

# A Review of Platforms for Digital Goods

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## INTRODUCTION

This article outlines the Platform Functionality Model (ePFM) for eliciting and modelling the requirements of business-to-consumer online stores for digital goods such as books, music and games. Retailers of such goods (known as e-tailers) exploit the significant adoption of Internet enabled devices and networks in order to reach out to the mass market. As noted in Sharma and Pereira (2014), this is a significant yet underserved area of scholarly investigation. The ePCM model encompasses both E-tailer strategy formulation as well as functional requirements of the web-store. The field research used a variation of the Empathic Design methodology for investigating the efficacy of the ePFM. Over 6 months, a total of 30 fairly established web-stores were evaluated – equal numbers of online bookstores, music stores and games stores. Previous research (Srinivasan et al., 2013) revealed three major findings. First, having a strategic development perspective for an online business is a critical success factor. Second, developing the online business platform requires design that customers expect of online stores comprising transaction, marketing, and revenue functionalities. Third, e-business managers and platform architects may need to pay careful attention to strategies that advance value creation in order to retain competitive advantage. Sharma et al. (2014b) have suggested that, given the rapid growth of pervasive smart devices, the market for digital goods is fast becoming an anytime, anywhere phenomenon with high volumes mitigating the lower margins. The chapter concludes that while all three types of functionalities are required for market impact, there are also differences between hygiene and value-added functionalities among these functionalities which differentiate between success and mediocrity.

## MAIN FOCUS OF THE ARTICLE

The research model described in this chapter was derived from the study of information systems, business and marketing literature. The study first conducted an extensive literature review from six top electronic business journals across the 2000 – 2010 timeline obtained from the Business Source Premier databases of EBSCO Host. Most of the research was derived from key word searches of “electronic markets, electronic transactions, digital economy, digital business, e-commerce model, online stores and online business”. These key word searches yielded around 750 relevant matches. The relevant journal papers were then selected using content analysis of the titles and abstracts.

Gefen et al. state that “an online vendor is represented by the functionalities and features of its virtual store-front, that is – it’s website.” (2003, p. 75). Their study shows that recognizing both technological and trust issues are important in increasing consumers’ intended use of the web site and the transactions with the e-vendor. Hence, the Platform Functionality Model (ePFM) was derived for digital goods with three main categories, transactional functionalities, marketing functionalities, and revenue functionalities. The transactional functionalities are features that enable users to click-through the sales and business processes. Marketing functionalities are features that promote the web-store and its products. Revenue

DOI: 10.4018/978-1-4666-9787-4.ch059

functionalities are features that allow web-stores to monetize business opportunities. The literature review revealed that online media providers tended to provide additional features or services to stay ahead of competitors (Chu et al. 2007). Invariably, the new feature of the website falls under one of the three main categories identified above. The three categories of functionalities that are proposed as a comprehensive model to evaluate the success of an E-tailer operate at this middle layer. Figure 1 depicts the proposed E-tailer Platform Functionality Model which will be used as a framework for empirical analysis.

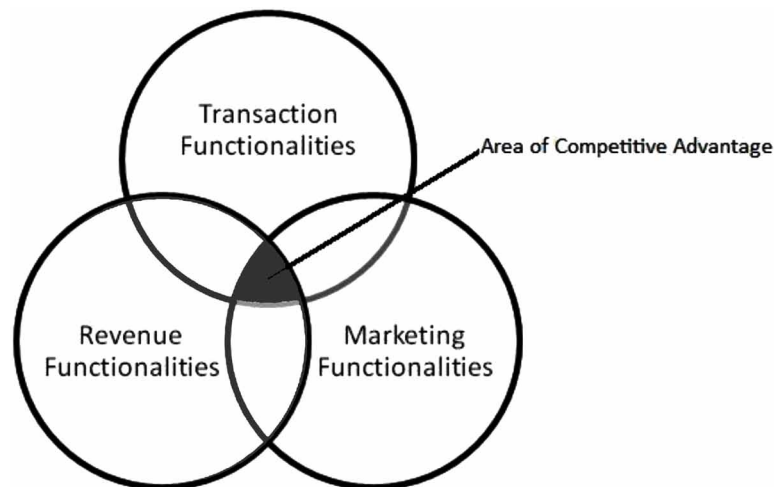
More specifically, studies on the factors associated with website success in the context of electronic commerce form the basis of our model (cf. Cenfetelli et al. 2008; Chang et al. 2005; Chu et al. 2007; Gallagher et al. 2001; Gefen et al. 2003; Liang & Lai 2002; Liu & Arnett 2000; Oh & Lucas 2006; Pavlou, & Fyngenson 2006; Ranganathan & Ganapathy 2002; Song & Zahedi 2006; Wu 2006; and Yang & Papazoglog 2000). In a pioneering study, Liu & Arnett (2000) used a six construct framework to measure the website success consisting of information quality, learning capability, playfulness, system quality, system use, and service quality. Though they originated from some theory, it was clear from their research that the design of web-stores is predominantly from mimicking the “best practices” of competitors and continuous upgrading with user trials and feedback. These research constructs were measured using various components of a website under evaluation.

Taking a socio-economic perspective, Keegan et al (2012) have found that independent retailers per se are particularly unique in creating communities, choice, access and value. They further attribute to independent shoppers the following motivations:

- Shopping pleasure;
- Frictionless shopping;
- Value seeking; and
- Quality seeking.

Drawing on such research literature, we operationalized the e-PFM so as to provide a general design guide for IDM web-stores from the transactions, marketing and revenues perspectives. Thus, the e-PFM serves as a framework to analyze the effectiveness of online bookstores, music stores and MMORPG.

*Figure 1. E-tailer platform functionality model*



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