

Chapter 2

Beneficial E–Personalization and Related Technological Innovations Applied to E–Tailing

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ABSTRACT

The numerous advancements in electronic-personalization communication have generated both benefits and challenges as online retailers try to regain competitive advantages in the current global recession. A literature review of personalization strategies was used to generate a survey instrument to examine the important characteristics of such programs from business professionals. Through appropriate multivariate analyses and data-reduction techniques, the basic elements e-personalization, namely online purchasing behaviors, personalized communications, information retrieval services, degree of personal Web presence, quality assurance of customer service, and the promotion of customization services, were found to be conceptually and statistically related to retailer benefits of e-personalization (increased buying and creates customer loyalty) from the viewpoint of managers for a large goods and services chain store headquartered in Pittsburgh, Pennsylvania.

INTRODUCTION

Technological Activities in E-Tailing

Although the traditional relationship between buyers and sellers has changed little in 200 years, the role of technology in this relationship has changed greatly in the past 20 years, especially in communicating to customers and partners in the overall value chain. Previous researchers (Blake, Neuendorf, and Valdiserri, 2005; Bourlakis, Papagiannidis, and Fox, 2008; Brynjolfsson and Smith, 2000; Fiorito, Gable, and Conseur, 2010) have examined the typical roles of retail buyers and explored how these roles have changed due either to the type of retail store or the role technology has played in the job function. Specifically, Smith (2008, 2011) examined the various uses of knowledge-technology in regards to e-personalization which today's retail buyers have become dependent, especially in the face of ever tighter profit margins. The basic purpose of this chapter is to help retail practitioners identify areas of improvement for retail buyers, especially in the examination of customization via electronic means and customers over satisfaction.

Keng, Huang, Zheng, and Hsu (2007) and Komulainen, Mainela, Tahminen, and Ulkuniemi (2007) have suggested various avenues through which technology has changed in retailing and the impact it has had on the supply chain. From the early beginnings of data mining and data warehousing, the basic foundation for customer relationship management (CRM) systems were laid down (Kyoung-jae, 2011). CRM-embedded systems allow buyers to analyze consumers' buying behavior for the purpose, as it relates to operations, of forecasting future demand for products. Data mining is the analysis of the information and data warehousing is the store of such customer-related data. One of the major functions of CRM is to understand customer behavior, even down to an individual or personalized level. This technol-

ogy has greater implications for marketers than for operations personal.

Fiorito, Gable, and Conseur (2010) documented the usefulness of data mining when used in conjunction with point-of-sale (POS) systems. POS has been the evolution of the once humble cash register into a mighty data collector. Retail buyers are able to mine the data from POS to predict consumer trends or identify stock movements in relation to store layout just to name a few. This analysis can be used by retail buyers to customize store layouts in an effort to make products more accessible to their customers. Perhaps, one of the biggest boosts to efficiency through technology for retail buyers comes from electronic data interchange (EDI).

EDI allows retail establishments and their suppliers to communicate in real time. All partners in the supply chain are fully aware of what products are moving, when inventory needs replenishment, and can react quickly to inventory issues. This process has automated a key function of the retail buyer. This automation has not eliminated the need for this position, instead through efficiency it has freed retail buyers up to concentrate on other tasks. EDI has major implications for the supply chain.

Much of the recent advancements in retail communication technological advancements have been made in the area of inventory management systems, notably automatic identification and data capture systems, especially barcodes and radio frequency identification (RFID) (Smith, 2012). These technologies are most notably used for inventory tracking, as bar codes allow for quick scanning which can easily register all the vital information of products. RFID takes this a step further by allowing data transmission through radio frequency. This can be used to track the location of inventory, whether in a warehouse or on a sales floor. The same technology can be used in loss-prevention which directly effects to retailers' bottom line. RFID tags also collect data as the product moves off the shelf and toward the cash register, helping retail buyers and planners

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