

Effectiveness of ITIL: IT Professionals' Perspectives

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Abstract: The rapid changes in IT technologies has introduced numerous challenges in dealing with the complexity of the tools, technologies, and processes align with IT business objectives. Organizations faced dealing with rapid technology changes and complex IT disciplines while conducting business. Often, business leaders who demand speedy changes undermine considerations for adhering to a process model to assist in transitioning and adopting new technologies. The Wall Street Journal reported the cause of many businesses IT failures as misalignment of IT with the needs of business to deliver expected outcomes [5]. Several factors could contribute to misalignment, such as lack of a process model, inadequate resources, defects in IT governance, and the difficulty of managing rapidly changing technology. Previous studies have examined the effectiveness of the Information Technology Infrastructure Library (ITIL); and how well ITIL aligns with corporate business strategies.

This paper examines the IT professionals' perspectives and its effectiveness on business strategies and success. The study investigates if there are benefits of adopting a process model to improve key related business processes. The intent of the paper is to examine whether a strategic IT business alignment exists when selecting a prescribed process model in an enterprise. IT professionals' perspectives, engagement and support could be the essential element in the success of the adoption and implementation of a prescribed process model within an organization. IT Professionals and practitioners invited to share their perspectives on the effectiveness of ITIL and its impact to the organizations' success. The study will uncover if a strategic IT business alignment exists when selecting a prescribed process model in an enterprise; and if the implementation of a prescribed process model affect the overall organizational success.

Introduction: Information Technology (IT) is a fast-growing field interrelating many disciplines to fulfill business computing and transactional processing needs. Information technology encompasses hardware, software, and network communications software and hardware to provide high quality services and products. The advancement of network telecommunications and related technologies has served as a catalyst to many organizations to advance the way to conduct business. More businesses now utilize web-based computing and transactional processing. Adopting a prescribed process model is a major factor in the ability to save time and money within an organization [1][21][23]. Organizations could implement ITIL partially or fully without affecting the company's performance and could scale the implementation to meet the needs of small, medium, or large organizations. ITIL is viewed as the easiest standard to implement, mainly because of its flexible nature [19].

Adoption of standards and proven practices could enable decision makers to deploy the implementation of established processes and procedures quickly. Adopting a prescribed process model such as ITIL could also promote speedy delivery of services and product locally and globally. Most research in 1980s and 1990s was conceptual in nature, and a single industry or firm conducted the experiment rather than an IT organization [16]. Researchers had shown ITIL

as a best practice offering the opportunity to align IT with business [11][17][22]. *Computer Economics Report* published “ITIL Adoption Moves into U.S. Mainstream” in 2007, which reported 35% of 200 surveyed organizations indicated ITIL activity was underway, compared to 7% in 2006. The article contained predictions for continued growth through 2008, with 45% of all organizations in the United States and Canada having adopted ITIL best practices. Alignment between IT and business may help an organization in three distinct ways: “By maximizing return on IT investment, by helping to achieve competitive advantage through information systems, and by providing direction and flexibility to react to new opportunities” [4].

Research Questions: ITIL had emerged over three decades as the best framework to improve IT service and delivery and to align IT with business [8][14][20]. ITIL “provides the framework for establishing functions such as service desk, incident management, problem management, change management, configuration management, and release management” [9]. ITIL describes the main five services, “service strategy, service design, service transition, service operation, and continual service improvement” [10]. The study findings may be useful for business and IT professionals, because adopting a process model will help both parties to speak the same language and bridge the business-IT gap to improve organizational performance.

In a survey conducted among 300 IT professionals, participants were asked to address whether or not their IT organization has adopted ITIL and a second question regarding strategic alignment between business and information technology when selecting a process model in an enterprise.

The goal of these research questions was to examine the effectiveness of diffusing ITIL process model in an organization and to evaluate its success and benefits to business practices. The study can help to gain better insight on how adopting ITIL may influence the business IT alignment, how the executives’ leadership affected the adoption of a prescribed process model, and the benefits realized from adopting a process model to the organizational success. Successful adoption and implementation of a process model depends on management support and IT professional knowledge of a specific process model. For that purpose, the second research question helped to understand the effect of leadership support on selecting and adopting a prescribed process model.

Data Collection: The survey method is “The method in which field workers or interviewers obtain quantitative data in a study of people outside of the experimental laboratory” [12]. For the purpose for this study, a survey was a simple, easy, and clear method for respondents to supply the data. The questionnaire administration took place electronically using an online website. Brehob [6] defined a questionnaire as “A form that people fill out, used to obtain demographic information and views and interests of those questioned” (p. 1, para. 1). Kirakowski [13] defined a questionnaire structurally as “A method for elicitation, recording, and collecting of information” (p. 2, para. 1). Several potential techniques used to obtain responses from a survey return include mail, phone calls, web-based questionnaires, and e-mails. Among factors a researcher needs to consider are to make the survey very simple, clear, and interesting to the respondent.

The survey instruments collected data to assess the relationship between the independent variable (process model adoption of ITIL) and the dependent variable (business strategic alignment).

Survey questions are aimed to understand the IT professionals' knowledge about ITIL process model and factors for the process implementation. The importance of strategic alignment allows a better understanding of how organizations can utilize IT to improve an organizational performance positively [18] after achieving business and ITIL service strategy alignment.

The collected information from questions underwent analysis through descriptive statistics using the chi-square method to highlight a possible pattern or attribute among study participants. According to Leedy and Ormrod [15], "A correlational study examines the extent to which differences in one characteristic or variable are related to differences in one or more other characteristics or variables" (p. 184). Leedy and Ormrod [15] indicated, "A correlation exists if, when one variable increases, another variable either increases or decreases in a somewhat predictable fashion" (p. 184). Correlational design differs from experimental design because the intent of correlation is to answer the question of whether a relationship exists between variables, while experimental, quasi-experimental, and causal-comparative designs determine cause and effect [7].

Data Analysis

The data analysis used in this study, including the statistical techniques, were appropriate for determining influence or affecting business strategic alignment for selecting a prescribed process model such as ITIL v3, which was the general purpose of the study. The data collected for this study were categorical data. The chi-square statistic compares the observed count to the count expected under the assumption of no association between the row and column classifications. Researchers may use the chi-square statistic to test the hypothesis of no association between two or more criteria, groups, or populations, with observed counts compared to expected counts. According to the *Oxford Dictionary of Biochemistry and Molecular Biology*, a "chi-square test (χ^2) is a statistical test to determine whether an observed series of values differs from a series of values expected on a hypothesis, to a greater degree than would be expected by chance" [3].

If m [benefits realized from adoption of ITIL v3] is the expected value and $(m + x)$ [improved business process] is the observed value, then $(\chi^2 = \sum x^2 / m)$. "The goodness of fit may be found from available tables of χ^2 and the number of degrees of freedom, n , in which the observed series may differ from the hypothetical" [3]. A goodness of fit is a feature of chi-square applicable to any univariate distribution. According to Arnold and Emerson [2], "Goodness-of-fit tests are used to assess whether data are consistent with a hypothesized null distribution" (p. 34), meaning that in a null hypothesis (H_0), the distribution fits the data, and in an alternative hypothesis (H_A) the distribution does not fit the data.

Survey Questions

Question 1: Which of the following statements best describes your IT organization regarding adoption of ITIL?

- 1-1 We have not adopted ITIL.
- 1-2: We are in process of adopting ITIL framework.
- 1-3: We have a relatively low level of ITIL framework.
- 1-4: We have a medium level of ITIL framework.

- 1-5: We have a reasonably high level of ITIL framework.
- 1-6: We have completed all level of ITIL framework.

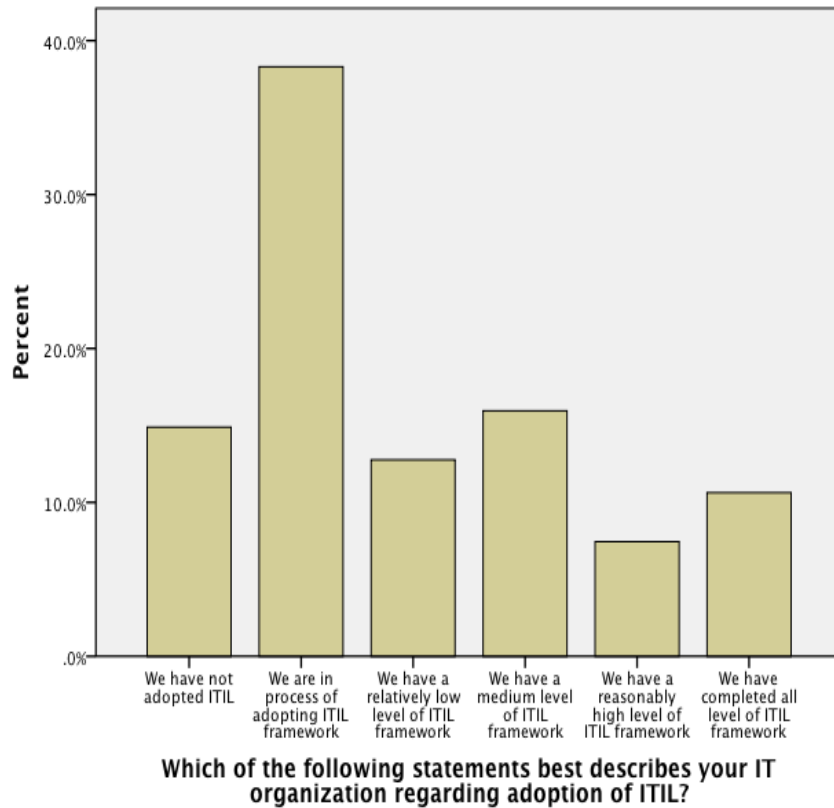


Figure 1. IT professionals' responses to adoption of ITIL

The modal category chosen among IT professionals suggested the company was in the process of adopting the ITIL framework (38.3%, $f = 36$). The least endorsed categories were that the company had completed the framework (10.6%, $f = 10$), and that there was a reasonably high level of the framework (7.4%, $f = 7$); the results are in Figure 1.

Question 2: In your company, which statement best describes the strategic alignment between IT and the Business Divisions/Units?

- 2-1: Lack strategic alignment.
- 2-2: Limited strategic alignment.
- 2-3: Good strategic alignment.
- 2-4: High strategic alignment but not completed.
- 2-5: Complete strategic alignment.

IT professionals responded to a question about their perceptions of strategic alignment in their companies; the survey contained only a single question. The results are in Figure 2. The research questions in this paper emerged from the need to better understand the popularity and adoption of ITIL among businesses.

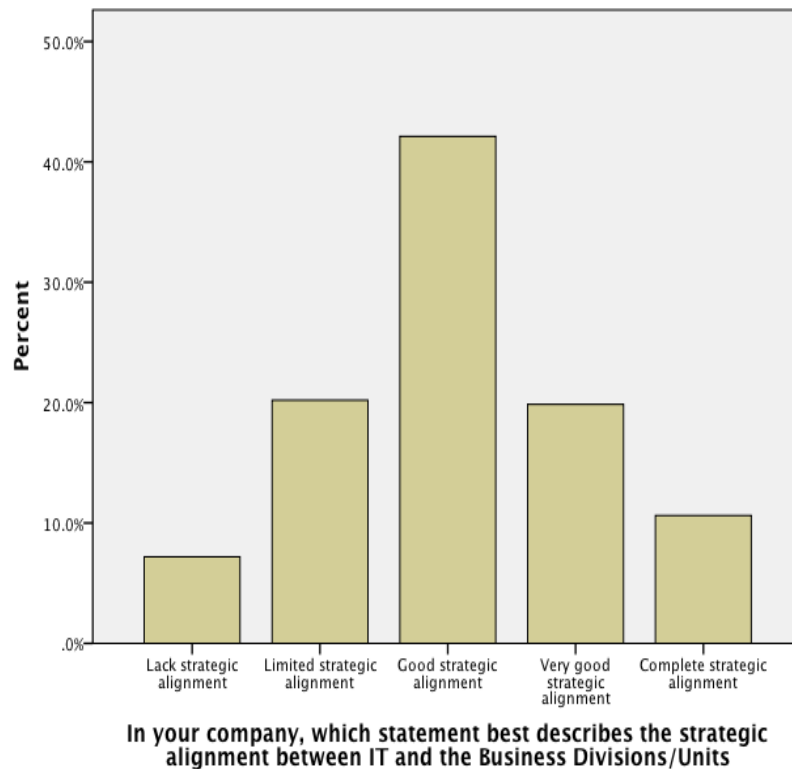


Figure 2. Strategic alignment between IT and the Business Divisions/Units

Conclusion

The aim of adopting a prescribed process model is to improve efficiency, reduce operational expenses, and improve customer satisfaction. As part of a strategy planning process in an organization, managers and practitioners may benefit from improved processes, reduce cost, and competitive advantage and achieving of their goals and objectives if the right a prescribed process model is adopted to complement IT strategic alignment plans for effective IT organizations. This study is significant to organizations by drawing on pervasive and chronic problems organizations face to align business and IT. The results of views of IT professionals, their feelings of strategic alignment and adopting ITIL v3 were positive; the statistical data are discussed in data analysis section of this paper.

The study was significant for the executives and IT professional to consider and implement a prescribed process model to integrate key business related process within the IT process. The result of the survey shows implementing and adopting ITIL v3 required knowledge of IT professionals and support by management. Adopting and implementing a prescribed process model such as ITIL v3 depends on several factors such as leader's support and commitment, IT professional knowledge, and a joint business IT plan involve staff training. This study confirmed that successful ITIL adoption requires both business leaders

and IT leaders to work together to form a joint plan that most suitable and benefits the organization.

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