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Aligning Business Strategy with IT Strategy from Business Model to Enterprise in Saudi Arabia Public Sector

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Abstract

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Keywords

business, saudi, arabia, public, sector, strategy, model, aligning, enterprise

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Aligning Business Strategy with IT Strategy from Business Model to Enterprise in Saudi Arabia-Public Sector

Abstract—Over the last decades researchers seem to have big concerns on the complexity of business-IT alignment with the government organizational strategy goals. The Saudi Arabian (SA) government is one of the world's governments that has launched the national government strategy for 2030 to all public sectors to enhance performance. This research proposal is aimed at investigating the adoption performance of alignment strategy incorporated by the SA government in order to benefit of IT infrastructure and achieve high performance, quality of service (QoS) and return of investment (ROI). This study will use mixed method design combines both qualitative and quantitative methods to understand and analyses the maturity level of alignment between IT strategy and business strategy.

Keywords— *IT Strategy, Business Strategy, Business and IT alignment, Public Sector, Saudi Arabia*

I. INTRODUCTION

Over the past years the alignment between information technology (IT) strategy and business strategy has become an important topic with continuous challenge across information systems (IS) discipline (El Sawy and Pavlou 2008; Luftman et al. 2008). Researchers have developed different models providing alternative theoretical explanations for how IT alignment creates value (Reynolds and Yetton 2015). However, governments are still concerned and worried about the continuous failure of IT projects in public organizations (Byrd et al. 2006; Pardo et al. 2009). Furthermore, there is increasing concern that the return of investment (ROI) in IT projects is not being achieved (Gerow et al. 2014; Henderson and Venkatraman 1993; Wu et al. 2015).

The Saudi Arabian (SA) government adopted a National e-Government (Shehry et al. 2011; Yesser 2012). The adoption of the e-government IT Strategy, Business Strategy, Business and IT alignment, Public Sector, Saudi Arabia is facing many challenges and barriers such as technological, cultural, organizational, and social issues. Over time, IT alignment has become more complex with the growing of technology and digitalization revolution, and organization developed dramatically to become more digitized more sophisticated within their business strategies to enable new business models (El Sawy and Pavlou 2008; Orlikowski 2009). This increases the challenges over the governments, and makes them under pressure to be more flexible to response to these transformation and increasing industry clock speed (El Sawy and Pavlou 2008; Tallon and Pinsonneault 2011). These aspects lead researchers to investigate the effectiveness of this transformation (Krotov 2015; Reynolds and Yetton 2015). Based on these concerns this study intends to address the following question: What are

the critical success factors for improving Business-IT strategy alignment in the Saudi Arabian government? The objective of this study is to show the adoption strategy of the business and IT models incorporated by the SA e-Government, resources, significance of the adoption and challenges.

This study expected to be significant to future scholars, readers, and practitioners. It will contain the fundamental analyzed IT and business alignment. It will impact and enhance organizational performance. As well as it will lead to a significant contribution to knowledge in the following areas: First, measure and examines Business-IT Alignment Maturity in public sector thus, identify the factors influencing IT performance. Second, develop conceptual model to define, construct, and statistically evaluate operational measures of the different types of alignment and organizational performance. Third, synthesizing strategic alignments literature and providing a set of comprehensive perspectives and attributes in alignment that can be used to uncover and address alignment issues.

II. LITERATURE REVIEW

A. Theoretical Framework and Model Background

Business and technological alignment defines the level at which a business' plans, objectives, and missions (Aversano et al. 2012; El-Telbany and Elragal 2014) support the information communication and technological plans, objectives and support. The major problem most organizations have experienced in recent decades was what actually constitutes business and IT alignment and how to obtain and implement this (Aversano et al. 2012). The traditional approach toward the establishment of efficient business and IT alignment heavily emphasized an understanding of how businesses and IT can achieve effective alignment. However, few contributions were directed towards the identification and correction of the misalignment (Boar 1994; El-Telbany and Elragal 2014). In the 1990s, different alignment strategies have been put into practice. One such strategy was the strategic alignment model (SAM) that Henderson and Venkatram developed(1993). Two years later, the general concept, including the modelling, was debated and gave birth to a new proposed model, the Visions, Mission, Objectives, Strategies and Tactics (VMOST) analysis (Aversano et al. 2012).

SAM is one of the top business and IT alignment tools and models that most scholars and experts commonly apply during the process of alignment (Renaud et al. 2016). According to Venkatraman and Henderson, who developed this strategy, the SAM is an IT/business management system that enables the

successful implementation of information systems/technology and businesses and their resulting infrastructural components (Aversano et al. 2012; Renaud et al. 2016). Each domain and feature behind the building blocks of the SAM has significance and features that mainly consist of three components, i.e., strategic fit, cross-dimension alignment and functional integration. According to Luftman and Jerry (2004), the components and features that form the components and basis of business and IT strategic alignment are the twelve components of alignment. The below Table 1 shows the business and IT strategy models overview from the literature review and the major limitations of each model.

Model and Author	Perspective	Limitation	References
Critical success factor method developed by John Rockart in 1979	-IT resources -MIS planning	Complexity of transnational IS	(Lichko and Calhoun 2003)
Strategic grid method developed by McFarlan in 1984.	Support, factory, transition and strategy	Does not provide valid operational measures	(Kaplan and Norton 2001)
The balanced scorecard introduced in 1992 by Kaplan and Norton	Customer perspectives, internal business process, and future readiness	Focus on external factors only	(Kaplan and Norton 1996)
SAMM proposed by Luftman in 2000	Business strategy, organizational infrastructure	Does not provide guidance of alignment	(Luftman 2004)
Dynamic and continuous proposed by Miles and Snow in 1978	categories: prospectus, defenders, analysers and reactors	-----	(Aversano et al. 2012; Chatzoglou et al. 2011) (Chatzoglou et al. 2011)

Table 1. Business and IT strategy models overview

Maintaining the Integrity of the Specifications

III. CHALLENGES TO ENHANCING BUSINESS-IT ALIGNMENT IN SA GOVERNMENT

Many practitioners in the business field and related researchers have emphasized the importance of aligning business strategies with IT strategies. For instance, on government projects, service is the focus, and their adoption of IT systems leads to high levels of ROI (Reynolds and Yetton 2015).

It has been noted that a business' failure to leverage information systems may significantly decrease its performance and feasibility (Besson and Rowe 2012). Furthermore, the absence of IT strategies amongst business goals and objectives is always associated with a lack of IT credibility and subsequent reduction in IT investment. As a result, proactive systems are created within a corporation instead of reactive ones. In comparison to research results on the importance of business-IT alignment, there is an entire set of challenges that they trigger. Despite the importance of IT when it comes to achieving government milestones or business

goals, quite a few challenges hinder the attainment of business-IT alignment (Alaceva and Rusu 2015; Dent 2015). Many business executives and government officials still struggle to understand the specific needs of their businesses as far as IT is concerned. Governments tasked with providing services sometimes adopt high-end technologies to be used in their systems and fail to make the necessary changes within the specific institutions to ensure that the system they have adopted is optimized. Shehry claimed that one of the most challenges in SA e-government is the lack of alignment between organizational goals and IT projects (Shehry et al. 2011).

An effective implementation of IT-business alignment is characterized by whether technology has equal end goals as the rest of the disciplines involved in the business, such as production, sales, operations and, most importantly, product development (Reynolds and Yetton 2015; Zahir Irani et al. 2013). All of these disciplines work in unison towards the overall success of a corporation. Nonetheless, the major challenge is always how individual groups can align themselves around universal goals. Another challenge arises when key players fail to identify the drivers toward these goals and the manner in which they can work together to see the organizational goals achieved.

Another challenge to the attainment of business IT alignment in organizations today is the fact that executives who hardly know anything concerning technology make most IT decisions (Gerow et al. 2014). These are always the CEOs and CFOs of businesses who make IT decisions guided by what they read in magazines or what vendors and contractors tell them. As a result, they believe that a variety of software solutions and data mining can enhance their revenue. It is only in a few instances that these mechanisms work (Aversano et al. 2012). However, in most cases, the costs are known to offset the gains. At the end, the company appears to be structurally stronger but remains the same or even worse in actuality. With relation to the first challenge discussed, there is another challenge in IT-business alignment brought about by the outsourcing of IT management in an organization. It is always important to seek professional assistance, especially when it comes to IT matters (Renaud et al. 2016). However, many businesses have the whole idea of assistance wrong. Most companies are fully directed by technology-driven IT organizations with a limited understanding of the actual needs of a business. As a result, IT organizations are unable to translate business requirements into technology solutions. Companies thus fail to align their IT with business requirements (Krotov 2015).

IV. THE SIX STRATEGIC ALIGNMENT MATURITY CRITERIA

In what would be called a checklist when it comes to reviewing the strategic alignment of an organization, the six strategic criteria are a set of items used to determine the degree of the alignment of IT and strategy. Although the six metrics are not listed in order of importance or strength, some have more impact than others. In the case of SA, organizations should determine which criteria from this list are most applicable to their case. The following criteria gleaned from the literature are summarized below, as they will be critical in the discussion of the two case studies of the SA e-Government

program (Alaceva and Rusu 2015; Chatzoglou et al. 2011; Gerow et al. 2014).

A. Communications

Different researchers give varying views on the classification of business-IT alignment strategies. Three notable researchers (Gerow et al. 2014), have explored the methods available and studied those that organizations have tried as they seek to align their business strategies with IT. Specifically, six types have been discussed that will offer significant insight into comprehending how the two aspects are related and how best to use them within the organization. They mention communication and value measurement as the most common ones (Alaceva and Rusu 2015; Gerow et al. 2014). Effective communication between different departments of an organization is important in establishing a clear link between senior- and middle-level management. It is important to note that communication between IT and business units are channeled through the senior manager of IT in any given organization. Therefore, mature business-IT alignment is characterized by the effectiveness of communication between IT and the business units (Alaceva and Rusu 2015; El-Telbany and Elragal 2014).

B. Value Measurements

Although Chatzoglou (2011) mostly agree with the theories Gerow (2014) proposed, they criticize the criteria used to come up with the 'importance' list but make contributions to some of the strategies mentioned. The value measurements of a company can be conducted by evaluating its financial merits. Value in the IT department is, however, measured by the value of IT projects through financial indicators and technical merits (Chatzoglou et al. 2011; Gerow et al. 2014). Senior management then analyzes the results of these valuations in a bid to improve IT and business relationships. As such, a business' competitiveness with regard to IT-business alignment is determined by the value brought about by both the IT and business units of a company.

C. Governance

Governance is one of the foremost concerns of top management with regard to IT-business strategic alignment for the past three decades (Alaceva and Rusu 2015; Wu et al. 2015). Consequently, alignment researchers have developed many models to explain how alignment generates value for firms. However, these models use inconsistent definitions and measures of alignment. Grover (2014) reported that researchers consider it a vital component of business-IT structure. Krotov (2015) indicated that an effective reporting structure and hierarchy of a company in relation to IT-business alignment shows a clearly defined decision-making authority within the organization. It is always important for organizations to have clear communication channels and it is always important for organizations to have clear communication channels and an office of strategic management (OSM) and project management office (PMO) (Zahir Irani et al. 2013). As a result, a mature organization with regard to IT-business alignment is identified by the

effectiveness of its governance of reporting structures and hierarchies (El-Telbany and Elragal 2014; Wu et al. 2015).

D. Partnership

IT functions within an organization are recognized as fundamental drivers of future business engagements. As far as IT-business alignment is concerned, a mature organization has clearly defined relationships between its IT and business units (Reynolds and Yetton 2015; Seman and Salim 2013). The level at which the two units understand each other determines how mature an organization is in this context.

E. Scope and Architecture

The maturity of IT infrastructure and architecture of an organization ought to extend beyond the back and front offices. All business partners and consumers involved must be aware of the presence of IT within a business as a way of ensuring that a business gains a competitive advantage over its competitors (Aversano et al. 2012; Reynolds and Yetton 2015). On most occasions, IT in a business focuses on a business intelligence environment, including corporate and franchise support. Additionally, it incorporates other in-house development systems and databases that together make up the unit of IT-business alignment (Krotov 2015). It is therefore imperative for any organization to have a clear outline of its IT functionality to be categorized as a mature organization as IT-business alignment is concerned.

F. Skills

The skills of a company are its human resource skills. Company employees suggest most innovative entrepreneurial ideas in a bid to not only improve but also benefit their specific departments. The innovative ideas also incorporate IT-based ideas. It also seems that there is lack of competence when it comes to chief executive officers (CEOs), chief financial officers (CFOs) and chief information officers (CIOs) and employees (Krotov 2015), especially IT staff, mainly in the absence of the Maslow hierarchy. Therefore, a company that makes good use of and implements productive business ideas fronted by its employees can be categorized as mature with regard to IT-business alignment (Seman and Salim 2013; Wu et al. 2015).

V. RESEARCH DESIGN AND METHODOLOGY

The intent of this study is to identify the current state of business-IT alignment maturity within the public sector in SA. The study will examine the six maturity levels that contribute to overall alignment maturity. By identifying practice level and overall strategic alignment maturity, the maturity level of business-IT alignment in the two public organizations can be identified. The research design for this study is a sequential mixed method in two different case studies.

A. Mixed Methods Design

This study will adopt Creswell's sequential mixed methods design to explore how alignment perspectives are deployed to measure the maturity level of strategy alignment (Creswell 2013; Reynolds and Yetton 2015). To address the research

question, two vital government case studies in the public sector will be used. The mixed method design combines both qualitative and quantitative methods, which could significantly add to the interpretation of the data; together, they are adequate to provide an in-depth understanding of the research problem (Creswell 2013). They also allow the researcher to elaborate on the findings produced by one method to implement the second (Creswell 2013). Proposed sequential methodology does not dictate the order used; the researcher can organise the study with either approach (quantitative and then qualitative) or vice versa. According to Creswell, a researcher may want to generalise the results to a population based on the survey data collected and information identified through exploration of a sample. The main purpose of using this type of method is to have a deeper inclusive understanding of the phenomenon within a chosen population (Creswell 2013). The sequential mixed method design will be used to explore the maturity level of alignment between business and IT.

B. Case Study

The case study in this study is best suited to explore and understand the level of maturity of the alignment and the ROI of IT projects in government settings. Using a case study will also allow the researcher to observe organizational behavior in the real-life context in which contemporary events occur. It will also provide the perfect opportunity to closely investigate all aspects of the main issue and report details and findings. This study will be conducted in a bounded system specific to two government organizations in SA. In turn, it can be considered a nested case study by examining the key issues as perceived by a chosen case study, senior managers and executive directors in multiple business departments and deferent level units, IT staff and strategic business unit staff (Creswell 2013).

C. Data Collection and Analysis

This study will focus exclusively on the two different case studies with different business models. In the first phase of data collection, a survey will be used, and participants will be chosen from the Saudi Customs and Human Resources Development Fund (HRDF) organizations. Departments will be chosen based on the priority of those departments, and at least 150 to 200 surveys will be collected from the participants in both organizations (Creswell 2013). The second phase of the study will follow up with semi-structured interviews with the executive directors and senior manager at Saudi Customs and HRDF. The interviews will be conducted only with chief information officers (CIO), business strategy officers, project managers and the related departments, e.g., IT departments and strategy-management offices. The data collected from the survey will be analyzed using a statistical software program, such as SPSS. Another software program, such as NVivo, will be used to analyze the semi-structured interviews following a thematic analysis (Creswell 2013). The key findings and interpretation of the data will answer my research questions.

VI. CONCLUSION

This research will present quantitative and qualitative study based on the literature provided supported with empirical studies in the advanced research arena, IT and business strategic alignment, which are important and fundamental to both business executives and IT professionals and managers. The study focuses on the adoption and implementation of business and IT strategic alignment. Specifically, it is important to ensure the organization experiences long-term success like any other firms that have embraced this technology. One of the key aspects to consider is the use of a well-structured approach that contains all of the methodological factors. The main strategic approaches that are crucial include ensuring one has vast knowledge of their current business operations and not to forget the organizational cultures. Last but not least, it is advisable to have a clear vision of where one intends to go and the effective measures to achieve. Therefore, the organization should be aware of all of the influential factors and business context that surrounds their environment.

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