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Business Strategic Alignment with Information Technology to Increase Organizational Performance: Study on Banking Sector

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ABSTRACT

IT-Business alignment has been consistently rated as one of the top ten IT management concern for last three decades. Theoretically, alignment can be defined as the degree of fit and combination between an organization's IS (Information System) strategy and business strategy. More precisely, banks operates in a strategic Information System environment, where the alignment between IT and business should be significantly focused on organizational performance. However, this study suggests that technological innovation, strategic alignment, human resources are not an isolated source of improvement, but part of a system which mutually-reinforcing organizational performances. This research followed quantitative approach and survey questionnaire, so therefore, all 46 Bangladeshi bank (excluding foreign banks) were approached, a total number of 40 observations were usable and giving the study repose rate of 87%, which utilized for subsequent analysis. For this research, different type of analysis has been done, such as Factor analysis, Multiple-regression, t-test, ANOVA, where finding of the study is, technological innovation, strategic alignment and qualified human resources on organizational performance was identified to have a significant impact on organizational performances.

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Introduction

IT-Business alignment is one of the top ten concern in IT management [1]. Strategic alignment between information technology (IT) strategy and business strategy is a vital and continuing theoretical challenge for the information technology discipline and for practitioners [2] [3]. Despite this concern, over many years and extensive research findings that alignment between business and IT strategy is positively correlated with organizational performance [4] [5][6] [7].

Last two decades, using technology in the organization become essential and inevitable to compete with the competitive business world. But after implementation of technological innovations a lot of companies face difficulties. The reason behind lack of management involvement is less experience and inadequate knowledge in computer software systems for the individual who work in the business department.

The lack of these factors may form a potential barrier to the gaining of benefits from organizations' investment in IT. As revealed in the preliminary study, lack of leadership of top management is a result of lack of communication. The communication that takes place is found to be only verbal and not adequate enough to identify requirements of the business department. Lack of communication between IS and other senior executives could lead to mismatches [8] between IS investments and business objectives. The study of Luftman etal [9] concludes that IT is a crucial enabler of alignment. Others mentioned that the leadership is a critical requirement for the position of Chief Information Officer or CIO [10]. They recommended that CIO should acquire technical and behavioral skills in order to enhance their IT-business alignment ability.

Many organizations are investing significant amount of resources in new innovation such as Enterprise Information system (EIS) or Enterprise Resource planning (ERP), but implementing such a composite information systems may improves the organizations performance is not yet well understood [11]. It is obvious that organization will expect that ERP or EIS will escalate firm's operational effectiveness (e.g., improve quality and productivity, decrease operational costs, increase flexibility and reliability) to achieve organizational performances.

Some studies propose that technological innovation is not only a single source of improvement, but part of a structure or group of mutually supporting organizational approaches. Then, the technological innovation alone does not lead to success. On the other hand, the firms require to accompany innovation with the best organizational practices [12] [13].

Literature Review

Many studies have been conducted on the alignment of IT-Business which basically in the form of normative dimension overlooking how alignment can be done. On the other hand, the literature on IT-Business deals with questions such as what is IT-business alignment, how does technological innovation, strategic fit and qualified human resources effect the organizational performance.

The alignment research underlined is expected to be strongly descriptive, but absence (lack) of alignment has been treated as an obstinate problem [14] [3] [15]. Undeniably, more than three decades investigations on IT management have consistently categorized as lack of alignment as one of the top organizational challenges [16] [5].

IT-business alignment and Organization Performance

Businesses today are facing an ever increasing competition both at the domestic and global front.

So, it becomes an essential necessity for organization, to understand the way to improve organizational performance. Some scholars [14] [17] [18] indicated the literature suggests that the firms could be competitive only if there is alignment between the IT and business in the firms.

Xia and King [19] stated that alignment has been considered as an organization wide concern that effects the organization's performance. Labovitz and Rosansky [20] reached the conclusion that strategic alignment is considered as an aspect of competitive advantage of the firm. Thus, business executives are continuously concerned with achieving strategic alignment. Papp [21] indicated that deploying IT to support business functions gives strategic benefit which is considered as the basis for continuous organizational performance. Raymond [22] mentioned that an organization can maximize its technology investment to gain coherence with IT-business strategies and plans by proper alignment, which usually equates to improved organizational performance and profitability as well.

Successful IT implementation refers to management's capability to comprehend, develop (improve if necessary), and exploit IT Applications. Successful IT implementation is utmost important for IT executives to enhance the firms' services and processes. IT and business professionals recognized the importance of understanding and appreciating the business tasks and objectives. They also identify the importance of constructive role which IT plays in affecting their organizational environment. Therefore, the potential relationship between IT and business is required that can be recognized by knowledge sharing, business strategy, and IT strategy. Thus, we declare the next hypothesis;

Hypothesis 1: "There are positive relationships between technological innovation and organizational performance".

Organizations need business strategy and business infrastructure to link with IT strategy and IT infrastructure to insure best strategic fit in order to gain organizational performance. So therefore, strategic fit plays an important role to increase organizational performance. So we declare next hypothesis;

Hypothesis 2: There has been positive relation between strategic fit and organization performance.

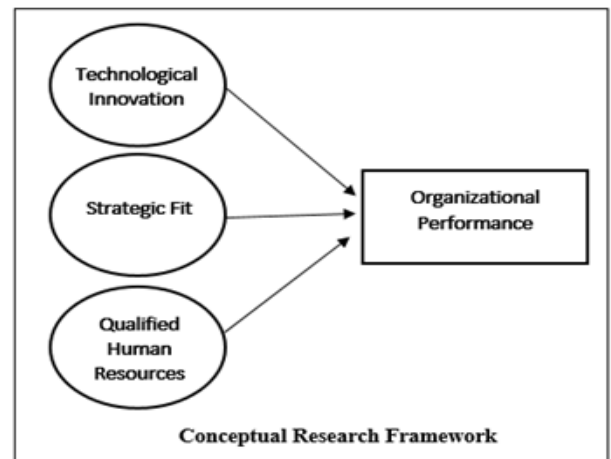
In order to successful implementation of information technology effectively and to obtain expected result from IT investments, corresponding resources such IT infrastructure is required. Similarly, IT members have to be highly skilled in order to face the firm's demands. Therefore, organizations have to provide appropriate training courses in order to get the maximum efficiency. Therefore, we propose our next hypothesis:

Hypothesis 3: "There are positive relationship between qualified human resource and organization performance."

Conceptualize IT-Business Alignment

In order to utilize IT properly, it must be used in a combination with complementary resources such as organizational structure, organizational resources or human resources [23] [24] [25]. Bresnahan et al. [26] suggested empirical evidence about the constructive effects of combining IT and organizational design to increase organizational performance.

Conceptual research Model



Data Collection

There are 46 Bangladeshi owned banks operating in Bangladesh. The target population of this study is higher management, manager, professionals who are working in IT sector or strategic position in the organization. Because higher management personnel usually do the strategy and decision making for the organization. Therefore, the higher management personnel, manager, professionals will be respondents irrespective of gender, race and religion through which the influence of information sources and personal factors can be examined.

All total of 46 Bangladeshi bank (excluding foreign banks) were approached. Out of 46, 42 agreed to participate and filled out. 2 participant's data was not sufficient or missing data. Thus, a total number of 40 observations were usable and giving the study repose rate of 87%, which utilized for subsequent analysis. Confidence level is 95% and confidence interval will be 5%. The respondent has given 5 point Likert Scale to categorize the IT-business strategic alignment.

Findings

The quantitative analysis (e.g. multiple regression) have been perform to test the hypotheses, this section extends the argument by presenting the results from hypotheses testing. Moreover, this section discusses the results regarding the strategic alignment and bank performance. In particular, unlike several researchers [27] [28] [14], who investigated some enablers on strategic alignment and its impact on firm performance.

First Objective

The first objective of the present study was to identify if technological innovation affect the organizational productivity. For obtaining this objective, one hypothesis was tested as follows. **H1** There are positive relationships between technological innovation and organization productivity.

Table 1.1. The Influence Of Technological Innovation on Organizational Performance (N=40).

Independent variable	B	SE B	β	sig
Technological Innovation	.283	.027	.420	.001
$R^2=.18$; $F=2.647$;				
Sig.=.001				

Note: B=Unstandardized coefficient beta; SEB=Standard error of regression coefficient; β =Beta Coefficient.

In the above result F value of 2.647 ($p=.001$), indicate that attitude is significantly influenced by technological innovation. The model explores that the independent variables is explaining 18% ($R^2=.18$) of the variation in organizational performance.

Moreover, it is noted that, technological innovation positively influences to the organizational performance (Sig. = .001).

Second objective

The second objective of the present study was to identify whether strategic fit influence the organizational productivity. For obtaining this objective, one hypothesis was tested as follows. **H2** There has been positive relation between strategic fit and organization productivity.

In explaining the details of second objective of the study, the influence of strategic fit on organizational performance are examined. Table 1.2 shows the influence of strategic fit on organizational performance. There is insignificant relationship between independent and dependent variables as the F-statistic ($F=7.1548$, $p>.002$). The R^2 value indicates that the strategic fit considers 21 percent of the variance in organizational performance.

Table 1.2. The Influence of Strategic Fit on Organizational Performance (N=40).

Independent variable	B	SE B	β	sig
Strategic Fit	.058	.187	.350	.002
$R^2=.21$; $F=7.1548$;				
Sig.=.002				

Note: B=Unstandardized coefficient beta; SEB=Standard error of regression coefficient; β =Beta Coefficient.

Third objective

The third objective of the present study was to identify qualified human resource affects on the organizational productivity. For obtaining this objective, one hypothesis was tested as follows.

H3- There are positive relationship between qualified human resource and organization productivity.

Table 1.3 shows the significant relationship between qualified human resource and organizational performance as evident by significant level (Sig. =.011; $*p<0.05$). It is indicating that there is positive relationship with independent variables and dependent variable. The level of significance shows qualified human resource is explaining 15.7 percent ($R^2=.157$) variance on organizational performance.

Table 1.3: The Influence of Qualified Human Resource on Organizational Performance (N=40).

Independent variable	B	SE B	β	sig
Qualified Human Resource	.468	.176	.396	.011
$R^2=.157$; $F=7.070$;				
Sig.=.011				

Note: B=Unstandardized coefficient beta; SEB=Standard error of regression coefficient; β =Beta Coefficient.

The quantitative analysis (e.g. multiple regression) have been performed as of shown above to test the hypotheses, which validates the significance of technological innovation, strategic fit and qualified human resources on organizational performance. Moreover, this section discusses the results regarding the strategic alignment and bank performances. In particular, unlike several researchers [27] [28] [14], who investigated some enablers on strategic alignment and its impact on firm performance.

Future Research & suggestion

Although the research findings validated the conceptual model, further examination is needed over a longer period. Therefore, a longitudinal research of the current research model is required in order to build a solid ground for the associations studied, and to strengthen the theoretical underpinnings of this study.

Furthermore, in order to achieve more validation of the research model and to achieve more generalized findings, further investigation needs to be conducted with an international perspective, developing the research model to take into account in other countries. This framework could be utilize in a comparative research between banking, insurance and services, sectors. However, the similar test could be used in different industries.

Overall, this thesis examined several hypotheses, and offered empirical support for the acceptance of some of these hypotheses, more overviews on the application of the theoretical premises in construct the research model will be needed to improve the alignment theory. This is to say, in future research, a more generalized research model that compensates for the limitations of current study, by adding further influential variables to the model, and by obtaining a more illustrative sample from different sectors, is required.

Conclusion

Finally, this study will deliver a better understanding of how academician and practitioner experience into strategic alignment, and turn its effect on organizational performance. Therefore, based on the research findings, the current research framework should be considered as a starting point for future research in identifying the best ways of realizing strategic alignment, so that firms can maximize the benefit from it. Since some of the research hypotheses were supported, and some were not, further research is clearly needed to reveal better insights into the nature of these associations. In conclusion, it is expected that the results and findings obtained from this research will improve the relationship between firms' IT and business managers, and in turn help to realize better sustainable competitive advantage.

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