alpha) in the scale was used. The cut off point of 0.70 was applied as the basis of acceptance. The reason is that, in general, reliabilities less than 0.60 was considered to be poor, those in the range of 0.70 are acceptable and those over 0.80 are good (Sekaran, 2000). Cronbach's alpha can be considered as a perfectly adequate indication of the internal consistency, and thus of reliability (Sekaran, 2000). It is the generally applied indicator. The generally agreed upon most acceptable value for Cronbach's alpha is 0.70, although it may decrease to 0.60 in exploratory research (Hair, Black, Babin, Anderson, &Tatham, 2007). The results of pilot test show that the Cronbach's alpha of the construct ranges from 0.825 to 0.920. Since the result of the reliability was more than 0.70, none of the items was dropped from this pilot study. The reliability, the face, and content validity results have shown that the dimensions of BPR as listed in Table 1 is appropriate to be used for further research. The second objective of the paper is to explore the level of BPR implementation in Nigerian Banks. Analysis of the results of the level of Nigerian banks implementation of various reengineering operational processes in post consolidation period is shown in Table 2.

4. Discussion

The results in Table 2 indicated that the banks in Nigeria have been implementing business process reengineering on various operational processes. Specifically, the results showed that 78% of the banks has been implementingelectronic banking services such operational transactions of cash/cheques received and payment through ATM, POS, cards transaction and others; 67% of the banks studied have restructured and improved their operational processes as a result of the synergies of the consolidation of banks operational services streamline for efficient and effective service delivery;

61% of the respondentreengineered their credit risk operational processes of loan processes, consumer loan appraisal analysis, disbursement, administration and rendition of periodic returns to the regulatory authority was restructured using information technology software;while, 51% of the respondent confirmed to have redesign their domestic and international operational processes of transactions respectively. The restructuring of the local and internal operational processes involved some kind of innovations and value added services to the various processes such as cheque clearing and settlement, interbank transfers, remittances for payment of bills, fund transfers both local and international payment through Money Gram, Western Union Money transfer, Wire transfer through SWIFT and opening of letter of credit.

The above findings support the Central bank of Nigeria's (CBN) 2008 report. The CBN report revealed that Nigerian banks have successfully reengineered their operational service by deployment of various electronic banking channels including the globally secure chip and pin technology, point-of-sale (POS) and internet banking services. The e-payment horizon grew further in year 2008 as all its service segments recorded significant improvements. The development was traceable to a number of factors, including: 1) the deployment of more ATMs by the banks, 2) the adoption of bulk salary payments by many institutions, 3) an increased usage of debit cards and increased public awareness. POS transactions increased in both volume and value terms by 150.2%. The growth of this segment of the market was attributable to the increase in the number of institutions and merchants using the POS network for services, such as lottery tickets, airtime vending, bill payments, and funds transfer. In the same vein, the number and value of payments through the mobile telephone in 2008 improved by 630.3%.

The development was due to the increase in the number of banks offering the service, as well as the growing public confidence in e-payments. Web based (Internet) transactions increased significantly in volume and value terms by 77.3 and 135.8% as a result of the increase in the number of banks offering the service.The number of merchants accepting such payments over time had improved both in efficiency and security as there have been huge investments by banks in their e-business segments. The e-banking segment has witnessed tremendous growth in all payment channels (Internet, mobile banking, ATM and telephone banking) currently in use as is evident in the number of ATMs and POS machines deployed over 8,000 and 12,400 machines respectively. The usage and acceptance of these channels of payment will continue to increase across the country. The e-banking platforms have delivered increased profitability, improved customer loyalty, enhanced capacity of existing products and improved visibility to the banks (CBN, 2008).

5. Conclusion

The main purposes of this paper are twofold; (1) to identify the dimensions of BPR in Nigerian banks, and (2) to explore the level of BPR implementation among these banks. This paper has highlighted that those dimensions include change management,process redesign/innovation,use of information technology (IT), and IT capability. Additionally, it also provides evidence that the banks in Nigeria have been implementing BPR in various operational processes such as in credit risk, domestic, international, branches, and e-banking. The findings of this study may be used for further research in BPR especially in Nigerian banks.

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TABLES AND FIGURES

Table 1: Summary of the reliability analysis of constructs using SPSS version 14 windows

	Constructs	Dimensions	Number of items	Cronbach Alpha
1	**Change Management**			
	Reward and recognition	7	3	
	People involvement		3	
	Employee's empowerment		3	
	Training and education		3	
	Effective communication		3	
	Effective culture		3	
	Receptive to change		3	
	Total items		21	0.888
2	**Process Redesign/Innovation**	1	5	0.860
3	**Use of IT**	1	5	0.825
4	**IT Capability**	5		
	IT Business Partnership		3	
	IT External Link		3	
	IT Business Strategy Integration		3	
	IT Management		3	
	IT Infrastructure		3	
	Total items		15	0.920

Table 2: Summary of results on BPR implementation by Nigerian banks Analysis.

Type of BPR Processes in Banks		Frequency	Percentage	Cumulative Percentage
BPR1: Credit Risk operations processes:				
YES		59	60.8	60.8
NO		38	39.2	
Total		97	100.0	100.0
BPR2: Domestic operations processes:				
YES		49	50.5	50.5
NO		48	49.5	
Total		97	100.0	100.0
BPR3: International operations processes:				
YES		49	50.5	50.5
NO	Total	48	49.5	
		97	100.0	100.0
BPR4: Branch operations processes:				
YES		65	67.0	67.0
NO		32	33.0	
Total		97	100.0	100.0
BPR5: e- Banking processes:				
YES		76	78.4	78.4
NO		21	21.6	
Total		97	100.0	100.0