

## **Effect of Information Technology Outsourcing on the Performance of Banks in Kenya: Application of the Balanced Scorecard**

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**Purpose:** *The study sought to look at Information Technology Outsourcing (ITO) practices in the Kenyan banking sector and the effect it had on performance. Balance Scorecard was used to measure performance as it considers both financial and non-financial aspects.*

**Design/methodology/approach:** *The study took the form of a descriptive survey design with a target population of 14 commercial banks operating in Kenya. Primary data was collected from structured questionnaires and secondary data was collected from the banks past financial records.*

**Findings:** *The study revealed that Connectivity and Help desk support were the most outsourced IT functions in the commercial banks. The study also revealed the two main drivers for ITO were strategic focus and cost reduction. The main challenge the commercial banks faced during the ITO process was lack of a proper cost benefit analysis and loss of control. The study further revealed that ITO has a positive and significant effect on financial performance, learning and growth, customer satisfaction and internal processes.*

**Research limitations/implications:** *This study uses three financial firm-level performance measures ROA, ROE, NIM. The study also didn't explore if different types of IT outsourcing categories have different influence on banks' performance.*

**Originality/value:** *The findings of the study will provide insight for managers in banking industries when confronted with the decision of whether or not to outsource IT services in their banks. The study will also be of importance to researchers and future scholars as it will act as a source of reference besides suggesting areas for further studies that future scholars can research further.*

**Keywords:** *Commercial Banks, Balanced Scorecard, IT outsourcing.*

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### **I. Introduction**

IT Outsourcing is not a new concept, it has existed since around the 1980s when organizations began to explore the possibility of procuring their IT products and services from outside their firms and has grown swiftly over the past years (Choudhuri et al, 2009).

Today's global business is heavily dependent on Information Technology (IT). IT also enables business transformation; supports efficiencies and effectiveness in operations and also enable organizations to deliver flexible services in step with constantly changing customer demands (Maguire and Ojiako, 2008). However, IT has also brought problems to the organizations by way of increasing complexities in the management of information Technology systems, changing IT application tools and high investments required in its IT infrastructure (Han et al., 2008). The reality for most organizations is that the rate of technology change has been extremely fast thus organizations are committing a large amount of in-house resources and capabilities to cope with these changes. Such challenges make it difficult for some companies to invest in IT, resulting in a need to re-think their business models. One such approach which has proved popular over the last few years is to outsource IT which will ensure firms concentrate on core business competencies and at the same time avail of the latest technologies and practices in their IT domain.

Performance measurement and management has notably increased in the last 30 years (Valmohammadi and Servati 2011). Firms used to measure the organization performance using the balance sheet, income statement, and cash flow statement. The progress of focusing performance from merely a financial perspective to a non-financial perspective has intensified over the last few years as firms have understood that for competing in complex and continuously changing environments, it is compulsory to measure, monitor and manage organizational performance in its multiple dimensions (Taticchi et al., 2010). Practitioners have begun to look into implementation of balanced scorecard as means to overcome limitations of traditional performance measurement systems.

David Norton and Robert Kaplan developed the balanced scorecard after realization of the fact that, today's world requires organizations' to transform themselves for competitive advantage based on information and their ability to exploit intangible assets, rather than investing in tangible assets, (Kaplan and Norton, 1992).

## II. Literature Review

### Drivers behind IT outsourcing

IT outsourcing has experienced a remarkable growth in recent years. IT outsourcing was first driven by the firms' attempts to reduce or control costs and to focus on their core business, and then seen as a way to improve IT services, outsourcing is now a widespread phenomenon (Lee et al., 2008). Other reasons why organizations outsource IT include: cost savings, reduced capital expenditure, capital infusion, transfer fixed costs to variable, quality improvement, increased speed, greater flexibility, access to skills, talent and latest technology, increased focus on core functions, get rid of problem functions, better accountability and management. All these reasons can be classified into three major categories: cost, strategy, and politics (Kremic, et al., 2006).

### Challenges of IT outsourcing

Outsourcing is an inevitable and critical aspect of financial institutions to survive in a rapidly changing business environment (Qin et. al, 2012). However, it is important for the management to understand the various risks their organization gets exposed to while engaging in outsourcing.

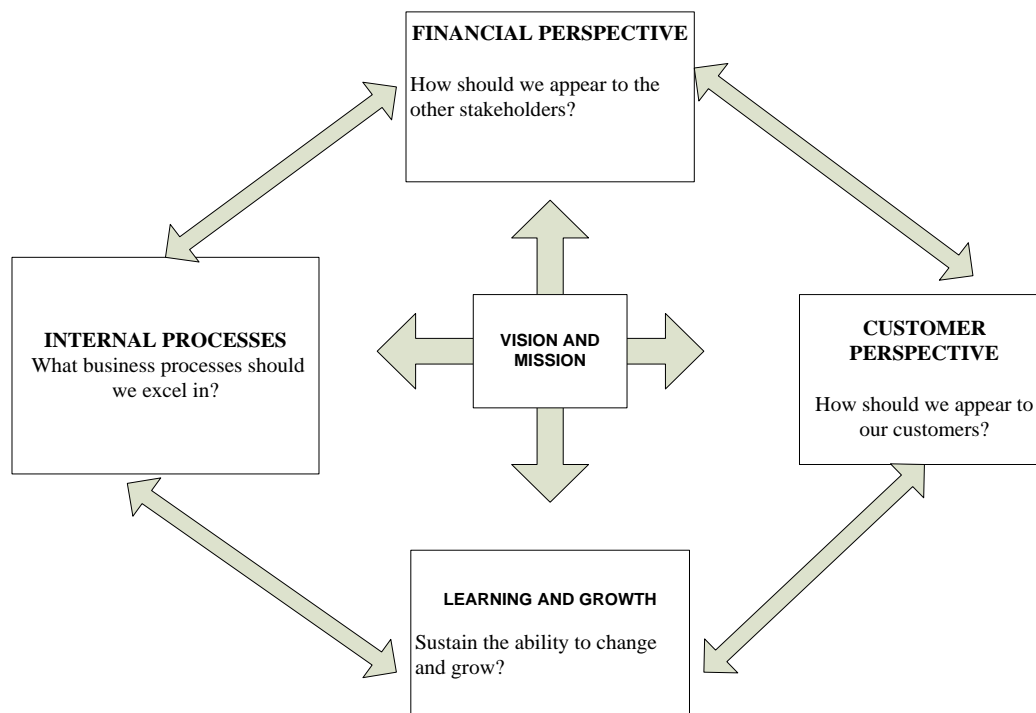
A case study found risks in contract management, performance measurement, formulating scope, deciding the budget and schedule estimates, knowledge/expertise, quality standards, scope, cost and time estimates, multi-vendor arrangements, and cross-culture issues as some of the risk associated with IT outsourcing (Dhar and Balakrishnan 2006).

### Outsourcing and organization performance

Effective performance measurement and management is acknowledged as a critical influence on outsourcing (McIvor, 2013). Outsourcing performance studies have considered mainly outcome-based financial indicators because of the availability of financial performance data (Giustiniano&Clarioni, 2013). To be sustainable, a firm needs to look beyond profitability and incorporate competitive, strategic, and stakeholder concerns which measure the non-financial performance of the firm.

### Balanced Scorecard

The balanced scorecard considers both financial and non-financial aspects for quality performance evaluation. It complements traditional financial measures by introducing three additional perspectives which are: customers, internal business processes, and learning and growth which are non-financial performance. The three additional perspectives are the drivers of future financial performance. According to Kaplan and Norton (1992) the sole reliance on financial measures in a management system, was inadequate. It could lead to behavior that promotes short term performance at the expense of long term competitive advantage.



**Figure 1.1:** Balanced Scorecard Model Kaplan and Norton, 1992

### Research Methods

The study adopted a descriptive survey design in order to obtain the necessary data. A target population of 14 licensed commercial banks was used. The study used primary data as well as secondary data. Primary data was collected using semi structured questionnaires developed and organized on the basis of the research's specific objectives. The questionnaire began with a short explanation of the nature of the research and its aim, as well as instructions for filling the questionnaire. A 5-point Likert scale was used in the design of the questionnaire. Secondary data was obtained from past financial record.

The collected data was first checked for completeness and accuracy then coded before being statistically analyzed using the Microsoft Excel and Statistical Program for Social Scientists (SPSS). Quantitative data was analyzed using Microsoft Excel spreadsheet while qualitative data will be analyzed using content analysis. Regression analysis was used as it provides a means of objectively assessing the degree of the relationship between the independent variables and the dependent variable

### III. Results

The research first objective sought to establish the various IT outsourcing practices which included IT functions outsourced by the banks, the ITO drivers and the challenges faced by the banks during the ITO arrangement.

#### IT services outsourced by the banks

Connectivity (97%) and Help desk support (55%) were the most outsourced service by the commercial banks. The other services outsourced by the banks included data center management, application management, IT security and ATM management (Figure 4.1).

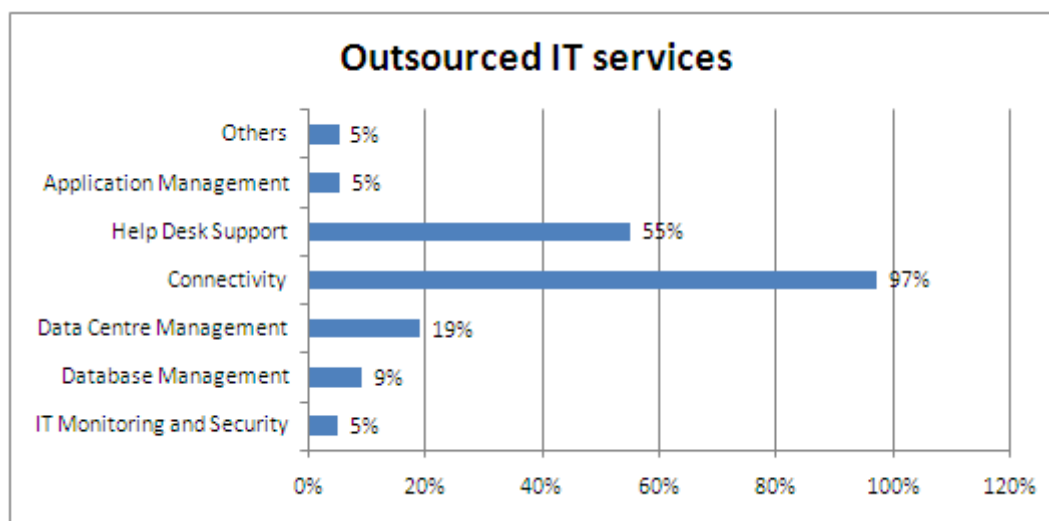
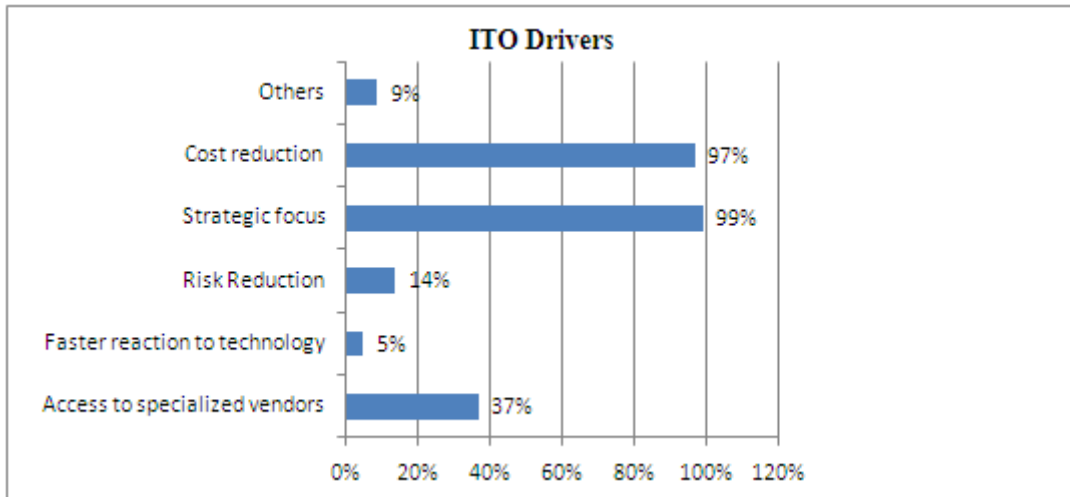


Figure 4.1: Outsourced IT services

#### Drivers behind IT Outsourcing in Commercial Banks in Kenya

The respondents were further asked to state the drivers for outsourcing IT in commercial Banks in Kenya.

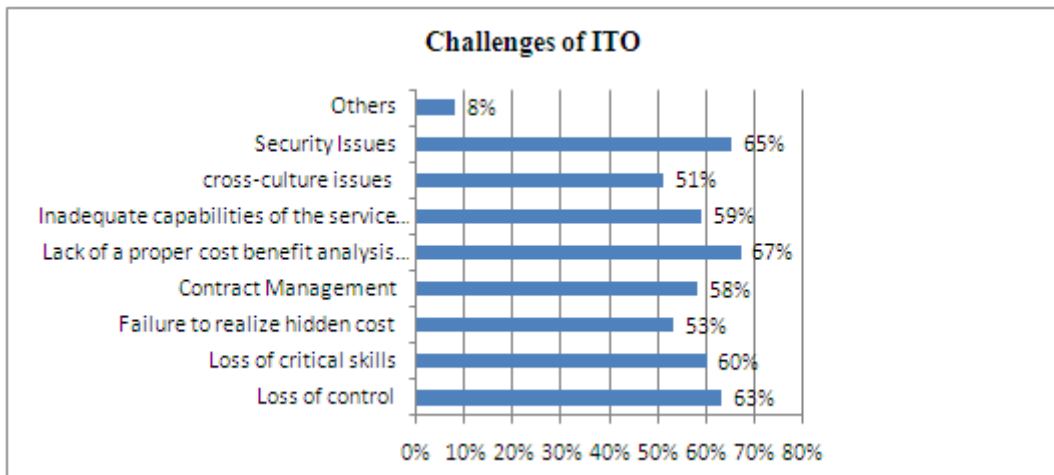
Most banks outsourced IT services for strategic reasons (99%), and cost reduction (97%), Access to specialized vendor (37%), risk reduction (14%) and faster reaction to technology (5%) as seen on Figure 4.2. Other reasons for IT outsourcing included improved quality and flexibility.



**Figure 4.2: ITO drivers in the Commercial Banks**

**Outsourcing Challenges Facing Kenyan Banks**

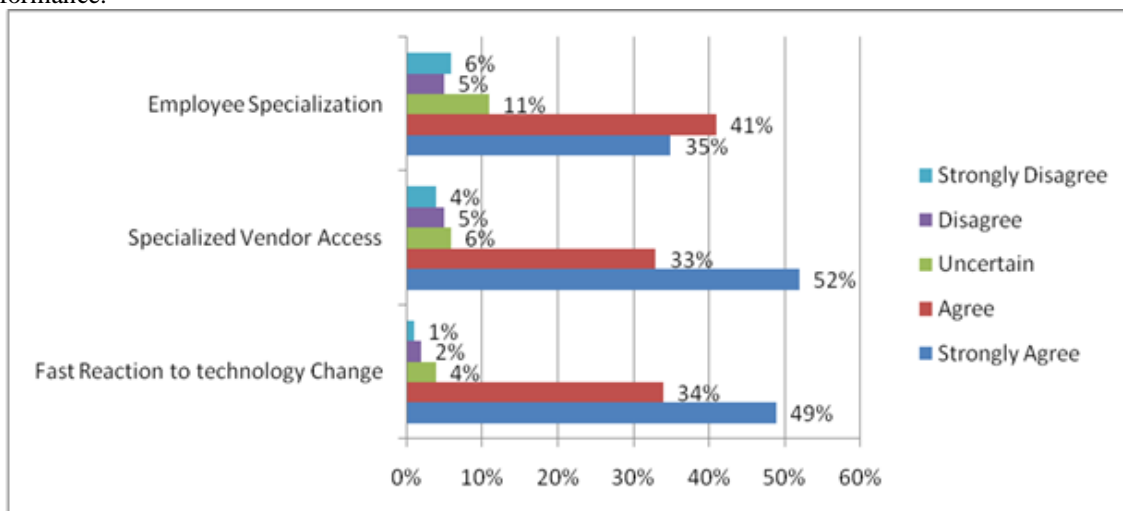
The study sought to establish the outsourcing challenges facing the commercial banks.



**Figure 4.3: Challenges of IT Outsourcing for Kenyan banks**

**Effect of ITO on Non-Financial organizational performance**

The second objective of the study was to establish the effect of IT outsourcing on non-financial organization performance.



**Non-Financial Performance: Learning and growth Perspective**

Majority of the respondents were in agreement that indeed, employee specialization (76%), specialized vendor access (87%), and faster reaction to technology change (83%) were effect of ITO on learning and growth. (Figure 4.4)

**Figure 4.4: IT outsourcing and learning and growth metrics**

**Table 4.5: Relationship between learning and growth perspective and IT outsourcing**

Correlations	IT outsourcing	
	N	131
Learning and Growth	Pearson C.	.519
	Sig. (2-tailed)	.429
	N	131

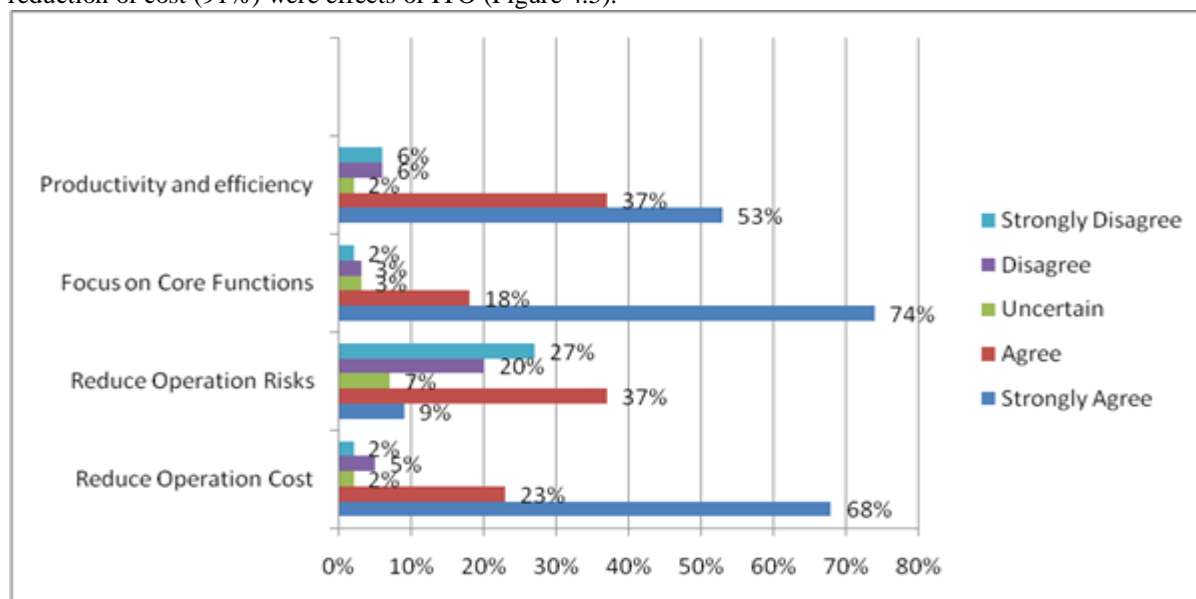
(Source: Research data)

A direct and positive relationship was determined between the learning and growth metric and IT outsourcing (.519). (Table 4.5)

Information technology outsourcing had a positive effect on learning and growth in the commercial banks. ITO brought about employee specialization, specialized vendor access and faster reaction to technology which directly affects the commercial banks value and increases performance.

**Non-Financial Performance: Internal Processes Perspective**

Productivity and efficiency (90%) focus on core functions (92%), reduction of operation risks (46%) and reduction of cost (91%) were effects of ITO (Figure 4.5).



(Source: Research data)

**Figure 4.5: IT outsourcing and internal processes metrics**

**Table 4.6: Relationship between internal processes perspective and IT outsourcing**

Correlations	IT outsourcing	
	N	131
Internal Process Perspective	Pearson C.	.533
	Sig. (2-tailed)	.398
	N	131

(Source: Research data)

A direct and positive relationship was determined between the above internal process perspective metrics and IT outsourcing (.533). (Table 4.6)

Based on the above findings information technology outsourcing had a positive effect on internal processes. ITO practices caused commercial banks in Kenya to excel in their core functions, improve efficiency and productivity which caused the performance of the bank to increase.

**Non-financial performance: Customer perspective**

Majority of the respondents disagreed that indeed customer satisfaction (56%) and customer loyalty (57%) were caused by ITO however others agreed that service availability (70%) was as a result of ITO (Figure

4.6). This confirmed the teaching by Mclovr (2013) who stated that dependency on a vendor could lead to significant risks in terms of poor vendor service quality, which in turn could harm the reputation of the client organization with its customers.

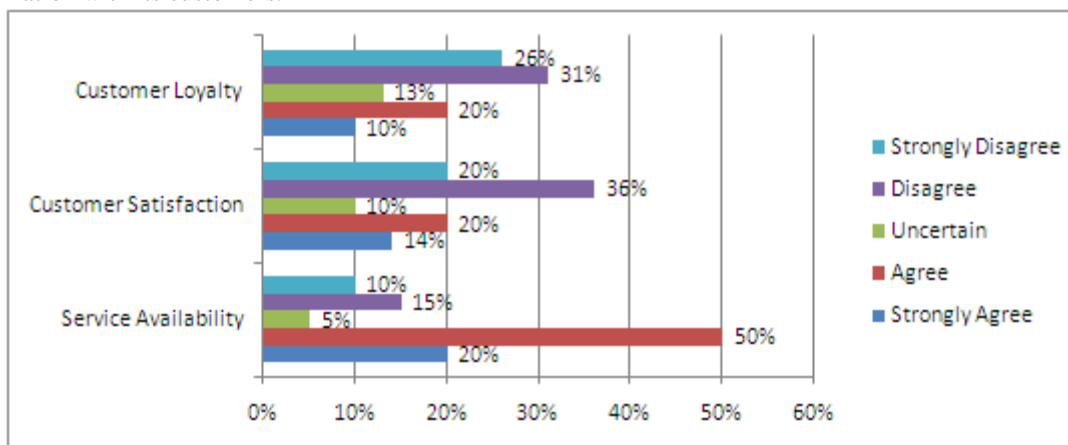


Figure 4.6: IT outsourcing and Customer perspective metrics

Table 4.7: Relationship between customer perspective and IT Outsourcing Practices

Correlations	IT outsourcing	
	N	131
Customer Perspective	Pearson C.	.256
	Sig. (2-tailed)	.645
	N	131

(Source: Research data)

A positive and weak relationship between the above customer perspective metrics and IT outsourcing (.256) was determined. This finding indeed indicates that IT outsourcing may not really bring about customer satisfaction, customer retention and customer loyalty in the Kenyan banking sector.

**Effect of ITO on Financial Organization Performance**

The third objective of the study was to establish the effect of ITO on financial organization performance.

The study revealed that there was a significant positive relationship between ITO practices and Return on Assets ( $r = .35^{**}$ ,  $p \leq 0.01$ ), a significant positive relationship between ITO and Return on Equity ( $r = .49^{**}$ ,  $p \leq 0.01$ ) and a significant positive relationship between ITO and Net Interest Margins ( $r = .34^{**}$ ,  $p \leq 0.01$ ). Table 4.9

A significant positive relationship between ROA and ROE ( $r = .41^{**}$ ,  $p \leq 0.01$ ) and a significant positive relationship between ROE and NIM ( $r = .42$ ,  $p \leq 0.01$ ) was established. (Table 4.9)

Table 4.9: Correlation Analysis

	1	2	3	4
IT Outsourcing-1	1.00			
ROA-2	.35**	1.00		
ROE-3	.49**	.41**	1.00	
NIMs-4	.34**	.40*	.42**	1.00

(Source: Research data)

**IV. Conclusion**

The study concludes that Kenyan banks outsourced various IT services which include helpdesk support, connectivity, ATM management, database management and application management.

IT outsourcing in the banking sector led to reduced operation costs, flexibility in term of technology change, enabled banks to focus and/or develop core competencies, and get access to specialized skill.

The study further concludes that indeed IT outsourcing was bound to bring about loss of critical skills, loss of control, inadequate capabilities of service providers, failure to realize the hidden costs generated by the contract, difficulty in obtaining organizational support, and inadequacy of cost and benefit analysis system if not well managed.

Finally it can be concluded that indeed IT outsourcing has a positive significant effect on financial and non-financial organization performance. It was also established that IT outsourcing led to profitability, cost reduction, service availability, faster reaction to technology, and access to specialized vendors, efficiency and increased ROE, ROA and NIM.

## **V. Recommendations**

In order for the banking industry to get the full experience in IT outsourcing the researcher recommends that the banking should develop better ways of managing the outsourcing arrangements. The selection process of outsourcing service providers needs to be critically re-examined to ensure that it leads to the selection of competent and effective service providers. The contracts need to be prepared well incorporating all required specifications; they should also be monitored effectively for compliance and performance. Maintaining a proper relationship between the client and vendor is also important as it ensure mutual trust and better communication.

### **Suggestions for Further Research**

Future study can investigate the IT outsourcing impact on the performance measurements using other financial performance indicators. It might be meaningful to know which type of IT outsourcing has the most impact on banks' performance, which can serve as guidance of the IT outsourcing practice in the banking.

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