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Management Capability and the Paradox of the Organized Firm

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Abstract

A company is an existing technological set of products and process transformed by internal and external business activities. From that point of view, a company is the result of four essential capabilities: technology development, operations, management and transactions. In order to succeed, any business company must find its capabilities' right balance by coordinating its business activities to become an efficient economic agent or simply an organized firm. However, in the real world, firms face a continuous paradox that challenges its very organization and perpetuity. Why is it so difficult to find the capabilities' right balance? On what kind of effort should the coordination structure of any existing firm rely? This paper focuses on the role of management capability as a key factor to the firm in fine-tuning the organization. A multiple case-study was conducted in 30 Brazilian firms from different industrial sectors. These firms were classified according to their management types into (1) family, (2) family-professional and (3) professional. The results show that in the three types of the firms, management capability varies according corporate strategy, resource allocation, coordination and integration, norms and procedures. Management capability's scope goes beyond the simple planning and controlling, its key role is to cope with the paradox of stability and change in order to allow innovation to flourish.

Keywords: Management Capability, Firm, Organization, Stability, Innovation

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1. Introduction

A company is an existing technological set of products and process transformed by internal and external business activities. From that point of view, a company is the result of four essential capabilities: technology development, operations, management and transactions (Zawislak et al., 2012, 2013).

In order to succeed, any business company must find its capabilities' right balance. This is done by strictly coordinating its business activities to become an efficient economic agent. Under those assumptions, Zawislak et al.(2012) propose that any company is defined both as a firm (the economic agent) and as an organization (the coordination effort). Or, better, any company should be understood as an organized firm.

The problem with business companies under real constraints is that it seems to be hard to find organized firms. Why firms are so unorganized? Why is it so difficult to find the capabilities' right balance? On what kind of effort should the coordination structure of any existing firm rely? To answer those questions, we should explore the role of management capability.

Management capability can be defined as "the ability to transform the technology development outcome into a coherent operations and transaction arrangement" (Zawislak et al., 2012, p.17). It is the process of fine-tuning efficiency and stability in order to allow any company to work well. We identify four basic features of management capability that go from strategy and decision making to integration and coordination, resource allocation as well as defining norms and procedures. However, by understating this essential role of management capability, we become able to better capture the real essence of any firm: innovation. Innovation is possible only if the company succeed to get its products efficiently produced and sold. And success is made under managerial orchestration of internal and external resources.

In fact, management deals with a sort of permanent "Schumpeterian Paradox", the paradox of the organized firm: to cope change with stability. If, on one hand, management objective is to fine-tune efficiency and stability in a company, on the other, whenever the company changes, management has to start looking for efficiency and stability once again, like a Schumpeterian manager in the quest for organizational innovation.

For Schumpeter (1912), the very neoclassical notion of equilibrium, based on the circular flow, could only be true as an ideal state of a non-evolving economic system. From a steady state point of view, it could be consider as a sort of “management Shangri-La”, where efficient and stable routines would be perfectly settled by managerial norms and procedures, and technology would already have reached its heights. The problem is that things always change, technology never reaches its heights, and novelty is inherent to economic activity and, consequently, to the company. Therefore it is impossible to ever reach perfect efficiency and stability.

In this context, without noticing, management is always trying to get the company back to the circular flow and back again every time it goes out. Since perfect routinized patterns of activity are never reached, in the end, management capability only exists because of change rather than stability, to deal with innovation rather than efficiency. The paradox is to permanently couple with change and organization.

Management has to deal with the ever-expanding boundaries of the firm (Penrose, 1959). Whenever any existing firm needs to internalize one extra unity of knowledge and technology, as a way to deal with change, management capability starts all over again to look for a new pattern of efficiency and stability. “The business of a firm consists both in its endeavors to produce its products profitably and in its attempts to reproduce itself. It is not self-evident that production and reproduction go hand in hand.” (Baecker, 2006). This is why management capability is always in the quest for a new organizational form for the firm. Management is responsible for the organized innovative firm, which means to keep on solving the above-mentioned “paradox of the organized firm”.

However, management not necessarily leads to innovation. As a matter of fact, management does not necessarily master enough technical knowledge to sustain the firm as a whole. This is what the technology (product and process) should attempt to. But whenever innovations happen, management has to orchestrate a new form of allocation of resources, which may mean organizational innovation. This paper aims to identify the characteristics of the management capability types and how theydo contribute to innovation in the firms. Following this introduction, the article presents five other sections. A literature review regarding the current stage of the study of capabilities is presented in section 2. The section 3 covers the differences between management and management capability, where we also present the characteristics of management capability and a list of indicators for its analysis.

In the next section, we explain the research procedures. In section 5, we present and discuss the first results of the research. Finally, we present the final remarks and suggestions for future studies.

2. The Capabilities of the Firm

Since Richardson (1972) has defined for the first time, the term ‘capabilities’ as knowledge, experience and skills that firms own in order to perform their activities, this research field has seen important advances.

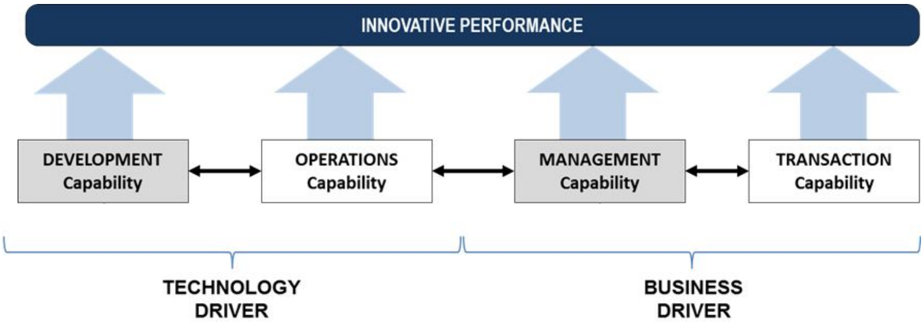
After Richardson’s definition (1972), various researchers (Nelson & Winter, 1982; Henderson & Cockburn, 1994; Prahalad& Hamel, 1990; Stalk et al., 1992; Teece et al. 1997; Winter, 2000) have pointed out other dimensions that complement the concept. Adding up to those ideas, routines (Nelson & Winter, 1982; Winter, 2000), processes (Stalk et al., 1992), abilities (Henderson & Cockburn, 1994) and decision rules (Pursey et al., 2004) were also considered. Based on these authors, this paper defines capability as being a repertoire of knowledge, experience, skills, abilities, decision rules and routines that firms need to overcome their competitors.

Capabilities belong to the firm and cannot be traded in the market. There is no concept such as a “market of capabilities”. These are intangible and based on constant interaction, justifying the difficulty to purchase, duplicate or even imitate capabilities (Nelson, 1991; Coombs &Bierly, 2006; Acur et al., 2010). Therefore, the capabilities of the firm should be developed (Leonard-Barton, 1992; Teece et al., 1997; Winter, 2000) through learning processes.

In this context, several scholars have walked towards the definition of the essential capabilities of the firm (Snow &Hrebiniak, 1980; Hitt& Ireland, 1985; Javidan 1998; Hafeez et al. 2002; Zaidi and Othman, 2014). These studies tend to point to the essences of capabilities, which include: general management, financial management, human resources, public and government relations, research and development (P&D), legal issues, market research, marketing and sales, distributions and logistics, legal, engineering, production, operations. However, Prahalad and Hamel (1990) point out that firms that build their leadership in the world are based on small number of capabilities.

More recently, Zawislak et al. (2012, 2013, 2014) developed a work upon that ideal of the essential capabilities of the firm. The general statement (Figure 1) is to consider the firm as the result of two major drives: technology and business. The technological driver covers the development and operations capabilities, while the business driver refers to the management and transaction capabilities. Zawislak et al. (2012, 2014) analyzed each capability based on its indicators. For development capability, the indicators were divided according to the technology level of the firm: *advanced*, *intermediate* and *basic*. The indicators of operations capability were identified through three main production orientations: *scope*, *scale* and the *mix* of both. Management capability has been divided based on the origin of decision making into *professional*, *family-professional* and *family*. The ability to transact with suppliers and customers justified the division of transaction capability indicators into *marketing*, *supplychain* and the *mix* of both.

Figure 1 - Innovation Capability of the Firm



Source: Adapted from Zawislak et al. (2012, 2014)

The integration and synergy of these four capabilities will enable the firm to develop new valuable products, which are manufactured in a commercial scale and satisfy consumer needs. Thus, a firm with a supposed right balanced capabilities' arrangement should have greater performance than their competitors.

Contrary to the general view and expectancy, the two technological capabilities (development and operations) are not enough to companies to achieve a distinctive performance in an increasingly dynamic and competitive market. The business capabilities (management and transaction) are the very essence that finally gives to the company the aspect of an organized innovative firm.

While transaction capability is responsible for decoding the different market signals (e.g., understanding consumer behavior) and for minimizing transaction costs, management capability gives rise to a specific architecture that allows the integration of all areas in order to look forward efficiency and stability, and thus to improve firm's performance.

The quest for efficiency on hierarchy, decision-making and coordination brings business inside the firm. Management capability enables firms to find their own path and a competitive attribute, combining continuity with innovation (Whitley, 1989).

3. Management Capability and the Paradox of the Organized Firm

From seminal classical work (such as Weber, 1905; Taylor, 1911; Barnard, 1938; Drucker, 1946; Simon, 1945; Fayol, 1949; Selznick, 1957; Penrose, 1959; Chandler 1962) to contemporary insights (like Mintzberg, 1973; Porter, 1980; Barney, 1991; Teece et al., 1997), it seems that there is not much new to be said about *management*.

In the classical sense, management has been described as the act of planning, organizing, commanding, coordinating and controlling (Fayol, 1949). According to Lazonick (1992), management capability contributes to define how the firm can best use its resources, defining goals and anticipating shortages through planning and control. This capability is the ability that the firm has to gather, coordinate, integrate and deploy a set of resources to meet the requirements of the consumer (Whitley, 1989; Lahiri&Kedia, 2009; Lahiri et al. 2012). Management capability can integrate and support a set of capabilities related to logistics, marketing, cost control, financial and human resources, forecast revenue and profitability (Desarbo, 2005).

However this view seems to have a narrow focus on the organization, rather than the firm. If we think the firm as the economic agent that has to justify its existence through providing valuable solutions to fulfill specific market gaps, then one can begging to understand that the role of management goes beyond simply planning, organizing and controlling. It is an essential function that allows the existence of the firm to reach higher profits, growth and perpetuity.

Having put this way, it seems that management capability is the ultimate capability, but it's not. Reaching all three goals is only possible through innovation. The role of management capability is to enable the other capabilities to work properly allowing new developed solutions to smoothly complete its full cycle from concept to the market in order to be transacted. It is related to the abilities, knowledge, experience and routines that the firm uses to efficiently coordinate the other capabilities of the company – development, operations and transaction capabilities (Zawislak et al., 2012, 2013, 2014)

Therefore, management capability lives a sort of permanent "Schumpeterian Paradox" (Munier, 1999; Encinar& Muñoz, 2006), what we call the "paradox of the organized firm". It has to find the right balance between efficiency and stability in a company and, at the same time, be prepared to re-organize every time the company needs to change. Whenever internal and external conditions evolve, management has to start looking for new ways to reach efficiency and stability again. For Schumpeter (1912), the very neoclassical notion of equilibrium, based on the circular flow, could only be true as an ideal state of a non-evolving economic system. From a steady state point of view, it could be consider as a sort of "management Shangri-La", where efficient and stable routines would be perfectly settled by managerial norms and procedures, and technology would already have reached its heights. If this non-evolving, perfectly routinized and steady state was a possible scenario, all problems would have been solved and management would not be necessary.

The problem is that things always change, technology never reaches its heights, and novelty is inherent to economic activity and, consequently, to the company. Therefore it is impossible to ever reach perfect efficiency and stability, and management is needed in order to 'buffer uncertainty' (Langlois, 2003) and cope with change. Management capability does for the company's structure what transaction capability does for the company's market relations. In other words, management capability is always aiming at reducing the internal frictions of the firm which happen as things keep changing. In fact, internal frictions happen because of the impossibility of ever achieving perfect stability within the firm or perfect routinized activities. In this sense, this is the very reason for the existence of management capability within the firm, that is, to cope with change allowing the firm reaches an efficient arrangement every time things have to move around.

As a matter of fact, the aforementioned paradox we have defined is the very essence of management capability. In order to allow the company to profit, management should rely on efficiency and stability. However, to growth and to perpetuate, the company has to develop new solutions and to enhance its boundaries, where management has to find a new stage of efficiency and stability. Management, at the end, deals with change rather than stability, with innovation rather than efficiency.

In that context, management capability is a matter of **corporate strategy** (for finding new stages); **resource allocation** (to allow the path to a new stage); **norms and procedures** (to create efficient and stable routines); and **coordination and integration** (of all company's inputs, actions and outputs). These will be described below.

Corporate Strategy

Refers to the pattern of decisions that the firm performs to reflect, determine and explicitly your goals and objectives, producing a set of policies and action plans that enable achieving these goals (Andrews, 1980). The corporate strategy is applied to the entire firm, while the business strategy, less comprehensive, defines, for example, the choice of a product, service or business are single market within the firm (Ansoff, 1965).Strategy is a continuous and systematic process of defining priorities and managing expectations (Drucker, 1973). It evolving and organic the organization needs to continuously to cope with changes in the internal and external environment (Mintzberg, 1973).

Resource Allocation

The firmisa collection ofproduction(human and nonhuman) assets and resources undermanagementcoordination (Penrose, 1959; Barney, 1991). The services provided by resources, particularly humanresources, are key for thefirm's growth (Penrose, 1959). Firms withmoreskilled, motivatedand committedhumanresourceswill be inbetterconditionto growbeyond theirown limits.Resource allocation involves the ability to anticipate shortages and to achieve higher levels of resource utilization (Lazonick, 1992).

Norms and Procedures

Everyfirm isan organization. As organizations grow, there is a tendency to increase formalization (Weber, 1905; Taylor, 1911; Fayol, 1949). Organizations have formaland informal ways to conduct its activities and routines. Formalization through norms is a way to attempt stabilizing routines and maintaining part of the codified organizational memory. Procedures are the very routinization of codified norms; however, as routines are based on the skillful application of knowledge, they are largely tacit in nature and cannot be completely codified (Polanyi, 1962, Nelson and Winter, 1982). Normsand proceduresare essential in establishing a standard range of decision rules throughout the organization.

Coordination and Integration

According to Barnard(1938), a formorganization isa system ofcooperation betweenindividuals, this systemis characterized by: formal, deliberate andpurposeful. To meetthe goalsset bycorporatestrategy, the firm is required toarrangeproperlyall itsproductive resources(Penrose, 1959). Coordination andintegration of various activities are crucialto firms to organizeefficiently (Barnard, 1938). Coordination and integration facilitate efficient communication reducing internal friction within the firm. Coordination and integration lies on the basis of administration. It is the art of "getting things done" (Simon, 1945). While norms and procedures intend to stabilize internal routines, coordination and integration help the organization to deal with change and uncertainty properly. Management capability does not follow the same patterns as operational routines (Stamp, 1981). According to Whitley (1989), coordination and integration are essential to combine management capability dynamics with innovation.

Management capability leads the evolving and innovating firm into organization. Based on different authors, the indicators that compose the construct of the management capability can be appreciated in Table 1. These indicators are essential for the management capability deals with the paradox of the organized firm. Whenever there are changes, firms must seek for stability. Without these four indicators, firms become disorganized or turn out to develop strict procedures that deviates their operations from reality. The presented indicators will be used to analyze different types of management capability and how it is related to the firm's innovative performance.

Table 1 - Indicators of the Firm's Management Capability

Indicators of Management Capability	Authors
1. Corporate strategy	Ansoff (1965), Andrews (1980), Drucker (1946), Mintzberg, (1973)
2. Resource Allocation	Penrose (1959), Barney (1991), Lazonick (1992),
3. Norms and Procedures	Weber, (1905), Taylor (1911); Fayol (1949),
4. Coordination and integration	Barnard (1938), Simon (1945), Stamp (1981), Whitley (1989), Zawislak et al. (2012)

Barney (1991) highlights that the performance of a firm depends not only on the characteristics of the industry in which it operates in a given space of time, but also on the way the company has been run until arriving at its current structure. Specific historical circumstances of the foundation of a company, or specific circumstances under which a new management is located, are important determinants of the long-term performance of the firm (Barney, 1991).

It is the ability of the firm to change its managerial structure so that non-routine management decisions can be made by a large number of people within the organization, without destroying its essential unity, which makes it difficult to argue that there is a point where the company is too large or too complex to be efficiently managed (Penrose, 1959).

As companies grow in size, managerial duties and the basic structure of management must undergo fundamental changes that profoundly impact the progress of the firm (Penrose, 1959).

According to Zawislak et al. (2012), firms present different management types and, therefore, a different combination set of those indicators. Based on the literature and observation, the authors have classified management into three types, from family to professional oriented business companies. A different combination set of those indicators is presented as follows:

(1) *Family*, when corporate strategy and decision making are centralized exclusively on the owner; resource allocation relies on a given technology specifications; norms and procedures are majorly informal; and coordination process is simple;

(2) *Family-professional*, when corporate strategy is defined through internal professional support to the owner's final decision; resource allocation depends on adapted technology specifications; norms and procedures increase formality as the company enhances its organizational boundaries and complexity; and coordination process tend to become hierarchical;

(3) *Professional,* when corporate strategy is the result of systematic planning and professional decision-making (board of directors); resource allocation and its specifications depend on internal technological capability (development and operations); norms and procedures are formally designed; and the coordination process is fully hierarchical.

Lodi (1993) argues that the professionalization of a company is the process by which a familiar organization assumes more rational and less customized administrative practices. Professionalization refers to the process of integration of hired managers and employees in the midst of family members; it is the replacement of intuitive methods by rational methods (Lodi, 1993).

The three different management types will be relevant to the data analysis of this research, since they will be the guide to establish relations between management capability and innovative performance of the firm. The following section presents the method used in this research. Subsequently, the results of the research based on case studies will be shown.

4. Research Procedures

A multiple case study was conducted in order to analyze the management capabilities of firms in Brazil. This research method was chosen based on Yin (2003) approach, considering that the innovation capability is a complex phenomenon which, according to the theoretical model presented in Section 2, is the result of a combination of development, operational, management and transactional capabilities. According to Eisenhardt (1989), the multiple case studies are a powerful mean to contribute to the construction of theories because they support the replication and extension among individual cases.

We used a database containing 10,930 Brazilian industrial companies. From those, 100 were randomly selected, respecting size, the region and sectorial proportion.

By the moment this paper was written, thirty companies have been visited in the exploratory phase for interviews regarding each of the four capabilities in the model. The 30 visited industrial sectors are shown in Table 2.

Table 2 - Visited Industrial Sectors

Industrial Sector	Number of companies	Industrial Sector	Number of companies
Footwear and Leather	5	Beverage	2
Clothing	3	Metal Products	2
Automotive	2	Food	3
Electronics	1	Textile	1
Machines and Equip.	2	Furniture	1
Plastic and Rubber	3	Tobacco	1
Others	2	Transport Equipment	1
Pulp and Paper	1	**Total**	**30**

Data were collected during in-depth interviews with business owners and senior executives, based on a semi-structured script with open-ended questions on the innovation capability model. The interviews were recorded and transcribed. At the end of each interview, a tour inside the company's facilities was made, in order to identify the different processes and departments. A report was written after each visit, based on the script structure. Additional information was obtained from websites, annual reports and articles.

Data analysis took place made from the four indicators information provided by the interviewees. From the collected data and the literature, we analyzed the management types into (1) family, (2) family-professional and (3) professional.

5. The Characteristics of the Management Capability Types

In our sample, 10 companies were identified as family, 10 as family-professional and 10 as professional firms. We analyzed the overall characteristics of management capability of each type regarding the dimensions of a) Corporate strategy, b) Resource Allocation, c) Norms and Procedures and d) Coordination and Integration.

We identified that each type has specific characteristics that justify the focus of the firm and determine how the management capability is related to the firm's innovative performance.

5.1. Family Firms

Family type firms normally emerge based upon a specific knowledge of the founder, which is still the guiding element to the business. The hierarchy within the firm consists on the family and its employees, what configures the so called basic management level. To better understand the family type firm, its major characteristics have been analyzed.

Corporate Strategy

Adopting a reactive position to the market changes, these firms focus on product and quality. In order to keep active and competitive in the market, they assume an operational condition, where the product development is done when specifically requested by the customers or driven by the tentative to adapt ideas seen at fairs around the World.

As an example, we highlight the speech of the owner of a food company, which is already in the fourth generation:

The process usually comes from the market into the company. It is rare to have the opposite way. (…) Besides surviving, we need to try to develop exactly what the market demands.

The corporate strategy is focused on the development and operation capabilities of the firm in order to accomplish the specified quality requirements of the customers. As exposed by the owner of one textile company, the customers tend to send a prototype, so that the firm can develop just like requested.

Resource Allocation

The most important resource for a family firm is human resources. However, they do not have a formal training to develop the employee's skills. Not rare, the owner or founder has no higher education.

The owner shares his knowledge with the employees based on his work experience throughout the years and, when necessary, hires one person for a specific work. For example, the owner, son of the founder, of one electronics company says that:

My father was a milkman, but he knows a lot of Physics. He doesn't know calculus, but he is able to discuss as equals with whomever on Physics.

Norms and Procedures

The family management type is based on informal norms and procedures. The interviewed companies exposed that the communication is mainly verbal, as well as the decision making process. As the firm is built over familiar ideologies, the organizational processes of each one of those firms trespass each generation powered by informal adaptations according to the market requirements.

For example, the owner of one of the footwear companies mentioned that the processes flow is explained to the employees, but they get to know it better during the day-by-day activities: "*Each person knows the normal way the processes must be conducted, it is always the same*". The owner of one of the machine and equipment companies highlights that:

Usually, things pop up during the day, during a conversation, then it is turned into a project, a draw or we create something in the computer.

Coordination and Integration

Within the family type, the owner is the main decision maker. Some of the studied firms remain presenting the founder as owner; however, most of them are carried out by the third and fourth generation. The owner of the textile company relates that:

We usually say that the company is driven by the tripod, which mean the three founders, but we consider highly important the contribution of our administrative manager.

The owner of the machine and equipment company also states that: "*the owner always gives the final word. He is aware of all ongoing activities in the company and attempts to every detail*".

5.2 Family-Professional Firms

When centralized decision-making reaches its limits and the boundaries of the firm must expand to allow the firm to grow, professional services are added to support decision-making. However, the transition from a family firm to a professional one is not subtle. An intermediate stage is the family-professional firm. Alike the family type, the starting point of the family-professional type firms is also based on a specific knowledge of the founder. However, as the firm grows, it requires a professionalization of the management structure. The family by itself is not able to handle the processes from the development to the commercialization of the product. Considering that, the family-professional type presents a specific set of characteristics which have been analyzed.

Corporate Strategy

Alike the family type, the family-professional firms focus on product and quality, in order to maintain their competitiveness in the market. Nevertheless, these firms present a formalized structure and seek to increase over the years. Consistent investments are directed to capital goods, in order to assure their competitive advantage. These investments are also justified by the intense relation with the market and its prospection, which guide the operational and transactional capabilities of the firm. The speech of the owner of a footwear company exemplifies this corporate strategy: "*we invest in product development according to the prospection of market trends*".

Resource Allocation

The family-professional firms understand that the human resources are crucial for its competitiveness. The speech of the interviewee of one footwear company exemplifies the importance of the employees: "*The difference is in the people. Too much financial resources are a problem. The creativity consists exactly in doing more with less*". Therefore, these firms present policies to train and develop employee's skills according to the goals of the company.

Norms and Procedures

The family-professional management type is characterized by formal norms and procedures, which are specified in written documents and established in the firm's routines. The interviewee in one of the footwear companies comments that:

> We were presenting negative financial results, so we had to reformulate all processes. Thus, we created a specific management system for our company, named GEMS (in order to preserve the identity of the company, we present only the acronym).

Coordination and Integration

The owner, who can be the founder or someone who belongs to his family, coordinates supported by a board of directors. Based on the presence of a formal chart, decisions are made consulting the board and their reports. The owner of one electronics company explains that: "*we have a sector called Corporative, which encompasses the Finance, Account, IT and Human Resources directors*". We highlight the speech of the interviewee in one of the footwear companies, where he remarks that:

> Even though the control remains with the founder family, the coordination is professional, driven by a board of directors who don't belong to the family. It is important to have this balance.

5.3 Professional Firms

Ten companies from our study were classified as professional firms. Different than the types described above, original family members do not run these companies. However, not surprisingly, they have some similarities with the family-professional one as the latter seems to be in a transition stage from family to professional. Professional firms emerged either from partnerships or they have reached a higher level of complexity that justifies corporate governance. They present the highest level of management (Zawislak, Fracasso&Tello-Gamarra, 2013), which consists in established hierarchy and processes. The characteristics of the professional type firms have been analyzed.

Corporate Strategy

Just as the family and family-professional types, product, quality, capital goods investments and market prospection are the goals of the professional type corporate strategy. For the professional firms, innovation is frequently considered a process, based on the need of constantly launching new products – with incremental or radical changes. Having already established its brand in the market, these companies also dispend considerable marketing efforts to consolidate even more their own brands. As reported by the owner of the tobacco company, the company focuses on the distribution, negotiation and commercialization of its final product. As an example, we mention the speech of the interviewee in the pulp and paper company:

Our company seeks for long and stable relationships. Therefore, we promote events to celebrate the period of partnership with customers and suppliers.

Resource Allocation

The professional firms consider the training and capacity building an important part of the management activities. They organize workshops and in loco training seeking to standardize the processes, assure the productivity levels and reduce transactional costs. It is also possible to verify that some of these firms present an active relationship with universities. The interviewee of one plastic rubber company says that "*It is not mandatory, but we prioritize the higher education*".

Norms and Procedures

Formal norms and procedures guide the processes of the professional management type firms. To illustrate this idea, we highlight the speech of the interviewee in the tobacco company, which is leader in the Brazilian market: "*to manage a global company without established process is utopia*".

Coordination and Integration

Key to the formalized structure of professional firms is the decision making process, which involves the CEO and the directors of each area, and is orientated by a frequently updated strategic planning.

We exemplify here with the speech of one of the managers of a plastic and rubber company:

The coordination is completely professionalized. We have the president and then the three directors-managers, who present a high interaction level. The decision making process can be executive, managerial or with both actors. It depends on the issue.

The interviewee of the tobacco company highlights the use of new coordination tools to achieve the innovative performance:

We understand that innovation is a process; therefore, in order to develop new products and manage the process, we are now using a management tool called Stage Gate.

5.4 Discussion

In this study, three different types of management were considered and the characteristics of each one were analyzed, corporate strategy, resource allocation, norms and procedures and coordination and integration. Figure 2 summarizes the main results obtained.

Figure 2 - Management Capability in the Analyzed Companies

Characterisitics Type	Corporate Strategy	Resource Allocation	Norms And Procedures	Coordination And Integration
FAMILY	- Production and Quality - Product development is done when specifically requested by customers	No training activities; experience throughout the years	Informal	Owner as the main decision maker and integrator
FAMILY-PROFESSIONAL	Besides the points of the Family type: - Capital goods investment - Market relation and prospection	Differential for competitiveness	Formal	Decisions are made by a board of directors
PROFESSIONAL	Besides the points of the Family-Professional type: - Own product development - Marketing	Constant training to assure high performance	Formal	Strategic planning guides decisions

If, on one side, family firms focus on product development according to customer's requests, on the more professionalized side, it turns out to be a formalized activity within a Research and Development (R&D) department, in consonance with the commercial area. The results also highlight the idea supported by Penrose (1959) that resources are a key factor to the growth of the firm. The more professionalized the firm becomes, the larger the resources it has to deal with. Consequently, formalization increases norms and procedures of these firms. It is considered, by the interviewed companies, highly important to document and standardize processes, aiming to avoid incorrect interventions throughout the work flow. So far as the company increases its organizational boundaries and complexity, the decision making processes appears to automatically become more hierarchical.

6. Concluding Remarks on the Innovative Performance in each Management Capability Type

The aim of this article was to identify the characteristics of management capability and how this capability contributes to innovation in the firms. Management Capability faces a challenge which is to cope with stability and change aiming at 'fine tuning' the organization. That's the paradox of the organized firm which is the essence of management capability. Analyzing the characteristics of the three different company types, we identified that they influece directly on how the firms deal with innovation. The family type, which has the owner as the main decision maker and presents informal norms and procedures, is based on the experience throughout the years. In that sense, it is reasonable that innovation figures as a phenomenon driven by outside factors, i.g. customer's requests, and that comes to light according to the owner's decisions. The family-professional type, however, by its understanding that the human resources play an important role for the competitiveness of the company and through the board of directors' decisions, seeks to innovate attempting to capital goods and marketing efforts. The professional firms, driven by a strategic planning and following formal norms and procedures, focus not only on the points mentioned before regarding the family and family-professional types, but also on product development and marketing. These firms have already established their processes and seek to innovate in product and transaction.

Considered that, we conclude that family owned business companies are easy to decide on changing. However, due to growing knowledge complexity, it is hard to innovate.

In familiar firms, the visionary capacity and the development decisions are based on the owner's experience. Insofar the owner's figure is substituted by a Research and Development (R&D) department; the decisions are spread out in managerial functions inside the firm. Hence, the management capability in the familiar company type is more related to the innovation itself, while in the more professionalized companies it is related to the controlling of the R&D activities, from where the innovation may emerge.

It has been observed that the professionalization degree of the management type is influenced by its structure and justifies where the company focuses its decision efforts. The larger the company, the more professional it tends to be. Considering that each type focuses on specific capabilities according to its structure and strategy, we suggest that those are the capabilities where innovation emerges from in the firms.

Development and management capabilities overcome operations and transaction capabilities, whenever the product is perceived as superior by customers – as long as the company remains organized. Management capability, however, should be aware of change and keep the company organized. The management capability's scope goes beyond the simple planning and controlling, its key role is to cope with the paradox of stability and change in order to allow innovation to flourish.

The theoretical implications of this study may help decision makers to manage their firms more efficiently, minimizing the internal conflicts, integrating the areas, as well as conducting the quest for innovation accordingly to the goals of the firm. As opportunity to future studies, we intend to conduct a survey with a larger sample of companies that represents the respective population. A quantitative questionnaire will be used to investigate the intensity of the relation between each characteristic of the management capability with the innovative performance of the firms.

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