

Chapter 2.18

A General View of Quality Models for Web Portals and a Particularization to E-Banking Domain

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ABSTRACT

The success of Web portals has increased over time, in such a way that a portal user can choose among a wide variety of portals. Therefore, the presence of a Web portal in Internet will depend on its quality. In this chapter, several portal quality models are presented and compared. Moreover, one of the best portal quality model previously proposed has been adapted to the e-banking context. Finally, the new e-banking portal quality model has been compared with the original portal quality model, as well as with the main portal quality characteristics.

INTRODUCTION

A portal is a Web presence that consolidates a variety of information and services for example, searching, news, e-mail, discussion groups, and e-commerce (Ma, Bacon, Petridis, & Windall, 2006). The aim of Web portals is to select, organize, and distribute content (information, or other services and products) in order to satisfy its users/customers (Domingues, Soares, & Jorge, 2006).

Although the term was initially used to refer to general purpose Web sites such as Yahoo, it is increasingly being used to refer to vertical Web sites that feature personalization/customization,

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cross-platform usability, distributed access, management, and security of information and services within a particular enterprise/industry, and thus the so-called enterprise, corporate, or vertical portals (Ma et al., 2006).

Over the past years, the number of Web portals has grown, in such a way that nowadays a wide variety of portals are offered. Consequently, portal users have to choose one portal among several hundred possibilities. Therefore, the success of a portal depends on customers using and returning to their sites, because if a new portal puts up a competitive site of higher quality, customers will almost immediately shift their visits to the new site once they discover it (Offutt, 2002). As more people use Web portals, the quality of Web portals has become an important issue for owners to satisfy their users.

Bearing all that in mind, it can be concluded that portal existence depends on its quality. Portal quality must be assessed in accordance with a “*quality model*” that makes it possible to determine the quality level that a Web portal reaches.

In general, quality models should consider criteria that satisfy the needs of the developers, maintainers, buyers, and end users (ISO/IEC, 2001). Quality models can be split into two different types, general quality models, which can be adopted as-is and specify what has to be measured and how (Brajnik, 2001), and specific models. Specific models, which are only valid for a concrete context, can stem from a generic model that has been tailored for such concrete context.

This chapter discusses related literature review on general quality models for Web portals. In addition, the chapter makes an attempt to contribute to the literature by proposing a specific quality model for e-banking context. In concrete, section 2 presents a brief overview of general models for portal quality, whereas in section 3 the specific quality model for e-banking context is shown. Moreover, in this section a comparative among the different models of the literature and the

proposed model is presented. Finally, the last section outlines the main conclusions as well as the principal areas of future work.

GENERAL MODELS FOR PORTAL QUALITY

In this section, we are going to present some proposals of portal quality models and a comparative study made with them. This study is explained deeply in Moraga, Calero, and Piattini (2006).

PQM: A Portal Quality Model: Moraga, Calero, and Piattini (2004)

In Moraga et al. (2004) a model for portals, namely PQM (Portal Quality Model) is proposed. This model has been made using as a basis the SERVQUAL model, presented by Parasuraman, Zeithami, and Berry (1998) and the GQM (Goal Question Metric) method (Basili, Caldiera, & Rombach, 1994).

The different dimensions of the SERVQUAL model have been adapted to the portal context and some of them are split up into subdimensions, in order to create a quality model for Web portals. As a final result, the dimensions identified for the PQM model are:

- **Tangible:** Characteristic of the portal that indicates whether it contains all the software and hardware infrastructures needed, according to its functionality. The subcharacteristics are:
 - **Adaptability:** Ability of the portal to be adapted to different devices (for instance PDA's, PCs, mobile phones, etc.).
 - **Transparent access:** Ability of the portal to provide access to the resources, while at the same time isolating the user from their complexity.

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