

Challenges in Implementation of Information System Strategies in Saudi Business Environment: A Case Study of a Bank

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Abstract — The work presented in this paper aims to demonstrate the challenges in the implementation of Information System Strategy in Saudi based business environment in general and in a bank. To illustrate these challenges, this paper employs a case study and a survey to investigate the types of challenges in a bank. The paper then displays analysis and discussion of the survey results. Based on the responses, it presents some recommendations that may help to overcome these difficulties. The results strongly indicate that the management challenges between IT and business could be avoided if there were an adequate connection between IT and business.

Keywords — Information Systems Strategy (ISS), Challenges in implementation of ISS

I. INTRODUCTION

Information system strategies (ISS) play a major role at all the levels of the business environment. The functions of Information system strategies are responding to the business requirements by offering the appropriate information systems for all activities in business and ensuring the effectiveness of planning, and control of projects. Also, the successful implementation of Information system strategies provides a competitive advantage which leads to improving the outcomes, decrease the mistake, increase efficiency, and reduce unnecessary costs. In a today business environment with increasing internal and external changing, the business environment may face difficulties and challenges such as human or technical barriers which lead to misalignment or differences in performance between the business and information system strategies, and then this may cause a negative effect on the business.

This paper attempts to present a brief explanation of Information System Strategies (ISS) concepts, discusses the implementation of information system strategies and the challenges in its implementation, after that we will examine this study through a survey. Finally, we discuss the results and suggest some

recommendations that may help to overcome these difficulties.

II. INFORMATION SYSTEMS STRATEGIES

A variety of definitions of ISS have been raised in the literature. According to Wilson [1], he defined the information system strategy from the perspective of its role in business strategy as the analysis of the role that information systems do to help the companies or business in identifying a path to strategy competitiveness. Wilson also introduces another definition in the field of the ISS role in the future vision of IS in the organization. He defined the information systems strategy function to bring together the business goals of the organization and the implementation of computer systems. It is an improvement plan of systems to a future vision of the organization information systems. Another definition by Earl [2] he considered the information systems strategy as implementation strategies that intend to aligning the Information system development with the business requirements and investigate the competitive advantage from the information technology. Definitions of the ISS concept were relatively similar in most of the literature. Henderson and Venkatraman [3] defined IS strategy regarding three dimensions. First, information technology scope: the kinds and area of information systems and abilities. Second, systemic competencies: those unique characteristics of information technology competencies such as, higher system reliability, interconnectivity, and flexibility that participate positively to the creation of new business strategies or support existing business strategy. Third, information technology governance: choices of structural mechanisms as long-term contracts to get the required information technology abilities. Information system strategy is understood as a general plan (“master plan”) for the build-out of the organization’s information processing.

III. IMPORTANCE OF ISS FOR THE BUSINESS

In the today environment, corporates in various industries are dependent upon the information systems. Rockart [4] indicated the importance of the information technology as being an essential element for the continuing business. The organizations are not seeking for the technology using only to strengthen the current business operations. Furthermore, they are trying to develop new opportunities which will give them a competitive advantage. According to Hinton, M [5] identifies the importance of IS strategy for business: The different divisions of an organization while they can work properly regarding their objectives they are not working toward the aims of the organization due to the loss of collaboration between divisions, and sometimes the divisions objectives are going against the organization's objectives.

The organization sometimes have to allocate their major resources, basically for the new property development, product, and machines development. Information systems require a costly hardware also acquire design expense; all these processes require largely resource allocation, which is can not happen unless there is a unified orientation – a future strategy.

The organization is responsible for the owners who may be the shareholders or the public, the clients and employees. the groups mentioned previously have a distinct benefit in the strategy of the organization either by producing the benefits they require or by the degree the strategy has in taking their interests into account and the organization success toward in reaching their benefits.

A key outcome of IS strategy planning is a portfolio of IS that will support an organization in achieving its business goals [6]. The importance of the IT strategy varies between organizations and sectors and also it differs in the perceptions of top level management [7]. Chan & Huff & Copland [8] focused on the importance of the realized IS strategy which is the strategy reflected in the organization. In addition to intended IS strategy which is the official organizational strategy which was wrongly assumed as the only strategy of interest, their study suggests the importance to view the systems as support source for business operations.

IV. INFORMATION SYSTEMS STRATEGY FORMULATION

The proper strategy planning that clarifies the systems and provides managing concept to the systems is essential. Information systems strategies is a successful process to create information systems which enhance the business operations; We will illustrate some of the ISS formulation methodologies proposed in the literature.

A. "Three-Pronged" Model

A "Three-Pronged" Model for IS strategy formulation by Earl [2] is a considered model for IS strategy formulation. The three strategies are: (1) the clarification of business needs and their translation into IS requirements ("top down"), the evaluation of current ISS provision ("bottom up") and the identification of innovative uses and opportunities afforded by IT/IS ("inside out"). Earl argued that the three strategies could be used as alternatives or parallel according to some factors as the nature of the IT infrastructure, the organization structure and the level of development of the organization's main business systems. The "top-down" approach aiming to match IS capabilities to business needs, it defined the ISS requirements according to business plans and goals and used Critical success factors to establish information and system's needs; its insure the involvement of business management in the ISS formulation process. The "bottom-up" approach is to evaluate the current ISS capabilities, Earl says about it: "IS strategies are rarely developed from a green field site, but have to recognize the strengths and weaknesses of the current applications portfolio" Earl [2]. The "inside-out" approach identifies the opportunities of IS/IT that is lead to a competitive advantage or create strategic options. Earl claims that the third approach is necessary for the field of indication how IS or IT provide a competitive advantage because even the first two methods indicate that but the picture is still not complete. Earl suggests some ways for implementing strategic advantage through IT opportunities such as the following. First, utilizing the perspectives. Second, knowledge of sales. Third, the recruitment of "bright spark" staff that have had exposure to the latest IT/IS innovations and recent thinking on related concepts.

B. "Four Cycle Planning" Method

In the planning for the IS strategy, some researchers recommended the comprehensive process whereas the plans are complex and highly integrated with the overall strategy. While the other recommended the incremental and informal process while plans are simple and loosely integrated with the overall strategy to achieve IS planning objectives, although many of the studies were successful, some of them lost the participation and experienced inferior implementing of the plans Salmela & Spil [9] reached to the new idea that is combined the comprehensive and incremental planning approaches to achieve better results than applying one approach. They called it the four-cycle planning method that is divided the chosen period into four planning cycles. Each period focuses on the fit of external developments with internal possibilities; the first one is: agreeing on planning

objectives, this cycle comprised of three planning process which is assessing the past planning outcomes, framing the planning scope, determining the objectives, determining contributors and modifying the planning methodologies. The second cycle is merging business and information objectives, this cycle done by reading the current plans, information sources, and documents, doing technology and business analyzes and merging business objectives with IS plans. Whereas the third cycle is analyzing IS resources and IT infrastructure, this cycle also contains three planning process, designing ICT infrastructure, designing the ICT organization, and creating the initial project portfolio. The last cycle is authorizing actions; it is combining with their process, identifying organizational implications, defining criteria for decision making, authorizing final decisions. The objective of the method is to facilitate the managers in the implementing a continuous planning process the process is flexible in choosing the appropriate planning process. The method is a convenience for both managers who preferred the incremental or informal IS planning. They can design the plan to meet the minimal requirement managers who choose to the apply the broad approach. By conducting deep analysis in the different planning cycles, the key difference between this method and the comprehensive approach is the continuity and repetition, which allow assessing the planning method periodically.

V. SUCCESS FACTORS IN IMPLEMENTATION OF ISS

Strategy implementation has less attention in the research than strategy formulation or strategy planning and many textbooks perceived it as distinct from strategy formulation, however, that seems limited [10], they are both an interrelated process to achieve the competitive advantage objectives of the organization. Researchers indicated that if the planned strategies match the realized strategy which both aim to reach the organizational vision the strategy will be considered successful and will implement successfully. The key success factors should be determined to guarantee the success of IS strategy implementation [11]. Arvidsson & Holmstrom & Lyytinen [11] suggests some challenges to successful IS strategy implementation in their research as the following. First, to perform ideal aligning of the strategic purpose with the system capabilities. Second, to achieve the system implementation in the overall organization. Third, to form the system usage and the exercise related to it toward the alignment objective with the strategic purpose. Cutting-edge information systems strategies unusually occur by accident. IS managers have the responsibility for improving IS strategy and managing the daily IS operations of the organization.

Moreover, cooperation between different part of business, real assistance between the system provider and the end-user, and establishing the project team members with the appropriate skills for the proper job are important success factors in the implementation ISS [12]. What is important here, the IS strategy should determine according to the requirements of the business in the organization, not to the technology availability.

VI. RELATED WORK

As the challenges associated with the Information Systems strategies, the implementation did not take much space in the previous research. The most of the early researchers in the area of the ISS were concentrated more on the formulation and implementation methodologies of the strategies. As in Chin-Fu Ho [13] he developed a model for a strategic alignment between manufacturing and IT departments with multiple stages to overcome the difficulties associated with IT implementation in manufacturing organizations. He highlighted the strategic change nature that the organization must understand through the proposed model to reach to the successful implementation. Also, suggested working as an assistant to the managers in identifying challenges and managing IT while perceiving it as a strategic resource. In the same direction Salmela & Spill [9] also proposed a model named (four cycle method) that divided the planning period into four different cycles, composed of comprehensive, incremental IS planning processes in one model with a continuous process to encounter emerging circumstance, enabling the evaluation and reformulation of the plans. While for identified and investigated the development and implementation of the ISS in the small and medium companies. Wynn [14] study was conducted through a qualitative research in 8 organizations using Earl three models for strategy development to assess the development and implementation of the IS strategy in each company. The finding shows that all three Earl models have proved its success in implementing companies, no one outperformed the other in term of the performance. Also, indicated that the determination of the best approach for one company should depend on its circumstances. The study concludes with recommending the other small and medium companies to utilized finding of the survey to work the same way to develop their IS strategies, adopting mid to long term IS approach and aligning it to the business plans.

On the other hand, there are vital of researchers discussed the challenges faced the implementation of the information systems in different sectors including management information systems [12, 15] and Health and hospital information systems (HIS) [16, 17]. In

the field of MIS, Badragheh et al. [15], examine the challenges of applying IS in the agricultural extension and education organization in Iran through assessing a multiple factors through interviews and surveys, including management obstacles, technical and substructural obstacles, organizational culture obstacles, educational and others, results find that the management was most important factor regarding the challenges in applying MIS. In the same area of research, Kornkaew's master thesis [12] examined the challenges and success factor associated with implementing MIS. They utilized a case study of Fenix system, along with the impact and consequences of the MIS implementation on the organizations. The information was collected from the internal document in Fenix and by interviewing people involved. The main challenges in their results were administration, management and people problems. Their main finding was that the implementation of MIS project should take place with more concentrate on the project team, another finding was explained that most business process affected by implementing the MIS were those who have the changing nature as routines, instance jobs, and so on. Moreover, in HIS, the human and technical factors in Saudi Arabia may work as an obstacle in implementing of ISS also, to train the users to deal with the system. Khalifa [17] conducted a study for the purpose of evaluating those two factors in two Saudi hospitals (private and government) implementing HIS to improve HIS in Saudi Arabia and developing countries by providing plans to overcome the challenges. Lack of software and hardware updates which slowing their performance highlighted as some most technical difficulties. Furthermore, the human challenge, motivation, knowledge, experience, and learning or training the health professionals on the use of HIS were the core challenge regarding applying HIS in Saudi Arabia. The difficulties and concerns were affected the government hospital more than private, regarding the old systems, and lack of professional experience. To improve HIS implementation, the study recommended adding HIS training course to the under and post-graduated medical students to increase their awareness, also to improve the hardware and software through continues updates, enhancing the system usability through various ways. Jørgen et al. [16] investigate the issues raised in the pilot implementation of HIS, which is used to examine the design and implementation of the new HIS before its actual development. On the other hand, the study depends on a use case of failed pilot implementation of Electronic Pregnancy Record (EPR) in Denmark. They discussed major failure reasons which are the inability to defined the scope, failure to deal with the new technical problems, lack of users and managers commitment, they concluded with the importance of

the pilot implementation in implementing HIS, although of the difficulty associated with it.

From the side of the Information Systems strategies implementation challenges, Wilson [1] studied the aims and barriers to successful implementing information systems strategies particularly in financial sectors of UK companies that applying ISS to view to which extent UK companies adopt the strategies of the information systems development with another objective regarding the IS strategy implementation aspects. He conducted his study through interviews and questionnaire containing questions about the strategy implementation. His findings proved the successful implementation of ISS in the UK companies that examined in the study, resulted with 59% view their strategy success as reasonably successful, and by ranking companies with Time 500 rank. The results showed the companies with rank less than 300 appear to be more satisfying with their strategies than companies on the upper rank. The respondents asked to rank many factors in the study, the ranked of obstacles vary between the setting up strategy, and its implementation, measuring benefit appear to be the most challenge when setting up the strategy, and difficulty in recruiting the suitable staff as a most challenge on the stage of the strategy implementation. Yeh et.al [18] conducted an empirical analysis to examined the impact of the information systems capability on the e-business information system and how IT strategy implementation will affect the business performance through a survey distributed to the chief information officer in 1000 companies in Taiwan. However, leadership and IT resources allocation capabilities appear to be the most capabilities affected the implementation of the IT strategy at the individual level, while in the group level capability, collaboration and knowledge sharing capabilities were the most affected IS capabilities. Finally, the system development and team management capacities were the most impacted in the organizational capabilities.

While the little of the work has been done in the field of examining challenges facing the information systems strategy especially in Saudi Arabia. This work will contribute in the area of challenges implementation of information systems strategies in a bank in Saudi Arabia, by collecting the most challenges appeared to have negative influencing on the strategy implementation from the literature and examined it's influential power in a bank in Saudi Arabia. We will introduce those challenges and obstacles in details in the next section.

VII. CHALLENGES IN IMPLEMENTATION OF ISS

Many issues may happen during the implementation of ISS. These problems can be

noticed in each step of the development ISS. They impact the planning, designing, and implementing of information systems in organizations.

A. Management Challenges

The information system has to provide an approach to work with the different issues and to aware of all information management aspects. According to a questionnaire developed by A. L. Lederer and V. Sethi [6] they found that over half the respondents said the implementation issues is an extreme problem. It means that once the plan of IS strategy was developed, they need to persuade top management to approve the suggested systems development. Sometimes senior management may lack to understand the purpose or may not trust of the IS strategies capability to carry it out. Therefore, recommends that executives should examine its responsibility to implementing the plan before also confirm the time and budget required to develop the ISS.

Some of the challenges facing management today are the need to align its information systems strategy and business strategy. Identification of the IS gap between where the organization is and where it want to be in the future. The organization should develop a plan to solve the question “How will we get there?”

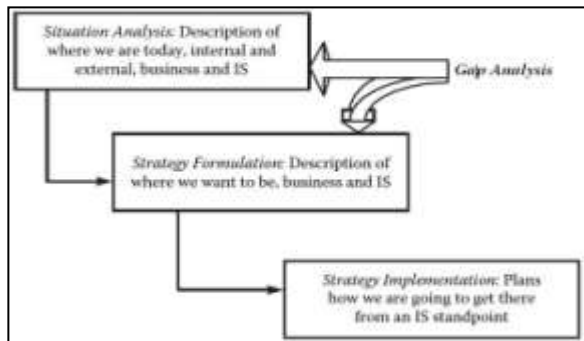


Fig 1: Gap Analysis [10]

as shown in the Fig 1 bellow. Aaltonen & IkaEvalko [10] mentioned the problems faced the strategy implementation in general that is weak management roles in implementation. According to Master’s Thesis by Artit Kornkaew, the implementation challenges can be divided down by effect type, and they can be categorized into some difficulties such as management issues including the operations of an organization such as budgeting, personnel, and general management. According to Roodsaz & Behrooz [19], they found Management obstacles one of the most factors such as lack of internal communication channels, weakness top managers support in the improvement of the information system. Therefore, there is a need for development an

effective relation with senior executives in applying information system. Changes the top management staff and replacing them will reduce the concentrate and assistance to the system success.

B. Human Challenges

Human issues are the issues relating to every person in the company or organization [10]. Human obstacles barriers are stated by Wilson [1] while he distributes a survey to 500 companies that implement IS strategy to rank the obstacles. The results showed that the challenges in the lack of resources to engage in user-education, inability in recruiting appropriate staff, and Inability to employ experts who suitably accomplish the information technology activities, the most reasons that caused ISS implementation failed. The obstacles of the ways that fulfill the expectations of users also one of the important challenges that may occur [11]. Lack of computer skill was equally identified as a key challenge and major difficulty to the development of IS. There is a lack of general computer skill amongst the employee of the organization. Most of the older employee displayed a lack of interest and willingness to learning computer skills which have a high negative impact on the operation of the organization [20].

C. Technical Challenges

Technical systems challenges are the issues relating to the hardware and software aspects of the information technologies [10]. Also, barriers that may exist such as telecommunications issues Wilson [1]. Another factor that was identified by Ossai et al. [20] as a challenge to IS development is infrastructures (hardware and software), also the difficulties of the migration from old to the new system or upgrading previous systems is a major challenge.

D. Environment Challenges

Organizational environment challenges are identified as factors which are less visible and uncontrollable environmental factors such as organizational culture, change, behavior, inadequate capabilities, poor coordination and distribution of responsibilities, competing for activities and unaligned organizational systems and resources [10]. Other barriers that had a less importance were Existing Political conflicts, lacking a commitment to the strategy, middle and senior management attitude involving the interaction and direction of the organization executive, misunderstanding or confusion of the strategies and doubts about benefits Wilson [1].

E. Time Challenges

Roodsaz, H, et al. (2013) mentioned many factors may contribute to difficulties such as lack of proper analysis of time. Extend the time of planning or implementing the system may lead to canceling the whole project because the strategies might be modified in that period or changed in needs of users, this situation can do an inefficient project. Arvidsson et al. [11] addressed the challenges facing the IS strategy implementation that is the ability to implement the system on the established time and with the less amount of risk. From the same vein, Ossai et al. [20] reported that only 16% of all projects are delivered on time and within their budget.

VIII. A CASE STUDY OF A BANK

To understand better the difficulties that may occur during the implementation of Information systems strategies, we have derived the challenges from the reviews of the previous researches we have mentioned in section 6. A case-study research designed in a bank is presented with a questionnaire; respondents rated the extent to which they had encountered each of the problems above by measuring the challenges depending on them. The name of the bank has been kept confidential on the request of bank as per their strategic policy. It is importance according to a scale from (1-3), while (1) indicates the most influencing challenge, and (3) indicates the fewer ones. In this study, categorizations of information system issues that mentioned in section 6 will be the frame of study regarding challenges that an organization faces when a new information system strategies are implemented. The difficulties/challenges that considered in the questionnaire as the following:

Management Challenges

1. Lack of top management commitment to the strategy implementation.
2. Weak management roles in implementation.
3. Lack of top management support in creation and implementation of the system.
4. Changes / replace senior management.
5. Poor coordination and sharing of responsibilities.
6. Lack of communication.

Human Challenges

1. Failure in employ professional persons
2. Difficulties in employing suitable staff.
3. Lack of resources to participate in user education.
4. Changing needs of users.
5. System inability to fulfill the expectations of users.

6. Lack of knowledge of the people (employee) on the system

Technical Challenges

1. Difficulties in transforming and re-configuring business process to suit with IT system.
2. Technical difficulties.
3. Lack of requirement for information system
4. Upgrading previous systems is a major challenge

Other Challenges

1. Difficulties in alignment between business strategy
2. Inability to implement the system strategy on time.
3. Difficulties of measuring benefits.
4. Expenses for changing to the new system
5. Lack of software and hardware budget

A. Analysis of Results

Based on the received questionnaire results, the following table displays the detailed results of participants.

**I. TABLE 1
ANALYSIS OF SURVEY RESULTS**

S/N	Challenges	Likert Scales		
		Major (1)	Minor (2)	Insignificant (3)
	Management Challenges			
1	1. Lack of top management commitment to the strategy implementation	56%	42%	3%
2	2. Weak management roles in implementation	72%	22%	6%
3	3. Lack of top management support in creation and implementation of the system.	67%	25%	6%
4	4. Changes / replace senior management.	56%	39%	6%
5	5. Poor coordination and sharing of responsibilities.	50%	47%	3%
6	6. Lack of communication.	44%	50%	6%
	Total	58%	38%	5%
	Human Challenges			
7	1. Failure in employ professional persons	31%	38%	11%
8	2. Difficulties in recruiting suitable staff.	22%	53%	25%
9	3. Lack of resources to participate in user education.	17%	44%	36%
10	4. Changing needs of users.	33%	36%	31%
11	5. System inability to fulfill the expectations of users.	17%	44%	39%
12	6. Lack of knowledge of the people (employee) on the system	14%	50%	33%
13	7. Lack of staff to implement the system	17%	50%	33%
	Total:	22%	45%	30%
	Technical Challenges			
14	1. Difficulties in transforming and re-configuring business process to suit with IT system.	14%	50%	36%
15	2. Technical difficulties.	31%	44%	25%
16	3. Lack of requirement on information system	25%	44%	31%
17	4. Upgrading previous systems	14%	56%	28%
	Total:	21%	49%	30%
	Other Challenges			
18	1. Difficulties in alignment between business strategy and system strategy	28%	53%	19%
19	2. Inability to implement the system strategy on time	39%	39%	22%
20	3. Difficulties of measuring benefits.	22%	36%	42%
21	4. Costs of changing to a new system	42%	33%	25%
22	5. Lack of budget for software and hardware	50%	36%	14%
	Total:	36%	39%	24%

The above table summarizes the survey results residing in the study area. Management obstacle appeared to be the most critical obstacles for applying information system strategies; sample survey shows that about more than half of the participants (an estimated 58%) thinks that management challenges are the most prominent one of the challenges. Very few of the participants (5 percent) reported “Management challenges” as insignificant, particularly weak management roles in implementation is considered as a most significant management obstacles factor with (72%). The respondents give other management obstacles a less importance respectively, lack of top management support in creation and implementation of the system (67%), Changes / replace senior management (56%), poor coordination and sharing of responsibilities (50%) along with the lack of communication which has less percentage among management factors (44%) appeared to have less influence other than management factors on the IS strategy implementation in this study. Other challenges come after management challenges in importance are those factors relating to the cost and time associated with implement the new system. Human and Technical considered as less influencing factors; the two have an almost similar impact on the strategy implementation in this study. Technical factor regarding technical difficulties associated with the implementation have the highest impact among other technical factors (30%), then the lack of information system requirement comes after difficulties insignificant (25%). While the most influencing human factors were changing need of users, and Inability to employ experts for accomplishing the works of information technology with an almost similar degree (33%), (31%) respectively.

These study results have proved the past studies results that have been done in this field. Emphasizing that the management challenge is very significant factor suffering the implementation of information systems. According to a questionnaire conducted by Badragheh, et al. [15] their questionnaire has been developed to investigate most importance items influencing information system strategies implementation from a management view. They found the following issues, poor relation with senior managers in implementing the information system, lack of top managers understanding about the information system strategies implementation roles, and lack of creation a powerful information system [12].

Another perspective of implementation challenges indicated by Ossai et al. [20], who presented the ISS challenges that are similar to the literature mentioned previously. These challenges consist of not only a management challenge but also include user prob-

lems where the employees keep changing due to either retirement or transfer or other reasons. Top management must pay more attention to components surrounding ISS implementation challenges for all levels of management including operational, central management and senior management where the information is passed from bottom to top. Furthermore, ISS is an important function of the directorate which plays a major role in giving information that is essential for essential decision making which directly impacts the performance of the organization [12].

B. Discussion and Recommendations

An excellent management has a powerful effect that leads to align Information system strategies with the goals of an organization, which is from the essential factors leading to IS success. Inadequate management is adequate reason to prevent the alignment between the information systems goals and those for organizations. So, goals and strategies must determine accurately [21]. Some factors may help to overcome the management obstacles such as the following:

- Making a robust relationship between top management and staff along with expressing the importance of successful implementation of ISS particularly in relation to collaboration will help to solve the problems of the weak management role in implementation as mentioned in the results of the survey.
- According to the results the appropriate executive management support is an essential in creation and implementation of the system to success and achieve ISS goals which have a high percentage of the managements issues 67%.
- Based on the 50% of participants consider there are "poor coordination and sharing of responsibilities." The recommendation is to Participation of employees in information system strategies, making a relation among employees and information specialists, participation and using interoperation teams in performing information system will help to overcome the challenges.
- Rishi & Goyal [21] suggested that Improving office design in the organizations to allow interaction with top management and communication between employees which may have an effect on the turnover of the employees.
- As per the survey results, 44% of participants answered that there is a lack of communication. Therefore, the recommendation is the departments should strengthen confidence between staff through establishes social events and informal discussions occasionally; this will motivate the staff to contribute more to the growth of the

organization and implementation of organizational culture. Strong communication between staff and top management is an important factor to powerful management elements.

- Based on the results of the survey, 56% of participants stated that "Changes / replace senior management" as a major challenge. So, requirements analysis and change management must be tested before any changing decision to make sure if it fits the business or causes adverse impacts.
- Lack of top management commitment to the strategy implementation is a major challenge. Thus, the top management should have the responsibility to implement the suitable business strategies along with the use of information technologies to support the organization and to make the best use of its resources and as a result, reach its goals.
- According to survey results, 50% of participants answered that lack of budget for software and hardware" is an important challenge. Therefore, each department should allocate enough budget and should not begin the project unless all the resources are available to be able to perform the objectives.
- Providing adequate information systems to share knowledge to facilitate knowledge distribution among departments so every employee should have the chance to share views to reduce the miscommunication between departments.
- There are many ways to implement ISS within the organization, and there is no one strategic planning can guarantee business success, but this can be achieved by using the traditional strategic analysis methods, for instance, Porter's competitive forces model or SWOT analysis [22].

To conclude, both IS/IT and top management are responsible for the successful in implementing information system strategies. Therefore, the previous recommendations should be taken into account when implementation Information system strategies.

IX. CONCLUSION

The results of the study show that the management factor is a powerful element in implementing the information system strategy in the bank. It becomes clear that the top management needs to spend more efforts to prepare the strategies, this provides additional proof that there is a lack of communication at the administrative level and in upper management between IT and business. This circumstance could be avoided through a stronger connection and collabora-

tion among these. Therefore, business managers need to negotiate with system administrators to explain what is relevant to their work. They need to collaborate closely by appointing a representative in the upper management meeting or coordinators from other departments and try to find solutions that align business needs with IT priorities, thus promoting greater organizational harmony. The organizations need to be aware of the issues associated with management to decrease the project's failure instead of spending more on operating systems. The policies of IT department should be flexible, able to change in response to new organizational requirements and business priorities. Ultimately, all groups should prioritize the main objective by providing rules, methods, and tools that establishing a strong alignment and increase efficiency and enhance the productivity.

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