

# Chapter 5

## Information and Communication Technologies in Marketing Channels: Product Considerations

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### ABSTRACT

*There is broad consensus about the benefits of information and communication technologies (ICT) for distribution channel members. Notwithstanding, it has been pointed out that there is a need to adjust investment to what is strictly necessary. In this vein, this chapter attempts to analyze the level of use and assessment as well as the differences between the different actors' perceptions of their respective suppliers' ICT. In this way, it is intended to discern the major factors which suppliers should take into account when prioritizing the implementation of certain technological solutions, depending on the retail activity.*

### INTRODUCTION

Organizations must cope with an increasingly changing environment caused by the rapid evolution of technology, among others factors (Porter, 1997). In particular, since information is one of the key success factors in an organization, modern

advances in information and communication technologies (ICT) offer new possibilities for business management, representing sources of competitive advantage (Buxmann and Gebauer, 1999).

Regarding marketing channels, diffusion of the use of ICT has involved a deep change in an increasing number of business functions, such as order processing, inventory management, storage,

DOI: 10.4018/978-1-60960-738-8.ch005

transportation and customer service, representing an important source of competitive advantages (Bowerson and Daugherty, 1995). In particular, ICT implementation facilitates the coordination of logistic processes between different channel members (Fen and Luang, 2007).

However, investment in technologies does not always provide the expected returns and therefore, there have been warnings about the dangers of excessive investment in technology (Sethuraman and Parasuraman, 2005), stating that “good” technology is the “appropriate” technology. In order to evaluate this issue, the consideration of the customer point of view on the ICT solutions is crucial (Weinstein, 2002; Frasquet et al., 2008; Gil et al., 2008a; 2008b). Notwithstanding, previous studies have only addressed this issue partially, since they have either focused on a particular technology solution, e.g. self-service technology (Meuter et al., 2000; Dean, 2008), or a single setting, i.e. B2B or B2C.

In this regard, the present chapter pursues a double objective. First of all, we aim to analyze how customers at different levels of distribution channels evaluate the ICT implemented by the sellers. In order to achieve this aim, three samples of manufacturers, retailers, and consumers respond to questionnaires regarding their level of usage of several ICT solutions of their main supplier as well as their assessment of their supplier’s technological advancement and alignment. Secondly, we test the existence of significant differences in the use of different technologies across sectors of activity in each of the levels of the marketing channel.

In this way, we expect to infer a series of managerial implications for manufacturers’ and retailers’ suppliers, as well as for retailers, about the most appropriate technologies for their businesses depending on their level in the marketing channel and the type of product marketed.

## THEORETICAL BACKGROUND

ICT is “*a term that encompasses all forms of technology utilized to create, capture, manipulate, communicate, exchange, present, and use information in its various forms (business data, voice conversations, still images, motion pictures, multimedia presentations*”, etc.)” (Ryssel et al., 2004:198).

Among the benefits derived from ICT implementation, the literature has pointed out significant improvements in internal processes that ultimately contribute to customer service improvements. In particular, it has been argued that ICT positively affects internal effectiveness through important savings in terms of time, communication costs and personnel expenses; greater reliability, accurateness and error reduction; improvements in inventory management, as well as increases in productivity through the automation of labor intensive tasks (Ellram et al., 1999; Lowson, 2001).

From the consumer point of view, ICT allows service improvements (Lowson, 2001; Gil et al., 2008a; 2008b), providing savings in shopping time through a wider assortment and making it possible to accomplish the required purchases in one shopping trip (Messinger and Narasimhan, 1997).

Additionally, ICT implementation positively affects the relationship value of a distributor with its suppliers and customers (Lewis, 2001; Mentzer and Williams, 2001; Frasquet et al., 2008; Gil et al., 2007; 2008a), involving greater satisfaction (Meuter et al., 2000; Burke, 2002) and increased perceived quality (Gil et al., 2008b). In B2B relationships, ICT creates closer bonds between buyer and seller and is considered a source of commitment (Rebolledo et al., 2005). Additionally a correlation has been observed between buyer satisfaction with the seller’s ICT and buyer’s future purchase intentions both in B2B (McDonald and Smith, 2004) and in B2C settings (Meuter et al., 2000).

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