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Introduction

The objective of this study is to find out how IS qualities are established in organizations and what these established qualities are. Information systems (IS) qualities have been frequently addressed in literature, but there are very few reports about how organizations are actually going about implementing them. The need for a multiple view of IS quality has been emphasized in literature but there are very few reports on how this has been achieved in practice.

We have identified three main phases in the development process where we can examine how quality has been addressed. These phases are the initialization phase (ISP), the development phase (software development), and the use phase. There is very little discussion on how quality has been addressed at the initialization phase in literature. Therefore this work hopes to find issues for further research in the ISP area. The research method in this study is exploratory case study. The process of IS quality development will be examined in three to four case organizations. Such case companies should be ones that have invested in IS quality. The result of this research will contribute toward a deeper understanding of how to achive total IS quality in practice.

Research Problem

The main purpose of this research is to explore how IS qualities are established in organization. Multiple views of quality are needed in archiving this. For example, business, technical, and user views must all be integrated. Unfortunately, most of the quality standards give little or no support along this direction. They are mostly limited to one view of quality, namely technical quality. So what are organizations doing to solve this problem? How are they addressing IS quality issues in practice? How is IS quality evaluated in these organizations?

Background

Several of the attempts that have been made to provide a universal definition of IS quality have been unsuccessful. "The fragmented nature of the literature suggests that multiple definitions and/or models of quality are required to capture the complexity and richness of the construct" (Reeves and Bednar, 1994). Several theoretical models were developed (e.g Eriksson and Torn, 1991, Salmela, 1997, DeLone and McLean, 1991) and several standards were also promoted. The most popular among them are the ISO 9000 series and the capability maturity model (CMM).

Most of these theoretical models view IS quality as a multiperspective construct, while the practical standards are largely one-dimensional, because they emphasize mostly technical quality. The problem is that most of the models are too theoretical to be applied in practice. In an attempt to combine several views of quality into the standards we develop an IS quality process model. This model views IS quality from three dimension, and it gives direction for evaluation. During the IS planning (ISP) (Lederer, et al., 1992) quality is viewed as meeting or exceeding customers' expectations (Grönroos, 1983), as conformance to requirements (Crosby, 1979) during the development phase (Goodhue, 1995), and as fitness for use, (Juran, 1988) at implementation (Guimaraes, et al. 1992).

Research Approach and Expected Outcome

The research approach will be an exploratory case study. How organizations go about ensuring IS quality will be examined from initialization, through development, to use. Three to five organizations that have invested resources into attaining high IS quality will be chosen as case companies.

In this study data will be collected by multiple methods. However, semi-structured interviews will be the primary source for data collection. Company reports, IS development process documents, IS quality development documents, minutes of meetings on IS quality discussions etc. will be used as a source for secondary data. The primary mode of analysis will be interpretative, using both hermeneutic and narrative methods.

Some of the expected outcomes of the case study will include a deeper understanding of how IS qualities are achived in practice, in comparison to the theoretical models and the technical standards. Moreover, a clear direction of how to achieve improvement in practice can be outlined. Practical problems, like how to integrate the business quality (Salmela, 1997) identified during ISP and other views of quality (e.g. technical quality) identified at the development phase, can be addressed. This research is still in progress, therefore the actual contribution cannot be accurately outlined at this time.

References

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