Since the mid-1990s there has been a significant process of entrepreneurial transformation. Companies are changing their organizational and business models, as well as the way they establish and develop their productive and strategic activities. Thus, a market oriented business culture considers the consumer as the central element of the business strategy. Also, ICT, relationships and knowledge are recognized as internal strategic elements of organization.

As a global and interactive process that embraces all departments and functions developed both inside and outside the organization, marketing’s utility is twofold:

- It can guarantee the construction and maintenance of communication and cooperation relationships between different agents, both inside and outside the organization.
- The marketing function manages market data correctly, prioritizing its acquisition, storage and dissemination throughout the company, and guarantees the existence of a market intelligence that can be used in the process of decision-making.

On the other hand, innovation – especially product innovation – is recognized as a key element in the process of value creation. Product innovation is recognized as a complex and risky process that requires considerable capital and human resources inputs. This process should be developed quickly if the company wants to remain competitive within today's dynamic market-driven environments. But also, aspects relative to product launch time or market requirements have to be taken into account when dealing with the process of product innovation.

During this process, therefore, it is necessary that the company not only concentrates all its efforts and resources on the development of a complex technical process that leads to the creation of radical or incremental product innovations. It also needs to consider the importance of marketing in the process of innovation and to accept its total integration in that process.

Very little research has been done into the role played by ICT use in marketing in the success of new product development (NPD) processes. This is not surprising considering that the new competitive environment is defined by an economy broadly based on intensive ICT use and knowledge as key elements of business strategy.

**New product development and cooperation**

Nowadays, organizations count on other agents’ collaboration within their environment for development their innovation processes. Thus, with the aim of improving management, enhancing the processes’ efficiency and efficacy, and cutting costs and risks, organizations draw certain agents into the NPD processes. These agents can be distributors, consumers, universities and research centres, or even competitors.

Ample evidence proves the existence of a positive relationship between cooperation and the achievement of success in the process of innovation. However, guaranteeing a high degree of interaction is complex when companies face various factors identified as true barriers to cooperation.

One of the most crucial moments in the relationship is possibly the selection of a work partner. Each agent will have specific expectations in terms of the benefits they expect to gain from the relationship, and likewise, the risks and compromises they will be willing to accept. How attractive an agent is to the organization could be a determinant factor in deciding whether or not collaboration begins. However, an agent’s level of attraction is difficult to gauge, so prior knowledge of an agent will be particularly important for weighing up the opportunities and benefits that his/her integration into the relationship will bring.
Another factor that makes cooperation difficult is the distance – physical, time-related and cultural – that separates relationship members. Nowadays, the internationalization process means that product innovation processes could be developed by global and virtual work teams. In this situation, the extent of physical and cultural dispersion between team members is great. While this contributes positively to the process of innovation, it also significantly limits the cooperation process reducing the extent of communication and the degree of trust, commitment, and cohesion between members.

To avoid these barriers, organizations have begun to search for mechanisms that increase the level of cooperation and communication within their relationships. Intensive Information and Communication Technologies (ICT) use in marketing activities is seen as an ideal solution as it enhances knowledge of the environment and reinforces communications flows and cooperation degree in the relationships in which the organization is involved.

**ICT in marketing breaking down barriers to cooperation**

ICT use has brought about a fundamental transformation at all levels of the organization, with the marketing function being one of the main beneficiaries.

An important part of the benefits arise from the use of ICT as a source of acquisition and generation of market information. ICT are one of the most appropriate media for getting close to the environment and acquiring or creating knowledge about the different agents that are part of it. Thus, the company gains access to a vast quantity of relevant and up-to-date information quickly, easily and cheaply.

However, the availability of information does not guarantee knowledge creation. Knowledge is the end-result of a complex process of acquisition, interpretation (analysis and evaluation) and integration of that information. For the organization to acquire knowledge, it has to undergo a complex learning process to transform the information into knowledge.

In NPD process, ICT are a key element, as they encourage the generation of market knowledge by putting at the company’s disposal the necessary tools for the treatment, management, analysis and storing of information. So, information derived from the analysis of data obtained from primary and secondary sources is stored and treated, provoking the development of the learning process and the subsequent creation of knowledge.

ICT also facilitate and encourage the process of transmission and diffusion of knowledge throughout the entire organization, and its later use in the decision-making process. An important part of the decisions to be taken correspond to marketing function, as they affect the design and development of actions directly undertaken in the markets. Others, however, are more of strategic kind and affect the organizational structure of the company and the building of relationships in which the search for a strategic partner is vital.

“Organizations have begun to search for mechanisms that increase the level of cooperation and communication within their relationships.”

In marketing decisions ICT provide ready access to a vast array of global information resources, and facilitate the gathering of valuable competitive knowledge and consumer-related information that simplify the decision process. In addition, ICT bestow marketing with an extraordinary capability to target specific groups of individuals with precision, and enable mass customization and one-to-one strategies by adapting communications and other elements of the marketing mix to consumer segments.

Moreover, as a channel of communication, ICT provide the means through which the company can establish synchronous and asynchronous communication with other agents that is fluid and speedy, and operates in both directions. Thus, time, space and economic barriers can be eliminated, allowing for effective and efficient transmission of tacit and explicit knowledge.

**A vital marketing factor**

In the last decade, there has been much emphasis on the importance of cooperation and the availability of market intelligence for the development of product innovation. This explains the strategic role that marketing plays in the innovation process, and demonstrates that cooperation and market intelligence are two of the key factors in the success of the new product.

One of the features that characterize marketing activity in today’s organization is the implantation and widespread use of ICT. ICT use has brought about significant changes in organizations and produced important benefits,
particularly in the areas of marketing and innovation. Many highlight the importance of ICT as a key element in integrating marketing into the NPD process. ICT raise the level of innovation within a company through the development of new products that are adapted to market needs, and reduce technological, strategic and marketing risk.

In short, ICT can be considered an endogenous element of the company, and a key part of management and marketing practice today. As a vital marketing factor, ICT enhance the NPD process by shortening distances and saving on costs and time, as well as facilitating information transfer and the promotion of collaborative behaviour that favours organizational knowledge and improves the quality of decision-making.

ICT use constitutes an innovation in itself that can be designed and used to facilitate the physical NPD process. But ICT use also adds to other processes associated with NPD and decision-making. By modifying innovation determinants, behaviours and the nature of NPD, ICT promote internal and external cooperation and a company culture that is market-oriented as well. □

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