

THE EFFECT OF INFORMATION TECHNOLOGY STEERING COMMITTEES ON PERCEIVED IT MANAGEMENT SOPHISTICATION IN HOTELS

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ABSTRACT

Information technology (IT) is an important, necessary, and strategic asset to any business enterprise. Investment decisions in IT and the ability to derive benefits and generate business value from these investment decisions depends greatly on how IT is managed in the organization and the IT governance system employed by the organization. This paper studies the effectiveness and impact of IT governance in small, medium, and large hotel organizations; how IT steering committees can be used to improve technology and business strategy alignment; and the perceived level of management sophistication and organizational structure.

Keywords: Information Technology (IT), IT governance, steering committees, management sophistication, hotels

INTRODUCTION

In today's business environment, information technology (IT) is a major force driving change [1] and has resulted in the increase in IT spending across all industries in recent years—to the point where it ranks among the top five investments of most organizations [2]. IT should be considered as a strategic enabler rather than just a tool for specific tasks. With this view, Olsen, West and Tse [3] have stressed that IT strategy should be aligned with the core competencies of the business; however, IT is characteristically high-priced, constantly changing, and complex, making strategic decision-making and alignment a challenging process and contributing to

common complaints and a poor reputation that IT overpromises and under delivers [4]. These realities delay the adoption of technology in the hotel industry.

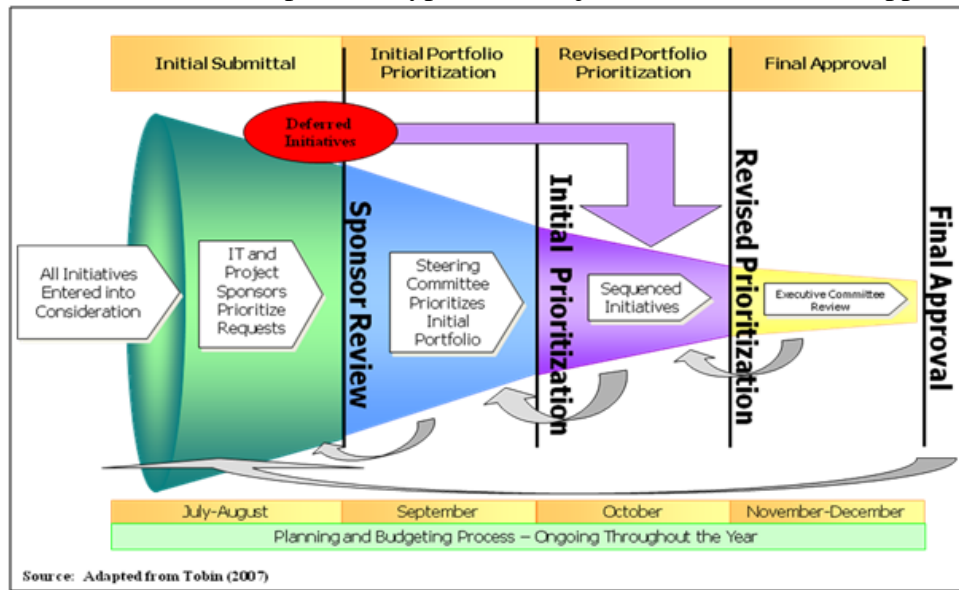
In multi-unit or even multi-national organizations, such alignment proves to be more of a challenge. Betz [5] calls for a more sophisticated approach to IT management or what he terms an intelligent design—one that focuses on the development of effective and efficient IT management processes, disciplined measures, and rational decision-making. In short, he calls for the need to run the IT function like a well-disciplined business, with better overall governance and accountability and particular emphasis on people, priorities, and performance.

Steering committees have been proposed as one way to improve IT decision-making and oversight and are used as a solution to problems in IT adoption [6] [7]. The primary purposes of these committees are to ask the right questions [8], ensure IT-business strategy alignment, and bridge the gap between business and IT [9]. Within the hotel industry, the concept of steering committees is prevalent [10], but they are not always utilized to the extent possible in the industry. The purpose of this study is to explore the impact of IT steering committees on perceived IT management sophistication in hotels

REVIEW OF LITERATURE

Given the capital intensity of IT projects, the decision-making and approval process tends to be complex, multi-faceted, and conducted over a period of time with a number of hoops and hurdles to jump before winning executive approval and funding support [11]. Decision-making for IT investments typically requires a series of steps that begin with ideation and concludes with a go/no-go decision [12]. Figure 1 provides a typical example of the various process stages IT projects must go through for prioritization and approval. Each stage gate represents a series of hurdles which must be cleared prior to advancing to the next level.

Figure 1: An Illustrative Example of a Typical IT Project Prioritization and Approval Process



It is widely accepted in the IT literature that outcomes of IT are subject to the influence of various organizational factors [13] [14]. Unfortunately, there is no one best solution, process, or set of criteria for evaluating IT investment options because the range of circumstances is so broad [15]. How decisions are analyzed and carried out can vary by firm depending upon IT governance (processes and actors), IT investment characteristics (such as costs, risks, technical complexity, and strategic importance), external forces (e.g., environmental threats, regulatory requirements, and competitor moves), organizational structure (including the degree of formalization, centralization, and hierarchical management), and IT function power (which is affected by organizational culture and the clout, reputation, and credibility of the IT organization, among other things) [16]. Bacon [17] and Farbey et al. [18] postulate that the criteria used in evaluating and making IT investment decisions are important because they determine which projects are accepted and the level of funding and resources they receive. Ultimately, they become instrumental in determining and measuring the overall success and effectiveness of the decisions. The assumption is that the criteria used will ensure that only the *right* projects are accepted, while all others are rejected.

The extant literature on IT governance reveals two common patterns of decision-making: attribute-based (with the focus on characteristics surrounding the IT project and decision-making processes) and stage-based (which emphasizes the various steps through which a decision must move, the actors involved at each stage, and the timing) [19].

Historically, steering committees have been viewed as an effective structure instrumental to establishing and implementing strategy. Nolan [20] defines the steering committee as a high-level team of representatives from multiple divisions or functions who are entrusted with the task of linking IT strategy with business strategy by setting a strategic direction for matching corporate concerns with technological potential and building commitment to policies. Clearly, the necessity of effective management comes from the power of IT. The applications of IT dating back to the 1960s were functionally focused; the scope was limited to individual departments of a company [21]. As a result, the steering committees, until recently, only focused on decisions about system development projects, hardware/software selection, and outsourcing of IT service [14].

In Connolly's [20] study, management steering committees comprised of cross-functional representation from upper management ranks were commonly used to help govern and advise IT departments, set priorities, and ensure that the IT strategy was aligned with the business strategy. This type of governance provides shared oversight and helps to reinforce that IT is an integral part of the business, aligned with the business, and an important responsibility of all business executives [21]. It leads to decisions in which business needs drive technology priorities and investments and reduces the chances of IT going astray. It also puts more pressure on IT to deliver business value. While steering committees offer value, they can get political. For example, in the case of one company cited in Connolly's [20] study, steering committee meetings often tended to result in horse trading.

Common questions related to IT are 1) is the company spending too much money on IT, and 2) is the organization gaining appropriate returns from its investment in IT [22]. Weill and Ross [23] argue that the ability to derive value from IT is directly correlated to the effectiveness of a

firm's IT governance process. Governance, as defined by Weill and Ross [23], deals with what decisions should be made, by whom they should be made, the criteria upon which they should be based, and the accountability metrics used to monitor and measure outcomes. Resources for IT are finite and subject to supply, demand, and costs [24]. Therefore, IT governance is so important to a firm's success that it must become part of an organization's set of core competencies [23]. Effective IT management requires "coordinated efforts in planning, organizing, controlling, and directing the deployment and use of IT resources within firms" [14, p. 211].

METHODOLOGY

The quest of this study is to examine how steering committees impact IT management sophistication in multi-unit lodging companies. Prior empirical studies suggested that steering committees have positive impacts on the quality of IT planning [25], the planning processes themselves [26], the overall planning effectiveness [27], improvement of IT project portfolios and the fit between IT strategy and business strategy [28]. Karimi et al.'s [14] study demonstrated that steering committees can, indeed, enhance the level of IT management sophistication within firms. Higher levels of IT management sophistication ensure a good degree of fit between IT and business strategies, which then serves as the foundation for appropriate selection and utilization of IT resources. Building upon Karimi et al.'s [14] research and the hypotheses they used, we propose:

- H1: The level of IT planning is significantly higher in hotel companies with steering committees than in hotel companies that do not have such committees.
- H2: The level of IT culture is significantly higher in hotel companies with steering committees than in hotel companies that do not have such committees.
- H3: The level of IT integration is significantly higher in hotel companies with steering committees than in hotel companies that do not have such committees.
- H4: The level of IT control is significantly higher in hotel companies with steering committees than in hotels companies that do not have such committees.
- H5: The level of IT organization is significantly more formalized in hotel companies with steering committees than in hotel companies that do not have such committees.
- H6: The level of IT management sophistication is significantly higher in hotel companies with steering committees than in hotel companies that do not have such committees.

The population for this study was managers who are in charge of technology management in multi-unit hotel companies. The target population consisted of technology managers who were subscribers of *Hospitality Technology* magazine. A random sample of 1,000 subscribers was selected as sample for this study. This study employed mixed-mode methodology where the survey instrument was disseminated by mail and an e-mail/web-based form. For the respondents that had an e-mail address in the database, an e-mail invitation was sent to visit the web-based survey website. For respondents that did not have an e-mail address, a paper version of the survey was mailed. Researchers have started to use mixed-mode surveys that employed telephone, mail, fax, and e-mail methods all together or in different combinations [28] [29] [30].

DISCUSSION OF FINDINGS AND CONCLUSIONS

A total of 203 usable responses were received for this study, yielding a 20.3% response rate. The sample contained varied types of hotel companies and properties in terms of size, scope, and industry segment. Smaller hotels accounted for 29%, whereas the mid-sized and larger hotel companies and properties accounted for 71%. These hotels spread the gamut of independent management companies without franchised products (21%), independent management companies with franchised products (21%), global hotel chains (20%); national hotel chains (12%), regional hotel chains (10%), franchisor (2%), and other (14%). Regarding the IT budget as a percentage of sales, a majority of respondents (40%) estimated that their IT budget represents 4% or less of the sales.

A *t*-test was used to examine the significance of mean differences in the dimensions of IT management sophistication between hotels with IT steering committees and hotels without such committees. Table 1 presents the results of this test. As indicated in the Table 1, the *p*-value for the *t*-test of the mean difference in IT planning between hotels with steering committees and hotels without such committees was less than 0.000, indicating that the mean difference is statistically significant ($t = -3.63$). Hence, H1 was supported. The level of IT planning sophistication is higher in hotels with steering committees than in hotels that do not have such committees. Table 1 also shows that the *p*-value for the test of significance of the mean differences with regard to IT culture ($t = -4.14$) was less than 0.000. This indicates that there was a strong statistical difference in IT culture between the two groups of hotels. Hence, H2 was supported.

Table 1: T-test results indicating significant mean differences between hotels with IT steering committees and hotels without such committees in terms of IT management sophistication

Hypothesis	IT Sophistication Dimensions	Hotels with IT Steering Committees (N=111)		Hotels without IT Steering Committees (N=92)		<i>t</i>	<i>p</i>
		Mean ^a	Std. Dev. ^a	Mean ^a	Std. Dev. ^a		
H1	Planning	3.00	.53	2.68	.71	-3.63	0.000
H2	Culture	2.82	.58	2.46	.66	-4.14	0.000
H3	Integration	3.30	.44	2.58	.62	-9.57	0.000
H4	Control	2.93	.52	2.64	.68	-3.37	0.001
H5	Organization	2.55	.38	2.35	.39	-3.61	0.000
H6	Overall Sophistication	14.59	1.43	12.72	1.98	-7.80	0.000

^a The scores for each dimension are on a scale of 1 (strongly disagree) through 5 (strongly agree)

The hypothesis test results for H3 are also presented in Table 1. The test sought to determine if hotels with IT steering committees have higher level of IT integration than hotels without such committees. The results indicate that the differences statistically significant between both types of hotels ($t = -9.57$, $p < 0.000$). Hence H3 was supported. Hypothesis 4 was also supported ($t = -3.37$, $p = 0.001$). Hotels with IT steering committees do have a higher level of IT control sophistication than hotels without IT steering committees. The results of the test for H5 suggest that, when compared to their counterparts without such committees, hotels with IT steering committees have a significantly higher level of IT organization ($t = -3.61$, $p < 0.000$). Taken as a

whole, the results indicate that hotels with IT steering committees have a significantly higher level of overall IT management sophistication than hotels without IT steering committees ($t = -7.80$, $p < 0.000$), supporting H6. The results of factor analysis of the IT management sophistication revealed support Karimi et al.'s [14] study in the context of the hotel industry.

These items distinctively loaded on the four dimensions of IT planning, integration, control, and organization. The same results also apply to the IT culture dimension. The implication is that in spite of the organizational context of IT management sophistication, managers perceived IT steering committees as affecting the five dimensions of IT sophistication identified in the literature.

While a consensus exists in the literature that IT steering committees add to the sophistication in IT planning, culture, integration, control, and organization [31] [14], our findings suggest that these dimensions are not equally affected by the existence of IT steering committees, as perceived by IT professionals. IT planning was perceived by the respondents in this study to be more affected than the any other dimensions. This result is consistent with Raghunathan and Raghunathan's [32] study of data processing steering committees. IT steering committees may particularly facilitate a higher level of sophistication in IT planning in organizations. One may speculate the reasoning for this finding is because the IT steering committees are usually involved with the IT planning stage more than any of the other stages.

As more hotels are investing greater sums of money in information technology, the existence of an IT steering committee becomes more important. Our findings indicate that such committees are of strategic importance to the overall success of the hotel business in achieving not only its IT strategic objectives but also in gaining an edge over its counterparts in terms of the potential to maximize return on the investment from technology. Many hotels do not have IT steering committees to monitor the performance and effectiveness of their IT investments. Regardless of the reason, this attitude must change. Hotels that do not have IT steering committees but have long-term plans to invest more in technology must consider setting up dedicated IT steering committees. This is especially important to ensure a better IT fit within the organization and IT-business strategy alignment [33]. An effective IT steering committee can perform a critical role in supervising the implementation of the organization's IT strategy to reduce the risks associated with IT investment decisions and to increase the likelihood that these decisions will lead to the creation of business value and the realization of business benefits.

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