Chapter IV

Assessing Mass Consumer Information Quality Requirements Using Conjoint Analysis

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ABSTRACT

This chapter demonstrates how conjoint analysis can be used to improve the design and delivery of mass consumer information products. Conjoint analysis is a technique that market researchers have used since the 1960s to better understand how buyers make complex purchase decisions, to estimate preferences and importance ratings for product features, and to predict buyer behavior. This chapter describes the steps for performing a conjoint analysis to assess information quality preferences of potential home buyers interested in using a real estate Web site to help them locate properties for sale. The author hopes that this tutorial will convince information systems professionals of the usefulness of conjoint analysis as a tool for discerning how to prioritize information quality requirements so that the resulting systems produce information products that better serve the needs of their customers.
INTRODUCTION

For much of its history, the focus of the information systems (IS) field has been the automation of internal business operations and tracking metrics about the current state of an organization. Today this focus is broadening as an increasing number of firms view their information as more than just a collection of records or reports, but as assets to aid in tasks such as decision-making. Furthermore, many companies are now in the business of selling these information assets in a mass market environment. In order to successfully design, develop, and distribute information products to a multitude of consumers in a competitive environment, companies must take a serious look at how they market and manufacture their data-based merchandise.

Since the early 1990’s individuals like Richard Wang, Yang Lee, Leo Pipino, and Diane Strong (Wang et al., 1998) have advocated that organizations adopt the notion that their data records and information products are an end-deliverable that satisfies consumer needs, rather than some by-product of a computer system. Wang et al.’s (1998) approach recommends that organizations adopt four principles for managing information as a product:

1. Organizations must understand their consumers’ information needs.
2. Organizations must manage information as the product of a well-defined information process that incorporates technology as well as organizational behavioral factors.
3. Organizations must manage the life cycle of their information products.
4. Organizations should appoint an information product manager (IPM) to manage their information processes and resulting products.

Organizations seeking to adopt these principles have traditionally turned to the total quality management (TQM) literature for guidance. Similar to a manufacturing system that uses an assembly line to convert raw materials into physical products, an information system can be viewed as an information manufacturing system that converts raw data into information products. The information product paradigm allows for proven TQM principles from manufacturing to be applied to the improvement of the design, development, manufacture, and distribution of information products. These classical TQM principles can be adapted to the improvement of information products through the undertaking of five tasks (Lee et al., 2006):

1. Articulate an information quality vision in business terms.
2. Establish central responsibility for information quality through the information product manager.
3. Educate information product suppliers, manufacturers, and consumers.
4. Teach new information quality skills based on the cycle of defining information quality dimensions, measuring information quality metrics, analyzing
The Different Views of Software Quality
www.igi-global.com/chapter/different-views-software-quality/26160?camid=4v1a