

CREATING A CULTURE OF INNOVATION TO SUPPORT KEY COMPETENCES DEVELOPMENT IN DIGITAL ECONOMY

Sousa, Maria José

Instituto Universitário de Lisboa, Portugal

Universidade Europeia, Laureate International Universities, Portugal

maria-jose.sousa@europeia.pt

Abstract

This paper presents a study about the innovation culture of a Portuguese SME, which has developed a new service to promote digital economy in Portugal. The research question is: What are the main factors that allow a small organisation to be successful innovating in digital economy? The study was conducted in the Portuguese SME Hi-Media witch culture is characterized by employee's values – participation and involvement and managers behaviour influencing and promoting innovation and experimentation without risk constraints. It was applied a qualitative research methodology and the main techniques to collect data were document analysis, observation and Interviews based on a questionnaire. The main findings of the study were the acknowledgement of an emerging culture of innovation promoted by the transmission of a vision and a strategic intent by top and middle management with tolerance to risk, mistakes, and failure, the support for intrapreneurs empowering cross-functional teams and creating a strong sense of community. The key implications to practice were the awareness of an existing link with the organisational competencies, the workers know-how and the customer needs, driving to a learning environment where new digital services and products are created. The paper is structured as follows: literature review on innovation concept and innovation culture. It also analyses the origins, obstacles and facilitators of the innovation that promotes digital economy.

Keywords: innovation, competences, technology, digital economy

THEORETICAL MODEL

The literature shows that the concept of innovation is very complex, which makes it difficult to arrive to a single definition. The Green Book on Innovation from the European Commission, defines Innovation as “the successful production, assimilation and exploration of something new”. Mulgan and Albury (2003) made their contribution to the concept pointing out the importance of the innovation implementation results: “new processes, products, services and methods of delivery which result in significant improvements in outcomes efficiency, effectiveness or quality”.

On the other hand, the literature assumes various categorisations of innovation. OECD (2002) structures the concept around three areas: the renewal and broadening of the range of products and services and of associated markets; the creation of production, procurement and distribution methods; and the introduction of changes to management, work organisation and workers’ qualifications. Baker’s typology (2002) also differentiates three types of innovation: Process; product/service; and strategy/business concept innovation.

Other important research studies have also allowed us to assume that culture guides and influences people behaviour, especially in small organisations with few resources and with a very important goal – to survive.

Rosenstiel and Koch (2001:201) argue that, like culture in general, “values are an abstraction; they cannot be observed directly. They have to be inferred from indicators. Such indicators can be (a) observable human behaviour, (b) human artefacts, or (c) verbal statements by persons about their value orientation.”

Literature shows that most research on values resorts on the third indicator - verbal statements by persons about their value orientation and one important influence of values is on corporate cultures that in turn represent an important indicator for innovative capacity.

According to this ideas Wieland (2004) conceives the culture of innovation as the institutions (norms, values, formal and informal) that have a significant influence on how the actors involved in an innovation process perceive economic and technical challenges and that provides them with strategies to tackle these.

One of the main goal is to confirm in the field work the researcher’s main ideas, for instance if the organisation culture is characterized by factors that are supported in all employees values and if they influence and promote innovation and experimentation without risk constraints.

METHODOLOGY

Methodological Options

This research involve the case study methodology appropriate to the style of research question posed - that is concerned with 'how' and 'why' (Morgan 1997; Leonard-Barton, 1988). To accomplish the empirical work we studied their innovation processes and the individual contribution for creation of the innovation culture. The main techniques to collect data were document analysis, observation and interviews based on a questionnaire about the innovation culture of the organisation and the nature and the implications of the new service that can promote Digital economy in Portugal.

This methodology was selected given the exploratory nature of the research. The questions of the questionnaire were shaped specifically to understand the main factors that can contribute to the creation of an innovation culture in a Portuguese SME. The findings from the in depth research were analyzed to identify the factors that may contribute to promote innovation in digital economy environment.

Sample

The empirical research involved a Portuguese company from the service sector, particularly digital commerce – Hi-Media Portugal. An interview occurred with the General Manager, beginning the exploratory phase. In this meeting the innovation in course was the main issue, but also the existing innovation culture in Hi-Media.

This is a competitive company always ahead from competitors, giving their customers a sense of admiration and its employees are proud of belonging to an organization that inspires others by his practice. Its strategy is to broaden the scope of business in the Web based on the development of innovative technologies that provide competitive advantage, research into new technologies and new solutions to implementation services and innovative products, create alternatives to products for existing with on its network of partners, and in view of increasing its network of partners.

Leverage the technology already exists in the search for creative ideas, communicate and exchange information with their peers at the international level with the ultimate aim of presenting innovative products and services of value creators.

In this sense, the Hi-Media Portugal has developed a series of products / services that seek to meet the needs of its partner network and positioning their services in differentiation.

INNOVATION - THE KEY COMPETENCE IN DIGITAL ECONOMY

The Hi-Media Internal Context

As a result of reliance on technology and innovation, Hi-Media Portugal seeks to encourage the maximum development of new business options in addition to improving existing ones through new ideas. This incentive is part of the company's culture. The company has a business model focused on innovation of ideas and values, and therefore new business. At least once a month all employees meet to exchange information and knowledge. There are also, special sessions in addition to monthly, when new knowledge or an idea needs to be on discussion.

The Innovation process

The Hi-Media Portugal created a new concept of service denominated “CompraFácil”, which allows any organization to use its platform to generate references for payment of goods and services as ATM agents or as Payshop agents. The application is installed on servers and allows them, remotely, upon receipt of a message sent by SMS or web generate, through algorithm, the data needed to make a payment via ATM network (Entity, Reference and Value). These data are returned in the same way, SMS (for the moment only available in cash payments) or Web. After receiving this information, customers can make the payment at any ATM or Telebanking. The system confirms CompraFácil payments in real time and inserts the record in BackOffice, which the partners have access. This confirmation of payment may also be sent by email or by Web service. Each partner has a password to access the platform (BackOffice), where they can check the services or products paid, as well as other important data for the client providing the service or product.

CompraFácil is an incremental innovation. This is a continuous process and impact as part of the development of a service that already exists, the ATM payment services. The payment platform will have new developments in the future to new ways and new processes, moving towards the integration of PayShop. To understand the relevance of this new service it's important to analyze the Origins, Obstacles and Facilitators associated to this innovation process.

Origins of the Innovation

The origin of the idea begins to grow after a meeting with Director General of Hi-Media Portugal in France where there are already solutions for micropayments. The intersection of this concept with the need for conventional digital economy sites provide various means of payment - often unable to finalize the costs of implementation - leading to the first concept "pay cash online".

The analysis of the need of the customer to obtain greater trust in the means of payment online identifies the means of payment in which the Portuguese have more confidence - the ATM. Taking advantage of the maturity and confidence of customers in this method of payment the project CompraFácil is launched. The tacit knowledge, by its very peculiar characteristics, is shared only through interaction, in relations between companies in a dynamic environment and exchange of information. The ability of Hi-Media Portugal to understand the situation, focus their attention on the interaction with the companies of Hi-Media Group International and part of the learning process interactive, may largely explain the need for intensified efforts to train networks of cooperation.

To accompany the strong economic competition, it is very important to acquire new skills and knowledge, which means increase the firm's ability to transform the learning a factor of competitiveness. Thus, it remains crucial for the company to stimulate interaction between the different economic agents and to develop its connection through close contact with the Hi-Media International.

It is therefore in the current context of intense competition, that knowledge is the key innovations to enhance their services continues. Thus, it is necessary to consider the company innovated not alone because the sources of information, knowledge and were located within outside the company. The process of innovation has become therefore an interactive process, conducted with the help of several agents that have different types of information and knowledge. Looking at the skills of innovation, several important skills in Hi-Media were identified:

Strategic Skills

Ability to identify or even anticipate market trends: examine all aspects of market, and in particular the behaviors and needs in order to obtain valuable information to feed the innovation process, for example, with the aim of identifying and evaluating specifications for new products; benchmarking to improve the performance identifying, understanding, and adapting practices and processes found inside and outside the company; prospecting technology, the company is mindful of the technological development and its relevance is for the business in order to incorporate new technologies in their services or apply them to offer new services.

Organizational skills

Internal cooperation among departments and networking, provide and maintain cooperation among organizations in order to share an idea, technology, skills, resources or information. In Hi-Media innovation is quickly exported/imported to other group companies; project

management, supported in the application of scarce resources to achieve goals and to deal with time and cost constraints; evaluation of projects, provide information to estimate the value of a potential project with particular reference to estimate the costs, resources and benefits in order to obtain a decision on whether or not to continue with a project.

Obstacles

At the beginning of the project CompraFácil the company faced some obstacles; one of the most significant was the difficulty of interaction with SIBS – the organization that manages ATM system in Portugal.

Communication with that organization was difficult because they hold the monopoly of the service and Hi-Media is only a small organization. The persistence of Hi-Media was the key to achieve the goal.

Other obstacle was the investment required to achieve the project, and particularly in the area of development, licensing and setting up the base of the service. That led to the need to find a partner in the development. The partnership with WebEffect Company made possible to grant the initial investment and the evolution of the platform.

Facilitators

Hi-Media Portugal innovation culture is characterized for constantly search for better opportunities and to be open to new ideas. The subsidiaries of the French brand have some autonomy for their creations. Its dependence with respect to the matrix is concentrated mainly in infrastructure.

One feature that draws attention and is seen as an asset is the diversity in the training of its employees. Professionals in areas completely different and equally important within the company meet with the aim of sharing their knowledge. The interest of each worker to develop their competencies lies with each one but is encouraged by the company. The monthly exchange of information offers the highest step in the ability to share knowledge with their counterparts in regular meetings between key representatives of Hi-Media Portugal offices around the world.

All the communication between the groups generates options and goals to be achieved by the company. The process for choosing a new opportunity is done primarily through brainstorm among employees.

The partnership has been positive. Today, the service CompraFácil can be easily adopted by companies, a total of 45 sites. CompraFácil has won the confidence of the major newspapers of the country and has control of first service publication of classified via SMS.

Competition has played its role. Other companies are already offering this service in their sales process. The Hi-Media Portugal holds the copyright of this idea but there is no other way to prevent the "copy" without facing probably lengthy and costly legal proceedings. To circumvent this situation, its strategy was to reduce prices for services according to the volume of each client transactions. For a more modest fee the cost is significantly less than the cost imposed to those who practice a more solid business.

Besides all this internal and external factors that help Hi-Media Portugal in the process of innovation, yet is worth emphasizing partnerships established to improve their service and cover a larger portfolio of customers. Now, not only offers CompraFácil payments through the ATM or home but also will provide cash payments through the network Payshop.

RESULTS

The main expression of the inquiry reflects the following main results:

Transmission of vision and strategic intent

Hi-Media employees are effectively empowered because they have a clear vision of the company future. The need for innovation is then apparent to them, and they know how to direct their efforts. Top management creates a reasonable clear vision and strategy for the company and the strategies definition helps them in setting priorities.

Tolerance of risk, mistakes, and failure

They are always trying new things and learning from the experience and this kind of behaviours promotes organisational and technological innovation. Their "mistakes," are a mean to learn. Mistakes are recognized as an indication of initiative and courage and people who make mistakes are encouraged to share them widely so that others can learn.

Support for intrapreneurs

Hi-Media employees behave as Intrapreneurs. They are persistent and are always trying to turn ideas into profitable realities. Intrapreneur behaviour is generally rewarded and top management itself are intrapreneurs and have prior entrepreneurial success.

Managers as innovation sponsor

Top management sponsors and influence employees to innovate. They coach and protect the innovators and find resources for intrapreneurial projects.

Empowered cross-functional teams

Innovative organizations create cross-disciplinary project teams to implement innovation, and they empower them to make decisions. For example, a new product team might-at a minimum-include people from marketing, engineering, and manufacturing. Employees work in project teams and have considerable freedom to make decisions. They have cross-functional teams working in the projects.

Strong organizational community

They have a strong organizational community providing a base of support for innovators. Employees feel a strong desire to make contributions to the company. They seem to be very proud to be part of the company and feel a strong sense of membership and mutual support.

Figure 1 – List of Factors

Macro Factors	Factors
Transmission of vision and strategic intent	Top management creates a reasonable clear vision and strategy for the company.
	The strategies definition helps them in setting priorities.
Tolerance of risk, mistakes, and failure	Mistakes are recognized as an indication of initiative and courage.
	People who make mistakes are encouraged to share them widely so that others can learn.
Support for intrapreneurs	Intrapreneur behaviour is generally rewarded.
	Top management itself are Intrapreneurs and have prior entrepreneurial success.
Managers as innovation sponsor	Managers coach and protect the innovators.
	Managers find resources for intrapreneurial projects.
Empowered cross-functional teams	Employees work in project teams and have considerable freedom to make decisions.
	They have cross-functional teams working in the projects
Strong organizational community	Employees feel a strong desire to make contributions to the company.
	They seem to be very proud to be part of the company.
	Employees feel a strong sense of membership and mutual support.

CONCLUSION

As main conclusions of this research we find that the development of the service Comprafácil by Hi-Media Portugal falls within several formulations. Hi-Media easy breaks established and not questioned practices, with the application of a technology already in use to new services never thought before. They are different from other competitors not only by selling online advertising customizing the price but mainly because they are always trying to create new products, processes and services.

The creation of Comprafácil result of a creative idea, but the most important element of an innovation is to understand where and how to apply it, and the success of Comprafácil proof that a creative idea can create value. Finally, we can highlight several proposals to enhance the innovation culture in this organisation:

- Create an internal network of knowledge (intranet and extranet) (wikis, forums, search, document management).
- Promote personal relationships between employees, partners and clients with social events using web 2.0 technologies in social networks internally and externally.
- Create a set of policies that encourage, recognize and reward innovative ideas from employees, communicating and counting the proportion of time that concrete should be devoted to them.
- Assessment and reporting the performance of each innovation.
- Promote decentralization of decision-making by bringing it to the level of who performs the tasks.

As main idea we have to point out the need to link organisational competencies and workers know-how to customer needs. Interactivity - the ability to find knowledge and resources for innovation, inside or outside the company - is the crucial element to innovate. Finally, their ability to find knowledge and resources for innovation, inside or outside the company is their crucial element to be an innovative company.

FURTHER RESEARCH

New expectations for digital economy are emerging and the field research is becoming strategically important for business and organisations development. In this context and directly related with this research, other aspects could be developed:

- The construction of a conceptual model in order to facilitate the creation of other kind of digital businesses. An implementation of the model and its implications on the market is an interesting topic for future research.

- The creation and applicability of an instrument to diagnose the innovation process in order to facilitate the transferability of that kind of process.

More generally, another kind of research could be undertaken:

- Studies about specific competencies developed during the innovation process.
- Studies that develop and test a theoretical framework that relates digital economy to organisational outcomes.
- Furthermore, future studies are required to determine the main obstacles to innovation and ways of overcoming those obstacles.

REFERENCES

- Baker, William E. & Sinkula, James M., (2002). Market orientation, learning orientation and product innovation: delving into the organisation's black box. *Journal of Market Focused Management*, 5, pp.5-23.
- Doz, Y. (2002) Learning and Innovation in Organisations and Economies, *Administrative Science Quarterly*, Vol. 47
- European Commission. (1996). *The Green Book on Innovation*. Brussels: EU.
- Morgan D.L. (1997) *Focus groups as qualitative research*. London: Sage.
- Mulgan, G. and Albury, D. (2003): *Innovation in the Public Sector*, Strategy Unit, Cabinet Office.
- OECD (2002). *Organisational Change and Firm Performance*, DSTI/DOC 14. Paris: OECD.
- Pettigrew, A. e Fenton, E. (ed.) (2000), *The innovating organisation*, Londres, SAGE
- Prochno, P. (2001), *Relationships between Innovation and Organisational Competences*, Paris, INSEAD
- Van de Ven, A. H. (1986): Central problems in the management of innovation, *Management Sciences*, 32 (5), pp. 590-607.