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Business and Information Technology (IT) Alignment in Theory and Practice: Evidence From Selected Companies in Sri Lanka

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Abstract: This research provides a comprehensive approach to show the business - IT alignment in terms of where they are and what they can do to improve alignment maturity. Identifying an organization's alignment maturity provides an excellent vehicle for understanding and improving the business-IT relationship. Alignment addresses both how IT is in harmony with the business, and how the business should, or could be in harmony with IT. A survey research method was applied to gather data and Strategic Alignment Maturity Model (SAMM) used to measure the business - IT alignment.

Keywords - Business, IT, Alignment, Maturity

Introduction

The purpose of this research is to have an in-depth understanding of the existing models and framework in the context of business - IT alignment. Business-IT alignment refers to applying Information Technology (IT) in an suitable and timely way, in harmony with business strategies, goals and needs. The term alignment is defined by various researchers such as (Reich & Benbasat 1996) "the degree to which the IT mission, objectives, and plans support and are supported by the business mission, objectives, and plans", (Henderson & Venkatraman 1989) " alignment across internal and external domains as well as functional integration across business and IT areas" and (Luftman 2000) "alignment addresses both how IT is in harmony with the business, and how the business should, or could be in harmony with IT. Alignment evolves into a relationship where the function of IT and other business functions adapt their strategies together. Achieving and sustaining business- IT alignment continues to be a key issue in this global era. There is no single activity will enable a business firm to achieve and sustain alignment because there are too many dynamic variables. Alignment seems to grow in importance as companies attempt to link technology and business in light of dynamic business strategies and continuously evolving technologies (Papp, 1995; Luftman, 1996). For the Business - IT alignment analysis purpose two companies were selected namely Hirdaramani Group, and EAM Maliban Textiles (Pvt) Ltd. These two companies are in the apparel industry in Sri Lanka. *Hirdaramani* has 120 year heritage and one of the leading garments manufacturer in Sri Lanka. Today they have over 30,000 employees spread across six countries and six industries. Their production facilities across Sri Lanka, Bangladesh and Vietnam are capable of an output of approximately 13 million articles of clothing each month. *EAM Maliban* Group was established in 1974 and is now recognized as a top manufacturing giant for garment manufacturing and wet processing in Sri Lanka. It is the leading apparel manufacturing icon in Sri Lanka which employ over 8000 skilled labor, equipped with over 10 state of the art manufacturing facilities in Sri Lanka and Jordan. EAM Maliban produces around 18 million woven garments a year together with another 2 million wet processing pieces.

Why Alignment is Important?

Alignment assures the IT activities contribute to the strategies, goals and objectives of the business. Alignment seems to grow in importance as companies struggle to link technology and business in light of dynamic business strategies and continuously evolving

technologies (Papp, 1995; Luftman, 1996). Alignment addresses both *doing the right things (effectiveness),* and *doing things right (efficiency).* In recent years, a great deal of research and analysis focused on the linkages between business and IT (Luftman, Papp, & Brier 1995; Luftman & Brier 1999; Luftman, 1996; Earl, 1993; Henderson, Thomas & Venkatraman, 1992,). Businesses need to change not only their business scope, but also their infrastructure as a result of IT innovation (Keen, 1991; Foster, 1986; Weill & Broadbent, 1998). Alignment maturity develops into a relationship where the function of IT and other business functions adapt their strategies together. Achieving alignment is evolutionary and dynamic. IT requires strong support from senior management, good working relationships, strong leadership, appropriate prioritization, trust, and effective communication, as well as a thorough understanding of the business and technical environments. Achieving and sustaining alignment demands focusing on maximizing the enablers and minimizing the inhibitors that cultivate the integration of IT and business.

Models and Frameworks in Business - IT Alignment

MIT90S Framework

Scott Morton in 1991 identified five key forces that influence organizational change process. These processes are structure, strategy, technology, individuals roles and management processes. This framework defines the different areas within the organization that need to be aligned, in order for IT to be rewarding in a strategically way.

Table 1 : Enablers and Inhibitors of Business - IT Alignment

Enablers Business - IT Alignment	Inhibitors Business - IT Alignment
✓ Senior executive support for IT	✓ Senior executives do not support IT
✓ IT involved in strategy development	✓ IT/business lack close relationships
✓ IT understands the business	✓ IT does not understand business
✓ Business-IT partnership	✓ IT fails to meet commitments
✓ Well-prioritized IT projects	✓ IT does not prioritize well
✓ IT demonstrates leadership	✓ IT management lacks leadership.

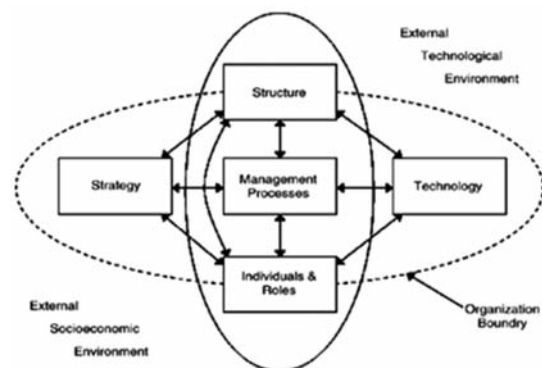**Source :** Jerry N. Luftman, Raymond Papp And Tom Brier (1999)

Figure 1: MIT90S Framework

Strategic Alignment Model (SAM)

SAM consists four domains such as business strategy, organizational structure, IT strategy, and IT infrastructure. SAM depends on two main concepts; strategic fit and functional integration. Strategic fit is the interrelationship between external and internal components, or it is the link between strategy and structure. Strategic fit ensures the harmony between the strategy and the internal resources, whether it is an IT strategy or business strategy. Strategic fit coordinate between the vision and plans made by the management and the internal resources which work to achieve these goals. On the other hand, functional integration is the integration between business domain and functional (IT) domain. It ensures the harmony and fit between the two different fields; Business and

A. Ilmudeen

Business and Information Technology (IT)
Alignment in Theory and Practice: Evidence From
Selected Companies in Sri Lanka

IT. However, it is important to note that the strategic fit and functional integration are not enough to enable the strategic alignment (Henderson and Venkatraman 1993).
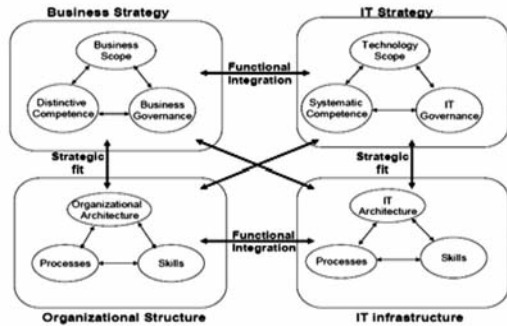

Figure 2: Strategic Alignment Model (SAM) Henderson and Venkatraman (1993)

Strategic Alignment Maturity Model (SAMM)

The SAMM describes six IT - business alignment criteria determining different alignment maturity levels. These criteria are communications, competency/value measures, governance, partnership, scope and architecture, skills. These set of criteria determines the maturity level of the organization in terms of strategic alignment. The SAMM defines five levels of maturity for strategic alignment: initial process, committed process, established focus process, improved process and optimized process.

Figure 3: Strategic Alignment Maturity Model (SAMM)

Generic Framework

The generic framework broaden the Strategic Alignment Model by adding an additional row and column. The row represents the structural components and variables, particularly the deeply rooted competencies and infrastructures of the organisation. The column represents the connection between business and IT: information and communication. The newly introduced column and

row, i.e. the architecture of the information/communication/knowledge infrastructure is at the heart of any modern organisation. The business-IT relationship appears to be much more complex than can be derived from the SAM; it involves amongst others cultural, political and financial aspects.

Integrated Architecture Framework

The framework lies on architectural design and used to bring together the business vision and IT vision of the firm to create an IT enabled organisation. It defines four major architecture areas: business, information, information systems and technology infrastructure. A second dimension defines the different phases in the architectural design process such as contextual, conceptual, logical, physical and transformational phase. Finally, a third dimension exists to define specific architectural viewpoints, such as security or governance.

Figure 4: Generic Framework

Figure 5 : Integrated Architecture Framework
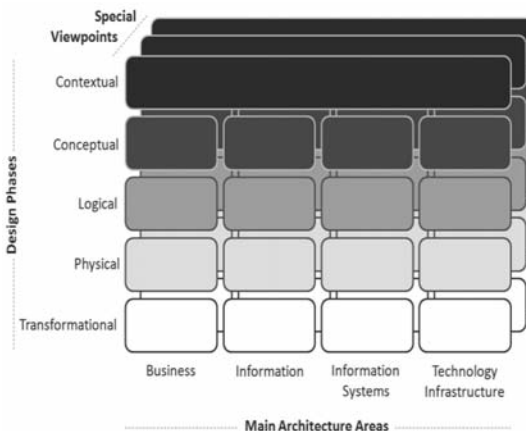
Objective of the research

The purpose of this research is to have deeper understanding of the existing models and framework in business - IT alignment. Researcher referred number of research articles, internet resources which addresses the above topic in different context and which were encouraged the researcher to explore further on this aspect. This research has the following objectives:

1. Understand the theories and models for the Business and IT Alignment

2. Assess the business - IT alignment of the selected companies.

3. find the better ways to manage Business-IT alignment.

Literature Review

The first thing is how to define the term alignment. In general other expressions can be used in this context are fit, harmony, integration, linkage, bridge and union. Gilbert Silvius A.J in 2007 mentioned that, a unique success factor for a victorious firm in a dynamic environment is effective and efficient information technology supporting business strategies and processes. Therefore the alignment between business needs and IT capabilities is becomes an important concern in this rapidly changing business environment. The researcher referred many research articles and thesis which were in different countries. For example Jerry Luftman in 2000 "Assessing Business-IT Alignment Maturity" and Steven De Haes, Roaier Haest and Wim Van Grembergen in 2010 did a survey on "IT Governance and Business-IT Alignment in SMEs" in Netherlands. They concluded that, SME's in Netherlands were on average not very IT-intensive and score low in the field of business and IT alignment. Further Ivor Jonathan Farrell in 2003 did a research in Australia for his doctorate thesis on "Aligning IT to Corporate Objectives: Organizational Factors in Use". He concluded that, to align IT with an organization's corporate objectives it requires an organization to be aware of twenty-one factors that can affect IT alignment, and for the organization to ensure they are present or used not only according to a set of characteristics, but also according to inter-relationships

and dependencies between certain factors. finally Luftman, Papp, & Brier, 1995; Luftman & Brier, 1999, did a research and identified the enablers/inhibitors to achieve alignment and the author's consulting experience that applied the methodology that influences the most important enablers and inhibitors as building blocks for the evaluation. However this research focuses Business - IT Alignment in theory and practice for the selected companies in Sri Lanka.

Methodology

For this research 2 companies were selected from the apparel industry. The companies were selected based on the convenient sampling method for the data collection. Among the various business - IT alignment models Strategic Alignment Maturity Model (SAMM) used for the selected company's data analysis. Interview with structured questionnaire method was applied to gather data from the selected companies. Questionnaire includes likert scale questions to find the answers for the questions. Data were obtained from head of IT or IT manager by directly visiting their company. The head of IT or IT

manager (one person from each company) was interviewed with the structured questionnaire to collect the data. Six business - IT alignment maturity criteria/domains consist 39 sub criteria (questions). Each of the criteria and levels are described by a set of attributes that allow a particular dimension to be assessed using a 1 to 5 Likert scale questionnaire.

where:

1 = This does not fit the organization, or the organization is very ineffective

2 = Low level of fit for the organization

3 = Moderate fit for the organization, or the organization is moderately effective

4 = This fit most of the organization

5 = Strong level of fit throughout the organization, or the organization is very effective

Above 39 sub criteria (questions) were divided among the six business - IT alignment maturity domains. Then each domain's average was calculated to measure the each domain status in terms of

business- alignment. After assessing each of the six criteria from level 1 to 5, results were used to get an overall assessment level of the maturity for each company. Collected data were entered to excel sheets and derived the relevant charts.

Results and Discussion

Business-IT alignment refers applying IT in an appropriate and timely way, in harmony with business strategies, goals and needs. Alignment seems to grow in importance as companies attempt to link technology and business in light of dynamic business strategies and continuously evolving technologies. Nowadays IT investment has been increasing for years as managers are looking for ways

to manage IT successfully and to integrate it into the organization's business strategies. The following charts show the business-IT alignment maturity status for each company individually by focusing the six strategic alignment maturity criteria. It is obvious that, the organization with the lower business - IT alignment results clearly had a lower business - IT alignment maturity status compared to the organization with the highest business - IT alignment.

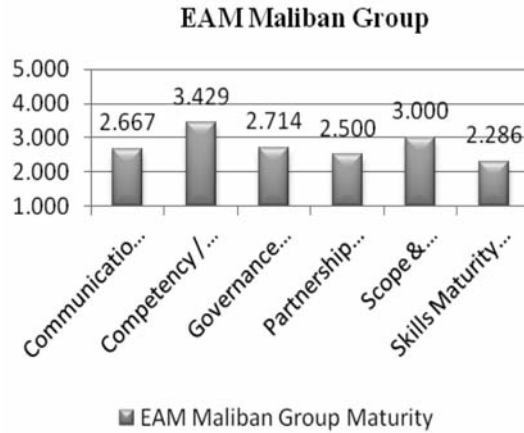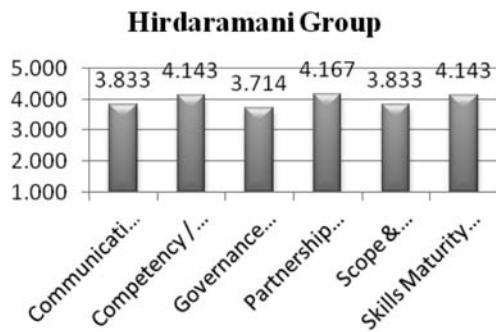Figure 6: Business - IT Maturity Status

The reason for Hirdaramani Group's alignment status is they have implemented whole system in a well established way. They implemented their system and IT service in a fully structured way and now they are in a position to taste the benefits. Further Hirdaramani Group possess better IT governance, sophisticated IT infrastructure, better steering committee, well structured IT architecture, strategic IT plan, trained and skilled labor force, excellent IT risk management, better business continuity and disaster recovery plan, secured IT systems, and good help desk. During the data collection the Hirdaramani IT manager mentioned that their systems are successfully implemented and they have the good IT help desk support for the IT issues. Further he stated that they have implemented Microsoft Dynamics AX ERP system and getting solution from the developer on demand. The company EAM Maliban group has moderate level maturity on their business-IT alignment. comparatively they have moderate level position on their IT infrastructure, steering committee, IT architecture, strategic IT plan, skilled labor force, business continuity and disaster recovery plan, IT risk management and securing IT systems. The good business – IT alignment maturity is determined when practicing the well structured and managed business-IT alignment maturity criteria. The Strategic Alignment Maturity Model's (SAMM) 39 sub criteria in 6 domains alignment scores are as follows for the selected companies.

Figure 7: Business - IT Maturity Status of Hirdaramani Group of EAM Maliban Group

## Suggestions for Better Business - IT Alignment Maturity

The better business - IT alignment's four themes are the role of IT, the business case, IT management intensity and IT metrics. IT role is a significant factor which determine the degree of IT utilization within a firm. The business case determines how business and IT link to justify the IT investments. IT management intensity determines the firm's commitment to life long process improvement. Finally IT metrics demonstrate to business executives IT investment's value-generating potentials. Improving better business – IT Alignment maturity will increase operational efficiencies, greater resource utilization, uplift the return on IT investments, and reduce risk. To get better business – IT alignment maturity status organizations should do IT governance maturity assessments in line with industry best practices such

as COBIT and ValIT, implementing standardized IT governance structures and processes, IT demand and portfolio management to facilitate stronger business IT alignment through IT demand and portfolio management, investment governance to assess the current investment structure and processes, establish IT project portfolio performance management framework, IT performance management services in line with strategic objectives to secure business - IT alignment keep eye on the role of IT, the business environment, IT management intensity, and IT metrics, understand the business priorities and proactively formulate business – IT initiatives, ensures that IT support the business and development **toward organizational needs,** improve communication and develop an understanding of their organization's core vision and objectives.
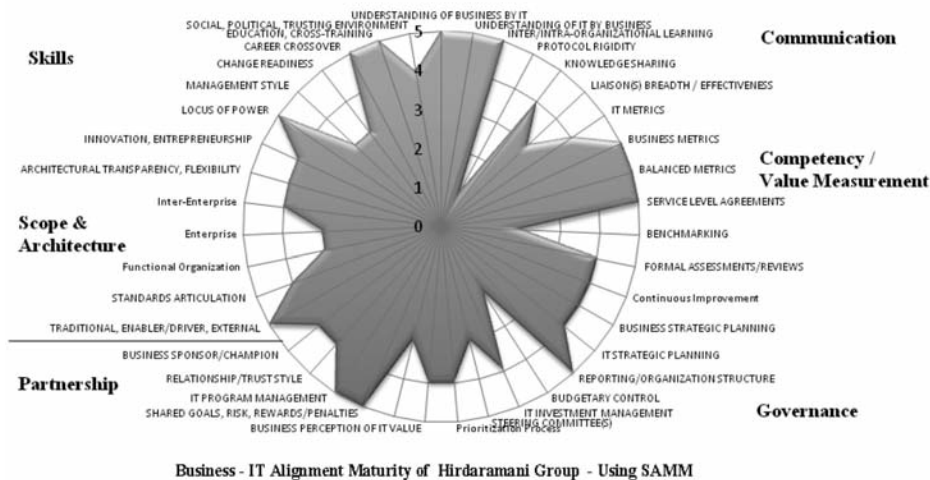
Business - IT Alignment Maturity of Hirdaramani Group - Using SAMM

A. Ilmudeen

Business and Information Technology (IT)
Alignment in Theory and Practice: Evidence From
Selected Companies in Sri Lanka
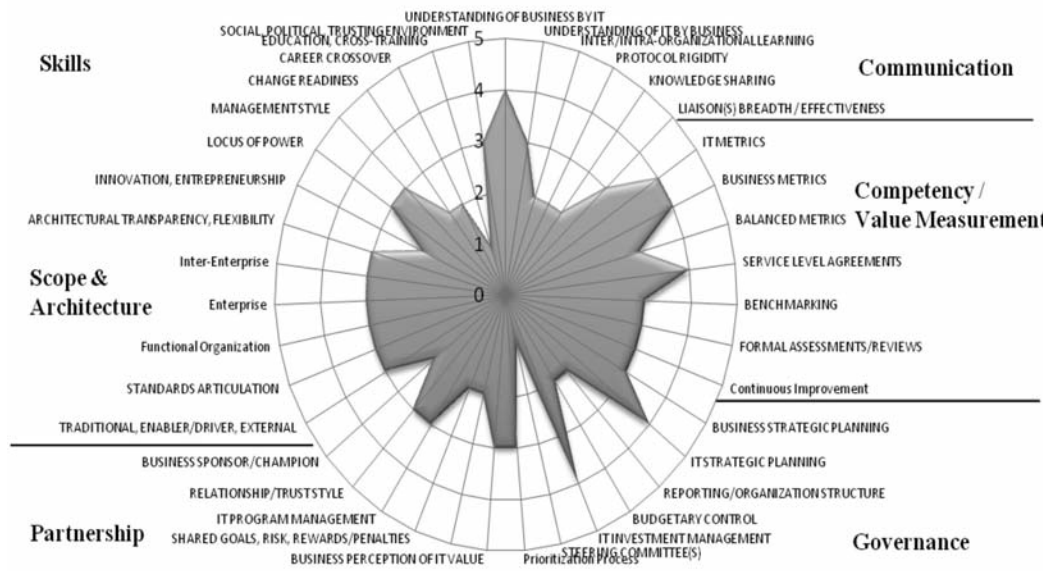
Conclusion

Achieving and sustaining IT-business alignment maturity continues to be a key issue. There is no single activity will enable a business firm to achieve and sustain alignment because there are too many variables. The technology and business environments are too dynamic in this global era. The strategic alignment maturity assessment provides a vehicle to evaluate where an organization is and where it needs to go to achieve and sustain business-IT alignment. Alignment addresses both doing the right things (effectiveness) and doing things right (efficiency). Business firms need to change not only their business scope, but also their infrastructure as a result of IT innovation. The vigilant assessment of a firm's alignment is a significant step in identifying the specific actions necessary to ensure IT is being used to appropriately enable or drive the business strategy. The above discussed business - IT alignment models are describe different business domains that need to be connected in some way to achieve better alignment. These models remain fairly high level; they describe the domains that should be aligned but not in what way this can be achieved in practice. In contrary, the SAMM is based exclusively on practices and processes in organisations. It focuses a number of criteria by which the alignment of an organisation can be rated. However, the papers on this model provide little proof on their validity. Aligning and governing IT infrastructure and services with business goals ensures that IT product and services utilized at optimum level. Alignment of business and IT is essential for a successful organization.

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