Strategic Alignment ITIL Perspective

Haleh Bagher Esmaili
Hassan Gardesh
Shahram Shadrokh Sikari Dr.

Follow this and additional works at: https://aisel.aisnet.org/iceb2010

This material is brought to you by the International Conference on Electronic Business (ICEB) at AIS Electronic Library (AISeL). It has been accepted for inclusion in ICEB 2010 Proceedings by an authorized administrator of AIS Electronic Library (AISeL). For more information, please contact elibrary@aisnet.org.
Abstract- The literature suggests that organizations cannot be competitive if their business and information technology strategies are not aligned. Yet achieving strategic alignment continues to be a major concern for business executives. A number of alignment models have been offered in the literature, primary among them the Strategic Alignment model (SAM) and IT Governance (via ITIL).

As there is no published research that attempts to present how effective ITIL V3 is to align business and IT in strategic level, this paper reports on determining aligning roles of ITIL by applying it to the SAM framework. In this regard, the ITIL Strategic Alignment model is proposed to describe ITIL V3 approach of strategic aligning business and IT. The primary aims of this paper are to demonstrate that ITIL has conceptual and practical competencies to strategic alignment of business and IT. It is described that ITIL uses IT as a mean to meet business strategies and goals, support business maturity and recognize new initiatives for the business.

Keywords-component; Business-IT Alignment; Strategic Alignment; ITIL; Strategic Alignment Model.

I. INTRODUCTION

The alignment of business and IT is one of the fundamental challenges for practice and science nowadays. It is a topic which is increasingly taken into consideration by different approaches of Information Management in practice and science. [12] However, despite the widespread acceptance that business and IT strategies should be aligned, the nature of alignment is inadequately clarified in the literature. [1] Luftman [4] defines business-IT alignment to applying IT in an appropriate and timely way, in harmony with business strategies, goals and needs.

This paper presents Information Technology Infrastructure Library (ITIL) as an approach to making strategic alignment between business and IT. ITIL has a service-oriented perspective to whole aspects of organizations’ IT through IT Service Management Processes. It presents a comprehensive set of guidelines for defining, designing, implementing and maintaining IT Services.

For determining how ITIL v3 supports various aspects of strategic alignment, Strategic Alignment Model (SAM) is chosen which has been the basis for much of the strategic IT researches. Focusing on ITIL perspective of strategic alignment, initially ITIL alignment activities and relationships through stages of IT service management is described. Furthermore, we propose ITIL Strategic Alignment Model which demonstrates that ITIL supports whole internal and external aspects of organizations’ IT within IT strategy and IS infrastructure and communicates with the business at both domains of business strategy and organization infrastructure and processes.

II. APPROACHES FOR ACHIEVING BUSINESS-IT ALIGNMENT

The approaches of Business-IT Alignment can be generally categorized via three dimensions: Architecture, Governance, and Communication. Differentiate perspective of each approach to aligning business and IT, consequently resulted in different aligning methods. Architecture approach involves Software Architecture (such as BITM (Chen, Kazman, and Garg, 2005), CBAM (Clements, Kazman, and Klein (2002), ATAM (Bass, Clement, and Kazman, 2003), etc) and Enterprise Architecture (such as Zachman Framework (Zachman, 1987), TOGAF (The Open Group, 2002), DoDAF (2003), FEA, etc) that focuses on architectural adaptability and integration of applications via enterprise modeling.

On the other hand, Governance approach concentrates on two aligning methods. Business Performance Management (such as Balances Scorecard (Kaplan and Norton 1996), Strategic Planning (Kaplan and Norton, 2004), etc) and IT Governance (such as COBIT, IT Service Management: ITIL, etc) to ensure the formulation and implementation of IS/IT strategies is an essential function to meet business strategies and goals.

The third approach, Communication, deals with Strategic levels of alignment (such as SAM (Henderson and Venkatraman, 1993), Social Dimension (Reich and Benbasat, 2000), Strategic Alignment Maturity model (Luftman, 2000), etc).

III. ITIL

The IT Infrastructure Library (ITIL) presents a comprehensive set of guidelines for defining, designing, implementing and maintaining management processes for IT services from an organizational (people) as well as from a technical (systems) perspective. At present ITIL is the most widely accepted approach to IT Service Management in the world. [6]

ITIL has introduced with Office of Government Commerce (OGC). It has three versions. First version
published in the late 1980s, the second version of ITIL was published in 2000 and ITIL V3 was introduced in 2007 by OGC. [6]

Third version of ITIL is currently detailed within five core publications (Service Strategy, Service Design, Service Transition, Service Operation, And Continual Service Improvement) which provide a systematic and professional approach to the management of IT services, enabling organizations to deliver appropriate IT services and continually ensure they are meeting business goals and delivering benefits. Furthermore the main goal of ITIL framework is to align IT services to business needs and to business processes. [6]

The five core books cover each stage of the service lifecycle, from the initial definition and analysis of business requirements in Service Strategy and Service Design, through migration into the live environment within Service Transition, to live operation and improvement in Service Operation and Continual Service Improvement. [6]

IV. ALIGNING APPROACH OF ITIL

For determining how ITIL V3 supports different aspects of strategic alignment in accordance with Strategic Alignment model (SAM), first, roles of ITIL in business-IT alignment (through activities and relationships) within each stage of IT service management must be described. This addresses to position of ITIL in SAM. In this regard, we summarily describe the alignment practices that ITIL V3 performs through Service Strategy, Service Design, Service Transition, Service Operation, and Continual Service Improvement to understand and meet the needs of current and future business requirements by granting IT Services.

A. Alignment Activities of Service Strategy Stage

The Service Strategy provides guidance on how to design, develop, and implement IT service management not only as an organizational capability but also as a strategic asset. So this stage has strategic focus on aligning business and IT services. [7] The following are the Service Strategy alignment activities:

- Form IT Steering Group to ensure that business and IT services remain synchronized and set governance, direction, and strategy for IT services.
- Understand the business strategies, policies, long term objectives as IT service customer.
- Conduct strategic assessment to reveal patterns of future strategic decisions and establish objectives.
- Define IT Strategies and set objectives as a supportive or enabler means to business Strategies.
- Define critical success factors of a service strategy in aspect of business trends and suppliers.
- Define outcome-based IT services in alignment with business tasks, outcomes and constraints.
- Conduct business impact analysis to identify critical business services and cost and worth of services.
- Analyze service investment to quantify the value of investments and make capital budgeting decisions.
- Define service portfolio as an expression of the provider’s service strategy and future strategic decisions.
- Analyze service portfolio in order to maximize portfolio value by aligning, prioritizing and balancing supply and demand.
- Manage business service by governing, monitoring and reporting on IT and the business to align investments with business objectives and to adapt to future needs as driven by business requirements.

B. Alignment Activities of Service Design Stage

The role of service design is to design of appropriate and innovative IT services, including their architectures, processes, policies and documentation, to meet current and future agreed business requirements and all design activities are triggered by changes in business needs or service improvements extracted from the service portfolio. [8] Service Design addresses following alignment activities:

- Develop and document contacts and relationships with the business, customers and stakeholders.
- Produce and maintain an accurate Service Catalogue includes all information about of IT services.
- Interface with Business Relationship Management to ensure that the information is aligned to the business and business process.
- Produce and agree Service Level Requirements (SLR) and Service Level Agreements (SLA) for all planned new or changed services with representatives of the business.
- Implement and enforce the supplier policy and manage supplier relationships and their performance based on business needs, requirements and agreements.
- Monitor and measure all services performance achievements against targets within SLAs.
- Measure and improve business customer satisfaction.
- Monitor patterns of business activity and service-level plans to ensure that service performance achievements meet or exceed all agreed performance targets in aspect of business and IT factors.
- Review and analyze Business Continuity Plans (BCPs) to identify current and future trends of business.
- Complete regular Business Impact Analysis (BIA) exercises to ensure that all continuity plans are maintained in line with changing business impacts and requirements.

C. Alignment Activities of Service Transition Stage

The purpose of Service Transition is to ensure that the IT service can be managed, operated and supported in accordance with the requirements and constraints specified within the Service Design. [9] The following are the Service Transition alignment activities:

- Produce and maintain a Transition Plan to ensure that the requirements of Service Strategy encoded in Service Design are effectively realized in Service Operations.
- Identify and support the business and customer’s control objectives and requirements to manage, protect and optimize the integrity of service assets and configuration items.
• Build, install and test Release Package and deploy efficiently to a target environment successfully.
• Determine deviations between predicted and actual performance from business and technical viewpoint.
• Identify and prioritize customer business change proposals by create and record Request for Changes.
• Liaise with the business change process to identify opportunities for business improvement.
• Establish the requirements for data protection, privacy, security, ownership, restrictions, right of access, intellectual property and patents with business customers and relevant stakeholders.
• Manage data and information storage and movement from both business and technical viewpoint.
• Train people and transferring knowledge.

D. Alignment Activities of Service Operation Stage

The Service Operation provides guidance on achieving effectiveness and efficiency in the delivery and support of services so as to ensure value for the business customer and the service provider. [10] Service Operation addresses following alignment activities:

- Grant authorized business users the right to use a service within regulations defined during Service Strategy and Service Design.
- Monitor and document the typical User Lifecycle for each type of business user.
- Identify business priorities and dynamically allocate resources to align IT activity to real-time business priorities.
- Monitor the performance of IT services based on the exact targets to respond to significant events.
- Detect and resolve incidents and problems which results in lower downtime to the business.
- Provide a channel for business users of IT service to request and receive standard services for which a pre-defined approval and qualification process exists.
- Identify potential improvements to IT services in contact with the activities of business operational staff.

E. Alignment Activities of Continual Service Improvement Stage

The primary purpose of Continual Service Improvement (CSI) is to continually align and realign IT services to the changing current and future business needs by identifying and implementing improvements to IT services that support Business processes. These improvement activities support the life cycle of service management, through Service Strategy, Service Design, Service Transition, and Service Operation. [11] The following are the Continual Service Improvement alignment activities:

- Identify which cross-referenced data must be presented upon the business and technical focus.
- Develop a service measurement framework to understand the operational, tactical and strategic business goals and the business processes.
- Define a business-focused service-reporting framework to directly align IT with expectations of the business.
- Report on IT service performance and delivery of quality service to the business within language.
- Analyze trends against service level targets or actual SLAs to identification of fluctuations in service delivery or quality.
- Decide to how improve a service or service management process.

As mentioned, ITIL suggests business-IT alignment practices and functions in each process of 5 stages of IT Service lifecycle. Moreover, the perceived value of ITIL is the improvements of the relationship between the business and its IT service providers.

The IT Service Strategy shapes upon business strategies and long term objectives. However the service lifecycle is initiated from a change in requirements in the business. These requirements are identified and agreed within the Service Strategy stage within a Service Level Package (SLP) as a defined set of business outcomes. Also Service Level Agreements (SLA) is defined during Service Design stage in relation with the business. SLP passes to the Service Design stage where a service solution is produced together with a Service Design Package (SDP) containing everything necessary to take this service through the remaining stages of the lifecycle. The SDP passes to the Service Transition stage, where the service is evaluated, tested, and validated, the Service Knowledge Management System (SKMS) is updated. Operational Level Agreements (OLA) with SLA passes to the Service Operation stage where agreed levels of IT service are delivered to business users and customers.

Similar agreements (Underpinning Contract (UC)) define the relationships between internal IT department of organization and its external providers. For the IT department to be able to live up to its obligations defined in the SLA, it has to make sure that the SLA is implementable with the existing and envisioned infrastructure and with its OLAs and UCs. Continual Service Improvement presents Service Level Report for business to identify IT Service current position and the value is providing to the business. Wherever possible, Continual Service Improvement identifies opportunities for the improvement of weaknesses or failures anywhere within any of the lifecycle stages to address changes in business requirements, technology, to ensure high quality is maintained, and to increase business customer satisfaction.

V. Strategic Alignment Model (SAM)

A number of models of strategic alignment have been proposed in literature. As the SAM has been the basis for much of the strategic IT research, in our research, it is used to discuss the factors to consider in assessing alignment.

The model is defined in terms of four domains of strategic choice: business strategy, IT strategy, organization infrastructure and processes, and IT infrastructure and processes. Each has its constituent components: scope, competencies and governance at the external level; and infrastructure, skills and process at the internal level. [2]

The external domain addresses the following components: [2]

1. Business scope deals with the business choices related to product-market offering.
2. Distinctive competencies deal with those business strategies that can enable the firm to get competitive advantage.

3. Business governance concentrates on ‘make-versus-buy’ choices including strategic alliances, joint ventures etc.

4. Information technology scope focuses on those information technologies that can either support current business strategy or shape new business strategy.

5. Systematic competencies concentrate on those IT strategies that can create new business strategy or better support the existing one.

6. IT governance focuses on the selection and use of mechanisms like strategic alliances, joint ventures etc in order to obtain the required IT competencies.

The following are the six components of the internal domain:

1. Administrative infrastructure: This is a part of the internal business strategy that communicates the roles and responsibilities and authority structures.

2. Processes: Support and shape the ability of the firm to execute business strategies.

3. Skills: Deals with the skills required to execute business strategy.

4. Architecture: This part deals with the configuration of software and hardware, communication and data architecture, which, altogether, define the technical infrastructure.

5. IT processes: Focuses on the work processes that are central to the operation of the IS infrastructure such as system development, maintenance, monitoring and control system.

6. IT skills: Deals with the acquisition, training and development of knowledge and potential of the individuals who are required to manage and run the IS infrastructure in an organization.

The model is conceptualized in terms of two fundamental characteristics of strategic management: strategic fit (the interrelationships between external and internal domains) and functional integration (integration between business and technology domains). Henderson and Venkatraman [1] incorporate cross-domain perspectives, arguing that neither strategic nor functional integration alone is sufficient to align an organization effectively.

VI. ITIL STRATEGIC ALIGNMENT MODEL

Strategic alignment ensures the IT function (which in the past was considered as a supportive function of business) plays a critical role in formulating and shaping strategies. It also ensures that the focus is on business-IT strategic achievement and not just business achievement.

Strategic Alignment model (SAM) is a framework, which enables the successful implementation of business, technology and infrastructure. It identifies that business success is dependent on the concurrence of business strategy, IT strategy, organizational infrastructure and processes and IT infrastructure and processes. [1]

ITIL Strategic Alignment model (figure 2) is presented as a generic framework for positioning ITIL in SAM. As shown, ITIL supports whole internal and external aspects of information technology within IT strategy and IS infrastructure and processes by implementing IT service management process.

By positioning ITIL in this part of the model it identifies how ITIL impacts on business strategy, IT strategy, organizational infrastructure and processes, and IS infrastructure and processes.

In this regard, the following are the six external and internal components of IT strategy and IS infrastructure and process that ITIL covers:

1. Information technology scope: ITIL within Service Strategy stage, understands the business strategies, policies, long term objectives as IT service customer to reveal patterns of current and future IT strategic decisions and establish IT service objectives. So Service Strategy stage defines IT Strategies and set objectives as a supportive or enabler means to business Strategies. The outcomes of understanding business customer tasks, resources and constraints lead to define the market space of IT services to gain value of IT investments for the business. Defining IT services for granting to business is based on business impact analysis to display services on a comparative scale using financial impact and risk priority and to identify a company’s most critical business services, cost of service outage to a company, and the relative worth of a service.
2. Systematic competencies: ITIL plays two differences roles in business of organization. Generally IT services play a supportive role for business to meet the business strategies and goals and facilitate business maturity by defining, designing, and implementing IT services to business. Furthermore ITIL uses IT as an enabler and driver for business to recognize new initiatives by identifying and implementing improvements to IT services that support business processes. So IT services is continually aligned and realigned to the changing current and future business needs. Hence business customer satisfaction is increased by continual service improvement activities that suggest improvement upon the business and technical focus.

3. IT governance: Service Strategy stage of ITIL provides the how for service management aspects to support governance by providing a management policy and aligning IT strategies with business goals, setting priorities and allocating resources.

4. Architecture: As ITIL has a service-oriented perspective to whole aspects of organizations’ IT, it enforces mechanisms in alliance with business to serve required IT services based on current and future business needs. ITIL through Service Design, Service Transition, and Service Operation designs and implements all aspects of IT services for business customers. The role of service design is to design of appropriate and innovative IT services, including their architectures, processes, policies and documentation, to meet current and future agreed business requirements and all design activities are triggered by changes in business needs.

The purpose of Service Transition is to ensure that the IT service can be managed, operated and supported in accordance with the requirements and constraints specified within the Service Design. The Service Operation provides guidance on achieving effectiveness and efficiency in the delivery and support of services so as to ensure value for the business customer and the service provider. Furthermore potential improvements to IT services in contact with activities of the business is identified within Continual Service Improvement and implemented within other stages of IT service management.

5. IT processes: ITIL presents a comprehensive set of guidelines for defining, designing, implementing and maintaining IT Service Management processes. It provides platform that can be used to leverage complementary effects between IT and business resources thereby enhancing the value of IT for business purposes.

6. IT skills: In each stage of IT service management, ITIL is focused on relating with business for two reasons: first to understand the business requirements as the main customer of IT services and second to train people and transfer essential knowledge about whole aspects of IT services. Moreover Knowledge Management process within Service Transition concentrates on designing a systematic process for creating, organizing, storing and presenting valuable information in a way that improves people’s comprehension in a relevant area to raise IT skills of IT service providers and customers.

It is the relationships that exist among the twelve components of this model that further define business-IT alignment. [65] During IT Service Management Processes, ITIL develops and maintains three kinds of relationships between all domains of model: business strategy, IT strategy, organizational infrastructure and processes, and IS infrastructure and processes. Focusing on the concept of alignment perspectives (strategic fit and functional integration) of SAM, ITIL enforces business-IT aligning practices and relationships at the strategic, tactical and operational levels which support completely IT strategic fit (between IT strategy and IS infrastructure and processes),
strategic functional integration (between business strategy and IT strategy), and operational functional integration (between organizational infrastructure and processes and IS infrastructure and processes). Moreover ITIL does not concern on relationships between business strategy and organizational infrastructure and processes to make business strategic fit.

ITIL alignment perspective involves meeting business strategy through appropriate IT service strategy and articulating the required IT service infrastructure and processes. As shown in ITIL strategic alignment model, IT strategy shapes upon business strategies and long term objectives. However the IT service lifecycle of ITIL is initiated from a change in requirements in the business. This perspective is not constraints by the organization design, but instead seeks to identify the best possible IT competencies through appropriate positioning in the IT marketplace, as well as indentifying the corresponding internal IT service architecture. Equally important, IT service management processes identify the changes in business and IT services to re-align IT with the business.

VII. CONCLUSION

As the alignment gap between IT and business is a critical issue for organizations, the intention of this research is to identify how effectively ITIL achieves strategic alignment between IT and business objectives in general. ITIL providing the how for IT service management aspects to support governance by providing a management policy and aligning IT strategies with business goals, setting priorities and allocating resources, to define requirements by creating service level agreements and setting clear, business-related IT objectives and metrics, to ensure value for the business customer by delivering IT services, and to increase customer satisfaction by implementing continuous improvement from both the business and the technical viewpoint. Therefore business and IT become true partners when they can agree upon realistic IT service levels that deliver the necessary value to the business at an acceptable cost.

In addition, this research describes ITIL strategic alignment perspective by presenting ITIL Strategic Alignment Model by applying it to the SAM. Taking into account ITIL alignment functionalities and communications between business and IT, ITIL covers internal and external aspects of information technology within IT strategy and IS infrastructure and processes in SAM. Focusing on the concept of alignment perspectives (strategic fit and functional integration) of SAM, ITIL supports completely IT strategic fit (between IT strategy and IS infrastructure and processes), strategic functional integration (between business strategy and IT strategy), and operational functional integration (between organizational infrastructure and processes and IS infrastructure and processes).

Based on above discussions, ITIL plays two differences roles in business of organization. Generally IT services play a supportive role for business to meet the business strategies and goals and facilitate business maturity. Furthermore ITIL uses IT as an enabler and driver for business to recognize new initiatives.

REFERENCES