

How to Ensure the Success of a Technological Innovation

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The adoption of innovations based on information and communications technologies (ICT) produces three types of transformations in companies. First off, ICTs can reduce transaction costs, which include those of coordination, information, motivation, control and supervision. Technological innovations can also contribute to the development of new capabilities within the company. Furthermore, ICT-based innovations can aid in the development of more dynamic and flexible business structures. The PwC&IESE e-Business Center has published a study led by Professor Sandra Sieber which analyzes the scope of each of these changes at twelve Spanish companies, all having successfully adopted ICT-based innovations.

The study, based on qualitative interviews with the directors of these twelve national and multinational companies, helps identify the effect of the adoption of innovations at the organizational level and on the companies' work practices, although it should be kept in mind that due to the sample size; it is difficult to make generalizations.

What Positive Effects Does the Implementation of ICT Projects Have on a Company?

According to the companies interviewed, the adoption of ICT innovations affects processes in two different ways: For starters, it can improve processes related to customer service. At the same time, it can serve to restructure, automate or simplify processes, thereby increasing employee productivity.

ICT projects can also simplify access to the information needed for making decisions. Projects aimed at improving databases in order to have useful and reliable information could also improve other aspects. In that respect, they can facilitate both decision making and knowledge management, while providing information about the status of the supply chain as well as the preferences and profile of the customer. Moreover, simplified access to information also facilitates the control and supervision of tasks.

Incorporating the innovation can also reduce various types of costs. This was the case in all of the companies interviewed for the study. In fact, cost savings is one of the reasons cited by those responsible for the innovations in order to explain their investment. With the exception of two companies, the projects analyzed in the study entailed only minor changes to the org chart and work teams. Still, the employees did end up needing to develop some new skills.

In terms of the effects of the innovation upon work practices, this will depend largely on the technology being adopted. For instance, technologies geared toward the customers bring about insignificant changes to the way people work. The only noticeable change is the increased amount of tasks for some of the employees, an added responsibility that can be handled thanks to time savings generated by the new technology.

The study sets out some criteria by which Spanish companies could innovate. One of the aspects cited by over half of the companies analyzed is the market situation. The directors interviewed also talked about the rise in productivity, the fast return on their investment, the ease of implementation, cost reduction, maturity of the technology, being innovative, and improved service as criteria for deciding whether to adopt a particular innovation.

Considerations for Successfully Implementing ICT Projects

Additionally, five recommendations are offered to those companies wishing to successfully bring a technological innovation into the fold. First of all, an assessment needs to be done as to the viability of the projects. To do so, one must carefully analyze the risk factors as well as having the necessary resources for controlling them.

Second, a technology implementation project must have the support of the company's general management, which needs to provide formal rules, regulations, roles and rewards, along with networks, rules and informal values in order to integrate the technology at the company.

Thirdly, there needs to be assurance that the technology will be used adequately so as to maximize its value. Constant gauging of the project's progress is essential not only for controlling costs and time, but also for explicit reporting on the advancement of the project and keeping the team's morale high.

The fourth recommendation: employees must be trained and informed. Having a motivated team and committed employees are two important factors for getting a project underway. In other words, the technology has to be well received by everyone. The users should be familiar with the technology's functionalities and features in order to make the most of it and not feel out of place.

Lastly, there needs to be an innovative attitude and sound interpretation of the signs being put out by the market. It is good to examine technologies that are consolidated and mature, but also those that are yet untapped. Successful ICT implementation could generate competitive advantages for the company, and one must not renounce these for fear of being pioneers.