The institutionalization of information system project management practices

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Abstract

Considering that current structures are the result of choices made in specific contexts in the past, we adopt a historical perspective in order to understand how some information systems (IS) project management practices evolved and became norms. Using historical methods, we analyze sources of data spanning 52 years of IS project management (1945–2007) – interviews with IS project managers and academics, IS project management textbooks, curricula, and the scientific and professional literature – to: (1) determine whether some IS project management practices may now be considered institutionalized, and (2) understand their institutionalization processes over time. Based on this analysis, three groups of IS project management practices may now be considered institutionalized: formal control, external integration, and project risk management.

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1. Introduction

Information systems (IS) project managers are presented with many project management practices deemed essential for their projects. Such practices range from project planning tools, control mechanisms, risk management methods, user participation activities, and change management approaches. Professional associations consider several of these practices to have acquired the status of norms. For instance, the Project Management Institute (PMI), which has a membership of several thousand IS professionals, “identifies the subset of project management body of knowledge [processes, skills tools, and techniques] generally recognized as good practice” (Project Management Institute, 2008, p. 4). By using the expression

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“generally recognized,” the PMI is referring to the fact that the “knowledge and practices described are applicable to most projects most of the time, and there is consensus about their value and usefulness” (PMBoK 2008, p. 4).

It has been suggested that the enactment of some IS project management practices is akin to an institutional behavior. For example, some organizations invariably rely on standardized professional practices in their software development projects (Kirsch, 1997), and some methodologies have become standards (Avgerou, 2000). A practice is said to be institutionalized when its legitimacy is recognized in a given context – an institutional field – and when it has acquired the status of a norm or quasi-rule.

Institutional theorists suggest that the structure and enactment of organizational practices that have acquired the status of norms in a given field result from choices made in the past in specific contexts (Kieser, 1994). More specifically, this means that, prior to becoming institutionalized, a given practice is devised in response to a particular problem faced by the organization on the basis of the technical and economic feasibility of the practice (Tolbert & Zucker, 1996). At this point in time, adoption of the practice appears to be based on efficiency and effectiveness motives. Later, when a consensus is reached among the actors of an institutional field about the value of a practice and when the practice is considered a norm within the field, its enactment is based on legitimacy motives. Along this line of thinking, Kieser (1994) suggests that current organizational structures and practices can only be understood once the historical dimension has been taken into account: the identification of current organizational problems and appropriate remedies should be understood at the moment that the problems arose. He further argues that “historical analysis teaches us to interpret existing organizational structures not as determined by laws but as the result of decisions in past choice opportunities” (Kieser, 1994). If we do not want to limit our understanding of organizational phenomena, “we need to take history seriously” (Leblebici & Shah, 2004, p. 353). How? By integrating the concepts and methods of history and organizational theory (Leblebici & Shah, 2004).

Adopting this perspective, the present study identifies project management practices that have acquired the status of norms in the IS project management profession and seeks to understand their institutionalization process. To this end, we adopted historical methods to review 52 years of IS project management, drawing on many sources of data. Our historical analysis was informed by a model of institutionalization stages (Greenwood et al., 2002; Tolbert & Zucker, 1996), used to examine the content of 321 articles published in 14 journals from 1945 to 2007, 13 books or book chapters, three IS project management textbooks released in several editions from 1982 to 2007, four subsequent versions of the Project Management Body of Knowledge (PMBoK) Guide from the Project Management Institute (PMI) as well as its preliminary preparatory versions, three versions of the project management methodology of a leading IT consulting group (1985–2005) and 23 computer science/information systems curricula published between 1968 and 2002. Finally, we interviewed 46 IS project managers and scholars from eight countries, whose experience ranged from 3 to 30 years. Based on our analysis of these data, we offer an explanation of how the practices appeared and were diffused.

Our results suggest that three groups of practices – formal control, external integration and project risk management – have reached full institutionalization. The institutionalization processes of these three groups of practices differ slightly. The first two groups of practices evolved concurrently. Both groups emerged at the same time – toward the end of the 1950s – and their institutionalization processes were similar. The practices in these groups were introduced in response to managerial problems associated with a major technological jolt: the introduction of computers in organizations. Formal control and external integration practices were introduced to address the problems of projects that went over budget, late system deliveries and unsatisfied users. The complete institutionalization process of these first two groups of practices – from inception to a state of full institutionalization – lasted four decades. The third group of institutionalized practices – risk management practices – appeared later, toward the beginning of the 1970s. Our data suggest that these practices were introduced by institutional entrepreneurs, in response to the same problems that had existed for several decades, notwithstanding the use of formal control and external integration practices. The institutionalization process of risk management practices occurred faster than that of the other two groups. We suggest that this may be due to the efforts of institutional entrepreneurs, the existence of multiple diffusion channels – curricula, academic programs, journals, and professional associations – that already existed when risk management was first proposed, as well as to environmental events – the Sarbanes–Oxley Act and the Basel agreements – that accelerated the sedimentation of risk management practices.
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