

THE INFLUENCES OF INSTITUTIONAL PROPERTIES ON MULTIPLE PERSPECTIVES OF INFORMATION SYS- TEMS QUALITY

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ABSTRACT

The influences of institutional properties (culture, IS processes, IS strategies, and IS structure) on multiple (technical, organizational, and personal) perspectives of information systems quality are presented in this paper. An Information System (IS) consists of patterns of interaction that are eventually institutionalized and become institutional properties of an organization.

1. INTRODUCTION

With the rapid growth in the use of computer based technologies in homes, organizations and other institutions, everywhere seem to be currently under a lot of pressure to “technologies learning”, therefore the study of societal context enables researchers and practitioners to improve their understanding of the impact information technology on society as well as the influence society has on the development and use of information technology. Understanding these aspects enables IT managers at multinational organizations to operate more appropriately in countries other than their own. Fig. 1 shows the IS Research Domain.

Descriptions of IS quality are socially constructed by stakeholders as interactions amongst themselves and with information systems. The institutional properties within the social structures are drawn upon during these stakeholders interactions, which modify these socially constructed IS quality descriptions. The following four main institutional properties constitute the the institutional contexts of the organizations which were investigated. The influence of the institional contexts on the relevent systems signifying the meanings of IS quality, and its reinforcement or transformation by the surfacing of these meanings, are explored in the following sections.

1.1. CULTURE

Culture influences the social relations among, and practices of IS stakeholders in an organization. Culture manifests itself in a mixture of beliefs, myths, values, ideologies, and in an assortment of rites, rituals, customs, and metaphors. Communication patterns within the organizations form part of the culture. They denote signs and symbols used by the stakeholders to communicate with each other.

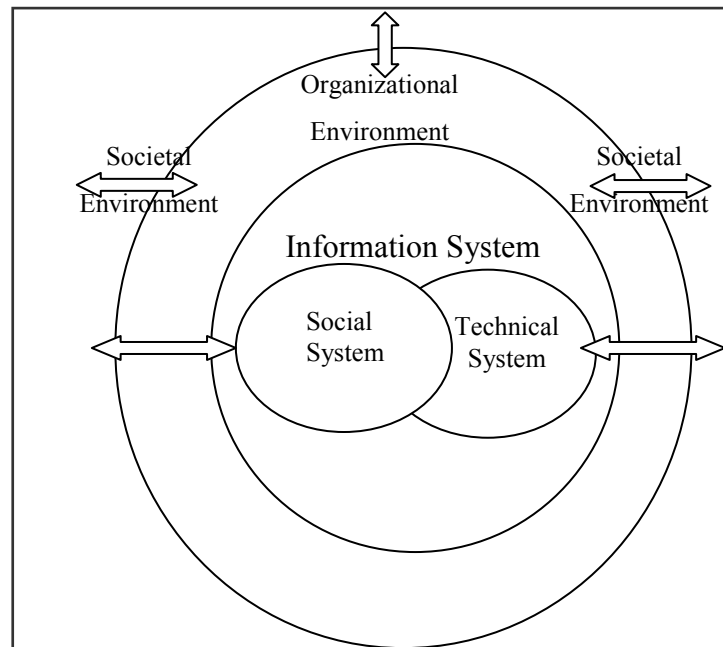


Fig 1: IS reserach domain.

1.2. IS PROCESSES

IS processes refer to the systems development process and the procedures undertaken by an IS department in performing its activities and fulfilling its role in the organization. This especially includes the establishment standard operating procedures and control mechanisms to ensure effeciency of IS provision.

1.3. IS STRATEGIES

An organizational strategy defines the direction of an organization to fulfill its purpose and achieve its mission. An IS strategy provides a framework of general approaches that are made by the managment of an organization to achieve its IT goals in the long term, it encompasses plans, budgets, and policies related to IS. Strategies include considration of the division of labour and expertise within an organization, petraining to a structural arrangement of human resources for IS activities.

1.4. IS STRUCTURES

IS structures refer to structural arrangements of an IS department within an organization. It influences the role of the IS department in relation to other departments.

2. INSTITUTIONAL PROPERTIES AND TECHNICAL (T) PERSPECTIVE OF INFORMATION SYSTEMS QUALITY

There are a number of similarities and differences among the root definitions classified within the technical (T) perspectives of IS quality abstraction. The root definitions were either directly or indirectly influenced by institutional properties. The similarities, differences, and influences of the institutional properties.

2.1. SIMILARITIES AND INFLUENCES

The most prevalent description for IS quality in all case studies is "a technically efficient/excellent/impressive/superior IS". The description of transformation achieved by the relevant system reflects the more traditional view of IS is the set of artefacts in the implemented computer systems. The view of IS quality is predominant in the IS discipline itself. The view constitutes the interpretive scheme during formal training of IS developers, and is reinforced during their interaction with the users.

2.2. DIFFERENCES AND INFLUENCES

The key actors identified as responsible for carrying out the activities in the relevant systems differed among the case studies. The study shows that although all four institutional properties influenced the technical (T) perspective description of IS quality, it is mainly influenced by the procedures, structures, and action taken during the IS development processes.

3. INSTITUTIONAL PROPERTIES AND ORGANIZATIONAL (O) PERSPECTIVE OF INFORMATION SYSTEMS QUALITY

The analysis showed that relevant systems for IS quality refer to characteristics of artifacts in implemented computer systems when discussed within technical (T) perspective. However, within organizational (O) perspective, analysis indicated that IS quality is abstracted as a system with strategic approach for planning and organizing actions in IS provision. The transformation process identified improving actions in IS quality provision. The relevant systems differ depending upon the worldviews they incorporate. The worldviews are influenced by the institutional properties in each organization. Worldviews in the relevant systems identify various roles of top management, administrators/directors, and IS management towards IS quality. These worldviews indicate that the appropriateness and usefulness of an IS are influenced by the extent of the organizational strategy for computerization. To summarize, the organizational (O) perspectives of IS quality shows that they are influenced by the structures and strategies that were established for IS provision in the organization.

4. INSTITUTIONAL PROPERTIES AND PERSONAL (P) PERSPECTIVE OF INFORMATION SYSTEMS QUALITY

The consensus formed through the aggregated root definition in personal (P) perspective was a system that improves the social relations among IS stakeholders. The transformation in stakeholders interaction and relations, that constitute the aggregated root definition, are products of the stakeholders roles, norms and values. Personal (P) perspectives of IS quality formed primarily in the minds of the stakeholders. Stakeholders were unwilling to ar-

ticulate their personal IS quality perspectives. Improvement in IS provision sometimes become difficult because of the organization culture. To summarize, the values that shape the culture of stakeholders in an organization were the main influence to the personal (P) perspective abstraction of IS quality.

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