



# The impact of legitimacy-based motives on IS adoption success: An institutional theory perspective



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## ARTICLE INFO

### Article history:

Received 4 January 2015  
Received in revised form 8 February 2016  
Accepted 18 February 2016  
Available online 15 March 2016

### Keywords:

IS adoption  
Institutional theory  
Adoption motives  
Project management approach  
Team competence

## ABSTRACT

Firms frequently adopt new information systems (IS). To better understand IS adoption, research has been focused on motives for an IS adoption. In this study, three legitimacy-based motives (coercive, mimetic, and normative pressure) are examined for their impact on two success determinants (i.e., project management approach and team competence) and the subsequent impact of the success determinants on IS adoption success. In a quantitative study of Australian firms, we found that coercive pressure and normative pressure influence the project management approach, whereas mimetic pressure influences team competence. Both the project management approach and team competence in turn influence IS adoption success.

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## 1. Introduction

Across the globe, firms regularly initiate information systems (IS) adoption projects because these systems are only in operation for a few years (2–4 years) [35]. Even during economic crises, firms continue to adopt new IS [49]. Nevertheless, IS research and reports from practice show that firms struggle to complete their IS adoption projects successfully [57]. Many examples exist: Puroo et al. [98] present a large-scale, public-sector project that consumed >3 billion US\$ but failed to deliver key IS functionalities. Similarly, in 2003, the fast-food chain McDonalds failed in its attempt to adopt an enterprise resource planning (ERP) system that would centrally control the operational business of 30,000 restaurants [81].

To gain a better understanding of IS adoption and to eventually be able to increase the success rates of IS adoption projects, researchers have recommended focusing on understanding why adoption projects are initiated [77]. Consequently, the adoption motive, which represents the reason for initiating an IS adoption project, becomes the focal point [48]. The importance of motives in relation to IS adoption was demonstrated in prior studies that investigated the impact of motives on IS adoption intention

[111,116] and on IS usage and post-implementation assimilation of enterprise systems [65,73]. However, little research has investigated the impact of adoption motives on IS adoption success. Knowing the extent to which motives influence adoption success would provide theoretical and practical insights into the relationship between the reasons for IS adoption and its success.

This research examines IS adoption success using institutional theory as the theoretical lens, thereby integrating DiMaggio and Powell's (1983) framework of three institutional pressures (i.e., coercive, normative, and mimetic) with the literature on success determinants [23]. Institutional theory explains how motives, captured as the three pressures, prompt organizational behavior, which in turn influences the success of that behavior. The theory suggests that a firm makes decisions based on its desire to be accepted (have legitimacy) by institutions in the firm's environment [82]. Although this legitimacy-seeking behavior ensures long-term survival of the firm in the environment, it constrains the firm's freedom to operate its business. Nevertheless, firms can freely choose to use different success determinants when responding to the institutional pressures; that is, the firm can make resource choices about what and how much to commit to the IS adoption project. The combination of different success determinants allows a firm flexibility in successfully adopting the new IS.

Based on these considerations, we hypothesize that three institutional pressures affect two success determinants (the project management approach and project team competence)

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and that these two success determinants influence IS adoption success. To test the research model, data were collected from Australian firms and analyzed via structural equation modeling. The results show that coercive and normative pressure positively influence the project management approach, whereas mimetic pressure positively influences team competence. In turn, the project management approach and the competence of the project team positively influence IS adoption success and the project management approach also influences project team competence.

The current research contributes to the body of literature on IS adoption success by investigating the impact of legitimacy-based motives on IS adoption success. In addition, this research has implications for practice because it provides firms with knowledge in their efforts to successfully adopt IS; in particular, it enables firms to link motives with outcomes of IS adoption projects. The remainder of this paper is structured as follows: the theoretical foundations are discussed and hypotheses are developed. Then, the methodology is outlined and results are presented. Finally, conclusions are drawn.

## 2. Theoretical background

### 2.1. An institutional theory perspective on IS adoption

Institutional theory has been used in IS research to understand “how institutions influence the design, use, and consequences of technologies, either within or across organizations” ([89], p. 153). An institution is a social structure formulating rules that provide firms and their organizational actors with behavioral guidance and recommendations for actions, while simultaneously controlling and constraining them in their choices [104]. Examples of such institutional rules include contracts, government regulations, and nonbinding industry norms [64]. According to the institutional theory, firms and their organizational actors seek to achieve legitimacy, which is “the acceptance of the organization by its environment” ([67], p. 64). Prior research argued that firms seek legitimacy because being accepted is critical for the organization to succeed and survive [82].

Institutional theorists DiMaggio and Powell [34] conceptualized the influences exerted by institutions on a firm as pressures: coercive pressure, mimetic pressure, and normative pressure. Together, these pressures are also referred to as isomorphic pressures, because different firms engaging in similar behaviors to

achieve legitimacy become more similar over time [34]. The adoption of an IS can be an example of organizational behavior requested by institutions if the motive for the adoption is to gain legitimacy rather than to maximize the firm’s efficiency [119]. At the core of DiMaggio and Powell’s work are the three pressures that originate from different institutions in the environment (see Table 1).

The organizational pursuit of legitimacy is an external influence [74] and thus prompts and influences the organizational behavior of a firm. For example, coercive pressure – as an IS adoption motive – requests a firm to comply with the government regulations to implement section 404 of SOX (Sarbanes–Oxley Act). This governmental regulation aims at enforcing stricter internal controls and accounting reporting attainable through improved IS functionality [12] that may or may not maximize a firm’s efficiency. Yet, with the compliance request, the government imposes external constraints on the firm; that is, the pressure constrains the firm’s freedom to choose how to undertake the update of their accounting IS and as such can jeopardize the successful completion of the project [44]. Consequently, if the motives regarding the adoption of an IS are legitimacy driven, the external constraints may influence IS adoption success.

IS researchers have used institutional theory to examine a number of IS-related phenomena [29,82,124]. Early studies that applied the lens of institutionalism can already be found in the late 1980s and early 1990s [82], but recently this theory has found increased application in IS research [29]. Very few IS studies have used institutional theory without consideration of the organizational or technological context [29]. In fact, most prior IS studies have integrated institutional theory with other information technology (IT) artifact-focused theories or IT-contextual theories [29]. In-depth, nuanced insights into the adoption and diffusion of IT innovations can be gained when institutional concepts are integrated with other theories. For instance, combining DiMaggio and Powell’s [34] three pressures with the alignment theory, organizational visions theory, and strategic response theory showed that the adoption of a telehealth innovation in different organizational fields failed, because in each field the institutional pressures exerted different impacts, which implies that the differences were manifested based on how the innovation was diffused [13].

In their meta-review on the institutional perspective in IS research, Mignerat and Rivard [82] further classify the body of

**Table 1**  
Overview of DiMaggio and Powell’s three institutional pressures.

	Coercive pressure	Mimetic pressure	Normative pressure
Origin of the pressure	<i>Power differences:</i> Institutions in a firm’s environment directly or indirectly request that the firm engage in certain actions. The organizations are powerful enough to sanction or reward the firm’s actions.	<i>Uncertainty:</i> The firm has insufficient information to solve a problem. The firm observes that organizations in the environment have successfully solved similar problems.	<i>Promotion of norms:</i> Institutions in the firm’s environment define and promote norms but do not directly sanction compliance or noncompliance.
Firm’s actions in response to the pressure	<ul style="list-style-type: none"> <li>• Estimation of sanctions and rewards</li> <li>• Estimation of the organization’s ability to monitor compliance</li> <li>• Estimation of the costs of compliance</li> <li>• Estimation of how far compliance is desirable</li> <li>• Initiation of actions required to achieve compliance</li> </ul>	<ul style="list-style-type: none"> <li>• Observation of behaviors by other organizations in the environment</li> <li>• Observation/estimation how successful the behaviors have been</li> <li>• Estimation of how successful the behavior could be in the firm</li> <li>• Mimicry of the behavior that seems suitable for the firm</li> </ul>	<ul style="list-style-type: none"> <li>• Estimation of positive and negative compliance consequences</li> <li>• Estimation of the costs of compliance</li> <li>• Estimation of how far compliance is desirable</li> <li>• Initiation of actions required to achieve compliance</li> </ul>
Achieving legitimacy	Complying with the legal or interfirm request	Imitating a behavior that is considered acceptable in the organizational environment	Identifying and complying with the norm
Examples	Firms complying with legal regulations defined by governmental agencies	Firm implements an ERP system based on observations that other firms successfully use their ERP systems to increase time to market	Firms complying with norms defined by the Institution for Standardization (ISO)

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