GOOD PRACTICES TO DEVELOP INNOVATION CAPABILITY: TWO CASE STUDIES IN THE BROADCASTING SECTOR

Edna Bravo
Technical University of Catalonia

Albert Suñe
Technical University of Catalonia

Liliana Herrera
University of Leon

Joan Mundet
Technical University of Catalonia

Datos de contacto:
Edna Bravo
Technical University of Catalonia
Department of management
ETSEIAT, C. Colom,11, 08222, Terrassa, Spain
+34.93.739.81.69
+34.93.739.81.01
edna.bravo@upc.edu

GOOD PRACTICES TO DEVELOP INNOVATION CAPABILITY: TWO CASE STUDIES IN THE BROADCASTING SECTOR

Edna Bravo
Technical University of Catalonia

Albert Suñe
Technical University of Catalonia

Liliana Herrera
University of Leon

Joan Mundet
Technical University of Catalonia

Abstract

The main objective of this research is to contribute to innovation capability understanding. Furthermore, it is mainly focused in the way innovation capability is built and developed. Based on a multiple case study and interviews with managers, who are responsible for the new product development projects, in two innovative technology- based companies (ITBC) in the broadcasting sector, a collection of practices are identified and classified in four dimensions: 1) Innovation strategy, 2) Human capital development, 3) Organizational structure, and 4) Organizational culture. The case analysis revealed that a collection of practices that promote successful results in the new product development projects are critical both to improve and to build innovation capability.

Keywords:

Innovation capability; dynamic capabilities; good practices; case study research; knowledge creation.

GOOD PRACTICES TO DEVELOP INNOVATION CAPABILITY: TWO CASE STUDIES IN THE BROADCASTING SECTOR

1. INTRODUCTION

The dynamic capabilities approach has become of fundamental relevance to the innovation management field (Helfat and Peteraf, 2009). This can be confirmed by the fact that scholars have emphasized the need to identify key factors that are able to leverage high order organizational capabilities such as innovation capability which make it possible to create competitive advantage (Lawson and Samson, 2001). This approach focuses on how a firm can continuously exploit and reconfigure its resources in order to create new products and processes (Teece, 2007). The accomplishment of these innovations is the result of a complex technological, sociological and economic process, which involves a set of interactions in both the internal organizational level, and the external competitive environment (Danneels, 2002). In this context, knowing the structure of the innovation capability, i.e., what are its components and how are they organized and managed is crucial to the development of innovation field (O' Reilly and Tushman, 2008).

The literature has advanced towards the study of dimensions that form innovation capability such as the following; learning capability, R&D capability, manufacturing capability, marketing capability, organizational capability, resource-exploiting capability and strategic capability (Guan and Ma, 2003). Other studies have classified innovative assets into the following; scientific research assets, process innovative assets, product innovative assets and aesthetic design assets (Adler and Shenhar, 1990). However, only a few studies deal with good practices that support innovation capability (Lee and Kelley, 2008). The study of good practices is important because it facilitates the understanding of the relative contributions of various dimensions of innovation capability. The identification of these dimensions and their related good

practices facilitates the process of decision making on how to develop and exploit the innovation capability in order to achieve organizational goals.

In order to fill this gap, this study is aimed at contributing to innovation capability understanding and it is specially focused in the way that this dynamic capability is built and developed by good practices support. While previous research has focused on a few factors of innovations, we undertake a more holistic view of the phenomenon. We intended to coalesce elements of innovation strategy, organizational culture, human resource development and organizational structure into a manageable collection of innovation good practices. The collection of good practices identified in this paper, intend to contribute to the innovation research by providing opportunities to examine the combination of visible practices that improve the innovation capability understanding.

Highly technological firms have been analyzed in this paper taking into account that previous researchers have catalogued the firms in the broadcasting industry as creative services industries (Cook and Pandit, 2007). The main arguments for conducting the research of good practices in the broadcasting industry are: 1) this industry is extremely competitive (so it is reasonable to assume that innovation is the most important capability); 2) this industry is facing a strategic change associated with the transformation from analog to the digital television system. This is highlighted by the development of new technology and by the shortening of product life cycles.

2. LITERATURE REVIEW

Innovation capability basically refers to the firm's ability to continuously transform knowledge and ideas into new products, processes and systems for the benefit of the firm (Lawson and Samson, 2001). Innovation may occur in every aspect of the organizational activities and can therefore be classified by dimensions. Verona and Ravasi (2003), drawing on the concept of dynamic capabilities, divided innovation

into three dimensions: absorption capability; integration capability; and reconfiguration capability. Technological and organizational or managerial innovations, especially, have received a considerable amount of attention because together they cover a wide range of changes within the organization (Damanpour and Wischnevsky, 2006).

Recent research involving innovation capability is being developed in the NPD (New Product Development) field. This research indicates that many of the critical factors for innovation capability building are also linked to successful NPD; for example, (Biazzo, 2009) developed a conceptual framework that overcome the controversial dichotomy between flexible processes and Stage-Gate® processes, which is derived from a series of studies on the management of discontinuous innovation in NPD projects. Previous researches indicate that critical factors of NPD are, for instance, a clear strategy (Mu., et al 2009); an entrepreneurial climate for product innovation (Cooper and Kleinschmidt, 1995); cross-functional teams in the organization (Ancona and Caldwell, 2007); and senior management commitment to NPD (Anderson, 2008), among other factors.

Some previous researchers in management practices have been criticized for their lack of epistemological foundations that ensure which is the best overall practice in all organizational contexts. However, there is consensus about the idea that different knowledge sources converging and reinforcing themselves can justify the existence of a good practice or high quality lesson learned (Quinn, 2001). Thereby, organizational good practices are defined as those activities, methods and processes that, through experience and research, have reliably led to optimum results (Fineout and Melnyk, 2005). In this research a more in-depth analysis of those innovation management practices, which have repetitively conducted to outperform innovation results, is addressed.

3. METHOD

Our research design uses data from case studies carried out in two innovative technology-based companies (ITBC), in order to contribute to a better innovation capability understanding. The first case study, identified as ITBC1 is a company providing solutions and services for the broadcasting industry. It has four main business lines: Digital Interactive TV, Video production and management, software solutions and contents and services. This company is located in the north of Spain. The second case study, identified as ITBC2 is a broadcasting company that creates and distributes television and radio content for interactive media like the Internet, mobile phone, PDAs, among others. Being small companies (about 100 employees) we were able to follow key informants over a sustained period between 2005 and 2009 when the case study was developed.

Case study is an example of field-based research (Gibbert et al., 2008). This methodology can potentially improve the significance and effectiveness of resulting management theory (Woodside and Wilson, 2003). The firms for this analysis were selected based on several factors such as; their reputation for adopting good practices in product innovation, their participation in European projects and the degree of technology that they use. This study formed part of a research project on innovation capabilities indicators which used informant's quotations about aspects of resources supporting innovation and knowledge management. The study collected live data from twenty R&D projects, covering the product life-cycle of major innovations.

The data sampling was limited to two organizations because we wanted to explore in-depth the cycle of new project developments over time. At the same time, the organizations were placed in broadcasting industry because it is a high-technology industry and previous research in this industry revealed growing innovative activities forming part of the competitive and technology strategies of these firms (Cook and Pandit, 2007). Data collection was predominantly obtained through semi-structured interviews, complemented by documentary sources like participation-observation of

meetings, company brochures, annual reports and corporative web pages. We observed formal meetings in the work place of both, ITBC1 and ITBC2 because we were working on a project to measure the degree of innovation. The major part of the semi-structured interviews was conducted by at least three of the authors, using a checklist with questions about activities related to innovation processes, knowledge management, sources of new ideas, employees' training, the motivation reasons to participate in the project, the decision making processes, among others. Each interview took approximately 90 minutes. Interviews were transcribed and preliminary analysis was produced by reading the interview transcripts. Illustrative quotes were identified by searching transcripts which had been saved in MaxQda and were coded by using broad categories, roughly using line-by-line, because our focus was on reconstructing specific discourse. Since our analytical focus was on discourses, we followed the full process of grounded theory, including theoretical sampling (Fend and Sachs, 2008). Having unrestricted access to informants was fundamental to follow each detail of the processes; for example, innovative activities which appeared to be relevant in new product development. We did not start with the idea of probing a pre-established theoretical model, but we recognized the theoretical notion of Teece et al., (1997) as we interpreted the data.

In this work we present informant's quotations from each one of the two organizations that are relevant to illustrate the good practices regarding the building and development of the innovation capability in service broadcasting industries.

4. RESULTS AND DISCUSSION

Our exploratory analysis revealed a collection of practices that promotes successful results in the new product development projects. These good practices that support four dimensions of innovation capability are discussed in detail in the following sections.

4.1. Innovation strategy

Previous research has proven that organizations with strategic innovation orientation should improve their internal organizational capabilities to become more innovative and competitive in today's global environment (Leskovar and Bastic, 2007). In this highly competitive environment, an enterprise's ability to maintain ongoing innovation efforts is critical to its survival and growth (Guan et al., 2009). This growth is possible because strategic vision is specific to an organization's unique historical context and it is socially constructed through complex interactions among the organization's dimensions that may yield sustained competitive advantage (Lado and Wilson, 1994).

Innovation is in the core of the mission statement

Innovations along with a radical orientation to the customer needs are the core of the ITBC. This is reflected on the stated missions incorporated in the companies' philosophies that consider innovation to be an integral component of the whole firm.

"The mission of the ITBC1 is to be an innovative development company expert in the creation of digital and multimedia technologies and content, (…) specialized in research into advanced solutions and their application in innovative services and products".

"The mission of the ITBC2 is to promote a high-quality competitive content on interactive distribution channels and existing and future networks. To innovate interactive content, services, technology, and business models for these new channels, thus contributing to the development of the Information and Knowledge Society"

Having an innovation management plan with specific objectives

The ITBC1's department of innovation and strategy was created in December 2005. Their main mission was to execute the IMP (Innovation Management Plan) with the following objectives:

"1. A global objective: contributing, through innovation, to achieving greater efficiency in the organization, more successful and better products and new services to society. 2. A goal for human development: to develop a climate of teamwork and involvement. 3. A goal for the corporate culture: to establish ways of horizontal collaboration to strengthen the corporate culture. 4. An intrinsic goal: to establish a systematic structure for identifying, promoting and guiding innovation in all areas of work, and promoting entrepreneurial initiatives." (ITBC1 annual report, 2006)

Another action taken by the ITBC1 that supports the plan of innovation management has been the implementation of a benchmarking process with other companies in their competitive environment that have specific innovation management plans. To carry out the benchmarking ITBC1 promoted a congress of the innovative broadcasting companies in Spain. It is evident that ITBC1 has made a systematic use of its experience to recombine existing knowledge with external sources.

A tracking system of innovation indicators:

The ITBC1 together with a research group of a public university has developed a project to identify the main indicators of innovation to configure a balanced scorecard system.

The set of indicators is used to evaluate each one of the four stages of the innovation process. Stage 1, evaluates the innovation plan. Stage 2, initiated projects, measures proportionality of R&D expenses. The third stage, evaluates the average time spent on a new product's development. Finally, stage 4, measures two types of innovation

results, those oriented to the market and those directed towards results from potential knowledge.

Popularizing the strategy

The strategy of ITBC1 is founded on innovation due to the fact that these companies were created with the objective of providing solutions derived from recombining existing technologies and the extension of these through R&D projects.

"Being innovative in the interactive media is exactly one of our principal objectives. To achieve this, we first have to convince the whole organization that innovation in Internet can be achieved."

"Continuously we carry out informative meetings to explain the process of the execution of the innovation strategy. Simultaneously the key concepts of this process have been explained: Mission, vision, values and the ethical principles of the company"

In developing the projects, the leaders of the ITBC1 have achieved the alignment of good practices of innovation management with strategic activities aimed at positive organizational performance. This has been accomplished by the explicit transfer of the corporate mission by the leaders, which is reflected in their management philosophy that considers innovation as an integral part of the company.

In the preceding section, we have discussed practices that support Innovation strategy dimension. Below we submit the following proposal concerning the relation of this dimension with innovation capability.

Proposition 1. The formalization and clear communication of the innovation strategy have a positive effect on innovation capability development.

4.2. Human capital development

Innovation initiatives tend to depend heavily on employees' knowledge, expertise, and commitment as key inputs in the value creation process (Subramaniam and Youndt, 2005). Human capital has long been recognized as a critical resource in the building of innovation capability, for example, (Verona and Ravasi, 2003) explained that dynamic capabilities, such as innovation capability, are supported for the blend of organizational resources. These resources included the knowledge embedded in human capital that enables the firm to discover innovation opportunities.

Creating multi disciplinary teams

The multidisciplinary nature of the teams of R & D facilitates the creation of new ideas and key knowledge transfer in the process of developing new products. This process maximizes the use of experience and skills of the members of the company on a collective level as the project manager explains:

"Our young, specialized multi-disciplinary team includes engineers, meteorologists, journalists, graphic designers, audiovisual directors, sales representatives, and producers."

The human capital of ITBC1 is composed of professionals who form a young and multidisciplinary team specializing in areas of multimedia production. This team has developed the best services and management systems in the Spanish broadcasting sector.

The research in ITBC2 suggests that access to heterogeneous knowledge is crucial for innovation. ITBC2 therefore facilitates communication, interaction and support among various functional areas. As the director of the company stated:

"In the merging of the different profiles of the functional areas is where the sparks fly and the results are commercially successful products that are easy or cheap to make.

In this sense, the profiles of the multimedia graduates are extremely valuable for companies like us".

The profile of professionals in ITBC2 is divided into three main areas. The content area, the technology area, and the area of economic control. In the content area, the team is composed of journalists with knowledge of technological tools, designers and typesetters. In technology the team is formed by telecommunications and media engineers. The third area of economic control is made up by professionals with a commercial and management profile. As the project manager of the ITBC2 stated:

"In projects like "AMS" each piece of the product is connected to the technical capability of some or other member of the team, we all have brought knowledge and experience to this innovation".

Staff turnover in various projects

The ITBC's focus on developing innovative solutions that anticipate potential customer needs requires a highly trained and innovative workforce. It is important that employees are close to the market in order to understand customer processes and their demands. This implicates the need to continuously train and develop the workforce, readjusting job profiles and enabling employees to rotate between different projects to promote multi-skilling.

ITBC2 has facilitated the change of mindset of employees in creating teams with a systematic rotation of jobs. This has increased the flexibility and understanding of the employees of most business processes. This understanding is a tool that supports the generation of ideas for new product developments.

Creating a committee of cross-functional innovation

The IMP (Innovation Management Plan) of the ITBC1 was first developed in 2006. During this year, a committee for innovation was formed by 15 members from different functional areas. Since the formation of this committee, several workshops related to each stage of the innovation process have been organized, e.g. the brainstorming workshop on diversity and multi-channel products. Other examples of actions taken by the committee have been the launch of the journal of innovation, and the creation of an innovation club. The results of these actions in 2006 were the immediate involvement of three hundred & thirty participants, members of the club. That year, two hundred & twenty-nine ideas were generated, of which five innovative projects were developed, three of which were commercialized at the end of 2007.

Internal personnel development

The nature of the product developed in the ITBC2 requires highly qualified personnel as the director of the company remarked:

"The personnel profile that the ITBC2 needs is people with ability to think in terms of interactivity. This requires continuous learning, continuous trying and sometimes failing. For every 10 services we develop, one or two are successful. As for technology profiles, we need professionals in IP technology, specialists in database and server technology"

One of several forms of development that has been used by ITBC1 is employee participation in various projects to create new technologies and content in the digital and multimedia area. This company has succeeded through its internal working practices to be effective in managing human resources. This is reflected in product innovations like the first virtual weatherman in the world, which has required developing a highly skilled and innovative workforce. To improve the already high qualifications of their employees, ITBC1 has launched a training program aimed at

developing the skills and behaviors required for the creation of multimedia technologies and content.

Transformational leadership

The managers of the ITBC favor dynamic change, encouraging innovative activities and commitment to investment in R & D. The ability of these managers to motivate employees in reaching the goals has had a positive impact on developing innovative solutions. As the head of the audit and processes of the ITBC1 remarked:

"Our director of technology is a driving force that encourages participation in European projects and the search of complementary know-how"

Moreover the ITBC leaders have informed all employees in the organization about the importance of knowledge transfer for innovation strategy. They have therefore included multidisciplinary profiles in the R&D projects. Moreover, the use of management models such as EFQM has contributed to ensuring transparency in the recognition of key inputs of the innovation process.

In the preceding section we have discussed practices that support human capital development dimension. Below we submit the following proposal concerning the relation of this dimension with innovation capability.

Proposition 2. Employee rotation between different projects promotes multi-skilling and enables innovation capability construction and development.

4.3. Organizational Culture

Researchers have recognized organizational culture as a resource that potentially generates sustainable competitive advantage (Barney, 1986). An organization culture is defined as "a pattern of basic assumptions", and shared values (Schein, 1984),

beliefs (Williams et al., 1993), attitudes (Kwantes and Boglarsky, 2007) and other components. According to (Jassawalla and Sashittal, 2002), culture in product-innovation settings refers to the social and cognitive environment, the shared view of reality, and the collective belief and value systems reflected in a consistent pattern of behaviors among participants. Innovations have been linked with cultural characteristics like shared expectations, participative safety, and a clear shared goal, among others.

Knowledge exploration oriented culture

The sector that the ITBC serves is highly dynamic. For this reason the role of the managers is vital because the decision-making process must be as flexible as the process of adapting the company's strategy to market change. As stated by the director of ITBC2:

"Before the media and interactivity market matures, our company has started developing pilot projects to lead and anticipate so that when digital terrestrial television becomes a reality, we will have a competitive advantage through our commitment to exploration"

Some of the values identified in the ITBC2 culture are customer orientation, teamwork, personnel development and goal achievement. These values reflect the philosophy of knowledge transfer and support for the key factors that lead to innovation. These values are reflected in the ITBC2 content director's claim:

"The inventive capacity of the product development teams never ceases to amaze me, and especially the motivation to explore and exchange new ideas. I think that this orientation towards change is one of the advantages that allow us to open new ways".

The ITBC2 has developed revolutionary products derived from 5 elements: adaptation to new tools and technologies, multimedia learning, adaptation of new languages of communication, constant updating of knowledge and change of mentality.

Failures and mistakes are tolerated to create Knowledge

The culture at ITBC can be characterized as supportive of a risk tolerant environment. The project manager of ITBC2 emphasizes that:

"The interactive MHP have been useful for learning and gathering experience handling mistakes, but we are improving and we now have much clearer ideas regarding how to implement the real-time audio-visual interactivity"

ITBC2 think that the people developing innovation should have the possibility to fail, and failure cannot be punished, because failure is an opportunity for learning and knowledge development.

Open Communication

Meetings are held constantly in the ITBC2 to exchange information on planning and product development. A change-oriented organizational culture accustomed to the use of new technologies has facilitated the communication of ideas, market analysis, internal benchmarking of new projects with earlier products, and the communication of any kind of information is largely carried out through the company intranet. The head of human development projects emphasized that:

"As for the work related to the " human resources " one should bear in mind the survey done among all workers in the workforce, which has put specific areas for improvement on the table and, consequently, new actions.

The ITBC have several places for social interaction like a coffee room. This is intended to further increasing the exchange of knowledge between employees. ITBC organize annual digital forums, congresses, conferences to increase the internal information transfer and the absorption capability for external knowledge.

Creativity and idea management

The organizational culture of the ITBC has been characterized by promoting creativity and the generation and implementation of ideas. Therefore, the company does not punish failure. By contrast, it is seen as a possibility for potential knowledge generation. Another feature of organizational culture in the ITBC is the role of senior managers in promoting a culture focused on knowledge transfer, based on rotation of staff in various R & D projects, and the use of knowledge codification systems, derived from these.

The 2006 knowledge indicators from ITBC1 were: Number of participants 150, Number of ideas generated 289, Number of projects presented to the committee 5, Number of projects realized 3, Number of ideas for continuous improvement, forwarded to EFQM 7.

Customer orientation

The factor that most affected the innovation capability building in the ITBC is the close interaction with customers which has ensured the commercial success of their products. The adjustment to customer needs is reflected in comments made by the ITBC2 Director of content:

"I also want to emphasize that we have adapted the technology systems to receive direct feedback from customers through the creation of virtual communities in most web sites. Users themselves are beginning to do things with our content. For

example, a user has created an extension for Firefox that is a search engine for content designed by the company, it has surprised us and we want to encourage this"

In addition to users' relationships, ITBC2 has developed products that anticipate customer needs; this has been accomplished by the nature of the product that facilitates interactivity with the user. As the content director remarked:

"We want to know our users, get them involved in our games, our surveys, our contests, our chats, our forums, and slowly establishing an intimate relationship with them that allows us first to know who they are, and on the other hand offer them a better service."
An example of an ITBC2 product that has anticipated customer needs is the website iCat fm. This web was awarded, in 2008, the prize EPpy for best local radio website. The EPpy are the most prestigious awards in the field of Internet communication.

In an industry as dynamic as the broadcasting sector, continuous customer proximity and interaction become crucial success factors. The ITBC1 have a customer orientation that has been established by a continuous dialogue with its customers, by inviting the customer to participate in the design of the product. As a project manager stated:

"The final objective, as always, was to develop a personal relationship with users, giving them better services, offering the possibility of using the same information and entertainment offerings of ITBC1 through any device: computer, digital televisions, cell phones etc. From everywhere and at all times. To provide this service we are utilizing a highly efficient technology platform"

In the preceding section, we have discussed practices that support organizational culture dimension. Below we submit the following proposal concerning the relation of this dimension with innovation capability.

Proposition 3. A culture based on knowledge exploration helps firms to improve innovation capability

4.4. Organizational structure and systems

The formal and informal structures of the organization and their connection with competitive environments have an important influence on the innovation results (Argyres, 1995). Hierarchical positions and vertical and horizontal integration levels are specific elements of the organizational structure. Past research has examined the relationship between innovation and organizational structure by considering the degree of specialization and centralization (Willem and Buelens, 2009), functional differentiation (Drejer and Gudmundsson, 2002), formalization (Moenaert et al., 2000), as well as other structural characteristics. Previous research indicates that the relationships between some measures of structure are moderated by the type of innovation. Other authors like Teece (1996) found that innovation capability requires a complex combination of structural elements and processes. Some of these elements are considered organic, while others are considered to be mechanistic. Some foster creativity, others collective action. However, researchers have yet to determine how organizations can be organic as well as mechanistic, or how they can act creatively as well as collectively (Tushman and O'Reilly, 1996).

<u>Combination of matrix and project structure</u>

There have been various ITBC projects at regional, state and European level research projects. Specifically, the ITBC2 has participated in European projects such as Impulse Content4All, Marquis, Salt, Sand, Synchro MHP, Weather HD, and Vertex. A methodology with a technological tool has been created for the efficient management of the internal responsibilities of these projects. Parallel to participation in these external projects, employees are encouraged to participate in the process of creating new products from zero. Starting from the conceptualization stage to commercialization, as a rule they have the right to participate in the development of

new products derived from the project that has served as a platform for other products. The CEO of ITBC2 noted:

"A lot of the R&D projects we are developing are focused on finding synergies with new technologies in order to offer different products"

Excellence in the use of management models

The systematical integration of excellence model provides the ITBC1 with a key element that enables the continuous improvement. The CEO of ITBC1 noted:

"Throughout 2006 we have continued to boost the quality process based on the EFQM model, which was already established in 2005. In March, ITBC2 received the European Bronze Seal, a recognition awarded by the "European Foundation of Quality Management (EFQM) for the good corporate governance and continuous improvement"

Use of ICT

The intranet of ITBC has become an area of great importance for the interchange of information. This global technology tool allows continuous Knowledge sharing and facilitates the process of creating new ideas:

"The internal portal has been the target of particular attention throughout the year, with the inclusion of new websites (EFQM, Innovation, and Education), activation of the mailbox query, a notable increase in information and communications, and a growing record of visits to the various sections, of which we will have statistical information in 2007."

In an effort to maximize the internal technological tools, ITBC1 has begun to develop a tool for managing workflow, or an internal CRM to facilitate the relationship among administrative, commercial and technical departments.

Collaborative projects with other organizations

In the ITBCT1's multimedia applications laboratory the first cross-platform, virtual TV presenter was created. This project was developed by the company in collaboration with Media Innovation Center, an Interactive Technologies Group and a public university.

The ITBC1 has been involved for years in various National and European projects that have enabled it to have a high level of technology to deliver multimedia content and solutions for television.

The responsibilities of the employees of the ITBC are not limited to specific technical functions. They also involve leadership activities in the management of teams, search for external knowledge to supplement the internal activities and the disclosure of company activities in the various conferences on international media technology.

"ITBC1 encourages its employees to participate as lecturers in some of the master classes that have been developed in collaboration with the ITBC1 and public universities in the digital environment. These collaborations and participation in various international audiovisual conferences show that ITBC1 is continuously involved in the knowledge absorption and collaborative alliances in the audiovisual sector and the scientific community".

ITBC1's focus as a solution provider for the audiovisual sector has influenced the way in which the organization is structured and managed. This company is based on a flexible structure especially with regard to organizational communication channels. Therefore, the continuous internal dissemination of knowledge and knowledge-

sharing relationships with external partners is encouraged. As the CEO of ITBC1 said:

"All this innovative activity would not be possible without a strong commitment to research done in collaboration with university research centers and communications firms. For example, a virtual character arises from the proposal of having a virtual weatherman that takes advantages of the entire database system with weather information that we had. From these data a system was generated in a collaborative project with a public university."

Re-combining experience and development of new technologies in collaboration with partners has resulted in a number of innovative solutions for the audiovisual sector.

"The formal collaborations that ITBC1 has made with external partners have increased the number of new projects introduced to the market. In the case of ITBC1, the collaboration with external partners is of central importance for the development of innovations".

Creation of non-monetary incentives

The ITBC2 offer informal rewards for innovative contributions. Any employee in the organization who has managed to get their ideas adopted receives recognition in response to their performance. ITBC1 provides rewards such as work flexibility that enables employees to engage in innovation projects from development through to commercialization. This has become a major motivator to remaining in the company. As the Project manager remarked:

"I think that Prizes and international awards received sufficiently support our efforts made in order to modernize and to contribute innovation to a traditional audiovisual communication group"

In the preceding section, we have discussed practices that support organizational structure dimension. Below we submit the following proposal concerning the relation of this dimension with innovation capability.

Proposition 4. To work alongside the customer in the development of new products is an essential factor that contributes to innovation capability building.

Figure 1, depicts a collection of good practices from the two case studies. All of these practices have been linked to the dimensions listed above.
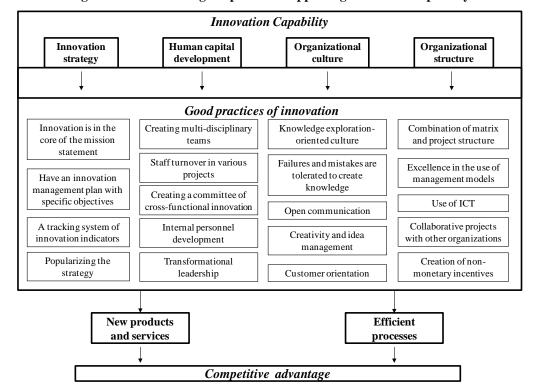
Figure 1. Collection of good practices supporting innovation capability

Innovation Capability			
Innovation strategy	**Human capital development**	**Organizational culture**	**Organizational structure**
↓	↓	↓	↓

Good practices of innovation			
Innovation is in the core of the mission statement	Creating multi-disciplinary teams	Knowledge exploration-oriented culture	Combination of matrix and project structure
Have an innovation management plan with specific objectives	Staff turnover in various projects	Failures and mistakes are tolerated to create knowledge	Excellence in the use of management models
	Creating a committee of cross-functional innovation	Open communication	Use of ICT
A tracking system of innovation indicators	Internal personnel development	Creativity and idea management	Collaborative projects with other organizations
Popularizing the strategy	Transformational leadership	Customer orientation	Creation of non-monetary incentives

New products and services → **Efficient processes**

Competitive advantage

5. CONCLUSIONS

Exploratory case studies provide richer background into good practices of innovative companies. The case studies support the belief that the first set of practices is intended to align and clarify strategic objectives related to innovation. The second collection of practices, namely human capital development, is important for the effective use of employees' knowledge to achieve the innovation objectives. The third collection is intended to build an organizational culture that facilitates the exploration of knowledge and the orientation to change. The collection of four practices related to organizational structure is used to facilitate the combination of technological capabilities with customer feedback and external associations to develop new products. These collections of practices provide a "good practice" example that can support and guide decision-making in organizational innovation processes.

In the innovation process, the personnel rotation in different projects has allowed the creation of multi-skilled employees. The companies have achieved this personnel ability to actively promote a knowledge exploration culture and open communication. These practices can be obtained by believing that an innovative activity involves the need to facilitate Knowledge Exchange between organizational members. Since Knowledge largely resides within the individual, employees have to be motivated to share individual knowledge. In this regard, the inauguration of the innovation committee has been a major facilitator. In addition, the company retains its experienced and multi-skilled employees by providing not only extrinsic but, more importantly, intrinsic motivation. In particular, the flexible job design by projects at ITBC enables its employees to accompany innovation projects from the development of the innovative ideas through to their commercialization. Many informants emphasize the feeling of responsibility for the global project not only for individual tasks.

We conclude that the integration of practices in all four dimensions following the general notions of dynamic capabilities literature is a key imperative for the

understanding of how organizations constitute innovation capability, and how they can be developed and exploited.

5.1. Research limitations and directions for further research

Research limitations derive, to a great extent, from the impossibility of studying more cases, to bring more validity to the analytical generalizations. In future researches, it would be interesting to design scales to measure innovation capability based on each one of the good practices identified in this work, to guide practitioners on their innovation journey.

REFERENCES

Adler, P. S., and Shenhar, A. (1990): "Adapting Your Technological Base: The Organizational Challenge". Sloan Management Review, 32 nº 1, págs. 25-37.

Ancona, D. G., and Caldwell, D. (2007): "Improving the performance of new product teams". Research-Technology Management, 50 nº 5, págs. 37-43.

Anderson, A. M. (2008): "A framework for NPD management: doing the right things, doing them right, and measuring the results". Trends in Food Science & Technology, 19 nº 11, págs. 553-561.

Argyres, N. S. (1995): "Technology strategy, governance structure and interdivisional coordination". Journal of Economic Behavior & Organization, 28 nº 3, págs. 337-358.

Barney, J. (1986): "Organizational Culture, Can It be A Source of Sustained Competitive Advantage". Academy of Management Review, 11 nº3, págs. 656-665.

Biazzo, S. (2009): "Flexibility, Structuration, and Simultaneity in New Product Development". Journal of Product Innovation Management, 26 nº 3, págs. 336-353.

Cook, G. A., and Pandit, N. R. (2007): "Service industry clustering: A comparison of broadcasting in three city-regions". Service Industries Journal, 27 nº4, págs. 453-469.

Cooper, R. G., and Kleinschmidt, E. J. (1995): "Benchmarking the Firms Critical Success Factors in New Product Development". Journal of Product Innovation Management, 12 nº 5, págs. 374-391.

Damanpour, F., and Wischnevsky, J. D. (2006): "Research on innovation in organizations: Distinguishing innovation-generating from innovation-adopting organizations". Journal of Engineering and Technology Management, 23 nº4, págs. 269-291.

Danneels, E. (2002): "The dynamics of product innovation and firm competences". Strategic Management Journal, 23 nº 12, págs. 1095-1121.

Drejer, A., and Gudmundsson, A. (2002): "Towards multiple product development". Technovation, 22 nº 12, págs. 733-745.

Fendt, J., and Sachs, W. (2008): "Grounded theory method in management research". Organizational Research Methods, 11(3), pp. 430-455.

Fineout-Overholt, E., and Melnyk, B. (2005): "Building a culture of best practice". Nurse Leader, 3 nº 6, págs. 26-30.

Gibbert, M., Ruigrok, W., and Wicki, B. (2008): "What Passes As A Rigorous Case Study?". Strategic Management Journal, 29 nº13, págs. 1465-1474.

Guan, J., and Ma, N. (2003): "Innovative capability and export performance of Chinese firms". Technovation, 23 nº 9, págs. 737-747.

Guan, J. C., Yam, R. C. M., Tang, E. P. Y., and Lau, A. K. W. (2009): "Innovation strategy and performance during economic transition: Evidences in Beijing, China". Research Policy, 38 nº 5, págs. 802-812.

Helfat, C. E., and Peteraf, M. A. (2009): "Understanding dynamic capabilities: progress along a developmental path". Strategic Organization, 7 nº 1, págs. 91-102.

Jassawalla, A. R., and Sashittal, H. C. (2002): "Cultures that support product-innovation processes". Academy of Management Executive, 16 nº 3, págs. 42-54.

Kwantes, C. T., and Boglarsky, C. A. (2007): "Perceptions of organizational culture, leadership effectiveness and personal effectiveness across six countries". Journal of International Management, 13 nº2, págs. 204-230.

Lado, A. A., and Wilson, M. C. (1994): "Human-Resource Systems and Sustained Competitive Advantage: A Competence-Based Perspective". Academy of Management Review, 19 nº4, págs. 699-727.

Lawson, B., and Samson, D. (2001): "Developing Innovation Capability in organisations: A dynamic capabilities approach". International Journal of Innovation Management, 5 nº 3, págs. 377-400.

Lee, H., and Kelley, D. (2008): "Building dynamic capabilities for innovation: an exploratory study of key management practices". R & D Management, 38 nº 2, págs. 155-168.

Leskovar-Spacapan, G., and Bastic, M. (2007): "Differences in organizations' innovation capability in transition economy: Internal aspect of the organizations' strategic orientation". Technovation, 27 nº9, págs. 533-546.

Moenaert, R. K., Caeldries, F., Lievens, A., and Wauters, E. (2000): "Communication flows in international product innovation teams". Journal of Product Innovation Management, 17 nº5, págs. 360-377.

Mu, J. F., Peng, G., and MacLachlan, D. L. (2009): "Effect of risk management strategy on NPD performance". Technovation, 29 nº 3, págs. 170-180.

Newman, J. L. (2009): "Building A Creative High-Performance R&D Culture". Research-Technology Management, 52 nº5, págs. 21-31.

O'Reilly, C. A., and Tushman, M. L. (2008): Ambidexterity as a dynamic capability: Resolving the innovator's dilemma. Research in Organizational Behavior, 28: págs. 185–206.

Quinn, N. (2001): "Evaluation, Knowledge Management, Best Practices, and High Quality Lessons Learned". American Journal of Evaluation, 22 nº 3, págs. 329–336.

Schein, E. (1984): "Coming to a New Awareness of Organizational Culture". Sloan Management Review, 25 nº 4, págs. 3-16.

Subramaniam, M., and Youndt, M. A. (2005): "The influence of intellectual capital on the types of innovative capabilities". Academy of Management Journal, 48 nº 3, págs. 450-463.

Teece, D. J. (1996): "Firm organization, industrial structure, and technological innovation". Journal of Economic Behavior & Organization, 31 nº 2, págs. 193-224.

Teece, D. J. (2007): "Explicating dynamic capabilities: The nature and microfoundations of (sustainable) enterprise performance". Strategic Management Journal, 28 nº 13, págs. 1319-1350.

Teece, D. J., Pisano, G., and Shuen, A. (1997): "Dynamic capabilities and strategic management". Strategic Management Journal, 18 nº 7, págs. 509-533.

Tushman, M. L., and O'Reilly, C. A. (1996): "Ambidextrous organizations: Managing evolutionary and revolutionary change". California Management Review, 38 nº4, págs. 8-30.

Verona, G., and Ravasi, D. (2003): "Unbundling dynamic capabilities: an exploratory study of continuous product innovation". Industrial and Corporate Change, 12 nº 3, págs. 577-606.

Willem, A., and Buelens, M. (2009): "Knowledge sharing in inter-unit cooperative episodes: The impact of organizational structure dimensions". International Journal of Information Management, 29 nº 2, págs. 151-160.

Williams, A., Dobson, P., and Walters, M. (1993): Changing Culture: New organizational approaches. Ed. Institute of personnel Management, London.

Woodside G., and Elizabeth J. (2003): "Case study research methods for theory building". Journal of Business & Industrial Marketing, 18 nº 6, págs. 493-508.