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Dorsoduro 3246
30123 Venezia

Organizational routines' nature
and impact on domestic
operations and international
expansion. A perspective on
ambidexterity and mirroring
back.

Supervisor

Ch. Prof. Andrea Pontiggia

Graduand

Debora Perin

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ABSTRACT

Companies trying to exploit and enhance their competitive advantage expand internationally to tap the opportunities offered by an increasingly open and integrated market. International expansion is usually pursued by replicating the business model through the mix of organizational routines composing it, in which knowledge and related competences are embedded. As they provide stability, they contribute to control the process and reduce the uncertainty of operating abroad. The inertia that is usually attributed to those processes however does not fit with the today's turbulent environment and inhibit the capacity to adapt operations to local conditions as more market knowledge is acquired. Building on the concept of routines as generative systems (Feldman & Pentland, 2003; Pentland & Feldman, 2005), there are able to reconcile the trade-off between the need for stability and efficiency and the need for variety and innovation. The dynamic dialectical between their theoretical representation and actual manifestation represents a source for knowledge exploitation (enactment of the idea), knowledge exploration (deviation from the idea) and generation (modification of the idea); their ambidextrous potential is the basis for organizational ambidexterity. When transferred abroad, routines may generate new knowledge, pushed by new environmental cues, and storing it in their theoretical representation for being transferred. Subsidiaries adapt the business formula to their situation, developing specific advantages. Routines can favor the backward flow of the new generated knowledge to the parent company, where the deriving new business model features can be integrated into the previous formula; a mirror back effect (Vescovi & Pontiggia, 2014) may occur when subsidiary initiatives are integrated and modifying the prior business model for further replication. Replication is an intra-organizational bidirectional process of knowledge transfer and generation, taking place within a broader circular process of knowledge creation, forward transfer, variation and backward transfer.

An Italian firm operating internationally in the footwear market is then analyzed,

with a focus on its international expansion strategy; an example of mirror back effect emerges, as well as corporate function for developing core capabilities and for flexibly replicating them internationally through organizational routines.

Key words: organizational learning; organizational knowledge; organizational routines; replication; ambidexterity; mirroring-back effect.

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INTRODUCTION

Organizations try to exploit their assets and tap the new opportunities for gaining competitive advantage they face in a boundaryless, more connected and integrated world, usually expand internationally replicating their business model. Replication is not however a simple and straightforward transfer of a set of procedures and best practice; it is a broad-scope activity which involves the development of such dynamic capabilities at the central organization as to enable the subsidiaries to get and absorb the knowledge capital gained by the parent entity (Winter & Szulanski, 2001). Teece et al (1997) define dynamic capabilities as the capacity of an organization to adapt itself to the changes impacting its functioning. The transfer of a huge amount of knowledge then bears an implicit consequence which is the change in the outlet's environment. If we consider this process as a linear and one-directional activity, and therefore that the parent company simply mirrors itself to the subsidiaries and is the only source of changing this process allows, we hinder the effects of one of the benefits pushing for expanding. The expansion would remain a simple activity of copying and transferring procedures rather than an active effort to generate new knowledge. The main source of change would remain the parent organization, with the outlets simply arranging for their structure to be aligned to their context. Each outlet needs to adapt to allow its (new) structure to fit with the idiosyncratic environment in which it operates. The challenges posed by the 21st century however generate the need to be constantly flexible and adaptable to the environment in which the activities unfold. Two issues emerge. The first is the need to locally engaging into learning activities for developing the capabilities for receiving and deploying the knowledge transferred from the parent company, and for combining it with the locally developed knowledge, to build distinctive value-adding subsidiaries assets. The second is the need for organizations to respond to the need for being constantly flexible and adaptable within an uncertain and ever-changing environment. Organizational routines, as repositories for knowledge and stable repetitive patterns of behaviors (Nelson &

Winter, 1982) are usually at the center of replication efforts, so that the expansion is more rapid, less costly and less uncertain. The trade-off between the stability provided by the replicated formula and the variability needed to cope with diverse and changing contexts can be solved if dynamism, variability and circularity are introduced in the analysis of firms' international expansion and organizational routines' life.

When each part of the network is independent in its activity of altering its structure and strategy, variation of procedures and structures occurs. New knowledge is generated, then integrated with the possessed one for building new idiosyncratic assets; generating new knowledge, thus engaging in learning activities, contributes to develop the absorptive capacity necessary for exploiting the received knowledge and further developing new assets. Building on the argument of organizational routines as repositories of knowledge (and as generative systems (Feldman & Pentland, 2003; Pentland & Feldman, 2005), routines represent the means for both forward transferring knowledge to subsidiaries for being exploited abroad, and for engaging into exploratory activities for generating new knowledge, thanks to their inherent variation potential.

The adjusted BM resulted is each subsidiary is developed to deliver value according to local characteristics. Adaptations and changes can represent more than necessary adjustments to let the BM work efficiently. New elements, processes, features, linkages can be and are actually discovered through the adaptation and implementation processes. They do deliver more value than the initial BM developed at the center, but they can represent a source of value even for other subsidiaries in the network, or for the network as a whole. The locally acquired knowledge contributes to increase the knowledge-base of the entire company, and can thus be leveraged all over the networked (if the information flows are efficient and distributed at each level). Locally developed new traits of the BM can flow backwards to the parent organization and then be integrated into the "standard" business model used by the company for further engaging into international operations; this process has been called "Mirroring

Back” (Vescovi & Pontiggia, 2014).

Routines can serve as knowledge carriers again, embedding the new internationally developed knowledge in the form of changed procedures and capabilities, therefore causing and embedding and transferring the changed knowledge. They enable a broad cycle of knowledge creation, transfer, variation and then transfer, a circular open-ended process of organizational adaptation and change.

This process of circular knowledge diffusion and integration entails the development of a set of dynamic capabilities which enable the organization to know itself, its value-adding elements and processes, the various characteristics of the environment in which it operates, and how to properly expand and operate internationally by adapting itself and continuously absorbing and leveraging what has been learned throughout its network.

The paper starts with the discussion of relevant managerial issues impacting on competitive advantage position, namely organizational learning and organizational knowledge creation. A focus on organizational routines tries to understand their nature and their relationship with learning, organizational creation and diffusion. A first feature is linked to organizational routines, building from the concept of routines as generative systems (Feldman & Pentland, 2003; Pentland & Feldman, 2005). The constant dynamic interaction between their theoretical formulation and their actual deployment, which provides chances for variation in one or both aspects, contributes to learning and knowledge generation; it is argued that the potential for stable or variable evolution, together with their knowledge storage feature, is the source for knowledge exploitation and contextual exploration. This routines' ambidextrous potential enables in turn organizational ambidexterity.

The perspective is shifted then towards routines replication and its involvement into internationalization activities. Replication dynamics and strategies are revised, focusing then on the change generated by the transferred routines. Their are considered to play a role also in the dynamics of backward knowledge flow, and business model variation and further diffusion, enabling a process

called “Mirroring Back” (Vescovi & Pontiggia, 2014).

Due to their changing potential, when employed for being replicated abroad, they cause the business format to vary according to the characteristic of the end market. Putting this process inside a circular flow of knowledge generation, forward transfer, variation, and backward transfer, routines can embed the new locally developed knowledge and let it enhance overall organizational performance.

An Italian firm operating internationally in the footwear market is then analyzed, with a focus on its international expansion strategy; an example of mirror back effect emerges, together with a possible area of interest for developing core capabilities and flexibly replicating them internationally through organizational routines.

1. ORGANIZATIONAL LEARNING

Competitive advantage is a business concept related to the features and conditions which enable an organization to achieve superior performance so that to outperform its competitors.

As Barney (1991) states, a firm has a competitive advantage when it implements a superior value-creating strategy, which results to be different to what other players adopt.

Therefore, resources need to be possessed somehow, by fate, by acquisition or development, and such resources need to be efficiently managed, for creating and sustaining a position of competitive advantage.

On the goal of reaching efficiency and effectiveness to ultimately achieve sustained competitive advantage, different theories develop various propositions along different points of view.

According to the industrial organization perspective, the long-term advantage of a firm depends on the conditions of the environment (industry) in which it operates. Differences in performance among firms would thus be function of the idiosyncratic features of the industry, such as the resources market and the demand, the related industries and the competition, the government and maybe casual chances. This view is however too narrow to explain the drivers of superior performance, and is not sufficient to explain variations in an more and more changing and uncertain environment, where industry boundaries fade and competition often come from multiple areas and subjects.

The resource based view (RBV) adopts an inward-looking perspective focusing the attention on the distinguishing characteristics of each organization, namely their internal resources and competences.

On the international business studies field, Rugman (1981, 1991) anticipates the RBV approach developing the concepts of location-bound and non-location-bound firm specific advantages, which are the determinants of firm's competitive advantage. FSA are knowledge bundles composed by intangible assets, capabilities and processes, which are idiosyncratic to the organization, not

available to others and not replicable (at least in the long run, and at high costs). Thus firm expand their boundaries internationally to deploy their knowledge assets by controlling them directly to prevent their dissipation. The firm is viewed as a complex set of interdependent activities linked by flows of knowledge and intermediate goods, coordinated by information flows through internal markets for knowledge (Buckley & Casson, 1976). Kogut & Zander (1993) move from the perspective of internalization of inefficient markets for knowledge as a determinants of multinational enterprises creation, defining the multinational enterprise as an entity with superior efficiency as a vehicle whereby creating, exploiting and transferring knowledge. The firm specializes in knowledge transfer and recombination as serves as repository for social knowledge. Knowledge assets are both leveraged internationally through the firm's combinative capabilities (generating new combinations of existing knowledge and between previous and acquired knowledge) for expanding abroad, and enhanced by the learning process taking place through the expansion.

1.1.Looking for competitive advantage

Various theorists tried to uncover the factors driving to company's success. Selznick (1957) and Andrews (1971) identified the distinctive competences of firms that can build an adaptive organization, unleash value and determine sustained advantage; Chandler (1962) refers to the fit between the planned strategy and the firm's structure; Penrose (1957) defines the firm as a "collection of distinctive resources"; Wernerfelt (1984) and Barney (1991) put more attention on skills and capabilities adopting a more inward-looking perspective, focusing in particular on these intangible strategic resources and on their strategic management.

In particular, Barney defines a framework of the features the set of firm's resources should possess to let it reach and sustain competitive advantage.

The distinctive resources should be valuable, rare, inimitable, non-substitutable. These resources can be both tangible and intangible assets (physical and financial capital, human resources, organization and technology, capabilities and knowledge) and their idiosyncratic characteristics are source of heterogeneity among the population of firms. The mix of resources necessary to achieve superior performance is changing however. In the “world of disruptive change” (Christensen and Overdorf, 2000) different sources provide greater value: the combination of quality, innovation, efficiency, customization; valuable characteristics and targets to be pursued and maintained all together to achieve higher performance.

In their publication “Managing Across Borders” (1987), Bartlett and Ghoshal delineate major changes and developments affecting industries during that period of time. The characteristics which seemed to define industries are impacting on each industry simultaneously. Anti-dumping suits and political pressures contributed to the fragmentation of operations; consumers of the mass-standardization era start demanding more differentiated products. From the Nineties on, improvements in information and communication technologies, among which the first browser on 1995 giving rise to the Internet era and contributing to a strong third wave of globalization, transform the business environment and the entire society on multiple aspects. Communication, production, innovation, human habits start changing with higher and higher speed; big corporations start breaking up and operations get more dispersed, boundaries and barriers shaping markets fades away. More opportunities arise in the market, and firms can more easily seize them and easily access to the necessary resources. New organizational challenges arise: the connection between industry and strategy fades and multidimensional capabilities are now required to cope with more and more dramatic and fast market changes. Upon the RBV, the knowledge and specifically the capability approaches emerge as primary drivers for superior performance and diversification.

The focus shifts from tangible to intangible resources: knowledge and information become a major source of competitive advantage (Davenport and Prusak, 1998). While the set of (tangible) resources can be important at the

beginning of the firm's life, it loses its value over time, together with the fit with the ever-changing environment. Most tangible factors can be more easily reproducible, less valuable, thus less important to the firm; being highly endowed in resources is not the only source of advantage anymore, indeed it may even represent a burden in terms of their rigidity that affects firm's choices, actions and agility (Wernerfelt, 1984). Itami (1987) stresses the importance of efficiently using information-based resources to have a successful strategy. resources are also more available and thus acquirable to firms. The source of continuous success lies progressively into processes and capabilities, which bind themselves with the existing resources to deliver products and services according to market changes (and resources changes, as for example turnovers). Among firm-specific resources, capabilities and procedures are the means to make both intangible and tangible resources part of the value-creating processes in the most efficient and effective manner; they influence resources in that they are also the driver for such resources to be redeployed, redefined, modified, changed. As Feldman states (2004), “[...] in addition to field changes, changes in internal organizational processes are a great influence on resource mutability.”.

In a connected world, where it is possible to buy components for constructing a car on the Web, the value derives from the capacity to put those parts together as to create a distinctive product. In a world of constant variation, what is valued today may be considered valuable anymore tomorrow.

The value therefore lies in the capacity to create the competences, the skills, the knowledge and to exploit them to fruitfully deploy the tangible resources to generate value, and to deploy them differently according to the evolution of the environment. The goals of today's organizations pertain to the ability to (rapidly) address rapid and ambiguous environmental changes and to create and maintain a position of continuous superior performance (even if within different circumstances and upon different basis).

1.2.Creating distinctive resources

Prahalad & Hamel (1990) put a focus on the concept of core competences as a means to reach sustained advantage, as they are “multi-use, valuable and inimitable”. They are defined as the ability of the organization to consolidate its technologies and skills into competences which enable it to be flexible enough to cope with variations and uncertainty and to catch the opportunities available. Core competences are a source of competitive differentiation: they characterize and distinguish the organization from its competitors. Dosi et al. (1991) situate the basis for firm competitive capacity into its sets of differentiated skills, routines and complementary assets (that is, its core competences). Core competences can bind all the parts of the business engine and function as hinges for future development. In this view, the whole organization is thus conceived not as a set of products and structures (strategic business unit view) or a bundle of resources (RBV), but as a set of core competences (contributing to the production of core products or services) that must be built, nurtured and developed over time to deliver value.

Upon the knowledge-asset, skills and capabilities are built and nurtured. They are developed over time through the continuous activities of selecting, orchestrating and deploying the bundle of resources constituting the firm (both tangible and intangible), and help do these activities in an efficient and effective manner to build sustained advantage (Kostopolous et al., 2001). They are more firm-specific than most tangible ones, since they are the outcome of the experience and the knowledge gained by the organization over time (of its learning process) and the interaction of the experience and knowledge with the set of resources (Prahalad & Hamel, 1990; Kogut & Zander, 1993). The tacitness, path-dependency, causal ambiguity and social aspects characterizing knowledge and capabilities put them in a position of a higher inimitability, uniqueness and specificity (the roots of competitiveness as on the RBV perspective) degree compared to other organizational assets. Behavioral theorists attribute to strategic resources and capabilities the source of firm's

innovation (Nelson & Winter, 1982).

Compared to other sources of economic rent, as the Ricardian and the Monopolistic rents, Entrepreneurial rents are internal sources of value, thus controllable by the organization through management (Mahoney and Pandian, 1992). As an “entrepreneurial organization”, the firm (the entrepreneur, or all its members) employs the knowledge assets throughout the process of input-output transformation, from which derives also the creation of new knowledge (from production process, from experience, and so on). Controlling knowledge and the process through which it is generated is a means of rent generation (Edmonson & Moingeon, 1996). The view of the firms evolves from the resource perspective to the knowledge perspective.

1.3. The capability of developing capabilities

To maintain and possibly enhance the competitive position provided by the strategic assets, the latter must be accumulated and/or developed, and properly orchestrated. Some argue that the origin of strategic resources and capabilities is casual (Barney, 1986), a product of organizational experiential learning (Nelson & Winter, 1982; Becker, 2008), or the product of leaders' contribution inside the organization (Prahalad & Hamel, 1991). Dierickx and Cool (1989), Amit and Shoemaker (1993), Prahalad and Hamel (1994), argue that those strategic resources are created inside the organization's boundaries following a distinctive accumulation process over time, influenced by casual ambiguity, related assets, and by the external environment, that is, by the strategic objectives and paths the organization plans to reach the desired competitive position through the creation of the right competences. To stay competitive in today's world means to be capable of sensing the environmental variations, and to possess the capabilities to change and to remain constantly flexible. Efficiently deploying one's resources is just one part of the story about success; besides learning how to fruitfully use the set of resources available, learning

how to recreate resources and to create new ones is of the same importance; learning how to detect and seize opportunities on the market, and inside the organization itself, is a means for developing new resources, namely knowledge, and the linked competences.

Among the most valuable capabilities the organization should develop, entrepreneurship, sense and response, marketing skills, and dynamic capabilities, Kostopolous (2011) includes the capability to learn, a process aimed at building hard-to-imitate knowledge and developing the set of hard-to-imitate skills and (other) competences that enable the organization to adapt to its environment (Hedberg, 1981). The path-dependent way in which competences progressively accumulate makes it difficult to unbundle the set of know-how, skills, routines that constitute them (Edmonson & Moingeon, 1996); the consequences are the uniqueness of the deriving resources, but also the heavy baggage of accumulated experience that can drag the company down to oblivion when circumstances ask to depart from what has always been done in the past.

Thus organizational learning is a competence (a collective activity) aimed at developing other (core, strategic) competences.

Many scholars and business actors sustain organizational learning, and the resulting capabilities, as one of the most powerful drivers for competitive advantage, either directly or implicitly (for example, the 1990 Henderson-Clark model on different kinds of knowledge as sources of innovation; Edmonson & Moingeon, 1996). The capability to learn is especially required to survive to turbulent environments (Garvin, 1993). The disruptive changes characterizing the environment on an ongoing basis emphasizes the relevance of organizational learning as the leading capability to be developed to stay competitive (Fiol & Lyles, 1985; Stata, 1989; Barker-Scott, 2011), and to enhance the firm adaptability (Newman, 2000). Several studies provide evidence that organizational learning activities provide bottom line results and increased performance (in terms of profits, customer satisfaction, etc.), inspiring organizations to believe that superior abilities in learning and improving faster than others can be the primary source of competitive advantage in the 21st

Century (Dean, Clark et al., 1997), and of innovation (Lynn et al., 1999; Helfat & Raubitschek, 2000). On its “The Fifth Discipline”, Senge (1990) puts the attention on the learning organization capable of continuously transforming itself to stay competitive through its community of (learning) employees and to achieve competitive advantage (Cors, 2003).

1.4. Learning and experience

Among the most common definitions of organizational learning, we can find the detection and correction of errors, the construction of routines, the acquisition and construction of relevant knowledge, the development of sense-making abilities, and so on. Learning can be defined as a process of collecting, recalling and using past inferences to respond to new changes. It develops (and it then is based upon) an amount of experience on which to draw for directing future performance (Becker, 2008). It therefore contributes to generate knowledge, about the processes, the goals, the environment. This process is based upon, and is the creator of, a set of organizational routines which are diffused among participants through socialization, training, imitation (Levitt & March, 1988) and which guide future behaviors (Nelson & Winter, 1982). Levitt and March (1988) that organizational learning is the activity of “encoding inferences from history into routines that guide behavior”; past experience is therefore embedded within the structure of the organization and the set of activities that take place inside it. Often the stock of past knowledge embedded in routines represents a burden, stifling the learning process and the development of new knowledge (Levitt & March, 1988).

Knowledge creation, diffusion and retention are processes which are functions of the experience (Cyert & March, 1992). Experience is one of the ways in which knowledge can be built and developed over time, and influences organizational learning together with the underlying culture (and other

competences possessed) (Edmonson & Moingeon, 1996). It contributes to develop understandings about cause-effect mechanisms through direct involvement in the operations. Schein (1993) defines organizational culture as a kind of learning (Edmonson & Moingeon, 1997), as it is the result of the past experiential learning accrued and building the stock of knowledge and beliefs (shared by the members who learned as a group). The internal context (structure, procedures) is therefore built and affected by cultural assumptions which in turn guide actors in their decision-making activity; these assumptions are recalled for future actions, interpreted and implemented, or modified, helping in the process of organizational learning. Therefore, also the learning process is influenced by cumulative past experience, through the influence exerted by the organizational culture underlying all organizational structures, processes, and members' behaviors, in a circular manner. The guiding values influence the learning styles and the way individuals behave, both consciously and unconsciously (Edmonson & Moingeon, 1996). The common sense derived by the cultural context influence the development of knowledge schemes that individuals use when they sense and interpret stimuli (O'Toole, 2011); individuals process the information resulting from experiential learning to develop meaningful insights, which can in turn influence cognition, decisions, behaviors and routines (Easterby-Smith et al., 2000). These frameworks used to filter information and experience are influenced by the experience itself, acquired over time through the activities performed. If experience is useful for using insights from the past to decipher new situations and developing new insights, it tends to channel future thoughts and actions into a determined path and within certain boundaries. The validity of this path may not hold true over time and in different, and always changing, context. If it holds then that (bounded-rational) people tend to behave following habits (Nelson & Winter, 1982), also organizational activities tend to follow routinized paths of actions, nurtured by the accumulated experience. Dutton & Thomas (1984) find through several field studies that people enhance their efficiency through experience, following a learning curve, the rate at which they enhance their competences decreases over time and with experience though. These conditions may make

the organization less responsive to changing conditions, more blind in the sense-making, thus in recognizing (and searching for) errors or opportunities. Core competences can turn into core rigidities (Prahalad & Hamel, 1990) when results are satisfactory enough to decide that they are desirable and that the way to deliver such good results is going on the same way. Competency traps may occur (Cohen & Levinthal, 1990) when what has proven to function well is assumed to be the desirable target that has therefore to be maintained over time; past success may also be erroneously linked to actions that were actually of inferior quality thus not able to really deliver satisfying outcomes, generating therefore a phenomenon called “superstitious learning” (Levitt & March, 1988). Organizational culture, processes and mental models can favor the maintenance of current competences and thwart the creation of new ones. As core competences are existing capabilities expressing collective knowledge (Prahalad & Hamel, 1990), the capability to learn involves the ability to identify the competences and then use them to achieve competitive advantage. The capability to learn turns itself into the abilities of the organization to acquire knowledge from different sources and with different styles, to store and use the outcomes of these processes, but also to modify these processes when the situation calls for changes, or to modify the conditions in which learning takes place (structures, culture).

The organization should therefore put its member in a position to be always active in making sense of what is happening without relying too much on the past and being afraid to exit the box, to avoid the reliance upon sticky and aging knowledge and skills. The organization develops and enhances its (members') learning capabilities by creating an institutionalized learning environment in which specific mechanisms are set to foster individual learning and knowledge diffusion and storage, to ultimately increase organizational effectiveness and competitive advantage (Pettigrew and Whipp, 1991), trying to enhance variation thus flexibility, and to prevent the emergence of detrimental internal learning barriers.

On the position of structuralist view, setting the right structure and the right procedures (the right internal context) to foster and sustain individual learning

influence the way members actually think, behave and ultimately learn (Edmonson & Moingeon 1996). Flatter organizations, for example, are considered more powerful in empowering people and stimulating them to engage into social interaction, knowledge diffusion and sharing, and active learning activities. The turbulent external environment, characterized by the globalization of business and trade, fast and cheap transport and communication means, gives organizations also many opportunities to tap, many chances to expand the sources of learning and then increase their knowledge base and their industrial capabilities (Gereffi et al., 2005), thus to enhance their competitive position. The changing environment, together with a proper internal context, is therefore a cue for stimulating learning, and adaptation.

The reverse is true either, on a cognitivist point of view: what people think, do and communicate and then store as organizational memory influence organizational structure and mechanisms and their future behaviors, thus the response to external environmental variations. Argyris and Schon (1974) refer to single- and double-loop learning mechanisms as different approaches that individuals adopt, and that then create two different types of organizational structures, when engaging in the learning process.

1.5.Rigidity versus Flexibility: the role of feedback

“Rigidity is a multidimensional construct encompassing the tendency to form and persevere in the use of mental and behavioral sets” (Schulz and Searlerman, 2002). Mental models and ways of doing things have the tendency to resist over time and often over changes. Especially when positive outcomes emerge, it is difficult to move from current situation towards a risky and unknown path. The current state of affairs is well known, thus it is easier to be maintained over time.

The rational preference to the status-quo often becomes an emotional bias

towards the current situation, which is considered as a reference point in the decision-making process (Samuelson, Zeckhauser, 1988). Theories of action guide organizational members' actions and behaviors in their pursuit of the desired outcomes (Argyris & Schon, 1974); they influence the way individuals perceive the internal and external environment, so the way in which they sense and interpret stimuli, and the way they behave to get the target they think should be met, so their assumptions and values guiding decision-making and actions. Assumptions and theories, often tacit and out of awareness (so that actions may differ from intentions), are the basis for acquiring insights and building understandings, but also the cause of learning process malfunctioning and faulty knowledge building (Nonaka & Takeuchi, 1995). Moreover, individuals have the tendency to develop assumptions on the targets to reach and the means to reach them, based on past experience; they start performing routinized activities more unconsciously, reinforcing such targets and processes that eventually become part of the organizational culture (Christensen & Overdorf, 2000) and a sort of strictly followed rigid schema.

It is important to note the role of feedback gathering and analysis to evaluate actions and behaviors, understanding cause-effect mechanisms and detecting success or failure to ultimately reinforce and increase the stock of knowledge possessed and improving firm effectiveness. This kind of searching for information can be both a proactive initiative or a reaction to opportunities and failures, and can be performed routinely. An accurate and diffused feedback mechanism is intended to minimize failures like the ones depending on the “natural imperfections” of human beings, who function as major sensors of experience inside their organization (Feldman, 1986), on the different access to information according to organizational position or to the routines established (Huber, 1982), or on the misinterpretation of cause-effect mechanisms. These phenomena are likely to affect in turn the building, and the quality, of organizational repertoire of information and knowledge (organizational memory). Intentional organizational experiments are intended to uncover cause-effect mechanisms, to gather valuable information about such mechanisms and

to understand them.

A constant monitoring of organizational activities produces a high amount of valuable information as well. As individual members are the primary sensors of experience (Feldman, 1986), information processing is naturally flawed.

Feedback can often come later than needed, or be missed or misunderstood, leading to what Levitt and March call superstitious learning. Even if gathered accurately, the information can be distorted at a later stage, when shared among members, influenced by personal perceptions and mental schemes and by the consequences of different organizational positions, like the access to information (Huber, 1982). Culture and structure function as a basis for actual and future thinking and acting; people approach to learning is therefore affected also by the internal tangible and intangible context. Behaviors and reaction to feedback are in turn responsible for the maintenance (or modification) of culture and structure, depending on the attitude toward feedback interpretation. The selected reference point where to establish the imaginary threshold for considering an achievement above or below the satisfactory level helps boundedly rational agents in their decision-making activities. Such aspiration level depends on past performance, peers performance, or a specific goal-setting system (Becker, 2008). The way this level is set, its "height" as well, and the level of risk tolerance set for determining the costs of implementing changes, are crucial for triggering searching for new information when results are considered to be unsatisfactory.

When people try to make sense of the data at disposal, they follow two kinds of paths which Argyris & Schon (1974) define as single- and double-loop learning. These ways of individual thinking, acting and reacting determine in turn different types of organization. The former, a behavioral process of learning, implies the reaction to undesired outcomes by modifying one's actions without modifying the underlying assumptions guiding the behaviors. The resulting organization is very resistant to learning and changing, self-defensive and with self-reinforcing feedback mechanism, where underlying assumptions and values hold always true and people just adapt their actions to obtain the goals. The double-loop style, a cognitive learning process, implies the revision of basic mental schemes

when undesired outcomes follow one's actions. The resulting organization is capable of modifying itself on the basis of feedback analysis and evaluation; in this flexible organization underlying assumptions and mental schemes are constantly questioned and revised to achieve the desired objectives (Levinthal & March, 1993; Argote, 1999; Becker, 2008).

These two kinds of experiential learning involve the search for information and its collection, its organization and its distribution among members to enhance the development of shared understandings and the retrieval of knowledge when needed, and finally its utilization to support the decision making process and to take actions. Both are intended to enact adaptation and to support constant adaptability. Some argue that a constant state of change operated by an experimenting organization in its objectives, structures, procedures, is almost required to survive in changing and uncertain environments (Hedberg et al., 1977), and that performance constantly considered above the aspiration level decreases the rate of change, thus the risk taking, and inevitably decreases the level of innovation and fitness with the environment, determining a long-run inertia (Becker, 2008).

Argyris and Schon consider the double-loop learning the most effective way of gaining competitive advantage as it involves a deeper cognitive adjustment, compared to the routinized learning activity characterized by a lack of sense-making ability and influenced by prior knowledge and mental schemes (Barker-Scott, 2011); the latter in fact involves the continuous questioning of the guiding values and objectives, which increases the probability of keeping the pace of environmental variation and decreases the probability of slowing down or falling down being stuck to the past.

Even if they remark the risks linked to the adherence to past (especially successful) strategies, Levitt & March (1988) argue that continuously changing the basic situation before it has been properly understood can lead to no improvement at all, thus that reducing the frequency and magnitude of change should give more benefits. On the other side, Nonaka (2007) attributes to the confusion generated by the multiple interpretations of information by each member, thus discrepancies, a knowledge generation potential ("new

knowledge is born in chaos”), in that actors are pushed to continuously analyze feedback and their actions which produced the outcomes observed, in a double-loop process of questioning, revising and learning.

Both learning styles are sources of knowledge, but each one is fundamental for different purposes.

1.6.Learning for reaching dynamic efficiency

In a digital and flatter world of high-frequency changes, where technologies and industry standards continue to evolve, customers preferences and behaviors continue to mutate, competitors and government actions continue to vary, maintaining status-quo is not enough to succeed and survive.

In the organizational context, it is difficult to move from a set of capabilities and resources already possessed to a set of capabilities and resources that it will need to possess in the future and maintaining high standards despite (and following and anticipating) changes, unless a clear long term plan is established and enacted to reach the desired future position.

Giddens (1984) develops three concepts of learning loops, leading to two intermediate kinds of efficiency. The first learning loop, the routinization one, sees work practices for using resources being constantly refined through application, and the progressive development of related skills; from the existing practices, combined with organizational routines, organizational capabilities are developed, through the capability learning loop. A static efficiency is reached: there is a continuous state of skills refinement for using resources towards the same purposes. Through the strategic learning loop, capabilities are transformed into core ones, by confronting them against the external situation and the internal values and purposes. The capabilities emerging because they possess some features valuable in the current market situations, and because they can conduct to superior firm performance and goal achievement, can be considered by individuals to be core to their organization, at least compared to

the circumstances. A more dynamic efficiency is reached then: the firm operates in a constant process of refining capabilities and understanding which are able to deliver value to the company, given the ones that are already possessed and therefore influence the internal environment and culture. This learning loop is characterized by a constant comparison among the relationships linking strategy, internal and external context, capabilities and resources to cope with, and change according to, the variations of the environment.

Learning can be defined as the ability to develop insights and gain experience, use them for guiding future actions, to explore or recognize opportunities for new knowledge creation, and the ability to understand the conditions which ask for applying past inferences or developing new ones. It involves developing the intangible resource represented by knowledge (and the upon-based intangible ones related to skills and competences), diffusing and storing it for being then used, and for helping in the development of new knowledge.

The act of refining the set of actions within the fixed boundaries of the governing values and objectives is intended to increase the ability of performing those actions and thus for reaching the intended goals; the benefit therefore has to do with the efficiency in deploying both tangible and intangible resources. The knowledge acquired through the refinement of certain actions evolves into the development of skills. In a time where conditions change frequently and often unexpectedly, maintaining the same strategy and resources can be harmful, the value attributed to the knowledge-base and to the possessed skills change accordingly and is easily subject to decline; for maintaining a constant state of temporary advantage but on a long-term basis (McGrath, 2013), the organization must combine the capacity to exploit its valuable resources with the capacity to generate new resources or to exploit them in different ways. This task can be performed when actors are stimulated to explore new ways of behaving and even new way to interpret the goals; the constant comparison between competences and contingencies is useful for maintaining congruence with changing conditions and enhance organizational flexibility. Recognizing the difference between these two learning processes and their purposes is useful for mastering resources and recreate them, incrementally or from scratch, to

follow the objective of continuous success (and continuous learning).

1.7.Learning dimensions: the “how” and the “why”

Two kinds of learning objects can be recognized, the “how” and the “why” (Edmonson & Moingeon, 1996). The first one is aimed at reinforcing the knowledge and the expertise concerning the processes that are already active in the organization; actors concentrate on refining their skills to perform more accurately and efficiently, and on gathering the highest amount of information possible on the specific issue and on the surrounding conditions to have a feedback to be analyzed for guiding future actions. Mastering skills and performing routines efficiently and effectively ultimately contributes to strengthen the core capabilities and competences of the firm. It involves a single-loop learning process of modifying and refining current actions to better reach the set goals. Routines are improved and adapted according to changing situations, and can be transferred throughout the company. The ability to “learn how” can be reinforced and become a strong strategic capability itself, the ability to master and transfer routines and capabilities. With the organization getting mature, individuals perform processes more unconsciously, assuming they are the right ones to maintain the success obtained; these values (reference point for evaluating behaviors and goals) and processes become then part of the organizational culture (Christensen & Overdorf, 2000). But as the variability of the environment gets higher and more frequent, the organization must learn how to change itself accordingly. In this case actors are engaged in uncovering the cause-effect mechanisms that lead to certain outcomes in certain conditions, to understand how current operations and skills can be applied to new situations, which results can be expected and which operations and skills need to be redesigned or built starting from scratch. The “learn why” is a strategic capability too; it is the ability to be adaptable, not just to adapt. In this case, a double-loop learning process takes place.

Understanding how things function and happen and how to make them actually function and happen are both desirable quality to be acquired through learning and then mastered through their constant and routinely performance. Knowing how to perform actions must not exclude the grasp of the rationale behind their functioning and their implementation.

Synergy involves the integration of elements with the aim of reaching a common goal; since both knowing how and knowing why are strongly intertwined and mutually dependent, both learning dimensions should take place to maintain a competitive position on an ongoing basis.

To give an example, the internal R&D efforts to improve current products, processes and technologies or to develop them from scratch are tightly linked to the external market and its participants (customers, suppliers, competitors). The market and the relationships with its actors is a stimulus for the R&D activity to take place: customer preferences and needs, suppliers requirements and suggestions, government intervention, and so on. On the other side, engaging in R&D activities (thus, searching for knowledge through learning) increases the organizational absorptive capacity (Cohen & Levinthal, 1990) that let the firm sense the opportunities and threats arising from the market and the relationship with its actors, correctly evaluate and interpret the stimuli. Without the ability to detect opportunities and threats and to acquire valuable information from the market, the firm would miss chances to grow or face unexpected problems, it can give faulty interpretations to situations and channel efforts along the wrong way. Developing a new product to expand its offer might be useless if there is no clear idea about which specifications are desired by the customers, or even about whether the customers do desire such new product or not. Focusing on how to structure and perform the R&D activity is not independent from the understanding of the market situation to take the right steps in the right direction at the right pace, for example through marketing activities and feedback from direct experience in the market; scanning the market in search for information may not be suffice if the capacity to detect and interpret and make sense of the information is not developed and maintained through engagement in direct experimentation.

Constantly focusing on just one of the two aspects can reveal to be even deleterious to the overall performance.

1.8. The dynamic capability of achieving contrasting goals

Organizational learning can be conceived as “the bridge between working and innovating” (Brown & Duguid, 1991). Working is linked to the ability to apply competences and mastering resources, thus applying the accrued experience and knowledge; it is linked to the goal of being efficient in what the organization is actually doing. Following the resource-based approach, it has to do with the exploitation of the competitive advantage derived from the set of resources possessed. Resources however need to be enhanced, differently deployed, and changed, to fit the uncertainty and variety characterizing the environment, especially with regards to the intangible knowledge and capabilities. This is linked to the word innovating, to the ability of exploring new ways of thinking and behaving.

Today's environment, open to information, goods and people exchange, full of opportunities and threats, and characterized by rapid technological change, provides more sources for learning and innovating. The probability that the outcomes deriving from the implementation of a competence are satisfactorily and constantly rewarded by the environment decreases with time and market variability (especially when organizations approach new and less known markets). The fitness of possessed capabilities with the environment is more and more difficult to be maintained (Teece, 2007). Established assets (even intangible ones) may represent constraints and provide a dangerous stability when flexibility is needed. A business case of great relevance is the rise and fall of Kodak, a firm which wasn't able to move resources from core assets and structures designed for the film-based photography business to the new opportunities arising from the digital photography, even if those opportunities were generated from the inside, since it was the launcher of the first digital

camera in 1975.

Once the relevant knowledge and skills has been acquired, individuals tend focus on their correct implementation and execution in the daily operations and decision-making process, their selection and refinement towards efficiency maximization. The cumulative advantage of increasing the understanding and the competence regarding the knowledge body and the set of skills rewards the experience gained by action. The bias towards the explicit choice of implementing old and familiar competences and procedures derives by the certainty they provide, the capacity to master them without spending too much time and resources, thus the short-term and reliable outcomes they deliver (March, 1991). The positive experience reinforces over time the exploitative choice, thus increases the dependence towards existing competences; the increasing path-dependency can lead to a self-defensive and self-destroying process in the searching for high security responses and returns. On the other hand, exploratory activities are penalized by the long-term outcomes they provide (March, 1991), the uncertainty about such outcomes and the difficulty involved in understanding how to generate them. The exploitative behavior must be balanced with a more risk-taking kind of learning, aimed at exploring less certain and clear fields in search for new insights, new abilities and innovation. The experimentation leads to high long-term returns and to the flexibility required for surviving in fast changing markets (March, 1991) and inhibit the probability of remaining stuck to old unuseful resources. The idea of balancing these two traits gives rise to the concept of ambidexterity, the ability of being skillful on both sides (March, 1991).

Among firm's strategic capabilities, dynamic capabilities (Hamel, Nonaka, Teece) are the ones focusing less on operational efficiency and more on the creation of the (intangible) resource-base and the capacity to adapt it to the situations (Helfat et al, 2007); dynamic capabilities let the organization maintain competitiveness through developing, organizing, protecting, reconfiguring its assets (Teece et al, 2007) by acting on the more intangible and flexible ones like routines and competences. Redeploying and reconfiguring assets involves redesigning routines, which in turn let realigning assets and redistributing them

across different units inside the company. This can lead to a continuous state of asset orchestration activity and corporate renewal over time, characterized by the combination of the “old” with the “new” (structures, assets, procedures with external sourced assets, Teece et al, 2007), to tap opportunities as they come and generate an ongoing situation of temporary advantage (McGrath, 2014). The capacity of the organization to scan the environment, to search for opportunities, to interpret the situations, to understand how to seize the opportunities and which actions to undertake for deploying existing resources or developing new ones is a dynamic capability that has to be mastered for succeeding. It involves deploying insights, developing new insights, combining possessed knowledge with acquired insights for generating new knowledge. It involves therefore engaging into learning activities, both exploitative and exploratory.

Winter (2003) relates the control over the rate of change of other capabilities (intangible resources) to dynamic capabilities; as learning involves the capacity to master and enhance possessed resources and the capacity to generate new (intangible, that is, knowledge-based) resources, learning mechanisms are themselves dynamic capabilities.

Learning involves, and influences, the capacity to scan the environment, to analyze the information gathered to develop insights, to confront them with past experience, so that to understand which action to undertake. Exploitative and exploratory learning dimensions are both involved, and the understanding on when and how to foster them. As opportunities for new knowledge development are discovered, understanding how to seize them, how to generate new knowledge and then exploit it is also important. Understanding how to leverage the existing business model when expanding operations internationally, which traits are suitable for the more uncertain and less known conditions of the target market, which ones are to be created, and evaluating the feedback after the first decision delivers its outcomes, is fundamental for generating consistency between the original value proposition and the new contextual variables, and to generate value from the expansion abroad. Recalling the example of R&D

activities, not just the capability of discovering new ways of doing things is important; marketing activities are useful to understand how to develop and then use (exploit) these new ways of doing things (new technologies, products or processes) to fit with the situation, or to shape the situation for generating value. Since these activities are tightly intertwined, but are linked to quite competing goals of being innovative and efficient, developing the supporting structures and procedures may be trivial; when the opportunities discovered implies the destruction of possessed capabilities, existing structures and procedures may counter-act and inhibit the efforts for seizing the opportunities (Teece, 2007). The constant need for reconfiguring resources can be enabled by more flat and decentralized organizational structures, which are themselves more easily reconfigured, and by a proper incentive mechanism to avoid dysfunctional behaviors leading to maintaining current positions at all costs (Teece, 2007).

2.ORGANIZATIONAL KNOWLEDGE

Nonaka (2007) states that “in an economy where the only certainty is uncertainty, the only source of lasting competitive advantage is knowledge.”. What he calls the “knowledge-creating company is the one that is able to build knowledge, disseminate it and embody it into products and services, with the final objective is continuous innovation. According to Kostopoulos (2001), as knowledge gives value to other resources, the organization could not even exist without it.

Summarizing the wide and rich set of definitions developed over time, organizational knowledge can be defined as an intangible firm-specific resource, accumulated over time through a cumulative and path-dependent process of learning, which is intertwined with production process and experience. It is function of the accrued past experience (knowledge), thus history-dependent, and current structure and internal environment, and

contributes to shaping future posture and opportunities, in a dynamic and circular manner. Organizational knowledge represents the collective knowledge embedded into organizational routines evolving through the learning process (Nelson & Winter, 1982), different from the collective one verbally translated and put into physical repositories, and from the individual one possessed as skills and expertise; it is also considered more tacit and firm-specific than the other two forms.

2.1. Knowledge and experience

According to Huber (1991), the knowledge acquisition process articulates along four phases. Knowledge is firstly acquired through different means; it can be inherited by its founders (“congenital learning”) and will constitute the basic values guiding the future intentional learning process; it can be searched for through intentional dedicated activities of experimentation or of indirect observation of competitors through Corporate Intelligence (“vicarious learning”); it is developed as a product of experience of organizational individuals, of their actions and feedback interpretation (“experiential learning”), or absorbed from their individual repertoires (“grafting”). Information gained from different sources, especially from experiential learning, has then to be shared among members who then process it and give it meaning to develop common understandings and perspectives and even new knowledge, for building and extending the organizational knowledge base. Knowledge in turn has to be applied for explicating its value into practice, and to be constantly exercised, refined, enhanced through the constant engagement into operations; since knowledge is intertwined with actions (it can also derive by the direct performance of manufacturing activities; Cohen & Levinthal, 1990), suspending its enactment may result in obsolescence or decay . As the individuals are the smallest unit of analysis of learning dynamics, the actors who primarily drive the process and then absorb its outcomes, the activity of sharing and diffusing knowledge is

fundamental also for then embedding it into bundles of knowledge available for future use. The organization has to set the right communication structure to let the individually acquired knowledge be shared and transferred across actors and organizational units, to organize and exploit it for building the organizational knowledge-related assets and competences. For organizational learning to occur and be enhanced, discoveries, inventions, evaluations must be embedded in organizational memory (Argyris & Schon, 1974). Organizational memory serve as repository for prior knowledge; what has been learned is accurately stored in several ways, from written repositories, such as written rules and procedures, to implicit unwritten ways of behaving, like organizational routines (Nelson & Winter, 1982; Dosi, 1990). Organizational members remember what learned, recall it when necessary and make understanding about the information they gather. Prior knowledge serves as guiding line to set future goals and direct efforts towards them, and as a reference point whereby to evaluate what has been done.

History- and path-dependency emerge from the initial configuration of knowledge and orientations proper of the actors giving rise to the organization, together with the historical and market contingencies acting as influential factors. The initial managerial orientation can shape and influence the development of knowledge and capabilities, the search and development of new opportunities, thus the learning aptitude; accruing experience reinforcing the initial orientation, shapes in turn future development, deployment and change of the possessed resources, together with the evolution of market conditions (Helfat, 2004). Even if prior experience (knowledge) is demonstrated by a number of field studies (e.g., Helfat, 2004) to determine market success and successful innovation activities when firms enter a new market, many others suggest that it can constitute a burden when the circumstances ask for departing from existing competences and building knowledge from scratch (e.g., Henderson and Clark, 1990); this may signal a tendency to provide initial advantage but stifle future adaptation, thus future success. Evolutionary theorists, like Nelson and Winter (1982) attribute the source of knowledge and competences differentiation and future variation in the use and variation of the

processes in which knowledge is embedded, namely routines; they again follow a history-dependent development process however, which shape trajectories of knowledge use and development, in a less conscious manner, thus limiting somewhat the deliberate activity of decision-making (Helfat, 2004).

2.2. Knowledge for learning: knowledge storage and absorptive capacity

For organizational learning to occur, discoveries, inventions, evaluations must be embedded in organizational memory (Argyris & Schon, 1974).

Organizational memory serve as repository for prior knowledge. What has been learned is accurately stored in several ways, from written repositories, such as written rules and procedures, to implicit unwritten ways of behaving, like organizational routines (Nelson & Winter, 1982; Dosi, 1990).

The storage of the acquired knowledge contributes to the development and enhancement of the ability to further acquire knowledge and recall it for future use. As learning is cumulative, and path-dependent (Cohen & Levinthal, 1990), it depends on the stock of knowledge possessed, upon which the organizational (dynamic) learning capability can establishes linkages between that old knowledge with the newly acquired one, and incrementally enhance the knowledge-base. What Cohen and Levinthal (1990) define as absorptive capacity, overlaps with the here defined dynamic capability of learning: namely, the ability to recognize the value of new and external information (that is, to explore, to sense opportunities), to integrate it with the possessed stock of knowledge, and to properly applying it (that is, to exploit). These activities are the transformation into action of the organizational absorptive capacity. The conversion of knowledge into actions contributes to the creation of new knowledge, and the continuous performance of those actions transforms activities into routines. The routinization of the activities contributes in turn to store organizational knowledge, a process called remember by doing (Nelson &

Winter, 1982). Leithwood et al.(2000) state that “collective mind must be a representation, an activity rather than an entity”; it is thus desirable for a firm to create collective knowledge by embedding it into organizational routines and processes, in order to retain individual knowledge embodied in ever single member in the form of skills and experience. As organizational members are thought to be less rational in the way they behave and habit-driven (Levitt & March, 1988), their actions are shaped by and dependent upon routines; organizational learning takes the form of past inferences (experience) accumulated and embedded into organizational routines, which serve as procedural memory. Since capabilities are conceived as a collection of routines (Winter, 2003), the stability inherent to routines causes inertia of such capabilities, thus resistance to change. The organization might miss exploration opportunities because of the high amount of prior knowledge (experience) possessed and embedded into values and processes, avoiding the search, absorption and creation of new knowledge. The efforts, conscious or unconscious, toward current capabilities maintenance and “protection”, and the inherent rigidity of the stable routinized processes, stifle the adaptability of the organization and its exploration activity. The risk for inertia and failure is high and does not really match with the task of the learning activity, as conceived as a dynamic capability, to orchestrate resources and even change them to reach the fit with the environment. Even if the dynamic capability of sensing and perceiving the need for departing from past schemes and competences, resistance to bring about the desired change may emerge.

The distinction between declarative and procedural knowledge, and their memorization, is relevant for understanding routines development (Cohen, 1991); the different representation of each kind of knowledge generates different kinds of memory. The mechanisms for interpreting and selecting declarative knowledge for being converted into procedural knowledge can become routinized so that the job is somehow facilitated for boundedly rational individuals, but leads to some knowledge dispersion and missing along the process, and leaves the (changing) context aside (Becker, 2008). Procedural knowledge is wrongly stored through and within repetitive patterns of behaviors,

causing faulty and old knowledge archives, and inert organizations. The path-dependency does not immediately imply that routines are static though: Feldman (2000, 2003, 2004) and other theorists introduce internal dynamics of routines as drivers for their change, thus enabling the deployment of the dynamic capabilities of sensing and seizing opportunities. Feldman (2000) contests the inertial process of translating knowledge into action underlining the relevance of agents' role in that process, which is tightly interwoven with the context in which they operate and with their emotional dimension. The changing enactment of routines depending on the evaluation of the situation at hand contributes to renovate the stored knowledge and to create new knowledge too. Zollo and Winter (2002) distinguish between two sets of activities instead; operational routines are responsible for the daily functioning of the organization, dynamic capabilities are considered higher-order activities responsible for orchestrating and modifying lower-order processes. Even if they define dynamic capabilities as “learned and stable patterns of collective activities”, they attribute to them the capacity to govern the stability or variability of other processes; in their conception therefore, variation is possible, and controlled by dynamic capabilities (among which organizational learning). The dynamic processes they talk about are structured and persistent, and govern change in a consistent and predictable manner. This does not seem however to deeply explain the relationship between “stable” pattern of actions and their ability to sense and govern “change”.

Also a gap between knowledge and direct enactment of knowledge can account for the difficulty in acquiring new knowledge; they may result in knowledge obsolescence or in loss of the absorptive capacity needed to master and build knowledge (as it accrues also from direct operations) when the circumstances ask for differently use the possessed asset or to enhance it. One critical dimension regarding knowledge then, which is considered also a source of distinctive advantage though (Kogut & Zander, 1993), is its tacitness, thus the difficulty of being explicated, formalized, transferred and used. The difficulty in articulating tacit knowledge (Zollo & Winter, 2002), or even in recognizing it, leaves substantial possessed knowledge unexplored; it derives then that the

possibility of recognizing the need to revising it or to acquire new knowledge.

2.3. Knowledge dimensions

Organizational learning activities generate different kinds of knowledge (Edmonson & Moingeon, 1996). Scholars distinguish between tacit and explicit knowledge, between know-what and know-how and between declarative versus procedural knowledge, general and specific, and between the different individual, collective and organizational levels (Becerra-Fernandez & Sabherwal, 2008).

Among the most relevant classification, tacitness vs explicitness, individual vs collective (and organizational) are the most common subjects.

The degree of implicitness and explicitness, based on Polany's work, is the degree at which knowledge is (or can be more or less easily) tangibly manifested or not, thus embedded in individuals' minds and behaviors.

Considering the organization as an entity which not just acquires knowledge but internally develops it, and that ideas generate into individual's minds, Nonaka (1994) develops a definition of knowledge which put at its center human action: knowledge consist of "justified true beliefs". Beliefs upon the information at disposal are made by the individuals processing this information, according to what they already know and to their mental models.

Tacit and explicit aspects of knowledge constantly interact with each other and evolve together to build organizational knowledge, thanks to the decision-making process and the actions of the organizational members who learn both from the internal and from the external environments. Their actions contribute to the building and the selection of knowledge bodies and their embodiment into organizational routines, and the enhanced quality over time of the latter contributes to the competitive position of the company (Nelson & Winter, 1982).

In Edmonson and Moingeon (1996) a matrix is developed for interpreting the

tacitness of knowledge, in which there are one explicit kind of knowledge, the scientific one or the informal rules and the individual know-how translated into written form, which are objectified and collectively possessed, and three kinds of implicit one, the conscious (more “explicit”) and unconscious (practical) knowledge of the individual and the collective practical knowledge. The term practical refers to the tacitness feature, defining what is known somehow but that has not been explicated yet (Nonaka, 1994). Given the importance of the context, explicit individual knowledge can be often considered to be implicit; the conscious knowledge is put into practice by individual's actions and with reference to the environment and the community in which the individual operates. The unconscious knowledge is the taken-for-granted knowledge possessed by the individual who however doesn't even know to possess it, thus cannot communicate and share it; this automatic way of doing things can be referred to skills. The conscious way of applying knowledge is referred to the expertise possessed by the individual; it is then shared among the community through verbal and other means, to become collective practical knowledge. The knowledge of the individual, tight to the context and the organizational culture, is then embedded into processes at the organizational level, which are not easily explicated at the individual one. Nelson and Winter (1982) argue that individual knowledge is stored into organizational routines difficult to be understood and codified; each individual contributes to the creation of tacit knowledge and its storage into organizational memory to make it collective knowledge, from which they in turn draw both consciously (adhering to a certain routine for example) and unconsciously (when context and culture influence the way people think and behave). Since the individual automatic tacit knowledge is very tight to the organizational context and culture, it can be difficult for the firm to access and absorb such knowledge to leverage it and gain competitive advantage; it can be put at high risk if turnovers involve key people possessing the strategic value-adding skills and knowledge that the firm was not able to access and retain building the collective body of knowledge (Becerra-Fernandez & Sabherwal, 2008), via socialization processes and routines development or because of moral-hazardous behaviors. Thus implicit (especially individual) knowledge

cannot be considered the sole source advantage, even if the more explicit and codified knowledge is less unique and inimitable and less protectable; there has to be found the right balance between the two bodies of knowledge, a constant integration between the implicit and explicit levels and thus between the individual and collective dimensions, to combine the rents provided by each kind of knowledge and their interplay, and to mitigate the threats each one can pose.

2.4. Knowledge cycles

Managing knowledge is important as it is the basis for firm's value-providing competences development and as it influences the capability of acquiring further knowledge (thus, of learning; Ramirez et.al., 2011). Nonaka (1994, 1998, 2003, 2007) and Nonaka and Takeuchi (1995) move from the theories of knowledge acquisitions to a theory of knowledge generation through the conversion of individual tacit knowledge to collective explicit knowledge, and the other way round.

To move across these four dimensions of knowledge, from tacit to explicit and the other way round, four processes are involved (Edmonson and Moingeon, 1996; Ramirez et.al, 2011). The tacit knowledge individuals acquire and possess (both consciously and unconsciously) is shared with other members through socialization, which is also a source of tacit knowledge for each individual. The process of sharing knowledge and experience with others and collectively reflecting upon them enhances and produces collective understanding upon cause-effect mechanisms (Zollo & Winter, 2002). Tacit individual knowledge circulates through the network and becomes collective, and can be translated into written rules and procedures to let it be explicit. Codification is useful for knowledge circulation and transfer, and represent a means whereby mental efforts and understandings are developed, contextual to the act of codifying and that of applying knowledge (Zollo & Winter, 2002).

Individuals then internalize explicit knowledge to integrate it with action, through combination between old and new, explicit and implicit, bodies of knowledge; they are therefore both enhancing and drawing from collective knowledge. The knowledge generated through the “SECI” model can also take the form of social practice, that is, of organizational routines (Nonaka & Krogh, 2009). From Nonaka's point of view, learning is represented just by one of the four knowledge creating stages of the process, namely the internalization of the explicit knowledge by individuals.

Another (knowledge-creating) learning cycle is proposed by Easterby-Smith (2011). Explicit knowledge is related to the concept of “knowing what”, which involves the cognitive ability to acquire information, whether implicit knowledge relates to the “knowing how”, which involves the ability to put knowledge into action (Nonaka, 1994). Learning, as a means whereby the organization acquires and develops knowledge, is defined as a process that brings about change from the knowing what (cognition) and the knowing how (behavior; Easterby-Smith, 2011).

The way in which tacit individual knowledge goes through the other states of tacit collective, explicit collective, and then becomes individual implicit again, based on Nonaka (1990), involves a constant dialogue between knowledge per se and action. The socialization process consist of converting individual knowledge into action among a group of people inside the organization and learning from others' behaviors; internalizing collective explicit knowledge involves the application of it into individual behaviors and actions. The ability of the firm to turn knowledge into behaviors becomes a core organizational competence by developing and leveraging the individual abilities (Kogut & Zander, 1995). They classify the know-what under the tag “declarative knowledge”, and the know-how as “procedural knowledge”, to stress the role of action. They refer to Anderson's (1976) distinction between declarative and procedural knowledge; he defines the former as concerning the collection of facts and insights that can be then recalled for solving problems, and the latter as concerning the use of knowledge, partly through patterned sequences of behaviors (Becker, 2008). Here, the conversion mechanism involves declarative

knowledge interpreted and selected for being then put into action and thus converted into procedural knowledge (Becker, 2008).

Zollo and Winter (2002) develop a knowledge-generating cycle adding a fourth phase of knowledge replication to the framework variation-selection-retention (between selection and retention). The knowledge developed and selected to be then stored within routines, flow throughout the organization through routines replication. External cues act as stimulus for re-evaluating the possessed knowledge thus the routines at hand, and as a feedback whereby evaluating them for being retained. The reflection upon stimuli and results derives into new knowledge development, triggering in turn the circular process. They attribute to routines replication a role of knowledge exploitation, compounded by the chance for knowledge exploration (generation) provided by external stimuli.

Nonaka (2007) underlines how Japanese companies are so capable of creating and managing knowledge, and as a consequence of being so innovative and adaptable to changes. They not just try to make sense of objective information, but extract subjective, tacit insights from their members and make them available and useful for the entire organization as collective knowledge, for creating more than has been done from each of those individuals singularly.

And the learning (knowledge-creating) activity is so intertwined with behaviors and culture that it becomes a way of being, a behavior and a mind-set common to each single individual and even to the organization as an entity. Nonaka thus puts the individual at the center of the learning process; its personal, experiential, tacit knowledge is shared among organizational members through action (so it becomes more explicit), and then combined and transformed into collective knowledge, on which individuals subsequently draw to create further new personal tacit knowledge. Feldman (2000, 2004) associate her cyclic model of organizational routines development and change to Nonaka's cyclic model of knowledge creation, arguing that the performance of routines, the evaluation of their outcomes and the subsequent adjustments of plans and actions are indeed a form of learning (both are double-loop processes, in Levitt and March terms) and organizational knowledge creation. The difference lies just at the object of analysis; while Nonaka's cycle occurs among individuals but

across organizational levels, Feldman's cycle occurs thanks to individuals' actions as well but within organizational routines (Feldman, 2000); the link between individual and collective levels lies in the socially constructed values and understandings, translated into actions by individuals.

3.ORGANIZATIONAL ROUTINES

“The concept of organizational routines is the most micro-level concept amongst these [institutions, norms or conventions] collective-level concepts.” (Becker, 2008).

Routines are collective phenomena (Nelson & Winter, 1982, 2002; Becker, 2004, 2008; Hodgson, 2004). They bridge the individual and the collective levels in that they represent the enactment of the individual knowledge, both declarative and procedural, and are considered as capacities like skills for individuals (Nelson & Winter, 2002); in the framework of Nonaka's spiral knowledge-creating process (1994, 2003, 2007) routines can be positioned at the center of articulation and internalization processes of knowledge conversion. Collective and shared procedures facilitate the flow of information and knowledge throughout the organization, from individuals to the firm and viceversa, among individuals, across time and space, contributing to the build-up of structures and knowledge-related assets. Individual knowledge and collective actions generate knowledge which is then embedded into organizational routines, that serve as repositories of such knowledge, for future use, and upon which other knowledge-related assets are developed. Routines are the basis for building organizational capabilities through resources management, and for building specific dynamic competences for managing resources and capabilities (Edmonson & Moingeon, 1996; Dosi et al., 2000). The latter, higher-order routines, are an objective to be pursued by the learning organization for being adaptive to change and for creating new opportunities (Senge, 1990). Routines develop over time incrementally, depending rightly on external and internal environment, on people's understandings, actions and reactions to feedback, thus on their experience; assets (as capabilities) developed through routines employment in orchestrating resources and skills follow their path-dependency (Amit & Shoemaker, 1993).

Routines are means whereby providing efficiency at multiple levels as well. They enable resource savings in that require less information to be carried out,

because their outcomes are predictable, therefore decision-making activities are facilitated (and fastened) as well, and enacted mainly for dealing with unknown and uncertain situations. They act as filters for information and feedback; routines enable feedback, in that they represent a target, a reference point for comparing intended and actual results, if such feedback is taken into consideration (which is a difficult especially when carrying on negative responses, Becker, 2004). Routines are crucial in the process of learning, thus in the process of acquiring knowledge and developing skills. Knowledge depends on the acquisition of habits (at the individual level) which avoid mind overload with details and decisions, making mindful efforts available for more strategic issues (Becker, 2008). The habitual processes of addressing and dealing with issues increases the rapidity and provide the experience-base necessary to increase efficiency and effectiveness.

The decreasing need for gathering information and reflecting upon decisions speeds organizational activities up, but on the other hand hampers the detection and absorption of new information and insights, the development of new solutions, understandings, processes, therefore stifling adaptation and innovation activities.

3.1. The two-sided sword

Becker (2004) summarizes the main features of organizational routines in seven concepts. Routines can be described as patterns of actions and cognition, dynamic processes which are performed recurrently through the interaction of individuals, more or less consciously (some theorists sustain the mindless performance of routines, others the effortful performance in terms of cognition involvement), triggered by several internal and external factors. The procedural nature implies their context- and path-dependency, their embeddedness into the organizational structure, and other kinds of specificity.

Some theorists define routine as “pattern of behaviors that is followed repeatedly, but is subject to change if conditions change” (Winter, 1964), or routines as “flexible patterns of alternative choices” (Koestler, 1967); many others refer to the term “pattern”, indicating the recurrent performance of actions, thus repetition, like Nelson and Winter (1982), Teece and Pisano (1994), Cohen et al. (1996), Teece et al.(1997), (Becker, 2004). Patterns involve behaviors, actions and interactions, thus the individuals part of the organization who act collectively. Routines are also considered as cognitive patterns (Cyert & March, 1967), as rules (Becker, 2004) guiding decision-making in the selection of activities to be performed according to the current situation. The idiosyncratic patterns of actions in which operations are accomplished characterize each single organization from the others (Becker, 2008). Path-dependency and Idiosyncrasy derive by the accumulation of experience; they are the outcome of a process of trial-and-error (thus, learning), selection and retention, therefore integrate and reflect past experience (Zollo & Winter, 2002). They in turn contribute to acquire experience through their deployment, thus to the learning process.

The repetition of actions, with no or little and incremental variations, provides stability; this stability derives from the thought that there is no need for actions to be changed because outcomes are thought to be satisfactory in turn, therefore no conscious need for variation arises for triggering the change (Cyert & March, 1964). Repetition involves no switching costs needed for changing actions and behaviors as well (Becker, 2004). The saving in terms of resources does not include just monetary costs linked to learning new ways of doing things, but also cognitive resources, mental efforts linked to the understanding of new issues and the way to cope with those new situations. Functioning in a semi-conscious manner, routines let actors focus their attention and efforts on non-routine events (Reason, 1990). The decision-making process is more efficient in that routines reduce uncertainty providing predictable outcomes, and mitigate the bounded rationality of the individuals as well. They provide solutions with predictable outcomes to the situations and problems that emerge, thus are mechanisms for reducing uncertainty and exerting control with less

efforts. It is often the high uncertain environment which gives rise to rule-governed, predictable behaviors (Heiner, 1983) to increase predictability of outcomes. Knowing the results of certain actions means that once the patterns have been identified there is no need to reframe the problem and re-engaging in the decision-making process again; the problem is that past decisions are often not reconsidered even when the situation actually changes (Feldman & Pentland, 2003).

Cognitive resources are saved also in the process of exerting power and control throughout organizational levels. Routines function as a truce (Nelson & Winter, 1982) for establishing a sort of agreement among participants and avoiding conflicts, and as a means for guiding behaviors at the lower levels without the necessity to constantly monitor behaviors (as they are supposed to adhere to the established routines).

Nelson and Winter (1982) compare routines as a target to be sought after, implying an effort towards the maintenance of the way they are carried out, thus stability. They are self-sustaining mechanisms in that efforts are taken to preserve their smooth functioning and avoid the deviation from the standard. They can be so stable as to cause inertia and to be dysfunctional (Knudsen, 2007). This implies the difficulty in accepting and bringing about change, not just in the case of casual errors but also when such change is desirable (Becker, 2004). Having a reference point whereby the outcomes of actions can be evaluated against the intended results is useful for the learning process (Becker, 2004) and for guiding future actions, if the feedback is taken into consideration thoroughly. Negative feedback can be misunderstood in the conviction that actions or the basic purposes guiding them are correct nevertheless; avoiding reflection upon results, especially negative ones, generates slight or no modifications at all, and hampers learning.

Routines serve as organizational repositories of past knowledge, derived from the individual knowledge, in the form of skills and experience, and the collective action and experience; the organization unfreezes knowledge from people's mind and embeds it into the organizational structure and memory through routines. Exercising their knowledge through accomplishing routines, individuals

contribute to the creation of new (tacit, procedural) knowledge. The bigger the organization, the lower the individual effort (in terms of “memory storage capacity”) required; smaller and flexible organization require members capable of responding to the variety of situations they face with their wide repertoire of routines, this implies a higher risk of mistakes but also a higher chance for generating novelties. Organizational routines are conceived as the genes of the biological entity (Nelson & Winter, 1982), subject to selection mechanisms influenced by the environment and its changing in which the firm “lives”; they can vary over time, even if mainly as a consequence of reproduction errors and external influence, and provide the basis for organizational change. In their evolutionary theory, Nelson and Winter define change as an incremental, path-dependent process, often triggered by external forces and by human errors in performing the routines exactly. Individuals are at the center of organizational life and evolution, individuals acting collectively. They are at the center of the information flow, coming from the outside, which gives rise to certain interpretations and responses by individuals with a set of behaviors, generating in turn new streams of information. This circular flow involves the constant interaction among environment, actors, and actions (routines). The consequence of routines variation is innovation, which they define, in a Schumpeterian fashion, as “new combinations” of existing routines, which are therefore the basis for the development of new routines.

Although theorists generally define routines as stable and inert (Cyert & March, 1963; Nelson & Winter, 1982; Cohen et al., 1996), they associate them to learning, adaptation, evolution, mutation and innovation as well (Feldman, 2003). It is difficult at this point to understand the relation between learning, as a (dynamic) capability to both master resources and developing new ones, and routines, if routines are considered to be stable mechanisms, and therefore to understand the relation between stability and change, in a volatile and fast-changing environment which calls both for stability to reduce uncertainty and for flexibility and variation to cope with changing situations. In a fast-changing world, the fitness of organizations, based on their routines and set of routines (that is, capabilities) with the environment is crucial, therefore it is important to

adapt fast and effectively to maintain the fit with the changing situation, to reconfigure, redeploy and vary routines and the linked capabilities (Becker, 2008). Indeed, stability and change are usually defined as separated and opposite goals (Farjoun, 2010), a duality generating a paradox and a trade-off to be solved.

Feldman argues (2000, 2003, 2004) that stability and change share similar mechanisms, adding to external pressures to variation also powerful internal pressure, that is agency, the relationship between understandings and actions. In this view, these recursive dynamic mechanisms can both lead to stability or change of the routines.

3.2. Dual-purpose mechanisms

Following a behavioral approach, Huber (1991) defines OL as the process through which the firm acquires potentially useful knowledge with the objective of increasing its effectiveness. As the result of information processing (acquisition, distribution and interpretation) is not always an observable change in actual behaviors but rather insights and awareness gained, the organization is learning if its range of potential behaviors changes. For organizational learning to occur, the knowledge acquired by organizational members must be recognized as potentially useful to the firm. The more it is elaborated, interpreted and commonly understood, the more thorough the organizational learning and the wider the repertoire of potential behaviors. In Argote (1999) and Miner and Anderson (1999) learning occurs when both knowledge and behaviors are systematically altered, by the influence of experience accumulated. In their view, cognitive learning (acquisition of new insights and understandings and the development of new mental schemes) can be both manifested through modified behaviors or not. Other theorists argue however that cognitive learning must be combined with action for the full learning process to be completed (Inkpen & Crossnan, 1995; Barker-Scott, 2011). The

alignment of insights and behaviors implies that new insights leads to new behaviors, but also new behaviors leads to new insights, often occurring in a circular sequence. The “know what” (cognitive) is combined with the “know how” (behavioral). Miner (1999) embraces, within the conceptualization of organizational routines, both cognitive and behavioral learning processes, therefore conceiving routines as storage means for both declarative and procedural knowledge. Actions are central to the knowledge-creating cycle of Nonaka (1990, 1994, 2007) as means for converting knowledge; the interplay between know-what and know-how constitute tacit knowledge. Kogut and Zander (1995) consider the capacity to transform ideas into behaviors a crucial ability, and distinguish between declarative and procedural knowledge. Cohen et al. (1996) link knowledge per se and routines with action, defining them as “executable capabilities”. Cohen and Bacdayan (1994) define routines as procedural knowledge. What has been maybe overlooked (or not thoroughly scrutinized), and that is linked to behaviors, is the role of agency, that is, the role of individuals who perform actions (and engage in cognitive activities). In her study, Orlikowski (2000) explains that technology cannot be considered a resource and rule guiding and shaping individuals' actions unless it is practiced; rules and resources cannot be therefore separated from their use (Orlikowski, 2000). As knowledge is not a static and individual phenomenon, but a dynamic and collective one, also Blackler (2002) states that knowledge cannot be separated from its practice, thus from the activities of agents.

Feldman (2000, 2003, 2004) develops her thought starting from the actors of the organization, the individuals, and their cognition and actions, as the determinants of routines changing, and consequently of organizational change. The key argument for explaining the variable feature of routines lies in the cognition of individuals enacting them. Conscious action is opposed (Feldman, 2000, 2003; Pentland, 2005; Pentland & Rueter, 2004) to the argument of unconscious or semi-conscious action normally linked to routines performance. They depart from the routines' role of decreasing cognitive resources usage (Dosi et al., 2000; Zollo and Winter, 2002) to their definition as “effortful accomplishments” opened to variations and change. Their empirical findings

support the flexibility-providing (instead of the inertia-providing) feature of organizational routines; routines' contribution to overall organizational flexibility derives from their double-face of stable and flexible processes. They move from the traditional trade-off between routines (inertia) and change, to study the inherent variation potential of routines, which determines variation in organizational posture.

The tacit knowledge stored and embedded in organizational routines is more difficult to be articulated and translated into documents, prototypes, and other physical means. Individual tacit knowledge is better gathered through individual action in the form of routines performance; the knowledge stored in organizational routines entails both action and cognition, defined as declarative and procedural knowledge, the latter being exercised in accomplishing a task (Cohen & Bacdayan, 1994) and stored even without deliberate knowledge (Hutchins, 1991). The perspectives on the definition of routines as cognitive or procedural patterns are reconciled: patterns of rules are interpreted and applied according to past experience and actual situation, and the action taken influences in turn future interpretation and application (and modification) of rules; new patterns of rules and action change continuously and spirally. In Nonaka's spiral knowledge creation (1994, 2003, 2007), articulation (conversion from individual tacit to explicit knowledge) and internalization (conversion of explicit collective into individual tacit knowledge), involving organizational routines as repositories for individual and collective knowledge, are processes highly influenced by people's cognition. The way people express their knowledge through action, the way they absorb new knowledge, and therefore the way new knowledge is created, are filled with their way of seeing the world, their mental models; the perception of what the reality is and of what the reality should be, influences by will or by force their decisions and actions, therefore the execution and evolution of routines.

Nelson and Winter (1982) define routines as a target to be pursued and met; Hodgson (2004) separates the definition of rules and dispositions from the definition of actions and behaviors, attributing to the routines a role of guiding behaviors, rather than a sequence of repetitive actions. What follows in practice

depends on individuals' perception of what should be done according to the situations at hand and of what the desirable results should be.

Feldman (2000, 2003, 2004), Feldman and Pentland (2003) reconcile the potentiality (of the rules) and the actuality (of the actions) arguing that the routine is actually itself composed by both aspects. Based on Latourelle (1986) two aspects of the routine are identified: the ostensive one, theoretical and prescriptive, related to the "know what", and the performative one, linked to action, related to the "know how". The former consists of the generalized idea of what the pattern of actions should be, shaping then the ideas of people about what the routine is and incorporating such ideas. The latter consists of the actuation of the ideas about the routines, by certain people at certain circumstances (Feldman & Pentland, 2003). People engage in performance and in self-monitoring of their performance to make sense of it. The performative aspect is the locus of selection and choice about the routines to apply and how to apply them, so the source of creativity, variation and endogenous change. People can respond to their reflection upon results and to changing external conditions by maintaining the routine as it is or by deviating from the path indicated by the theoretical aspect of the routine. Focusing on just one of the two aspects can lead to partial and faulty understanding of the phenomenon, and leading to substantial different results when the other perspective is taken to study the same routine (Pentland & Feldman, 2005). The potential for change lies in the responses of actors to feedback; there is an incremental change, but arising from human cognition and action based on previous routine performance. The ostensive aspect functions as a target in that it is used to guide actions and to evaluate them afterwards (Feldman & Pentland, 2003). Like declarative and procedural knowledge influence one another (Rittle-Johnson & Alibali, 1999), ideas and behaviors are "mutually constituent" (Pentland & Feldman, 2005) in that understandings and rules generate actions, which in turn determine the subsequent development of understandings and rules, after individual evaluation and adjustment, or by the recognition and incorporation by the upper levels of emergent actions happening at the front lines.

People engaging in routine performance have thoughts and feelings interacting with the process. In the performative cycle of routines (Feldman, 2000) plans and actions produce outcomes, which then influence plans and actions at the successive steps when confronted with ideals. Each round of the performative cycle can and actually does bear variations, depending on the results obtained, whether they ask for trial-and-error adjustments, or for continuous adjustment in search for new opportunities and for improvement (actions identified as repairing, adjusting, striving). Agents decide how to behave and select the possible variation to be retained and incorporated in the theoretical formulation of the routine; the processes of “selective variation” and subsequent “selective retention” occur and shape the evolution of routines (Feldman & Pentland, 2003). Issues about power regard the actors engaged in the performance of the routine, and their degree of influence on selective variation and retention. The incremental process of variations and changes hardly leads to a static equilibrium (Cohen et al., 1996), and is not just triggered by casual and disruptive events as new technologies or financial crisis, or stimulated just by external cues (Zollo & Winter, 2002). The human reaction to results, confronted to their values and ideas, provide the basis for an ongoing mutation process. Nonaka and Takeuchi (1995) consider the double-loop learning process (the reflection upon actions and results) an easy and daily activity for the knowledge-creating company, and the resulting change is not just triggered by external variations but also by internal variations, like new knowledge. The scope of change, that is, the definitions of stability and flexibility, is relative to the time horizon taken as reference. The introduction of a new technology in the way data are collected and retrieved can lead to a slight change in the way individuals gather and interpret data in the short run, but the gradual accumulation of variations in people's behavior in response to such variations can determine a change of wider scope on the long run. Intended change can be difficult to be brought about in the case that the required and planned actions to be taken are in contrast with the understandings people developed about what the organization is and how it functions, which are in turn developed by other actions taken throughout the organization (Feldman, 2003). On a wider

perspective, if the intended change is not supported by many activities performed inside the structure, by the structure itself and therefore by values and people's understandings, that change will not occur. It is supported by the claim that a routine is both its idea and its execution. Feldman and Pentland (2008) move forward defining, based on Cohen (2007), routines as “living”, characterized by people's experience which gives rise to learning, thus to the generative property of creating new actions or entire pattern of actions; the reification of routines through the creation of artifacts is conceived as “dead” routines, rigid, static, and stored in explicit ways. Enforcing or changing routines by designing artifacts may not bring about the intended results (on this point, Geiger et.al., 2012, for example, state that written artifacts are indeed sources of change).

In the view of routines as locus of creativity and variation driven by individual understandings, decisions and actions, they can be the basis for a theory of organizational evolution, change and innovation, with a different perspective on the Schumpeterian definition of innovation and organizational change as “creative destruction” (Nelson, 2005; Becker, 2008).

3.3. Stability versus change: the role of feedback

Reducing the variability of change is however the aim of the creation and maintenance of organizational routines, which are often deemed to be resilient to learning and cause of rigidity.

Feedback plays an important role also in shaping organizational routines. It contributes to guide and trigger decisions and actions, detection and correction of errors, thus to shape the path along which routines develop, diffuse and change. Routines are based on past knowledge and experience, and incrementally on experience provided by response to feedback; they represent also a reference point against which to evaluate outcomes. As learning is experience-based and occurs in a routinized manner (Knudsen, 2007; Becker,

2008), falling in competency traps (Levitt & March, 1988) after experiencing success is a quite straightforward consequence, generating low variability in behaviors, sustaining routines' inertia, hampering the ability for searching new information and increasing therefore the risk of overlooking negative feedback (Becker, 2004).

The experiential learning conceived by Levitt and March (1988) and Nelson and Winter (1982) involves increased routinization of current activities caused by positive feedback (with the possible consequence of competency traps), and possible routines changing caused by negative feedback (if the blindness caused by the success does not impede to detect negative outcomes, and to properly respond to them).

Zollo and Winter (2002) point to external stimuli acting as feedback whereby evaluating current processes (knowledge) and therefore triggers for processes changing (variation activating reflection and generating new knowledge).

Pentland and Rueter (1994), Feldman (2000, 2003, 2004), Feldman and Pentland (2003) on the other hand, look inward and attribute to individuals the power of evaluating their actions (confronted with external and internal situation, and with their values and mental schemes) and then changing them, giving rise to new ideas and knowledge. They underline how the individuals' responses to feedback with their repertoires of possible patterns of action (routines) determine the inherent changeability of routines. Thoughts and insights and understandings determine actions taken; the outcomes that follow are interpreted in a way that produces new thoughts, insights, and understandings, generating adjustments and change. The ostensive aspect of the routines functions as a general guideline for behaving and then as a means for retrospective sensemaking (Feldman & Pentland, 2003). Outcomes of the enactment of the ostensive aspects can be unintended, undesirable and causing new problems, providing with new opportunities, or desirable but opening up rooms for improvement at the same time. Actors react differently to such outcomes; according to Feldman (2000), they can try to REPAIR the routine to reach the desired results, or decide to EXPAND for exploiting the opportunities at hand, or try to STRIVE in the continuous search of a higher and

better result. Both expanding and striving in particular provide the substantial chances for change in that the standards are never achieved and are altered each time. This conception of routines may contest (and respond to) the findings of most performance feedback research defining problems as more efficient drivers for change than opportunities at hand (Becker, 2008).

3.4. Organizational routines as a means for learning

Organizational routines and organizational learning are linked in several ways. If organizational learning is the process of gaining, collecting, recalling, and applying new insights, based upon and generating new experience (read, knowledge), organizational routines are the means whereby storing the cognitive and behavioral knowledge generated for being recalled and used in the future (therefore, they accumulate and diffuse experience), means whereby exploiting knowledge through its enactment, and producing new knowledge. If learning consist of systematic changes in insights and behaviors through the influence of the accumulated experience, routines consist of a cognitive aspect (bearing past experience as ideas) and a performative aspect (enacting ideas through behaviors) which constantly dialogue and change each other. Individuals performing routines try to align cognitive and behavioral knowledge (ostensive and performative aspects of routines) with the context in which they operate, which shapes their expectation and perceptions too. Experiencing new ways of doing things and in turn developing new insights influencing future actions is a form of (double-loop) learning. Learning involves changing (ideas and behaviors), and changing (ideas and behaviors) involves learning. The evaluation of the outcomes following actions with the prior ideas for guiding subsequent behaviors is a source of learning as well. Routines performance involves both the “learning how” dimension of properly deploying resources, and the “learning why” dimension of interpreting situations to understand which resources have to be deployed, recreated or developed.

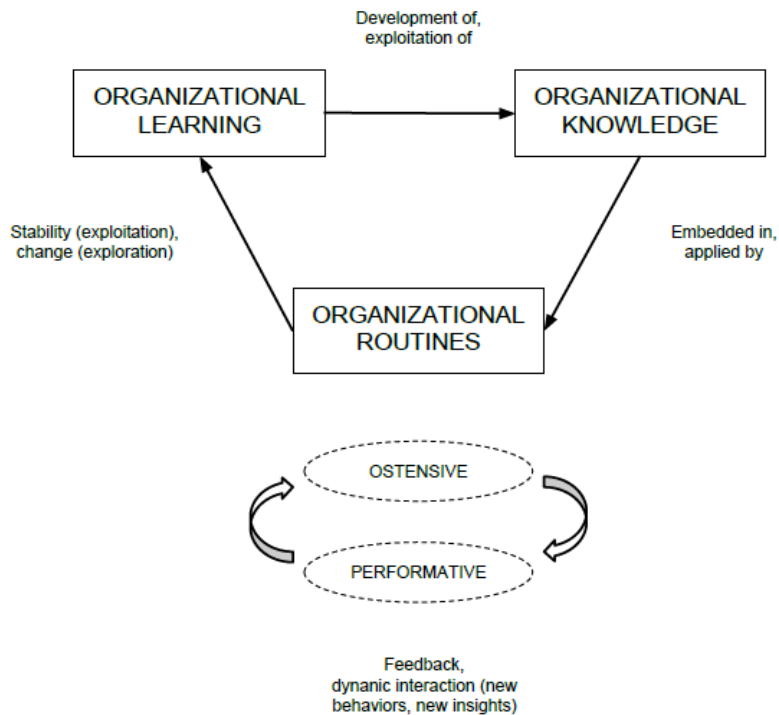
It results to be different also with respect to the knowledge-generation cycle developed by Zollo and Winter (2002). They integrate the framework variation, selection and retention, attributing to the variation stage the property of generating new knowledge, influenced by external stimuli and internal information flowing with routines, the replication of which represents a fourth stage within the framework. In their conception, routines replication does contribute to stimulate knowledge generation; they however do not go as deep as Feldman's theory in investigating the micro-level mechanisms generating variation, which she attributes to the routine itself, since they don't move from the idea that routines enactment and replication is mindful. They in fact still consider routinization of activities a way for decreasing cognitive efforts, and attribute to external stimuli the pivotal role of triggering reasoning upon existing processes and emergent novelty. What's more, they attribute to routines a role of knowledge exploitation, and just of "raw information" generation; the exploration activity is triggered by the confrontation of outcomes against the external market.

The potential for exploiting existing assets (applying knowledge) to deepen the knowledge base, and the potential for exploring new alternatives (dynamic interaction between and modification of ideas and behaviors) to expand the knowledge base, are here considered to be both present in this conception of organizational routines.

Exploitation can be linked to stability as well, when minor variations in the application of prior knowledge occurs; major changes in behaviors and ideas and schemes can be linked to exploration. The process of learning and knowledge application and creation occurs right at the micro-level of routines performance (and change). They contribute to achieve the objectives of organizational learning process, that is, the creation of new knowledge and the utilization of the possessed one.

The flux of knowledge from an embryonic state to an articulated one can be represented through the following graph (which recalls the already espoused theories about ostensive-performative aspects of the routines):

Organizational routines for learning through knowledge exploitation and exploration.



1. Organizational learning is an experience-based process of applying past experience (knowledge) for developing new knowledge (experience); it involves both cognition and action, influencing one another, and changing one another, building new insights. Learning involves reflecting, developing and also changing.

2. Organizational knowledge evolves through the constant dialogue and variation of thoughts and behaviors, accumulating as both declarative and procedural experience, as know-what and know-how, into the processes enacting it (organizational routines). Knowledge shapes ideas and actions and is developed by their interactions.

3. Organizational routines act as carrier of past knowledge which guides them and is translated into action by them. Its conception in theory, the theoretical

aspect of routines, does not always correspond to the actual results produced through actions, their performative aspect. This mismatch is brought about by mindful individuals, who try to solve it reflecting upon ideas and acting consequently. Actions can reinforce past (theoretical) knowledge or deviating from it, causing in turn its change. Confronting ideas and actions and evaluating results against previous ideas let new insights be developed. If learning is the capability of the organization to adapt to its environment (Hedberg, 1981), the role of feedback and the changing potential linked to organizational routines place them as means whereby the organization can learn.

4. Learning derives from organizational knowledge exploitation, as well as exploration and search for new insights and alternative actions. As means for applying existing knowledge (to enhance the possessed knowledge base) and generating new alternatives (to enlarge the possessed knowledge base), organizational routines bear the potential for both processes to occur, also simultaneously.

4.REPLICATION

Knowledge-related assets, as information per se and capabilities, have to be preserved over space and time to protect in turn the value delivered through their deployment and the consequent competitive advantage. Routines are the means whereby the knowledge they embed is actually transferred, thus replicating routines is not just a “natural” but also a sought-after process. Routines are efficient carriers for transferring knowledge in that they are “ready-made solutions to frequently occurring problems” (Knudsen, 2007) providing predictable results, thus decreasing uncertainty; indeed they often emerge in high uncertain environments (Heiner, 1983). As they are socially constructed, dependent on the collective actions of agents, they rely on coordination of thoughts and behaviors (Winter, 2005), which give them even more reliability. Routines are therefore optimal candidates for promoting organizational expansion.

4.1.Reliable flexible replicators

As repositories of past knowledge and inferences, routines carry on a more tacit component of knowledge, the difficult-to-explicate know-how, defined as procedural knowledge, directly linked to action and difficult to be disentangled from it and to be articulated (also because it can be less conscious). This kind of knowledge is embedded into sequences of actions (Rittle-Johnson & Alibali, 1999), that is, routines, and it lasts for a longer time; it is nonetheless difficult to be communicated, taught and transferred to novel situations (Cohen & Bacdayan, 1994; Szulanski & Winter, 2002).

The specificity of organizational routines deriving from time, internal and external context, human action, and from their tacit component, limits their

transferability (Becker, 2004), and the comprehension of which features are essential to the routine and are worth replicated (something that Winter and Szulanski, 2001, refer to as the “Arrow Core”).

The collective nature of routines (Weick, 1990; Cohen & Bacdayan, 2004; Pentland & Rueter, 2004) enables individuals to perform them in multiple locations, across space and time (Becker, 2004); the same collective nature represents nonetheless a problem because of the plurality of relationships to be coordinated (Knudsen, 2007). Since each member possesses a piece of (tacit) knowledge, which is tight to the context in which the member learns and operates, each routine will be performed differently (Cohendet & Llerena, 2003); reaching the tight coordination needed to unify multiple thoughts and behaviors for generating and sustaining routines is not an easy task too, especially when they have to be transferred elsewhere (Aldrich, 1999; Knudsen, 2007).

Individual habits, which collectively constitute routines, depend on and are triggered by past experience (procedural memory) as well (Becker, 2008). Well-established routines are favored in the replication process, since they deliver more proven thus reliable results; even when new routines are introduced somehow, already existing ones determine what is acceptable to be introduced and what is not, to the point that old routines have to be carried on to support the new ones (Knudsen, 2007), and the path-dependency goes on, and stability becomes inertial.

Replication involves three conditions (Hodgson, 2004): the involvement of the source in producing the copy (“causation”); relevant aspects of the source must be possessed by the copy as well (“similarity”); the source must provide the process that creates the copy with the necessary information on how to generate the similarity (“information transfer”). The third condition is crucial in that it would be impossible to transfer processes to another context in which there are not the conditions to receive them (yet). The third condition implies therefore the transfer of the capacity to enact the same behaviors, in order to enable the closest similarity as possible, and the enabling structures as well, cues which circularly influence the enactment of the routines. There has to be

external and internal triggers for the routines to be accomplished; agents should be able to interpret information and situations to understand which routine to enact, when and how, abilities that are in turn acquired over time within the structure in which the agents operate.

The path- and context-dependency characterizing both habits and consequently routines increases the difficulty in reproducing the same set of understandings and behaviors in a different external environment and internal physical and social structure. The different context in which routines are “transported” might not energize the same kind of behaviors, which in turn may not reinforce the same structures.

Exact replication is therefore impossible (Pentland & Feldman, 2005).

If the routine is conceived as a gene (Nelson & Winter, 1982) incorporating rules and capabilities for guiding and enacting potential behaviors, it will be not possible to understand the whole story about their replication. Since they rely on the individuals that carry them on and translate them into actual behaviors, more chance for variations emerge from their sense-making and decision-making activities. Routines are much less immutable, generate a plurality of potential behaviors (and outcomes), and are both potential behaviors and actual behaviors themselves.

Considering the role of agents as interactors, influencing the process through their thoughts and decisions, and the contingencies represented by the context of the receiving organization, reaching a perfect replication is almost impossible, and even if the routines are replicated successfully, this does not guarantee that they will be enacted. What's more, a perfect replica of existing routines may be dysfunctional considering the contingencies (blindness deriving from competency-trap effect, emotional tightness, high “switching” costs, and so on) and cause inertial processes (Hannan & Freeman, 1977).

4.2.Changing by replicating

"Social conventions", like the collective interrelated set of rules and behaviors represented by routines within the organizational context, are stable and resistant to change because of the costly and time-consuming activity of moving from the existing ones, and the related existing structures, to which the limited cognitive capacity of individuals contributes (Becker, 2008). The stability is fostered also by the emotional involvement that people experience in the habitual performance of routines (Becker, 2008). Replicating the same cognitive and procedural structures over time and space involves the same issues. Adaptation of each entity, from the headquarter to the remote subsidiary, to its contingencies, is however important in the fast-changing environment characterizing our time.

The adaptation of organizations (and of their processes, at the micro level) over time, can be explained in evolutionary theories by the mechanisms of variation, selection, and information transfer (Knudsen, 2007; Becker, 2008). Selection mechanisms in particular are derived from Price's (1995) mathematical theory. At the social level, subset selection, diffusion, and generative selection occur. Subset selection involves the extinction of population (relatively inefficient) members, complemented with diffusion processes of adoption of new characteristics and members, who often bear some characteristics of the extinguished ones. Generative selection on the other hand involves the adaptation of members' characteristics to the environmental characteristics and their changes. The last one is actually the point of view from which to observe and understand organizational adaptation phenomena, linked to the replication, diffusion and variation of their traits over space and time. The process involves replication variations caused by the interaction between the entity and the environment (Becker, 2008).

The inherent difficulty of routines in passing on the information exactly due to the need for high levels of coordination of people's behaviors, together with environmental variations, cause in turn variation (and errors) in the information transferred through the routines (Becker, 2008). When variations are intended, on the other hand, it can be difficult to make them happen against the path-dependency determined by old routines influencing the adoption and diffusion of

new ones (Cohen & Levinthal, 1990). However, as the persistence is linked also to the satisfactory responses to cues found and embedded into routines, when the satisficing ceased, routines are modified or ceased as well. The backward-looking process of analyzing feedback triggers retention, variation and creation of routines through the three selection process of subset selection (elimination of routines), diffusion (adoption of new routines) and generative selection (replication of routines, involving differences in the source-copy relationship in response to environmental variations; Becker, 2008).

In Becker (2008) generative selection processes are defined as “repeated cycles of replication, variation and environmental interaction so structured that the environmental interaction causes the replication of routines to be differential.”. This the context in which the idea of individuals causing changes to routines through their cognition and actions can be placed.

In the performative cycle of routines, the dynamic interaction between the theoretical and practical dimension of the routines are responsible for their creation, variation and stability. In the transition from idea to practice, the ostensive level provides definition of the potential behaviors, guidance and accounting to the patterns that should be enacted. Actions serve then to give body to theory and to create routines through repetition; they contribute to exercising thus maintaining the capabilities to perform; they manifest the decision to follow the prescriptions of the ostensive aspect or to deviate from them (Feldman & Pentland, 2003). The constant interaction between theory and action thus establish the evolution of routines' life.

Feldman relates then processes to resources change. Actions are at the center of this cycle again: people's actions, in the form of organizational routines, create resources that enable them to enact their ideas and mental schemes and to produce new resources (Feldman, 2004). In this sense, training sessions provided to newcomers in an organization are routines that create a (human) resource, represented by the new employees, which then in turn is “used” by other organizational members to enact their ideas and schemes (like colleagues of upstream operations, or middle managers trying to have projects executed). The training routines need a resource (the employee) to let another resource be

created (for example, the execution of a plan). In this view of “routines as a source of resourcing” (Feldman, 2004), replicating the routines is a means whereby recreating the resources useful for value-creating organizational processes, and for recreating the internal environment necessary for those processes to generate value. This however does not imply an exact replication of the processes at hand, and of the deriving structures. The effort can rather be conveyed to the reproduction of the conditions in which value can be delivered efficiently and effectively the same way. The definition of what is valuable and desirable and what is not also varies over time and space, in this respect being constantly self-referential in the way things are done can lead to overlook opportunities and threats.

The variation deriving from the dynamic interaction between the ostensive and the performative aspect of the routine hypothesized by Feldman (2003, 2004) and Feldman and Pentland (2005) depends on the reaction to feedback; expectations, then actions, then ideas and again expectations can be expanded as unintended positive outcomes arise and new opportunities emerge. In this fast-changing world, permeated with and based on substantial high-frequency information, new opportunities actually can arise every day from every cue. If agents are prepared and prone to detect and accommodate environmental changes and rooms for improvement. Changing routines only after failures, as stated by Nelson and Winter (1982), together with the routinization of activities in stable unchanging processes, cannot sustain a competitive position.

Adding to Becker's (2008) definition of generative selection, such process involving features of higher-order entities can be identified as repeated cycles of replication, variation, human and environmental interaction so structured that those interactions cause routines replication to be differential. The way organizations and their members interact causes differential replication of cognitive and performative processes and of the assets and the structures built upon them. This circular dynamic is not confined to the phase of routines development, but occurs on an ongoing basis, assuming the high-frequency of environmental variations and cues and the constant relentless process of rule enactment, feedback interpretation and understanding development

characterizing individuals' actions, influenced in turn by the high speed of environmental variation.

Firms need to constantly change in order to survive and succeed today, when the world is not characterized anymore by long periods of stability alternated every now and then by a disruptive innovation; in an ever-changing world of continuous variation, competitive advantage is a temporary condition to be exploited in the short-run but which is not capable of driving future success (McGrath, 2013). Changing hat to be therefore considered an integral part of everyday strategy, an activity simultaneously performed together with the exploitation of the resource possessed at the moment.

4.3. Routines' ambidexterity

It has been demonstrated that in a number of cases the accurate copy of organizational routines and the upon-constructed assets and structures is desirable as it increases efficiency, and it better delivered by the use of templates (Winter & Szulanski, 2001). Knowledge embedded in routines can however be obsolete, wrong, not enacted in practice or not valuable in different contexts, therefore routines may represent a problem (Becker, 2008). Routines need to be complemented with the capability to access the knowledge they carry on, to enact the right ones, at the right time, at the right place, and to modify or recreate them.

Actors involved in the performance of routines can adhere to them or deviate from their provisions. Routines can go through variation, selection, and retention processes, that may, or may not substantially, alter the initial set of routines at hand; these cycle can be considered a form of organizational learning and a source of adaptive change (Becker, 2008). In Becker (2008) several sources of variation, selection and retention are summarized. Variation may be planned deliberately both from internal and external cues. In the first case, imagination and creativity in creating new routines are involved; in the second case, outside-

created routines may be adopted and absorbed. Variation can then be emergent, from the inside or the outside; the former situation involves actors mindful (or less conscious) decision to deviate from the ostensive prescription by enacting differential behaviors (Miner, 1991), while the latter derives from social interactions among actors of different organizations (for example, when turnovers occur and new employees introduce their own old routines). The same is for selection mechanisms. Routines can be internally and consciously selected after analyzing feedback about outcomes: the processes which delivered results that are considered to be valuable are retained, the others are discarded; the market (customers' preferences, state of technologies, government regulations, and so on) interacting with the organization, can determine which processes (and products) are valuable or not as well, if the information it provides are captured and understood. Social interactions, among members within the organization or across firms and market, can drive routine selection in unintended ways. Internal and external cues can promote certain ideas and behaviors which alter the mix of routines over time: the introduction of a certain process can influence other ones throughout the organization, modifying or contrasting the understandings and the expectations people constructed about the firm and the objectives; casual external events can accidentally and unexpectedly influence practice, ideas, skills development, or dominant designs appearance or abandonment. On the retention side, mechanisms and repositories for storing the knowledge developed and selected influence its permanence and enactment, acting also directly and indirectly on expectation formation. Deliberate retention mechanisms can be represented by the encoding of a procedure in written rules, or the diffusion of certain practice through training programs; external means like media can contribute on the other side to create or reinforce (or drop) the credibility of diffused practices; ongoing relationships between supplier and buyer include specific and valuable knowledge and sustain it over time, as demonstrated by Dyer and Hatch (2006) with their study about the knowledge sharing by Toyota with its suppliers. Internal and external emergent retention mechanism are also at work, like the emotional tight with certain practices that contributes to their unconscious

replication, or the “transactive memory” enabling individuals to know where knowledge resides and how to access it (Cohen & Bacdayan, 1994), vicarious learning (that is, the observation of others' behaviors and subsequent imitation; Anderson, 1999), or thanks to the legitimacy gained over time within the market. Variation, selection and retention processes can provide chances for learning and adapting, but they are not free from negative results (Becker, 2008). On the long run, retention mechanisms can combine efficiency with well-known problems of inertia, obsolescence, opportunities and threats overlooking; variation mechanisms on the other hand can create confusion, waste of resources and harmful destruction of key capabilities (March, 1991). The balance between variation and retention depends on the environment in which the organization operates, and also on the time horizon considered. In his view, March underlines the bias towards efficiency in that current viability provides more rapid positive results (short-term success) compared to future viability provided by exploration of new alternatives (O'Reilly & Tushman, 2013). In a time when market conditions shifts so rapidly and resources rapidly decay with changing conditions, there are no higher chances for an organization to fail without efforts towards exploration activities. Tushman and O'Reilly (1996) state that organization must simultaneously engage in exploitation and exploration activities for being “ambidextrous” and surviving especially in turbulent environments. Ambidexterity is linked to positive performance outcomes and increased innovation rates by plenty of studies at various levels, and linked to dynamic capabilities, absorptive capacity and organizational learning concepts for being promoted (O'Reilly & Tushman, 2013). Ambidexterity is considered the crucial capability for resolving the trade-off between efficiency and flexibility, for achieving short-term advantage through efficient exploitation of current assets and capabilities, and for long-term competitive position through adaptation to changing situation and exploration of new opportunities.

In this view, pursuing variation in organizational routines, which in turn influence the building of assets and structures, is beneficial, especially in today's turbulent environment.

On the pursuit of ambidextrous strategies, three main processes has been

investigated (O'Reilly & Tushman, 2013). Duncan (1976), Tushman and Romanelli (1985), Siggelkow and Levinthal (2003), for example, suggest that firms shift from different structures over (usually a long period of) time sequentially to align them to changing external conditions. Another way to solve the trade-off between the two strategies is found in simultaneous pursuit of both through separated structures; Tushman and O'Reilly (2008, 2011) add to structures also capabilities, processes and culture, properly aligned, orchestrated and unified by an overall aim thanks to the ability of the leadership (more than from structures alone) in reconciling efforts. Gibson and Birkinshaw (2004) move from the other two views more linked to organizational structure to the individual level (O'Reilly & Tushman, 2013); the behavioral ambidexterity empowers individuals and fosters them, through the proper contextual contingencies, to decide time after time which activity to enact according to their judgment. Khazanchi, Lewis and Boyer (2007) relates adaptability to an organizational culture fostering both flexibility and control; firms which promote both execution and creativity are for example Toyota and its Total Quality Management strategy of employee empowerment, and the product-design firm IDEO (O'Reilly & Tushman, 2013).

The positive effects of ambidexterity, which are demonstrated by studies regarding all the various strategies and processes for achieving it, are however dependent on environmental and organizational structures (O'Reilly & Tushman, 2013). Kyriakopoulos and Moorman (2004) show that effects on performance are moderated by resource endowment: larger organizations, more endowed with resources, are more capable of pursuing both exploitation and exploration strategies, compared to smaller firms that cannot afford such a complex strategy. Also Ebben & Johnson (2005) show empirical evidence on the difficulty of small firms to afford ambidextrous structures and strategy, as they lack resources and administrative systems for managing both knowledge processes (Lubatkin et al., 2006). On the other hand, in a world where struggling for dynamism is more valuable than building long-term advantage over current resources, large amount of resources and deeply rooted structures are however a burden for future development: they provide very short-term advantages to be exploited

but require the organizational capacity to redeploy, reconfigure, or change them (McGrath, 2013). The situation worsens when the markets in which the firm operates are characterized by different degrees of stability and variability, for example, mature markets where a product has reached the peak of its life-cycle against markets of early adoption. Also Gilbert (2005) found difficulties for firms to switch from printed newspaper to digital media, not because of lack of resources but because of lack of capabilities to convert processes needed for redeploy and reconfigure such resources. Pontiggia and Vesovi (2014) underline the middle position of medium-size multinational organizations which provide them with “ambidexterity by size”; that is, they can benefit both from their resource endowment and from their agile structure. Finding a common and appropriate metrics for categorizing organizations can although be a tricky task.

Organizational routines have “the ability to remember the past, imagine the future, and respond to present circumstances” (Feldman & Pentland, 2003): they reenact the past, adapt to the current context, and reflect upon past actions for future direction. The inherent stability and variability traits of organizational routines can be conceived as a sort of inherent ambidextrous property which enables the enactment and replication (read, exploitation) of accumulated knowledge and the adjustment of related actions according to the situations at hand, implying more stability when minor variations are required, and flexibility and adaptations when larger adjustments occur; feedback evaluation can push for different initiatives to tap the arisen opportunities. From the sense-making and decision-making efforts of the actors involved in the evaluation of feedback, reparation, expansion or striving can stem (Feldman, 2000). Exploitation activities can be recognized in the performance of routines and reparation responses, even if the degree of exploitation and exploration, that is of stability and change, can be evaluated from different points of view and therefore assume different meanings. More exploratory activities can be recognized in the responses involving the expansion of the routine's scope for tapping emerging opportunities, and when individuals strive for obtaining better results raising the target to be achieved. Even if the latter might involve increasing the efficiency of

the same routine, Feldman (2000) views it as a chance for variation as in the case of expansion. The chances for variation and change that routines bear in that they are performed by mindful individuals represent a chance for better exploiting what already exists (even if slightly differently) and searching for something new and for new concepts of desired goals. Transferring routines can be conceived not just as a means whereby exploiting existing knowledge assets (as stated by Winter & Szulanski, 2000, 2001; Kogut & Zander, 1993, 1995; and other theorists on the international business studies), but also as a means whereby exploring new alternatives. In this view, it is also possible to overcome limitations deriving from resources shortages and leverage the flexibility, adaptability and agility typical of smaller organizations (Volbreda, 1996; Vescovi & Pontiggia, 2014), as well as to cope with different markets sizes and characteristics.

The simultaneous potential for exploiting knowledge and exploring new alternatives give the organization the possibility to deploy the assets (intangible as competences, and tangible through competences) that currently provide superior value and to discover new opportunities that can provide the basis for future success. In this view, routines enable the firm to survive and succeed in an era of “transient advantage” (McGrath, 2013), and solve the paradox of replication underlined by Kogut & Zander (1992): firms replicate their technology (in general, knowledge, capabilities, processes) for growing, but at the same time encourage others to imitate them; by recombining their tangible and intangible resources through routines enactment and variation, they can both exploit their value but with local adjustments, more difficult to be disentangled by the learning process that generated them and the linked competences, and discover and enact the “unexplored potential” (Kogut & Zander, 1992) of their current activities.

5.KOWLEDGE, ROUTINES AND INTERNATIONALIZATION

For what concerns the international business studies, knowledge acquisition, control and exploitation is considered one of the main motives for business to expand abroad.

Several factors after WW 2 determine the rapid MNEs growth. The increased demand of tech-intensive products pushed by technological advancement increase the need for businesses to acquire new knowledge; the efficiency and scale economies in knowledge production enhanced by diminishing communication costs, and difficulties in organizing external markets for such new knowledge, foster the setting up of multinational subsidiaries by firms (Buckley & Casson, 1976, Rugman & Verbeke, 2003). The MNE becomes a network for acquiring and collecting relevant knowledge to extend the whole knowledge base (Johanson & Vahlne, 2009), or to feed internal R&D processes to create new knowledge, and used for commercial purposes. It expands to use its “resource capacity” through routinization of activities and increased efficiency in resource usage (Rubin, 1973).

The competitive advantage of organizations is dependent on their firm-specific advantages, formed by knowledge-related assets, and their capability to combine them with the characteristics of the environments in which they operate. These bundles of knowledge are the combination of both intangible assets and learning capabilities. Sharing the possessed knowledge bundle across the network to exploit scope economies let the firm achieving the goal increasing learning possibilities and knowledge acquisition (Ghoshal, 1987). Bartlett and Ghoshal (1987) argue that for building a transnational organization there must be a multi-level, multi-directional flow of knowledge, that is of capabilities.

For realizing the competitive advantage, firms leverage their knowledge-related assets (Kogut & Zander, 1995). The value originating from the idiosyncratic tacit component of knowledge leads firms to specialize in the creation and diffusion

of such knowledge, through teaching and codification into documents, rules, routines; some (as Terence et al., 1997) indeed argue that the competitive advantage arises from knowledge transfer activities, like replication (Winter et al., 2011). Given the difficulty of the task, it can be more efficient and effective if a homogeneous organizational field is provided (Kogut & Zander, 1993).

5.1. Replicating for expanding

International expansion strategies often involve the replication of processes and structures (Vescovi & Pontiggia, 2014). Vescovi and Pontiggia (2014) propose the presence of “replication economies”, which lead to the mimic reproduction of organizational forms abroad. The push for replicating the mix of structure, processes and resources stems from the reliability of the home structure, as high as the success obtained up to that moment. Copying the same structure with minor adjustments is also less costly than engaging in an exploratory process of trial-and-error in search for the right mix of resources and processes. Economic and time advantages arise from the exploitation of existing resources as well, especially the intangible and transferable ones like knowledge-related assets; Rugman and Verbeke (2001, 2003) refer to the benefits of sharing assets, external networks and learning capabilities as “international scope economies”. The reliability of the proven model results then in easier coordination and control of overseas operations made by the headquarter, and let subsidiaries exert a higher degree of autonomy. For overcoming the bounded rationality of big multinational enterprises, Birkinshaw (2001) suggests the headquarter introducing routines for allowing subsidiaries' managers to exert their decision-making power of “free agents” but within certain boundaries, so that their behaviors are expected to be related to the range envisioned. Such advantages are relevant both for larger organizations, which can leverage internationally their substantial amounts of knowledge-related resources and can economize on creating and controlling numerous subsidiaries, and for

smaller organizations, which can easier cope with the variety and (often big) dimension of destination markets and economize on the (scarcer) resources available.

On the other side, mirroring the same structure abroad, and persevering in using the same resources and enacting the same processes over time, can lead to organizational misfit with the market in which each branch operates. Indeed, it can prove more difficult and costly to force the same system to function in another context. The international scope economies resulting from the interdependence among subsidiaries and headquarter are offset by the different mix of resources each outlet needs (Rugman & Verbeke, 2003). Imposing existing routines and capabilities on a new set of resources, in a new internal and external environment, is a costly and time-consuming activity, which implies not the exact copy of the same processes, but the reproduction of the same efficiency for achieving similar outcomes. The positive outcomes and performance to be reached may differ as well, across space and over time. What's more, resources linked to knowledge, which is in turn accumulated through experience and routines performance, are not free from path-dependency issues. The learning process which took place within the parent firm, while developing knowledge and capabilities, contributed to the creation of the absorptive capacity necessary to manage such resources and to further engage into learning and managing them. This absorptive capacity is acquired over time through experience and direct involvement in operations (Cohen & Levinthal, 1990), and is not a feature possessed from scratch by the new-born outlets; indeed it can be enhanced by knowledge transfer (Cohen & Levinthal, 1990).

Recalling the three characteristics of the replication activity summarized by Hodgson (2004), the crucial step is the transfer of the relevant information on how to organize and deploy resources and processes.

The transfer of knowledge can be problematic especially for the tacit component (Polanyi, 1966), as it is not separable from the source that generated it, that is the individual (Wong et al., 2006). Growing by replicating requires capabilities to recreate routines which are complex, imperfectly understood and embedding a

tacit component, to different target places and with different local resources (Winter & Szulaski, 2001), and above all, the ability of the recipient to recreate such tacit component (Kogut & Zander, 1995). If the subsidiaries fail to leverage the inherited assets and to combine them with their local assets, linkages, and learning capabilities, the advantages of internationalizing does not materialize (Rugman & Verbeke, 1992).

Each subsidiary builds its own story in its own contest, variation is inevitable. Their members can be taught by experienced employees, but the cognition and the subsequent set of behaviors differ anyway, because of the different cues pertaining to the idiosyncratic internal (the relationship among the new subsidiary's members included) and external environment and triggering different ideas and actions.

The inner duality of routines can represent the means whereby transferring the accumulated knowledge and linked capabilities, and at the same time enacting them in a way that fits the outlets' contingencies. The parent firm develops over time some "meta-routines" embedding the competence and knowledge developed in the process of transferring its knowledge and competences abroad, of deciding what is worth being replicated, where, when and how. International business theorists argue that international expansion serves for accumulating international experiential knowledge (especially at the first attempts to internationalize) through incremental decisions and adjustments (Johanson & Vahlne, 1977), that favors the firm in adapting and sensing opportunities and threats. This "internationalization knowledge" (Lianxhi Zhou, 2007), together with knowledge about culture, institutions, market competition and customers behaviors, enables firms to adapt their resources and capabilities to properly enter new markets. Parallel to this, the parent firm has to transfer to the subsidiaries the capacity to exploit the assets received and link them to their specific context. Therefore, routines evolve abroad as well, and will include over time the knowledge incrementally acquired through operations. Subsidiaries abroad acquire and develop knowledge and competences that will combine with the one "inherited" from the parent firm.

Besides the already cited drivers, “mirror” replication strategy may be considered a viable expansion strategy because the markets of destination are considered to be similar, at least in most and key characteristics, to the home market, so that identical or very similar processes may function and resources leveraged. The concept of “psychic distance” refers to the gap between the home and the foreign market. The distance can be measured at many levels, like type of competition, consumer preferences and behaviors, social habits and culture, and so on. It prevents the circular flow of information throughout the network, and increases the “liability of foreignness” (Johanson & Vahlne, 1977, 2009; Zaheer, 1995), that is, the costs of operating abroad due to lack of (market, internationalization) knowledge and space and time distance (Nachum, 2003, 2014). And yet some (like Nachum, 2002) argue that it can be an asset that lets foreign firms to perform better than indigenous ones. It can be the case when the combination of assets transferred, ability of the parent firm to transfer them, ability of the outlet to deploy them and to recombine them with new local assets, are overarching the capabilities of the local firms, especially if smaller in size and not engaged into international operations.

Psychic distance favors the entrance into less “distant markets”, and asks for routines transfer and mirroring structures to enhance the expansion process, especially when distance increases, since replicating existing routines and structures provides more certainty in terms of management and expected results. The higher the distance however, the higher the risk of misfit between headquarter strategy and assets and what the specific contingencies abroad actually require; this hinders the expected efficiency of replication. The actual psychic distance can differ from what the organization perceives. The “psychic distance paradox” (O'Grady et al., 1996) that may arise from the perceived similarity between the home and the foreign market can lead to threats and market entry obstacles overlooking, as well as choosing the wrong strategy for expanding (Winter et al., 2011). If the distance is thought to be high, as the linked uncertainty and risks, the motivation for thoroughly analyzing the market and planning increases, together with the chances of success (Evans & Mavondo, 2002). Although some agree on psychic distance as a driver for

adaptation, evidence shows direct correlation between psychic distance and standardization as well (Kostova, 2009). She essentially states that the reaction of (retail) organizations to psychic distance depends mainly on their orientation, be it systemic (more risk averse, therefore prone to incremental adaptation) or entrepreneurial (less risk averse, thus prone to disruptively change their format after a period of standardization and external shocks); at the end, she envisions adaptation anyway.

5.2.Rigidity versus flexibility in replication strategies

Several theorists analyze the strategies of organizations for expanding internationally.

Bartlett and Ghoshal (1989) underline the need of the new multinational corporation to overcome the strategies based on product standardization, as customer needs are evolving towards more customized solutions, by developing diversified strategies according to local needs. The goal in this case is profiting from local adaptation, which fosters innovation and extract the maximum value possible namely from many properly carved strategies and products.

On the other hand, Winter and Szulanski (2001) define replication as the “McDonald's approach”, characterized by the creation of similar outlets abroad for delivering products and services, by a broad scope knowledge diffusion, and by the central accumulation of dynamic capabilities for operating internationally. The value in this case is generated by the scale economies enabled by a substantial standardization of strategies and products, thus formats. Replicators create value in their activity of creating and modifying the right business model (a set of interdependent routines) to be transferred abroad, at least in some of its traits, and in developing the capabilities to routinize the knowledge transfer and maintaining the operations replicated. They conceive the process as a continuum at the beginning of which there is an exploration activity aimed at finding the right mix of capabilities that will compose the business model, and at

the end of which there is an exploitation activity aimed at leveraging the business model internationally. Throughout this process there is an underlying activity of capabilities creation and refinement, most of all the capabilities that support the routine replication activities that will occur once the right format has been discovered and refined; this higher-order capabilities for (efficient and rapid) replication strengthen over time and become a source of unique advantage for the firm, in that they result more difficult to be copied than the physical local outlet itself (Winter & Szulanski, 2001). The exploration phase make some business model features emerge, a mix of routines and their relationships that can constitute a valid standard template to be replicated and linked to local assets (the “arrow core”). It is a leverageable resource, an information endowment about which business model traits are replicable, how they are recreated and the characteristics of the point of destination in which there are worth being replicated. Discovering the arrow core and building the dynamic capabilities for replicating it is the source of competitive advantage and economic value for the organization (Winter & Szulanski, 2001). The adaptation efforts characterizing the phase of large-scale replication are not directed to modify the business model chosen, but the context of the outlets in which it has to be applied. The trial-and-error phase pertains just to the exploration activity for discovering, testing and refining the business model; subsequent variations are considered time- and resource-consuming, since it is more costly to discover and produce relevant knowledge than to reproduce and use it (Winter & Szulanski, 2001). They solve the dilemma of rigid versus flexible replication by stating that opportunities for adaptation to the local context may arise after close replication; flexibility is linked just to the exploration phase. The value of the discovered arrow core is however emerging from experiential learning and success linked to some initial locations, which then represent historical templates for guiding subsequent replication (Winter & Szulanski, 2001). Such experience can be misleading, especially because it accrues from success and can therefore conduct to fault learning and competency traps; the perceived psychic distance between the home to the foreign context can increase the errors in the analysis of the situations. They implicitly assume that local learning

is not allowed to influence the replication process and relevant for augmenting the overall knowledge base, in contrast with another driver for internationalizing (apart from assets leveraging) represented by the acquisition of new knowledge for assets augmenting; the crucial role in this knowledge process played by subsidiaries (Kogut & Zander, 1995; Birkinshaw, 1997, 2000) is also denied, as the importance for local responsiveness (Bartlett & Ghoshal, 1989). Variation of the original template replication resulting in local adaptation is indeed beneficial (Becker, 2006) to the long-term performance, even if it can cause short-term negative effects; be the mutation intended or erroneous, it can even represent a source of innovation (Martignoni, Dietl & Lang, 2012; Vescovi & Pontiggia, 2014).

In contrast with the view of international expansion by fixed replication, Jonnson & Foss (2011) and Memela (2013) conceptualize replication as a flexible process which features both the fixed component of relevant knowledge to be replicated, and the flexibility of local adaptation in response to local learning leading to business model innovation as well (Memela, 2013). Jonnson and Foss (2011) take Ikea as an example of an organization developing mechanisms for supporting an ongoing learning activity characterized by the frequent modification of the business model being replicated. The model at hand consist of a hierarchical replication process in which higher-level features are uniformly copied, as slowly as to follow the concurrent learning process, and lower-level features are modified according to the local, market-based learning process. The higher-level features are defined in Ikea as the “idea concept” (the guiding values), whether the lower-level features, more linked to local operations, are defined as the “concept in practice” (like specific products features, pricing, etc.), to stress the tight to contextual characteristics. The duality of idea concept and concept in practice is the equivalent of the dual spirit of organizational routines, the ostensive and the performative aspects. When transferring its routines, Ikea's expatriates focus on the transfer of the firm core principles (Jonnson & Foss, 2011), which, if well internalized and understood, will guide the performance of local personnel, varying according to the local context. The lower-level features adaptation represents a form of exploratory

learning, like the international experiential learning cited in Johanson and Vahlne (1977, 2009), of which the parent firm can take advantage by arranging organizational means favoring the constant bidirectional flow of information. The reverse knowledge flow in particular serves to acquire the locally developed knowledge useful for revising the initial format for replication. The organization leverages its international posture for expanding the sources of knowledge and the organizational learning process, in a double-loop fashion. The ambidexterity of this replication strategy (Jonsson & Foss, 2011) arises from both the exploitation of the initial business model and the exploration occurring at the headquarters, for developing the initial format, and at the local level for adapting it to the idiosyncratic contingencies. Such ambidexterity helps in solving the trade-off between global integration and local responsiveness (Jonsson & Foss, 2011).

5.3. Circular knowledge flow

If value is considered to stem from heterogeneous endowment in distinctive and difficult-to-replicate resources (e.g., Barney, 1991), especially the knowledge-based ones, exploring foreign markets for not just exploiting but also augmenting such resources is a source of value itself. As imperfect or flexible replication occurs, whether intended at first stages or emergent after external factors push, the firm has the chance to benefit from change in a deeper and more diffused manner. Winter and Szulanski (2001) link business model variation and refinement to the first efforts for searching the right format to be copied abroad, activity whereby core (replication) capabilities are built, and put local minor adaptation at the border of exploration efforts. It is hard to recognize future chances for innovation in this conceptualization though, if international expansion is conceived as an effort intended to enlarge the ground whereby extracting economic rents through assets deployment, and if the allowed limited format adaptation remains bound to the foreign context of implementation.

Indeed, the expansion of the knowledge base that firms pursue through international activities (Johanson & Vahlne, 2009) is not complete if all the knowledge-related assets, firm-specific advantages, locally developed actually remain confined to the local outlet.

Firm-specific advantages constituted by knowledge-related assets within the parent company and transferred to the outlet abroad (the transferable “non-location bound” component) enhanced by local idiosyncratic competences and knowledge become subsidiary-specific advantages (Birkinshaw, 1996, 1998; Rugman & Verbeke, 2001; Rugman, Verbeke & Nguyen, 2011). The mix of transferred assets, capabilities, processes and locally developed ones more linked to local contingencies, constitutes the advantage gained by the subsidiary, the assets developed by the combination of previous and new knowledge. The initial entry is a platform where prior knowledge is exploited in different ways, that is recombined and integrated with the acquired local knowledge thanks to the firm combinative capabilities (Kogut & Zander, 1993). The expansion abroad is not legitimated just by the increase in sales, profit, and market share. There are more intangible gains arising from international operations, that the international business study literature often considers to be a “side effect” rather than a central objective (Vescovi & Pontiggia, 2014). Organizations invest abroad for augmenting their capabilities through the dispersed cumulative activity of their subsidiaries (Teece, 2013). The organization becomes the locus for creating and leveraging its products and capabilities by operating globally (Teece, 2013). The heterogeneity provided by dispersed activities is leveraged for deploying and increasing the possessed assets and for developing new ones (Zollo & Winter, 2002; Teece, 2006). Not the whole stock of knowledge and capabilities is stuck to the foreign context of development. As for the assets and routines transferred from the headquarter to the subsidiary, those can flow the other way round (Teece, 2013). This is the way in which substantial benefits for the whole network can arise. The locally developed bundles of resources, in the form of knowledge, capabilities, and the linked routines, can go backwards to the parent company, where they can be subsequently absorbed and become part of the domestic context and of the

domestic resource base (that can in turn be transferred to and leveraged in other locations). The learning process from which the new knowledge accumulates abroad influences also the accumulation and recombination of knowledge throughout the network, including the parent firm (Kogut & Zander, 1993). Foreign subsidiaries play a crucial role in leveraging the inherited knowledge and in generating new knowledge (Birkinshaw, 1997, 2000; Birkinshaw & Hood, 1998; Zollo & Winter, 2002; Teece, 2013), and then in putting it back into the circular stream of knowledge creation and use tapping all the spots throughout the organizational network.

The circular model of knowledge creation through the interaction between tacit and explicit knowledge proposed by Nonaka (1994), is influenced by the stimuli coming from the environment and perceived by the individuals who are the primary actors in the process. The environment is the platform for knowledge creation and use. When the environment expands encompassing not just the home market but also the international one, the knowledge creation process goes on abroad; the knowledge originated from foreign operations enters the circular flow of knowledge conversion and is integrated with the one originated from domestic operations.

The inherent contrast between theoretical and actual routines influences the dialectic relationship between tacit and explicit knowledge components more sharply when the externalization of the theoretical component of knowledge and experience takes place in different contexts, so that a conflict between internal and external knowledge arises (Nonaka & Toyama, 2003); the contradictions increase when the different contexts lie abroad, where actors strive for reconciling the theoretical frameworks with their enactment within different circumstances. At that point, higher chances for variation, thus for knowledge generation, arise, fueling a “never-ending spiral of knowledge creation process” (Nonaka & Toyama, 2003).

Both international operations and routines variation abroad constitute and enable overall organizational learning.

5.4. *Mirroring Back*

Firms can expand the value creation mechanism extending beyond the simple asset replication stage, and even beyond local assets augmentation within foreign markets.

Vescovi and Pontiggia (2014), through their field research, propose a link between locally developed knowledge and business model adaptation and innovation.

They investigate some Italian medium size multinational enterprises, which they define as “ambidextrous by size” because of their not-so-small and not-so-big size determining a mix of resource endowment and flexibility and agility. Despite their resource endowment, larger organizations, due to their structure which is more institutionalized, hierarchical, thus rigid and resistant to change, find more difficulties in exploiting their tacit knowledge to gain competitive advantage; smaller ones, on the other hand, more flat and flexible, struggle more easily with ambiguity, adapt more easily to ambiguous situations (Edmonson & Moingeon, 1996), and experience less costly knowledge transfer (Vescovi & Pontiggia, 2014). Resource shortages and the wider promising target market (like the mature US and the developing and less acquainted China and South America), compared to the small Italian one, force somehow the medium-size companies analyzed in Vescovi and Pontiggia's study to adopt a replication strategy for expanding and leveraging their assets, especially in the cited large, and often uncertain, markets. As already pointed out, mirroring strategies suffer from many downsides: misfit between the replicated format and the local context, decreasing performance and increasing the efforts for making it function; loss of useful knowledge and insights that are neither acquired nor implemented locally and sent back to the headquarter for being used internationally. The tendency to leave subsidiaries a role of strategy executors and knowledge exploiters substantially hinders the possibility of thoroughly seize the opportunity of new knowledge creation and capabilities generation that foreign markets offer. Subsidiaries' destiny is co-determined by the foreign (external, less governable)

circumstances though. What can be misleading and eventually harmful is the illusion of being able to exert high control through the replicated structures, especially when they have an execution role and a mirrored approach, to have the situation under control and ultimately see the forecasted outcomes appear. Firms entering new realities eventually knock against the foreign wall composed by local tastes, habits, values, which characterize the way customers (and potential employees) behave and which are difficult to shape, even to be understood. When confronted with geographically and culturally distant markets, firms can be forced to reconsider their processes, strategies, values; the ones which are more vertically structured and employ more rigid mirroring strategies may suffer the blow even more. The internal variables which can be somehow under organizational control, are first weakened by the geographical distance, and collide with (and are influenced by) more ungovernable variables linked to local contingencies. The initial replication efforts are followed by implementation efforts, intended to align the format to local contingencies, in a single-loop manner. The growing deviation from the initial format may get so wide that variation eventually emerges as necessary response to performance improvement; initial frameworks are reconsidered (that is, in a double-loop manner) and revised to accommodate local variables. The impact may even result so hard that old paradigms are completely destroyed, that slight modifications to current models results to be insufficient to adjust local operations, that current capabilities have to be reconfigured or thrown away. The reaction is not unanimous though; path-dependency and the related myopia, causes of misunderstandings and unwillingness to modify old beliefs, may lead the firm to persevere in keeping things as they are and to suffer greater losses, and eventually decide to stop struggling and exit the market (if they are not gone bust yet). The firm must be attentive in scanning the environment and the outcomes of its operations and then willing to reconsider its posture, thus be open to variation, for preventing great mismatches and the risk of failing to fix negative outcomes.

The “imperfect replication” of smaller multinational organizations, deriving from the attempt to mirror the existing structure for reducing uncertainty and the

misfit that can occur in different markets, can nevertheless be leveraged as a “strategic flexibility” (Vescovi & Pontiggia, 2014) and positively impacting on performance, as underlined by Becker (2006) and Martignoni, Dietl and Lang (2012). It is a chance for reconciling the objectives of replication and efficiency (e.g., Szulanski, 2001) and adaptation and innovation (e.g., Bartlett & Ghoshal, 1989).

Like what happens in Ikea, firms can centralize the establishment of higher-order values and objectives that guide the decentralized decisions regarding lower-level actions and targets, as well as the evaluation of local operations and the absorption of the locally developed knowledge. Here, change and innovation of the business model is possible through first replication initiative and subsequent adaptation thanks to backward knowledge integration. What has been learned abroad becomes part of the organizational knowledge base, and can be leveraged throughout the network by modifying the overall organizational posture (instead of remaining confined within the context in which it originated). The “mirror back” takes place whenever the locally acquired knowledge and experience influence somehow the initial business model, that is subsequently used for operating at home and abroad. Despite the more limited size and resource availability, also smaller firm can leverage their flexibility and agility to exploit the initial reliable business model replicating it abroad, explore the foreign market letting the transferred assets be modified, absorb the internationally acquired knowledge, integrate it into former assets (like routines and capabilities and the deriving structures) and again exploit the resulting new assets abroad.

The (fixed) template conceptualized by the cited scholars, like the Arrow Core of Winter and Szulanski (2001), as a driver for correct and positive replication, does not exist as a single format, in the espoused conceptualization of the replication-adaptation-integration process; it loses its stable feature and becomes a flexible mix of routines and competences, close to what Jonnson and Foss (2011) and Memela (2013) describe as flexible replication process ending with foreign local adaptive format implementation, and goes on as soon as the parent firm recognizes and then integrates the valuable changes

emerging from its foreign outlets' activities, like in the findings of Vescovi and Pontiggia (2014). The starting model assumes multiple forms according to the markets in which it is applied, relative to which it is unique given its unique local adaptations. It is also inherently unstable over time: the learning process is not occurring along two stages, that is the initial exploration of the business model and the subsequent exploitation, not even in a linear, unidirectional manner, allowing just for local variations. Learning occurs as a circular process of continuous knowledge development, transfer, integration, variation, combination, and subsequent transfer. The initial mirroring stage serves for learning about the market (that is, the competition, the customers, the culture, the governmental issues) and understanding how to leverage their existing strengths (knowledge, capabilities, routines, existing networks) to generate value abroad, and meanwhile how to reinforce and extend them, for generating further value both abroad and throughout the organizational network through mirroring back initiatives. It serves also for understanding the capabilities necessary to achieve these objectives, and to develop the capability for rapidly assessing and adjusting to the changing conditions. Replication can be defined as an intra-organizational, bidirectional process of knowledge transfer and creation, taking place within a broader circular process of knowledge generation, forward transfer, variation and backward transfer.

Examples of Mirroring Back can be found within several firms, which in this case are large in size. McDonald's developed the concept of the McCafe in 1993 within a franchisee located in Australia; as far as 2012 it introduced such format establishing more than 1300 McCafe all over the world (Martignoni, Dietl & Lang, 2012). The same occurred for the McDonald's Egg McMuffin, invented in late 1960 by a franchisee and then leveraged throughout the US until 1972 (Martignoni, Dietl & Lang, 2012). Pantene's Pro-V was launched in 1990, whose lead countries involved were the US, United Kingdom, France and Taiwan; each of those developed its own advertising campaign pursuing a different strategy, considering the purposes and benefits regarding the shampoo. The strategy of Taiwan, aimed at stressing one of the outcomes of the shampoo usage, namely the shine hair, proved to be so powerful and successful within the country that

Procter & Gamble decided to leverage that strategy worldwide. P&G's strategy is to empower local outlets to develop their own programs, so that it can draw on a wider basis for acquiring relevant knowledge to be used for developing global solutions (source: www.themanagementor.com). Ikea has the resources for establishing dedicated units for this process of local knowledge evaluation, absorption, integration and diffusion (Jonsson & Foss, 2011).

5.5. Implementation barriers and Mirroring Back

Reliability is considered a powerful selection pressure (Helfat, 2004); path-dependent structures, processes and the overall culture are interrelated reliable dimensions providing fitness with the environment and successful performance, the latter being an incentive for expanding operations abroad. The approach towards the new landscape is heavily influenced by past and current thoughts and actions, contributing to developing a mirroring strategy for foreign expansion. Jensen and Szulanski (2004) analyze how local adaptation can even hinder the possibility to establish a replication path due to the inability to develop a common framework (read, format, mix of capabilities and routines) to be used as reference point for current and future performance evaluation and control (and for developing insights on it). This derives from the assumption that a powerful (and stable) template is necessary for an effective replication process. Moving forward, Jensen and Szulanski (2007) consider the replicated template as a factor enabling implementation barriers to be overcome, and implementation factors as improving subsidiaries performance (Jensen & Szulanski, 2008); the drawback they recognize however is the progressive deterioration of initial increased subsidiaries performance (XXXX). This may lead to argue that such strategy of rigid or close replication is actually unable to sustain long-term positive outcomes. Part of the problem is ascribed to the tacitness of knowledge and the difficulty in recognizing cause-effect mechanisms leading the format implementation to produce certain outcomes.

Another source of negative performance of replication is ascribed by several scholars (e.g., Szulanski, 1996) to difficult relationships between the replicator and the subsidiaries (XXXX), which often results to be vertical, governed by top-down communication and power exertion. Moving to more adaptive implementation of the template, which is itself less fixed, can provide the firm with additional benefits from diversification (fitness to the market). Adopting the view of routines as learning and knowledge generators, changing results in new insights, as well as the mindful decision of the actors to keep routines as they are. As previously pointed out then, fully exploiting the value of international operations lies within the capability of the firm to make sense of the variation generated abroad and in turn to exploit it modifying the initial business model. The power of the mirroring-back to maximize the benefits deriving from international experience lies in the capacity to first enable the backward transfer of the locally produced information (knowledge, routines, etc.) to the upper levels of the organizational structure, and secondly to recognize the value and the power of such feedback to then exploit it and variate the overall strategy. Knowledge emerges as the focal point of both advantages and barriers to value creation.

Setting the right (bidirectional) communication network represents a first strategic measure to be implemented to favor information (knowledge, routines, etc.) flow throughout the whole organization. A better knowledge management can solve critical points at various levels.

Enable subsidiaries to engage into the learning and knowledge generation process, by letting them reflecting upon the replicated format and its relationship with market conditions, the search for solutions and the decision maintaining-changing, develop their ability to fruitfully manage knowledge implementation and exploration, to scan the market for insights, to build them and recognize their value. "Subsidiary development" initiatives, enabled also by technological development of the last decades, increase the possibilities for integrating operations, and in turn the value of the whole organization, through the empowerment of its outlets (Birkinshaw & Hood, 1998). The absorptive capacity developed decrease the problems linked to knowledge tacitness, decreasing

the barriers to communication and correct, shared information interpretation. Besides the knowledge exploitation and exploration, thus the assets augmentation, there is an advantage arising from the mitigated of being dragged down by old and misfitting assets. The path-dependency, the imprinting of subsidiaries and their roles as executors may be beneficial or detrimental depending on the (perceived or actual) characteristics of the environment, left aside the physiological changes linked to the time passing by; it nevertheless hinders the subsequent search for new information and ideas, leaving the potential for new knowledge and innovations development latent, privileging the deployment of existing assets and procedures (Wang, Salazar, Ben-Ur, 2013). The lowered risk of developing myopia turns itself into the chance for triggering a powerful feedback mechanism; the parent firm has therefore the chance for monitoring dispersed operations, steering its strategy, enlarging its knowledge base, and eventually absorbing novelties and integrating them into its strategy. The fostered bidirectional information sharing may also balance the relationship between the parent firm and its outlets, avoiding conflicts and frictions in the flow of knowledge.

Knowledge is transferred abroad through the individuals, the processes, the artifacts, the structures in which it is embedded, and is modified as soon as the individuals act in an environment which substantially differs from the one in which knowledge was created; internal contextual factors (like foreign personnel recruited and their backgrounds) and external ones (regulations, customers and culture, competition) interact with knowledge carriers, often in unexpected and uncontrollable ways, according to what the theories supporting the knowledge-generation potential of routines put forward. The crucial phase is the return of knowledge to the parent firm. Knowledge sharing and transfer must therefore be energized somehow. If routines have the potential for enabling knowledge implementation and exploration through the search of alternatives, it is not straightforward to assume that the individuals are able to diagnose the situation, or to understand which action to take, as understanding cause-effect mechanisms and possible outcomes is even more trivial. Structures, artifacts, communication methods, incentives, altogether contribute to energize and

sustain certain behaviors in certain conditions; strategy and goals are therefore embedded in the physical context, in the rewarding system, in the training methods, in the communication tools like the technology and network implemented and the physical artifacts available. Spaces where having a coffee break with colleagues of other functions may increase the number of informal meetings and making them valuable sources of information sharing and ideas generating; they enable individuals to make sense of what happens within the entire organization and make sense of their role inside the big picture.

Positioning a function of knowledge generation, like the R&D, next to a function of knowledge implementation and raw information generation in the form of outcomes prototyping department can be crucial in information flow in that it reduces the time between each step of the process of knowledge generation and circulation (implementation, feedback generation and interpretation). If the R&D office would benefit from a closer production activity but the latter is actually out of direct firm control, frequent meetings among key figures of each function may be scheduled on a constant basis, routinizing the information sharing activity for establishing common languages, understandings, trust. What happens when people get in contact is however dependent on other variables. If the rewarding systems indirectly prioritize the number of novelties generated through the research activity (like new product features, new relationships between an action and its outcome, etc.), or the number of pieces manufactured within a certain time, the goal which is indirectly implemented and towards which actions are directed, has more to do with quantity of outcomes, at the expense of quality; in this case, people would also dedicate less time to interact with other colleagues not to lose time, therefore reducing the chances for exchanging and developing precious insights potentially useful for enhancing quality, if not for generating novelties. For what concerns routines, they are more easily transferred through artifacts, like written manuals, rulebooks, and so on. Transferring best practice abroad is then easier through the diffusion of such artifacts for uniforming actors' behavior across the organization. The codification of knowledge is an effort useful to building even more understandings upon it and for better absorbing it; this process however

inevitably miss some tacit aspects which are more embedded in the individuals who generated it, and that are difficult to be caught by others, especially if they are not familiar with that knowledge yet. Strictly reproducing the transferred procedure will inevitably result in differences, due to the specific contextual variables, and to actors' aptitude and past experience; people could be forced to strive for aligning the two aspects, but the friction that nonetheless generates new information could be suffocated by correcting behaviors or analyzed for developing valuable insights. Again, people's reaction is influenced by multiple factors. If the physical artifacts are conceived as dogmatic, their materiality will turn out to be rigidity and obsolescence over time, as it fosters people to stuck to the letter and strive for reconciling it with their situation; negative frictions will progressively get wider and far from the intended outcomes. When physical artifacts are more general in their theoretical, written manifestation, people feel and are more empowered to accommodate contextual variables, and have the chance to understand the mechanisms that lead actions to generate outcomes, thus to develop their tacit knowledge base. Written artifacts would result to be less deterministic, thus obsolete, over time thanks to their less rigid formulation; a constant feedback gathering and monitoring can support then artifacts renovation once the information has been interpreted, integrated and articulated, through the establishment of periodical revision and updating of the practice and the relative physical artifacts. To foster people to reason upon the rules they have to implement and the behavior they should adopt for achieving the goals, mistakes have not to be conceived as negative results to be avoided and condemned, but to be a source for developing new information and insights for enhancing individual and collective performance. Incentives and target establishment plays an important role in that. Less monetary objectives and incentives, linked both to individual and collective achievement, like an increased appreciation of the customers to the brand, its products, its customer service, could foster positive aptitude towards searching for quality, for closeness to the business and the specific situation (this, adaptability and flexibility of the format), that is, to longer term results and success; empowered people feel more responsible for their improvement and the improvement of the

whole organization, especially when their direct feedback reporting is required and used for reflection. Artifacts for transferring routines are effectively supported by the establishment of continuous training activities, intended to support the transfer and the development of tacit (like procedural) knowledge to dispersed outlets. Training can become obsolete as artifacts if it is not periodically reconsidered according to the feedback gathered, processed, and integrated; it is a source of feedback as well, in that it can detect problems in communicating and transferring knowledge, and help in developing understanding about such issues.

All these initiatives constitute formal systems, more or less specific in scope, to embed the organizational strategies and objectives into the operational functioning of the subsidiaries (and the parent firm itself), to push actors to enact certain behaviors according to certain criteria. However, “willingness is not the same as ability” (Easterby-Smith, 2011). People's behaviors, reactions to internal or to external and uncontrollable cues, are not wholly envisioned by organizational strategies and formal systems, and surely not wholly governable and controllable. The solutions implemented to foster certain behaviors can fail to provide the intended results because of people aptitude and culture, external unexpected cues, and surely present trade-offs with negative sides, like short-versus long-term results, individual versus collective achievements, quality versus quantity, and so on. One of the reasons why many firms fail to adapt to different environments, to reap the benefit arising from international operations, to enable backward flows of information useful for revising the business model, can be linked to the lack of thoroughness of the initiatives employed. The formal systems rolled out needs to be supported by a more informal set of systems involving the development and transmission of the organizational mission and core values, that are able to guide people's actions towards more long-term goals, aware of the principles that guide them in their reasoning and behaving; the culture that permeates all formal systems and enables to govern trade-offs and avoiding the negative sides to prevail; the choice of the right people is crucial as well, since they are the principal vehicles for enacting, diffusing, and creating knowledge.

The aptitude towards information sharing, feedback reporting and transmission, openness to reflection upon actions and to errors and changes, can be fostered directly by powerful leadership initiatives, that contribute in turn to connect the headquarter with the subsidiaries and incentive all these actions through the establishment of positive relationships. More chances for information to be acquired and transferred back by higher-levels emerge, hence for discovering and evaluating foreign novelties and integrating them into the business template. The explicit arrangement for specific hubs throughout the network in charge of gathering feedback from outlets and making sense of the information, like what happens in Ikea (Jonsson & Foss, 2011), is a clear signal of the openness of the organization to variation and novelties, of the importance it gives to foreign operations and their outcomes; this means for outlets and increased sense of contribution to the overall organizational performance, hence increased motivation, besides the awareness of the need to avoid deterministic behaviors. The availability of specific units for gathering information from the outlets, making sense of them to develop insights and evaluating their harmful or valuable potential, and their possibility for direct intervention or information transfer to the upper levels, enable the organization to develop (dynamic) competences regarding knowledge generation, evaluation, circulation and integration, hence abilities related to knowledge exploitation and exploration and mirroring-back, to routinize these activities and advance them as core competences of the firm. Such core competences regard the way the firm manage and extract value from its internationalization process and experience.

5.6. Organizational routines, ambidexterity and Mirroring Back

Ikea's strategy for transferring routines abroad via knowledgeable and experienced expatriates does not entail a training process for teaching the patterns of actions to the letter; the aim of expatriates abroad (and of senior

employer within their unit) is to pass on the firm's underlying culture and core values, which are the basic concepts to be internalized for enacting organizational routines (Jonsson & Foss, 2011). They also ensure that the trainees understand that there does exist a difference between the idea concept and the concept in practice, and that it has to (Jonsson & Foss, 2011). From a more granular perspective, it is like to admit that there is a difference between the theoretical basic idea of what the routine should be and the actual enactment of such idea, and that there should be such difference for generating the beneficial circular variation in behaviors, structures and again ideas. The variations introduced at lower-levels serves as a feedback for higher-levels about what happens downstream, which problems or opportunities emerged, as a cue for decision-makers who then decide whether to incorporate the local changing into the overall strategic direction or to keep the local variations confined within the context of origin, or whether to directly encourage for some directional changes to be implemented.

The opinion here espoused is that organizational routines can represent a less costly means whereby transferring relevant knowledge across space and time, whereby receiving back new relevant knowledge from abroad, whereby sensing opportunities and threats abroad and implementing intended responses, whereby measuring and evaluating performance as a feedback for future direction. Organizational routines, given their storage property, their dual features, their interconnection with individuals, thus their inner flexibility and variability, seem to be the perfect candidates for enabling knowledge flow, variation, learning, and simultaneous knowledge exploitation and exploration. Their inherent flexibility and changing potential, allows for embedded knowledge exploitation and new opportunities exploration, placing them as ambidextrous means. Routines have the inherent potential for being ambidextrous, and organizations (regardless of size and resources endowment) can symmetrically be ambidextrous. They function as powerful feedback mechanisms, knowledge carriers, sensors, organizational “glue”, ideas collectors and conveyors. While theories usually separate exploitation and exploration activities, some

(Guettel et al., 2012) already argue that the business model replication can entail ambidextrous mechanisms, represented by written rules in the form of artifacts, which both provide strict replication and foster innovation by creating a shared language throughout the network; Feldman and Pentland (2008) on the other hand, underline the ineffectiveness and inefficiency of (written, physical) artifacts, which they define as “dead” compared to the “living” routines, in correctly representing the reality and keeping its pace. Actually written artifacts are both determined and determinant of routines stability and change and enter the dynamic interaction between theory and action as their product and constraint.

The frequent incremental variations allowed and actually occurring, and the circularity of the process, let knowledge acquisition and transfer, adaptation to local contingencies, knowledge base expansion, and overall innovation rate, be more rapid, diffused, and less costly.

These features also prevent the organization from falling into competency traps due to rigid routines, derived from their taken-for-granted value, and from incurring into psychic distance paradoxes or from failing because of overarching psychic distance. Organizations tend to shape their structure in their founding period, according to environmental cues, and mental models of the founders (Huber, 1991). Structures emerge from an incremental effort intended to reach a fit between the organization and the environment; this local search for optimum solutions accumulates knowledge and experience upon which the whole posture basis, thus generates path-dependency (Helfat, 2004). The phase of early sensitivity to external conditions usually evolves towards a substantial stability and resiliency to external conditions as experience accrues; this approach is noted at all the organizational levels, from structures, to capabilities, to members (Marquis & Tilcsik, 2013). Routines, as flexible and generative mechanisms, adapt to the actual situation, therefore overcoming possible misleading conjectures about the situations and the suitable responses that cause wrong initial approach. Their continuous change prevent new outlets abroad from being trapped into the “organizational imprinting” (Stinchombe, 1965) mechanism, which leads subsidiaries to reflect headquarter structure and

approach (especially when market access is facilitated by replication). The foreign expansion may then represent a chance for sourcing knowledge and experience from different environments, decreasing the path-dependency and the deriving imprinting that shapes future directions (Helfat, 2004).

Routines are generative systems (Feldman & Pentland, 2003; Pentland & Feldman, 2005), able to “remember the past, imagine the future, and respond to present circumstances” (Feldman & Pentland, 2003). Individuals are key resources in the dynamic performative process; following the theories about routines and human interrelation, organizational agents promote routines, thus resources and structures, development, variation, change, flow. Ambidexterity can be a natural consequence of routines implementation and the allowed variation. Organizations can overcome the trade-off between the competing goals of efficiency and variation thanks to routines' generative potential. Since knowledge transfer is facilitated by codifying and storing it, organizational routines contribute well to the forward and backward flow of knowledge across its outlets. A culture encouraging variation and change, knowledge sharing for making insights be acquired by others and common understandings developed for the benefit of the whole, and individuals empowerment in their decisions and actions, is the basis for allowing these processes to happen, for benefiting from all routines potentialities; organizational values help individuals know the strategic direction to be followed for achieving the desired long-term objectives, help them in their decision-making activities and routines enactment.

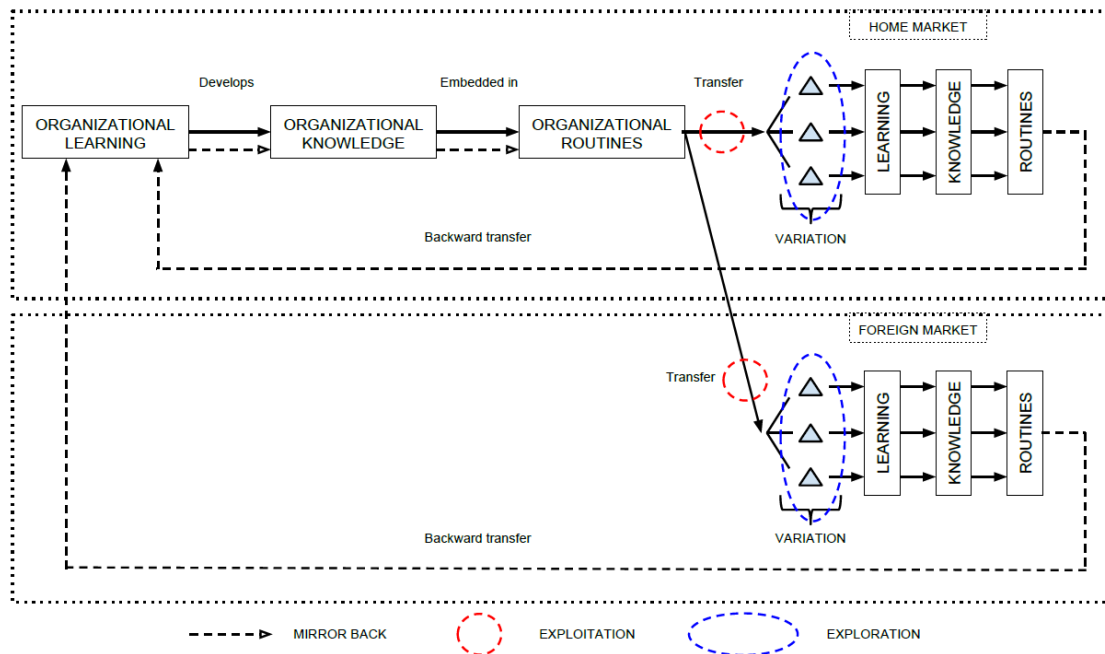
Goals, strategies, values and culture are supported by, and constitutive of, a mix of more practical systems, like structures, bundles of routines, artifacts, communication channels. A powerful initiative for both enabling knowledge circulation and generation processes, and instilling the proper mental schemes and underlying values guiding choices and behaviors, is the establishment of dedicated units for collecting, elaborating and diffusing the locally produced information and novelty. Propelling the recognition of local knowledge, its upwards flow to reach higher levels and relevance, and its evaluation, is a signal of a culture based on openness to errors and deviation, based on empowered employees' sense- and decision-making; this is important to enable

both exploitative and exploratory activities. Less dogmatic artifacts then enable actual stability/change decision upon routines implementation.

The “mirroring back” can be a natural consequence of routines allowed variations and their integration into the existing business model (mix of assets, competences, routines), after mindful reflection and decision or even after unconscious actions, and favored by their knowledge carriers' role. The routines' potentials have to be enabled though. If routines are enabled to vary, organizational learning is triggered, therefore the local outlets develop its absorptive capacity needed to receive the transferred knowledge, generate new insights, and integrate them to build their competences; new knowledge can flow backwards to the headquarter through routines for being processed and integrated with prior experience, if the right communication mechanisms are provided, above all if a culture of knowledge sharing is developed exactly through the allowed flexibility of routines, since they are the micro-level building blocks of organizational competences, structures, and culture. Organizations are then able to exercise on an ongoing basis their ability of exploiting and exploring knowledge through the mindful deployment (and maintenance or variation) of organizational routines, therefore to avoid the establishment and the perpetuation of damaging trapping path-dependencies.

The flow and creation of knowledge both at home and abroad can be described through the following graph:

Organizational routines, ambidexterity and mirroring back.



1. Organizational learning is an ongoing process of organizational knowledge creation. The created knowledge is embedded in structures and capabilities, which are in turn constituted by organizational routines. Routines are the enactment of (tacit) knowledge; the performative aspect of routines generate variations from the initial routine conceptualization. Such variation is a source of new insights, thus of new knowledge. The counter-influence of diverse performance on initial ideas is the connection between the beginning and the end of the variation process, which becomes circular. The new insights and experience are integrated with prior knowledge for expanding the initial knowledge base, and consequentially the upon-constructed capabilities and structures. Organizational learning occurs when new insights are integrated into existing knowledge base. Routines are generative mechanisms for knowledge and structures creation, and knowledge and ideas conveyors.

2. The circular model of knowledge creation expands with firm's internationalization; the new context is a source for further variation and knowledge creation and absorption. The decision on how to enter new foreign markets regards the mix of routines (as carriers of knowledge) and the related

capabilities and structures of are composed and then transferred abroad. Initial attempts to replicate existing processes and structures for exploitation generates efforts for aligning the business model to the new environmental conditions. The tension arising from the difference caused also by uncontrollable external variables leads progressively to format variation and adaptation. Considering their generative function, routines give rise to a more intense process of variation abroad, where theory and practice differ even more, given the scarcer knowledge about the new playing field.

3. A mirror back effect occurs when deviations from the initial selected business model do not remain confined within the context of generation, but are absorbed and reflected back changing and innovating the former organizational business model, which is then replicated again, and whose new traits may be leveraged throughout the entire organizational network.

4. Ambidexterity is linked to organizational routines in two ways. They are means for the organization to be ambidextrous in that organizational knowledge is exploited through routines enactment and replication, and new opportunities are explored, discovered and leveraged through routines variation and change and their feedback role. Routines has themselves an ambidexterity property thanks to the dialectic relationship between their ostensive and performative aspects, continually interacting, influencing and changing one another; enacting the routine in theory serves for exploiting the embedded knowledge, and at the same time generating and exploring new ways of exercising it and conceiving it.

5. Backward information flow, and subsequent evaluation as valuable for being integrated into the adopted business template or not, is fostered by several intertwined formal systems embedding strategies and objectives within the operational dimension of the firm, like routines transfer mechanisms (artifacts, training), communication mechanisms (meetings, feedback reporting, training), incentives mechanisms and goals (individual-collective and monetary-non monetary, long- versus short-term perspective); these systems are supported by (and generative of) less formal ones like underlying culture, values, shaping long-term objectives, guiding individuals in their understandings, decisions, actions, beyond the specific and variable situations experienced. The lowered

risks for path-dependency, rigidity, myopia, results in more openness and mindfulness in interpreting situations, developing understandings, recognizing the cause-effect mechanisms governing variables and outcomes and recognizing their values; information acquisition and generation, evaluation, backward transfer, evaluation and subsequent integration are enables, hence the potential for flexibility, change, and mirroring-back triggering.

6.CASE STUDY: Italian brand producing and distributing shoes, apparel and accessories all over the world throughout its sales network.

Information and data here espoused has been collected by multiple sources, and are reported directly or as a personal re-elaborated version. Sources involve the corporate website, which provides qualitative and financial information, and several case studies and articles available on the web (e.g., www.reuters.uk; www.retailinchina.com).

Many insights emerged during projects and events sponsored by Ca' Foscari University of Venice during the A.Y. 2013-2014, which involved, among other important figures in the economic environment of the Veneto region, the former HR Manager of the analyzed organization; the several meetings which took place pertain mainly to the project “Tavolo di lavoro 'Internazionalizzazione””, intended to share positive and negative experiences accrued through the international expansion of some important North-East Italian companies.

6.1.Core competences and activities

The firm at hand starts its activity in mid Nineties, a “natural” evolution of its founder's brilliant intuition that still characterizes the genetics of the company and gives it worldwide resonance.

Its product range begins with children footwear, which provides for more rapid product cycles and feedback for testing the validity of the product and its innovative feature; it then expands into men and women markets, after two years, and culminates with the entrance into the apparel world in 2002. The company defines itself as a “family firm”, producing transversal footwear and outerwear items for children, men and women, competing in a unique niche of the casual footwear market (also defined “brown shoes” market) since it

introduced a strong and well protected innovation that let it be positioned almost out of (direct) competition. The technological feature distinguishing such products is balanced by the aesthetic for obtaining a fashionable design, for capturing a wider portion of the market. The evolution of footwear categories is indeed going towards the unification of comfort and aesthetic, determined also by the increasing interest on health issues in the realm of footwear as well (Packaged Facts, 2009). This is useful also for leveraging the Italian roots and strengthening the country-of-origin effect, which is powerful especially in China, if the understanding about the brand is correct; this sort of nationality bias derives from the renown fashion tradition of Italy, the creativity and sense of beauty that seems to characterize Italian people. The psychological implications for consumers are deviated perceptions regarding the brand and the product and the purchasing decisions. In a world where manufacturing often takes place in the Far East, the locus of the bias is the designed-in country.

The first pioneering innovation can be considered as modular, in that it modifies some traits of the shoes (and of some garments) so as to both introduce a new-to-the-world performance linked to shoes, and increase the difficulties in design and production activities. The technological innovation that already provides for strong brand recognition during the first stage is the starting point for several other “interpretations” of the first idea to be developed and patented.

Continuous centralized R&D investment expands the innovation portfolio, which currently embraces more than sixty patents both at home and abroad.

The modular characteristic of the innovation let the firm concentrate on technological activities (experimenting, designing, prototyping, etc.) and product design as core competences, leaving the labor intensive and less value-adding production phase be soon decentralized and performed by external suppliers (first within the district in which the firm locates and then abroad), except from some company-owned production facilities which are established and closed during its history in Eastern Europe. In 1997 two production plants are established, one in Slovakia and one in Romania, which during the first stages of their life manufacture more than one third of total pairs produced. In the latter country, a small district has been developed around the facility, attracting many

other Italian manufacturers specializing in specific production phase; a school for internally training the workforce and building the required knowledge and skills has been built too, signaling a strong interest of the organization in developing its knowledge base and processes from the inside, shaping the internal and also the external context favoring a more efficient, value-creating and strategic production process. From 2003 on, part of the externalized production takes place in the Far East, progressively involving China, Vietnam, Cambodia, India and Indonesia. African plants have been set in Africa too, in Morocco and Ethiopia. Plants on the Far East have three main strategic implications: besides the cost-advantage provided by the lower labor cost, more flexibility, thus time to market, is achieved; furthermore, precious insights are gained concerning the physical characteristics of Eastern feet, which present very different proportions compared to the European ones, useful for guiding the diversification of the products according to the market of destination. Tight relationships are established, so that the production can be better monitored, also thanks to expatriates bringing prototypes from the headquarter to the suppliers' premises for guiding the beginning of the production processes (specifications definition remains centralized). The perceived need to move to a design-to-cost strategy, induces the company to shut the owned plants about ten years after their set up, losing all the developed know-how (and together the heavy investments for creating it), privileging the work of low competent Eastern manufacturers. The lower capabilities imply however lower quality delivered, especially if relationships with suppliers are not managed on a continuous basis for creating a tight and trustworthy relationship; quality problems emerge especially between 2007 and 2008, worsening the effect of the global financial crisis. The problem has been solved by changing the major partner, and by developing tighter relationships with fewer key suppliers, based on trust and continuity. Recently a new proprietary production plan has been established in Serbia; the objective is to recreate the know-how lost with former plants' closure, important for connecting the internally developed technical and scientific with the knowledge about the manufacturing of the product; a more practical function is the possibility for manufacturing limited trial pairs of shoes,

benefiting from the shorter distance among the decision, the action and the feedback phases.

The smiling curve of value-adding activities of the value chain implies that the upstream and the downstream functions are more critical to firm's performance and competitive advantage; this processes responsible for providing more added value to the final product push the organization to specialize on them (thus building core competences and the linked structures) and to exert a tighter control over that phases. Indeed this company's global value chain sees design and R&D activities be centralized within the headquarter located in Italy, distribution and retail activities (together with the marketing function) both directly performed worldwide and left to the market but tightly controlled (as for example the franchising network). The firm relies on proprietary focal distribution centers located in key positions for serving the entire international market as efficiently and rapidly as possible: Italy, New Jersey, Japan and Hong Kong. At the first stages, marketing activity is intense, and targets magazines, TV commercial, and increasingly over time also the web and the social networks, relying on the powerful "word of mouth". The selling network is composed both of mono-brand shops (directly operated stores and franchisees) and multi-brand shops, including corners in department stores. The franchising network let the firm expand with lower investments, while in China the partnership with distribution companies is almost mandatory. The company recently engaged also in e-commerce activities, designed not to cannibalize the physical retailing.

The mix of the retail channels varies year after year. From almost 200 mono-brand shops, of which less than 50 directly operated, combined with the diffused presence of commercial offices and sales agents network, in 2003, the number increases so much as to reach more than 1220 shops at the end of FY 2014, of which more than 470 directly operated. For what concerns the wholesale channel, it is the primary source of revenues during the first stages; in 2003, 81% of the revenues are generated through this channel; the substantial amount of capital available enables the company to heavily invest in the expansion of the network. The share of wholesale gradually falls down to

the 40% of total net sales at the end of FY 2014, contributing a little bit less than the network of directly operated stores (DOS). Sales networked are managed by company-owned subsidiaries, one located in Europe, one in the US, and one recently established in China.

The function of mono-brand shops, besides the higher margins gained due to the shorter chain from production to selling, is mainly linked to the marketing activity. It is possible to plan in-store marketing strategies involving the layout of the shop, to implement product display tactics, to train the personnel for providing information about the product and the patented innovation and for engaging in a relationships with the customer which is unique to the brand (therefore recognizable). Personnel training is especially effective within DOS, as well as the collection of relevant data as a feedback for evaluating current performance and guiding future actions. The direct control and involvement over marketing and retail activities is mainly pushed by the idea behind the technology and the technology itself (right at the beginning of the firm's evolution), which has been gradually diversified over time as the product range; more attentive and catered marketing campaigns, in-store marketing activities, in-store communication through well-trained personnel are necessary for delivering the message more effectively. The breakthrough concept developed on mono-brand stores from the late Nineties and the exponential growth of the network represents one of the few examples of footwear producer owning such a developed network. The global trend on footwear spending indeed shows a consumers' preference for mono-brand stores (Packaged Facts, 2009).

6.2. International expansion

The company goes public in 2004, but starts its international expansion just five years after its birth, in 2000, through the establishment of mono-brand shops in the shopping center of the most important cities all over the world.

There are several motives pushing retailers to internationalize (Swoboda et al., 2009);

Anderson (1990, 1996) distinguishes among pull and proactive motive, and firm-specific ones, which are then subject to changes over time. In line with Johanson and Wahlne, Quinn (1999) links motives to the internationalization experience of the organization; others enlist external market factors like size, population, purchasing power, (low) psychic distance (Swoboda et al., 2009). This firm surely starts its internationalization path driven by firm-specific advantages, namely the powerful idea of incorporating a technical feature into shoes positively impacting on feet health and comfort. The success of its new-to-the-world concept let the firm overcome its initial smaller size and resource (and knowledge) availability for expanding; it indeed is at an advantage because of the higher flexibility possessed. Even if the structure, the resource endowment, the capabilities, knowledge and experience increase over time, they are sufficient for sustaining further expansion and the established network, but still let the firm be flexible enough for steering its strategic moves.

At the first stages of its life, the strong appreciation demonstrated by the public towards its new-to-the-world technology encounters interest from some European countries, like Germany for example. First exports take place towards some key countries, like Germany and France, followed by the Iberic peninsula and Benelux. From 2001 therefore, the first target market is Western Europe (other countries are tapped as well then, namely Austria and Switzerland); those countries traditionally appreciate Italian products, from fashion to furniture, and are key end markets for country's exports. Geographical, and cultural, proximity lets the company better test market response and adjust according to the feedback; market knowledge and capabilities are better transferred and replicated, and new knowledge and competencies can be built, useful for both the end markets and for the home one, and as assets to be replicated for further expansion. The retail mix, firstly constituted by the wholesale channel, is increasingly expanded with mono-brand stores, as total sales and brand awareness rise. In 2003, 60% of the total revenues come from the domestic

market, which in the meantime continues growing at a double-digit percentage near 50%; European sales also increase sharply, squeezing Italian share down to about 50% of total sales and finally reaching the break-even point. The economic margins deriving from European operations reach double-digit percentage as well. The growing revenues provide the company with the necessary capital for sustaining the growth of the network and making incremental adjustments to its initial format. Mono-brand stores approach 450 units throughout the continent, Italy included.

In 2001 the company enters the United States too, establishing a network of sales agents and some commercial offices, with the first flagship, mono-brand, store then opened in 2004 in a top location of New York City. The same year views the entrance of Canada, Eastern Europe, Russia and Japan. The replication of the business formula is the selected strategy for entering the target markets.

The offering and the distribution mix are gradually adjusted as market knowledge is gradually acquired; the market is supposed to get accustomed to the brand and to the innovative features that the shoe provides. The product offering, the initial one to be often composed just of children footwear, is then extended to other products and target customers, together with the network of wholesalers and the marketing campaigns. Children are the first target since parents are generally more susceptible to their children health, which is actually the first benefit provided by the company's technology, and they require then frequent replacement as they grow. These conditions leave room for the company to be appreciated for the benefit provided to children and therefore building a positive reputation, which is supposed to push parents to buy that shoes for themselves as well. The initial diffusion of the product is enabled by the wholesale network, combined with strong marketing campaigns to let the brand be recognized, and with the establishment of a commercial infrastructure supporting and managing the process involving distribution, marketing, partners' relationships, and local administrative and legal issues (enjoining more responsibilities outside the European continent). Apart from the low financial commitment that this solution involves, wholesalers bridge the gap of lack of

market knowledge and information on local trends, and provide the firm with useful insights. As the market penetration goes on, larger portion of target customers are tapped with richer product offerings, with continuous market campaigns, and with a widespread distribution involving a growing number of new mono-brand shops. The communication, which during the first two stages of market entrance and initial retail network enlargement is channeled through more traditional means like commercials, magazines and the likes, during the third phase of strong penetration and network development takes place inside the shop. In-store communication reinforces the marketing efforts and the brand recognition, thanks to attentive and focused personnel trained for diffusing knowledge about patents and products peculiar features and performance, supported by the internal peculiar atmosphere created. What's more, substantial data is gathered for the headquarter to cater as good as possible the offering and the product itself to the customers and market at hand. Knowledge about the product usage may be acquired and developed, about the purchasing process and frequency, about the expectations of customers, about their decision-making process for buying the product or for buying which branded product. The “virtual” fourth stage of market penetration is supposed to see a match between the efforts and the economic performance; for further penetration to be justified, economic margins should approach the double-digit percentage that the firm experienced during its first years in the home country and the initially tapped markets.

The expansion over the American continent goes on with the entrance into Brazilian market in 2006 through the opening of two mono-brand stores. For what concerns the Far East, the commercial expansion into the Chinese market is contextual to the establishment of relationships with suppliers: an agreement with a powerful local footwear company in 2003 establishes both supply relationships and final product distribution; more than 140 are opened under license agreements. Later on, distributors are changed (because of unsatisfactory results or changed strategic direction) in 2008 and then in 2013. Chinese market is also linked to the restricted possibility of establishing proprietary buildings in the territory. Entering the market with mono-brand shops

is strategic in that more targeted actions can be brought about, more thorough data collection on the environment be activated (customers preferences and habit, competitors strategies, government impact, culture, market acquaintance, etc.), and more direct feedback and response cycles be enacted. Ownership issues restricting the possibilities for proprietary stores partially decreases the inked benefits, especially because some implications regard the employment of local personnel and the deriving difficulties for the Human Resources management. The loss of direct control is a critical issue, especially in far and less known markets; indeed several problems emerges over time within the sphere of those agreements (erratic or damaging product placement and store management, etc.). As restrictions are progressively reduced, the company is able to enter the market with a proprietary network of stores.

As far as FY 2007, the firm experiences high sales volumes, growing at double-digit rates year after year, both at home and abroad; profit margins, from EBITDA, EBIT and net profit are always positive and often represented by double-digit percentages over net sales. Company's revenues increase, from 2004 to 2008, is estimated above 30%, and let the billion revenues barrier be overcome, pushing the firm at the top footwear players in the world (Packaged Facts, 2009). Global clothing and footwear store sales almost doubled from 1992 to 2007 too (Packaged Facts, 2009). The proven worldwide success of their business formula, promising (internal and global) figures and substantial capital availability push for the consolidation of the brand presence in Europe and for further international expansion over the Asia-Pacific area and South America. From the roughly 95% of the total, the share of domestic and European sales remains at high levels over time, accounting for roughly the 83% of the total at the end of 2007. Over this FY, sales from the rest of the world increase double-digit (at a pace of about 70%) pushed by the Chinese market. Almost each country provides for satisfactory results, reaching the break-even soon after it was first penetrated. The US is the only country which always remained below the cost coverage margin; the break-even point is never met, despite the doubled sales revenues from 2004 until 2008 (Packaged Facts, 2009).

Plans for 2010 are to reach a percentage of revenues from the USA and the rest of the world (with China as the first item) near 30% of the total, that is to reach a balance among the three main sources of revenues Italy, rest of Europe and rest of World. A balance is sought after within the retail mix too, where the aimed share of mono-brand stores out of the total is round 50%, implying the enlargement of the mono-brand shops network.

From 2008 on however, the stunning performance slows down, and a countertrend starts soon. The faced situation is not the same for all the markets. The most suffering ones are the home country and the historical European best end markets like Spain, France and Germany; part of the problem lies in the financial crisis that fiercely hit the continent, especially Southern countries. From 2000 to 2010, the Italian footwear industry experiences a sharp decrease in total production, which is about 50% lower; the exports are cut into half, while imports double, and many companies shut the operations down. The US suffers as well, determining a countertrend in global retail sector figures. The constant global footwear market size growth in the period 2004-2007 slows down, together with total consumption, sustained just by the pace of developing countries strengthening, namely Asia and South America (The Global Footwear Market, Packaged Facts, 2009). Among the issues leading to the company crisis, or the issues to which the crisis draws the attention, there are the lower quality of products deriving from an erroneous management of suppliers' relations (the moral hazardous behavior of the Chinese distributor left aside), the brand dilution caused by the wider product portfolio (which in turn increased the difficulties of managing and rationalizing the operations linked to the different items) and the consequent lack of focus of the marketing campaigns, the rapid and less rational expansion of the retail network, rising costs and managerial problems.

Strategic reorientation plans for rationalizing the network, the cost of processes, the product portfolio, lead then to a progressive restoration of the performance levels, even if they still not match the astonishing success pre-crisis.

6.3.Replication and market entry

The business model and the penetration path are replicated each time a new market is entered. This strategy let the firm progressively educating the market to its products and the innovative features they provide, for gaining appreciation and brand awareness, and for progressively understanding what can be more valuable and what is not worth be done in the territory explored. Since the company starts as a small-medium size entity, until reaching more than one hundred countries, more than one thousand mono-brand stores, and employing more than four thousands people (both corporate and retail personnel, the latter highly affecting HR figures), it initially relies on the replication of its format for facilitating the control over the foreign commercial and retail networks, especially the overseas ones; it relies especially on a progressive entry mode, that implies incremental resource commitment together with market knowledge. It seems to follow the internationalization strategy conceived by Johanson and Wahlne (1977, 2009), characterized by a series of incremental decisions and adjustments to the idiosyncratic market features and the changing conditions (like the positive ones linked to brand recognition, or the negative ones linked to the increased competition). Indeed, the company starts exporting the goods through wholesalers, for then establishing a dedicated network of agents and sales facilities, and progressively expanding the network of franchisee and proprietary stores. This process is highly important especially when approaching distant market, more psychically than geographically. In the case of high market distance, the strategy usually relies on progressive expansion for acquiring information (and acceptance among consumers), and thanks to the gained experiential learning being able to better sense risks and opportunities. If bigger multinationals can easily overcome the deriving “liability of foreignness”, this is not true for medium and smaller ones, that have to count on their agility for progressively and rapidly adjusting to the conditions at hand. Theory however is divided on the impact of more or less controlled entry modes. From a resource-

based perspective, the establishment of proprietary outlets let the firm more flexibly deploy its value-adding resources, gaining direct access to distribution channels, protecting their patents from theft (especially in countries like China with weak intellectual property protection), having a more direct control over operations and benefiting from a more complete and rapid feedback process, thus increasing their chances for success; from a transaction-cost perspective, higher control means higher commitment thus higher cost (and risk), thus requiring higher performance levels for break even (Johnson & Tellis, 2008). As operations continue spreading, the network development results in increased internationalization experience and knowledge, which can usefully applied for further expansion.

Following Kostova's (2008) analysis of retail internationalization strategies and the linked terminology, a first "horizontal" expansion occurs, with almost no format modification, toward low-psychic-distant countries, above all the European ones, which involves less risks. The first attempts to introduce the innovative products in late Nineties into Germany and France are casual, given the smaller and ripe organizational structure and network, the relative recent technology development and history, the subsequent early adaptation is "forced" (Kostova, 2008) in that the time waited for testing the product acceptance in those markets shows opportunities and justifications for adapting the offering and making new investment also concerning commercial and retail networks development. The other countries approached then, culturally and geographically close to the ones in which the first international experience has been gained, see an incremental path towards adaptation (a "perceptual" strategy is followed), combined with a contextual incremental and thorough learning path. The cultural proximity both to the domestic market and to the firstly entered ones, and the reinforced and enlarged organizational structure, let the firm be more confident on its competences, knowledge and experience, and on the lower uncertainty that the decision-making process may face. Here however the risk is represented by the misunderstanding about the level of distance that actually exists; the resulting psychic distance paradox leads the

firm to undervalue the importance of gaining further insights about the environment, of making mostly minor adjustments and mostly on the product offering, rather than on the cultural side of the business format. While the retail offering consists of the mix (and some specific features) of products, layout and placement determining the atmosphere, the disposition of the personnel, and so on, the retail culture consists of the technology employed for communicating with dispersed locations, the mix of routines and processes employed, the approach towards performance evaluation and response to feedback (Kostova, 2008).

Summarizing, the firm strategic path entering new markets involves a replication of its business formula, waiting for brand awareness, market knowledge, increasing revenues and decreasing cost of operations; the product mix evolves toward adult offering, and the channel mix, initially biased towards the wholesale, gets more balanced with the reinforcement of the franchisee and DOS networks. Lower costs and higher revenues support further and deeper penetration and adaptation initiatives. The business model and its replication process are emergent rather than predetermined from the beginning, first steps give rise to a sort of routinized entry mode format and path, with major variations incrementally allowed to the local distribution system and to specific product offering (due to morphological or climate differences). The organic expansion contributes to enlarge the organizational structure, given the resource commitment involved, but to reinforce the control over local operations. Even if critical areas, like North America and the Far East, are managed by subsidiaries with more decentralized power, all subsidiaries mainly execute what has been decided upstream; the structure is rather centralized, at least for what concerns strategic decision-making activities, necessary for maintaining coherency between dispersed operations and corporate culture and goals, especially in terms of brand image perceived by the customers, but often generating tension between the implemented model and the local context.

6.4. Two major challenges: US and China

The biggest overseas target market for the company, represented by the US and China, present strongly different features. Both are very large markets, with sufficient purchasing power (at least for the goods the firm sells), but lying at two different stages of development and acquaintance.

The US is a mature market, characterized by a wide playing field, by fierce competition, sophisticated demand (Kostova, 2008) and knowledgeable consumers. The size of its footwear market accounts for almost the 30% of global figures in 2004, both in terms of value and of consumption (Packaged Facts, 2009), being thus very attractive. Profit chances can be caught, but companies must struggle for it; a more open and mature market entails lower margins and stronger competitive pressure. Usually a strong network should be built for sustaining the expansion and the hoped-for upcoming success, and the more differentiated offering that mature and acquainted markets require (Kostova, 2008).

China on the other hand has a more recent development past, being it one of the promising developing countries. China experiences double-digit economic growth rates almost every year since 1990 (even if the pace is slowing down from 2012 on) and a sharp increase in consumers purchasing power (250% increase in urban disposable income from 2000 to 2008) and consumption figures (Davis, Peyrefitte, Hodges, 2012). The growing wealthy middle class attracts more and more retailers from all over the world. Growth potential is high, as well as the progressive market opening to FDI (Kostova, 2008).

Chinese consumers range from very poor to very rich people, however the ones who are generally targeted from multinationals are young and rich (urban) individuals (more young rich luxury consumers as for the US market, according to KPMG, 2013), which are usually more knowledgeable; competition is rapidly increasing but since it is a still growing market there is substantial room for improvement. These countries gain market share in terms of consumption year after year, putting downward pressure on mature markets global weight.

The difference which results to be more perceived is culture. While the US is part of the Western culture, the Asian country is characterized by very different vision of life, business, relationships and consuming. Chinese consumer's shopping behavior inhibit the success potential for foreigners, despite the market opportunities. Governmental issues play an important role as well, generating a bias in favor of local firms compared to foreign ones, imposing restrictions on FDI and local operations (in terms of location decisions, local production requirements, HR management, etc.).

The high psychic distance that Western organizations usually perceive towards China (Robinson, 1992), and the administrative and legal issues to deal with, leads the Italian company to adopt a more focused approach for entering the market, to provide a dedicated organizational network for sustaining the diffusion and commercialization of the product, and the management of the local human resources employed for local corporate and retail operations. The lower resource commitment (linked to exploratory activities) which is expected when confronting higher psychic distance does not take place in this case, since the firms expects this distance to exist and to be so high as to require more targeted routines, and the deriving procedures and structures. The organic expansion occurs in China too, compounded by partnerships with local distributors, driven by governmental restrictions and by the scarce market knowledge. The local distributor is useful for properly locating stores, furnishing them, placing the goods, managing the local personnel who can enter in a more tight relationship with customers and let them have a more positive impact and feeling.

The firm enters Chinese market when the country is undergoing a third phase of its retail sector change (Wang et al., 2008): from 2001 on, the market completely opens up to foreign retailer (as late as 2004), with consumers having more choice, from products to shopping locations, and becoming more knowledgeable. Buyers' behaviors are however very different according to the region of origin, and heavily influenced by cultural dimensions (Hofstede, 2001) like the tight link with family, risk avoidance attitude, collectivism thus high

importance of personal relationships, which then may result, for example, in relying on word-of-mouth for developing brand awareness and making purchasing decisions. The motivations for shopping are also changing as the economic growth empowers consumers and attracts foreigners, determining a shift towards more “western” habits; examples are represented by their traditional product-oriented purchasing activity which is becoming more experience-oriented as it usually is for US consumers, and the motives for going to department stores which (again like US consumers) are moving away from sole purchasing objectives (Davis, Peyrefitte, Hodges, 2012). Store choice is changing as well; the new retail formats to which Chinese consumer are getting accustomed to, make various selection criteria emerge, like atmosphere, product assortment and variety, and location, together with the country of origin of the retailers (for first-tier citizens; Davis, Peyrefitte, Hodges, 2012). Even if tastes, habits, behaviors are becoming closer to western ones, they Chinese still endorse rooted traditional values (Liu et al., 2015), and the geographical diversity (coast versus inner-areas, city tiers, etc.) still plays an important role. For what concerns the firm at hand, controlling shop visual and emotional features and communication campaigns, employing local personnel more able to enter into contact with the customer and to provide a valuable service, is crucial for building a positive reputation and brand awareness and enjoining the power of the subsequent word-of-mouth, for managing local differences and developing a thorough on-the-field understanding. One of the means whereby achieving the right fit with the environment is namely the marketing function (Liu et al., 2015), at least in the short run.

Unsatisfactory performance and change in objectives cause the first 2003 partnership to be interrupted in 2008, and the second one to expire on 2013, when the agreement which is currently into effect is set up. The current distributor, which deals with 40% of the total firm's business in China (Reuters, 2015) is more experienced in selling luxury brands, therefore useful for increasing the brand image within the market. The latest agreement is not free from problems anyway, and attempts to revise it are underway. As FDI restrictions are lowered, the company starts building its proprietary store chain,

managed through a new proprietary local subsidiary. The latter enjoys more decision-making power, that let it be considered almost as a second headquarter. A stronger dedicated local network, especially if more empowered for managing the dedicated resources (the transferred procedures and capabilities, the management of human resources, and so on), can benefit from a deeper involvement into the environment, thus a more thorough comprehension of the market and of what is worth transferring there from the headquarter and what can be built from scratch. As for some luxury brands operating there, the company nonetheless tends to maintain the centralization of the higher-level decision-making regarding key activities (Liu et al., 2015), especially marketing, given the challenges posed also by censorship over (unreliable) media, general confusion about brands origins (many Chinese do not distinguish the difference between Italy and France for example; their conception about geographical dimension inhibit the understanding the different between such small “regions” of the small European continent, which is actually perceived as a single entity). Replication is again the first entry mode, but the perceived higher distance put the firm in a position of being more attentive and sensitive to information and changes, therefore more prompt to adjust to the feedback collected. Relying on a local powerful distributor may bridge the knowledge gap and fulfill certain law obligations, on the other side however there is loss of control over the operations and decision-making power. Important chances for acquiring relevant knowledge and gaining direct experience are missed as well, and for then combining the locally developed assets with the possessed one which has been employed and exploited in that territory; the objective of the expansion regarding knowledge seeking and competences development can be missed.

This can result in a loss of focus and of understanding of what is happening; risks of negative short- or long-term results may increase when the distributor actually does not possess the relevant sought-after market knowledge, or simply decides to leverage the lack of knowledge and control of the counterpart and adopt moral hazardous behaviors. This is what actually happens to the company with its Chinese partner, that leads it to end it up in 2008 after

discovering damaging activities like wrong product placement and store management which led to negative impact of consumers over the brand image.

The US is entered with a strategy of replication and subsequent incremental adjustments, also in terms of specific product design (the feet of North-American people have a substantially different morphology compared to the European one). From 2001 sales agents and wholesalers are engaged, while from 2004 the mono-brand network starts growing. As a Western country, it can be perceived as less culturally distant, therefore as requiring less changes in the transferred business model. The combination of technology and aesthetic features is deemed to satisfy people's tastes also in that country. Surveys are also externalized to third parties over time to test the appreciation of the product by local consumers. One of the recognized differences concerns the distribution and retailing systems. Apart from some big, famous and densely populated cities, whose sought-after shopping streets are important windows even for small stores, the country is characterized by wide dispersed areas, in which big department stores are usually the center of shopping activities. The firm therefore associates the partnership with department stores to the traditional retail mix, considering the need to open corners in busy malls. Partnering offers the advantage of reducing the risk of erroneously locating the corners and placing the products, thanks to their experience about local consumers and this mode of retailing. Shoe store selling remains however the most relevant channel, with the growing trend supported by several brands opening up their proprietary mono-brand stores throughout the country; the percentage of footwear sales over the total retail sales surprisingly reached more than 90% (Packaged Facts, 2009).

The psychic distance paradox implies, besides the failure in properly adapting to local contingencies thus in achieving the desired performance, also a lower perceived need for investigating more in depth the differences between that market and the domestic one or the ones which the firm is more accustomed to. After many years of below-target performance, the company progressively expands its commercial network throughout the country, empowering their

overseas subsidiaries to better managing marketing and retail strategies, as well as the human resources. Expatriates contribute to transferring corporate values and competences to be combined with local contingencies for developing a more effective local strategies; the decision-making activities, which however remain centralized for what concerns basic strategic decision, are continuously supported by market research and specific training programs performed by local (or subsidiaries of Italian) professional firms. The increasingly higher resource commitment however adds to the already present sunk-costs, and requires for higher efforts for being recovered.

6.5.Lessons from abroad

Control over resources and flexibility, together with constant engaging into learning activities, are tested as major success factors in China (Johnson & Tellis, 2008). In general, higher control over operations, like proprietary subsidiaries, tends to experience more success than low control solutions, like licensing; the strategic, and faster, deployment of key resources and capabilities can provide more advantages and suffer from less risks linked for example to intellectual property protection.

The sales network of the company is more empowered overseas than within the European continent; thus both US and China enjoy more and more rapid local adaptation initiatives often arising from local subsidiaries. Outcomes are however very different in terms of performance reached.

Despite the higher cultural distance between China and other European countries, compared to the distance between the latter and the US, Chinese operations enjoy more success and promise further success, whereas the company has never been able to even reach the break-even level with US operations. Both more centralized or decentralized management solutions provide limited results, even if supported by knowledgeable expatriates and field researches, consulting and training support externalized to third parties for

sustaining the efforts toward better achievements.

High cultural distance, despite the difficulty of transferring over that countries the possessed knowledge and capabilities, thus the mix of procedures composing the business format, provide the company with more chances for exploiting their assets and at the same time combining them with the locally developed knowledge and capabilities and building idiosyncratic competitive advantages. If the distance is undervalued, the propensity towards information gathering and deeper market analysis is overlooked. This can be part of the explanation about the firm low success experienced in the US. What's more, prior success usually leads to “rest on the laurels” and falling into competency traps believing that what has been done before is correct and valid also for future moves. The stunning figures regarding sales and profit margins at home and within the European continent lead the company to be over-confident over its business model; the proven success of the business formula within Western countries especially may induce the firm to supposed an equal outcome in the tempting wide American market.

Size is important as well. The company's structure enlarges over time, losing part of its former agility and becoming more inert to be steered, despite the substantial resource availability. The latter however is not an advantage anymore at a certain time: the less rational and more rapid expansion during the “gold” period worsens the financial situation and the ability of the company of sustain the large expansion sought-after. Heavy investments for expanding the sales and retail network, especially with DOS, increase the resource commitment, which can represent a burden for flexibility and adaptability, above all within suffering markets like the US. Smaller companies are favored in that they do not suffer from the burden of heavy inert structures, and benefit from their usual deeper engagement into foreign operations thus from a direct data collection and thorough understandings, while larger firms usually tend to rely on third-party information.

Heavier structure calls for higher control then, in this case at least. The higher control exerted by the headquarter leaves the subsidiaries with a role of executors, of knowledge implementers, not really engaged in knowledge

development, with the consequent loss of opportunity to build the relevant capabilities needed to sense and seize local opportunities, or to react to negative situations. There is an unnatural relationship implied between prior knowledge transferred and the different context of application; knowledge can hardly remain equal to itself in a context which is different from the one in which it was developed; knowledge carriers, that is, processes, structures, and above all individuals, are confronted with local contingencies, among which local personnel with different experience and culture, and different consumers behaviors and culture. The tension that arises determines a misfit with between current model and local context; the consequence can be a negative performance, but also a chance for revising and reshaping current assets and increasing their values, to let the past be broken up and reframed in new ways with new experience.

Another misunderstanding can derive from the openness of the end market. Less open markets, like the Chinese one, even if less acquainted, can present larger room for improvement and higher chances for success, since the competition tends to be less developed and weaker, thus higher margins can be caught; mature and open markets feature fierce competition which puts downward pressure on prices, thus on available margins (Johnson & Tellis, 2008). Heavier structures in highly competitive markets with low margins to be caught worsen the financial situation, and require more efforts to reconcile financial figures. China indeed continues to be the corporate focus for its recoup and its long-term sustainable growth, despite latest economic slowdown underway in the country.

Psychic distance paradox and past success lead to competency traps, to over-confidence on prior strategies and current business model, thus operations, and routines from a more granular perspective; further information search is not encouraged, thus risks are overlooked, valuable insights and experience missed, together with opportunities for exploring new ways of behaving; increasing financial commitment may hinder the necessary flexibility for adapting to changing situations, if the need is actually perceived, and increasing the efforts for recoup the investment. These can represent major negative

issues the company is experiencing within the US.

A mirror back phenomenon can be detected however, arising from the activity in the US. According to what declared by the former HR manager in 2014, the company learns how the product is usually distributed and placed in department stores in that country. Thanks to the partnership with some important department stores, and the experience gained through more than ten years of operations, the firm acquires important insights and knowledge about that particular distribution channel, a “department store management” know-how; such knowledge and the linked procedures have been transferred back to the headquarter, for being implemented in the home country and within other markets. Distribution strategies and processes transferred to the US are linked with the locally acquired knowledge and experience, becoming a valuable locally developed competence, which subsequently becomes a key organizational competence as soon as it transcends the distance barrier. The phenomenon is allowed by the first approach to the market characterized by the replication of known distribution procedures; being them a variable feature of the business format, they are usually gradually modified with respect to local contingencies; the variation emerging from the local operations results in enhanced experience and knowledge about local distribution methods, regarding department stores distribution in the case of US operations. A crucial role in knowledge acquisition is played by the partnership with a local distributor and its expertise on department stores in particular; the bridge between a partnership and knowledge acquisition is not straightforward though, but has to be generated by an approach of openness and flexibility, and of subsequent evaluation and integration of the acquired information. Those competences then do not remain exploited just within that market, but are absorbed and internalized by the parent firm to be then deployed wherever the circumstances ask for managing the distribution to department stores; Probably, it has been possible also because the hard situation experienced in the US require more direct, higher-levels intervention, that is, thanks to frequent visits of managerial figures of the headquarter. It represents a shortcut for local information to flow

backwards and to be evaluated for its potential.

The firm indeed diverts substantial efforts towards the development of the means whereby knowledge, and routines, flow can occur, that is individuals.

6.6. Employees training: knowledge integration, transfer and development

The effective management of the human resource, thus people development and empowerment, information sharing, and training initiatives, are important determinants of an organization's competitive advantage irrespective of the industry structure (Pfeffer, 1994) and can support an ongoing effort to continually generate and support a distinctive competitive position.

Indeed the company places great importance to human resources development since the beginning, continually investing upon personnel training programs.

Knowledge is a key resource for the company, as it is involved in the R&D and design activities, in the marketing and distribution activities, that is, in the core organizational competences. Knowledge resides primarily in individuals;

enhancing their knowledge base means enhancing the organizational knowledge base, as people enact their knowledge and transfer it to operations and final products.

Training programs do not serve just for transferring the organizational knowledge to people and let it be applied and diffused; they

serve for detecting and absorbing the emergent, valuable variations seen into people behaviors, or the knowledge discovered through the R&D activity, and

let it be acquired from all the participants. Above all, training employees for distributing knowledge serves for infusing the organizational culture and values

which are important for guiding their future behaviors, their decision-making process, their feedback evaluation activity, and also their deviation for prior

behaviors when the need is perceived. Indeed intensive training programs,

especially directed to DOS' salespersons, are one of the crucial means whereby carrying out the new strategic plans the company defined towards mid-terms

objectives. Organizational knowledge, capabilities, procedures and underlying values are more easily transferred abroad both through expatriates or through local training initiatives. As emergent variations can be detected and absorbed at home, modifying the training activity and objects themselves, the same can occur abroad. The communicated culture and replicated processes enacted abroad may eventually not match; when operations continually deviate from the intended path, they represent cues for reflecting upon the sources of such difference, being them environmental variations or weak tight with or understanding of organizational objectives. Mismatch between objectives and actual situation can be detected and corrected, not just locally but also centrally; since training programs issues are usually discussed within the headquarter, it is there that major variations have to be analyzed, understood, and then internalized and diffused, or rejected. The understanding of values enables individuals to act consistently, or to mindfully decide to alter their behaviors when applying knowledge and ideas.

The firm provides training programs at all organizational levels. It starts with dedicated plants for training the manufacturing personnel working within its European production plants. In 2001 it establishes also an internal “school”, where employees from the top management to the lower levels can be motivated, empowered in their decision-making activities, and infused with the organizational values and culture both by external professionals or by internal mentors. Both corporate and retail personnel are subject to training support, and both hard /technical and soft (managerial) skills are developed. This is a powerful organizational engine for culture diffusion and building, for knowledge and experience exploitation and diffusion, for absorbing and implementing major changes, for acquiring valuable information from the people as well. The space specifically destined for learning activities (training, discussions) is a kind of physical artifacts which signals the importance of these activities to the firm also in the perception of the employees.

The training organizational activity is combined with a web-based platform for supporting bidirectional communication and knowledge flow throughout the wide ad dispersed network. The sections within the website vary from brand issues

(history, mission, values, target, communication, and so on), to general and precise information on the operations necessary for running a store (like dispositions on where to place items and do the window fitting, rules regarding safety and security, etc.), to details about the latest collections. It gives also the possibility for salespersons to write comments and signal errors, within certain areas of interest, so that the headquarter can benefit from direct reporting and being supported in its decision-making activities. It represents another artifact, a tool for fostering the flow and gathering of knowledge. An innovative web-enabled training activity is introduced as well, for reaching dispersed subsidiaries and stores more effectively. Both are intended also to establish a tighter connection between the firm and the individual, to reduce the geographical and organizational distance especially in the case of the retail personnel, and to align the workforce to the needs of the company.

6.7. Building and transferring new distinguishing core routines (and competences)

Sales workforce is of utmost importance, since it represents the link between the company and the customers, the means whereby it is able to enact its strategy and obtain results, the sensor whereby gathering data on the specific market and its features and variations.

One of the major plans for training the worldwide sales personnel is the building and diffusion of a unique service model. The service model involves the approach towards customers, it in general involves all the sales activities and the unique customer management style occurring within its mono-brand stores, a model which can be clearly recognized by the customer and expected when entering a shop. The customer management ability becomes a core competence of the firm, a key service almost as important as the product itself. With the inherent need for the products and their patented technological features to be properly communicated, and the increasing attention of

customers to less tangible issues like the atmosphere and personnel disposition and approach, it is crucial for the firm to develop such capabilities and to embed them into a recognizable mix of behaviors. The capacity to greet, serve and engage the customer can be as distinctive and rewarding as the product itself. Indeed the development of core capabilities in the customer management at the forefront does support the existing core capabilities in R&D. The service model is a concept introduced during the flourishing peak of success in 2007, evolving then progressively towards a customized customer service model depending on the market at hand. As first crisis signals appear, it is used as a means whereby increasing or re-gaining customer loyalty, and increasing sales figures. Later on, efforts are made to encode and therefore consolidate the practice into an operating manual. This is a first attempt to “materialize” the behaviors standardization efforts and procedure, to create a tangible instrument available for guiding present and future employees.

Some scholars (like Guettel et al., 2012) argue that written rules as rulebooks support both the precise reliable replication of routines, and the innovation activities by creating a common language among the parent firm and its outlets. On the other hand, Pentland & Feldman (2008) underline a problem of tangible artifacts in that they hardly reflect the reality, or keep its pace. The written manual is a static artifact, unchanging with respect to the routine at work over time, and risks to become dogmatic and mislead individuals behaviors; measuring the level of usefulness of the tool and the outcomes it provides is complicated as well. The costs of revising it are surely pretty high too, compared to the ones related to web materials. Physical, written artifacts can be inserted within the framework of dynamic variation of ostensive and performative aspects of routines (D'Adderio, 2014), from which artifacts derive, which in turn can influence routines (at least on the short run) and are eventually modifies by them. Indeed from 2013 on, a new way for diffusing the concept of the service model is introduced. Through e-learning modules, embedded (and managed) within a web platform, the company is able to target different job profiles among the international retail employees. E-learning entails not just modules regarding the service model, but also other areas like history, mission, values and patents

of the company, the technology of the products, the concept around the store layout and how to operate it, and modules regarding specific issues. E-learning modules therefore tap almost each area on which it is possible to find general and specific information within the corporate web-enabled platform. They therefore combine the information on the web (in the form of written rules) and other physical written artifacts, with their more dynamic contents, which are generally less specific and dogmatic, and which above all aim to deliver training upon more “soft” issues (corporate values, how to engage with customers, etc.). Issues less subject to change and subjectivity and less influenced by personal aptitude and culture can be reported on written manuals or on the web platform, be them daily activities or general ones; in the case of the service model, knowledge transfer is intended to transfer the deeper values underlying corporate choices and actions, and to align even hundred-kilometer distant agents to corporate objectives. This new way of embedding knowledge and transferring it results to be faster, more focused to the specific end-user, cheaper, and overall more effective in delivering the service, letting also the cultural distance to be overcome. The training provided to store employees is based on a unique foundation coherent with corporate values and goals, but takes into account the cultural variable as well, at least for what concerns the service model. What has been learned through years of worldwide experience, is herein embedded to both fit to the different countries where end-users operate and be taught to let people be more open minded when facing foreign customers in their stores. Individuals are supposed to enact their knowledge and the deriving skills with the capacity to variate them according to the situation at hand, to reach short-term results and long-term objectives. The diffusion of service model training modules is in turn following an incremental path: from domestic stores, to European ones, and then to the rest of the world; although they has been translated in four languages, future efforts are planned to convert them into Chinese and other languages, to overcome the linguistic barriers and better developing and diffusing common understandings and concepts.

The two-way communication channel is reinforced through the e-learning

platform. The faster mechanisms for delivering training courses at all levels and on various themes provides more effective and efficient results; feedback is more rapid and thorough, based on multiple sources: data on courses attendance (frequency, time, etc.), tests results, aggregate performance along different criteria (figures and mean for each region, store, etc.), and direct comments from the employees. Individuals are empowered in that they are able to access knowledge and lectures whenever they want, and are responsible for their personal achievement in terms of learning path and outcomes; they are also able to follow their performance through graphs reporting the results of their tests and the mean of their colleagues' performances, so that they can have a sense of their level of understanding, try to recognize the causes of their low performance and strive for improving it. Their engagement in the reporting activity, whether as a comment left on the web platform or as part of its mandatory activities (in the case of a store manager responsible for the training of the other store's employees, for example) enable them to making sense of what is happening and developing an understanding and a way to communicate and share it with other members of the network.

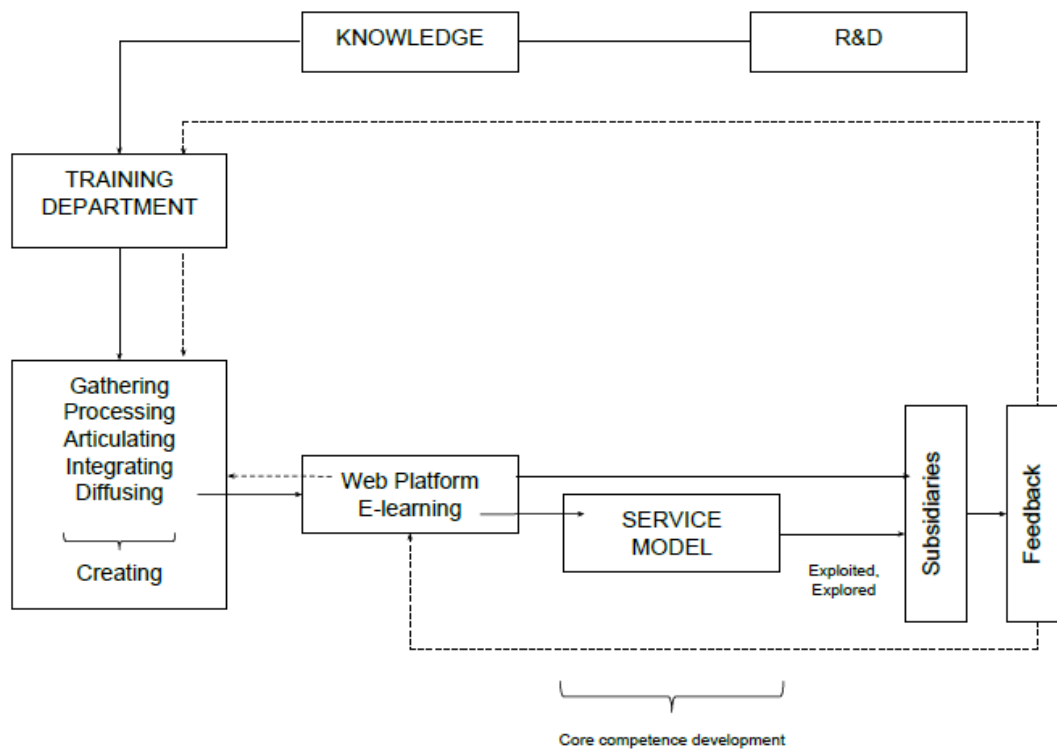
The headquarter is able to acquire the valuable managerial resource represented by information, for having a thorough sense of what is happening abroad, of what is working and what needs to be revised and corrected; this lets the headquarter to track the evolution of customers' and salespersons' behavior and their relationships, making sense of the data at hand and formulate the appropriate responses.

The development and diffusion of the service model is an attempt to fix some problems emerged during the crisis, that is to re-establish a coherency between corporate values, product offering, communication and retailing, both in the mind of employees and in the mind of consumers. An empowered, knowledgeable and experienced employee, more emotionally tight to the company and aware of its mission, performs better at work, deliver a satisfying service to the customer, who in turn is more loyal to the brand and engages in purchasing and word-of-mouth activities. Increased revenues is both a short- and long-term objective that can be reach this way, as the long-term objective of

brand loyalty and positive “buzz”. As one of the objectives of the corporate strategic direction (developed during FY 2013) is the customer-centric orientation, it is important to transmit this idea to all the agents, especially the ones who are directly in contact with customers; through the refinement and the revamp of the firm's service model, the overall strategic orientation can be diffused and internalized by the workforce, guiding the way they behave and pursue their goals, in that they have a clear idea about where the whole company wants to go. Given the inability to sustain coherent strategy implementation on the long run, the misfit between the transferred format and the target market is reconciled not by struggling to mirror exactly format features but by consciously modifying them. Given the structured, vertical organizational architecture though, and the need to control (driven by necessity by size and coherency, and by cultural frameworks), the variation to provide flexibility can be concentrated at the level of the local activity of customer management, which is more subjective and requires much different and flexible approaches.

As the graph shows, the training department manages knowledge generated from different sources, among which the R&D activities, and generates knowledge itself, combining the existing knowledge with the feedback gathered from subsidiaries' operations. Such feedback flows backwards thanks to both direct initiatives and the comment left by employees within the web platform. The spread of specific bundles of knowledge and processes through the service model, the emerging feedback and its evaluation, contributes to build and refine a new, distinctive core competence in managing customers.

Knowledge flow and core competence development.



This increasingly enhanced corporate function (reinforced by e-learning activities) can be viewed as an important effort to build distinguishing value-adding competences, namely the ones linked to the service model, to be flexibly replicated worldwide, to develop and transfer a mix of procedures (that is, routines) for managing the customer consistently with firms' culture and objectives; an effort to develop a key, replicable feature of the retail format, unified in its objectives but locally diversified and adjusted, through which organizational knowledge and core abilities can be exploited, and new ways of enacting them can contextually emerge and become relevant cues for improving current assets and actions.

Standardizing the approach to the customer, in addition to store's physical characteristics, is a powerful means whereby expanding, benefiting from the advantages of mirroring (expected outcomes thus lower uncertainty, control over employees' behaviors, exploiting value-providing assets, controlling the

variability of behaviors and results, relevant knowledge and values transfer, and so on) and from the allowed variability (empowered employees mindfully adapt their behaviors to the changing contingencies for obtaining the best results, thus gaining more experience and eventually exploring new possibilities which can be valuable for the entire company). Especially in the case of the service model, the replication of standardized routines is flexible, in that they are almost naturally changed when applied into different and changing context, maintaining their valuable consistency with higher-order purposes. If the backward flow of information is fostered, and feedback deriving from this flow and from the outcomes of e-learning tests are gathered and analyzed for making sense of them, emerging positive or negative issues can influence future directions; emerging mismatch and inconsistencies may especially represent cues for reconsidering the way knowledge and capabilities are transferred, their validity, or the guiding purposes. Variations may then be evaluated and finally enacted and introduced for being replicated again (mirrored back). The integration of organizational and local knowledge with skills and personal aptitude contributes to build key organizational competences, representing another means whereby the firm internationalizes its operations (in this case, its “service” provided to customers, that is the front-end customer management activities) exploiting its assets (competences), enhancing them and developing new ones abroad.

6.8. Final remarks

The initial mirroring strategy the firm adopts when approaching new markets, due to lack of substantial resources (in its first years of activity and when entering vast markets as the US and China) or of thorough market knowledge (when entering geographically and culturally distant markets, as the US and China again), and the subsequent adjustment of the operations abroad after market acquaintance, market knowledge and market's responses develop, is consistent with the model developed by Vescovi and Pontiggia (2014) in their

field research on medium-size Italian multinationals entering China. The know-how and the resulting new processes (knowledge and routines regarding department store management) developed through the activities in the US are observed and absorbed by the parent company, which integrates them into its set of corporate competences, and uses them within its domestic market and wherever the circumstances ask for the deployment of the newly acquired capabilities. Again, this phenomenon is consistent with Vescovi and Pontiggia findings and theory on the so-called mirroring-back effects.

Potential for knowledge exploitation and exploration and for mirroring-back effects can be detected at the level of customer management replicated routines as well.

The structure increases in weight and path-dependency over time, fastening but at the same time limiting the operations and their flow. The tendency to remain stuck on its assets, to exert high levels of control (apart from more operational activities), reflects the initial effort for building knowledge and competences, both regarding the technological product and the retailing sphere, and the ones linked to the experience accrued through incremental international moves. Incremental experience is reinforced in its binding effect by the steep success curve experienced at least until 2007. The first internationalization efforts determine the subsequent path for approaching foreign countries, based on an administrative heritage of subsidiaries autonomy channeled within formal and strong systems of direction and control established by the headquarter. This substantial rigid approach towards new market entry generates friction between the model and the market, if not failure, and surely hinders the possibility to gather and even sense relevant information useful to support strategy execution and revision; parallel to this, it infuses an idea of striving for rules compliance and the fear of mistakes or discrepancies, which of course impact on the capacity to be flexible and absorptive. The web platform, with its two-way communication channel, and the e-learning activities (training, evaluation and feedback information), especially the ones regarding the service model, facilitate a tighter and more balanced relationship between headquarter and

subsidiaries, a more rapid and thorough way to diffuse and gather information, a mindful activity of sense-making of the employees, a deeper sense of membership and importance perceived by the employees, and their deeper comprehension of what the firm is and does and wants. Periodic meetings organized by functions (like personnel of the human resources department, retail personnel like district and store managers), involving domestic employees or also foreign ones, support the connection between the firm and the individuals, let them build a tighter relationship among their function peers, foster both training activities and information sharing, thus feedback emergence. Local meetings occur as well, within foreign subsidiaries' premises, to provide training lectures and promote knowledge sharing.

Through its initiatives, the training function is therefore able to provide the firm with the flexibility its (vertical) structure somehow hinders. It plays a pivotal role in knowledge management, in that it encodes and transfers the existing knowledge, at the right place and time, through the right means and to the right people, though the planning of the training activities and the development of the right artifacts for supporting them. Knowledge and routines, are recognized and identified, then articulated and codified within (written, physical or virtual) artifacts and defined (flexible) sequences of actions and behaviors. Knowledge and routines are then diffused and changed over time, or emergent changes are recognized, so that they can be evaluated, processed, articulated and then integrated within existing ones. Knowledge integration, articulation, diffusion and generation stem from the training department activity, whose role is crucial within the management and enhancement of organizational knowledge base.

The following table synthetize the activities responsible for knowledge flow which are managed by the training department, as well as the opportunities for knowledge backwards flow that emerge.

Learning activities and knowledge circulation.

	TYPE	SCOPE	MEANS	FORM	OBJECTIVE	FLEXIBILITY	BACKWARD FLOW
WRITTEN ARTIFACTS	General information	History; values; mission; brand image; patents; strategic orientation (target,...)	Web platform	Stories	Aptitude and mental schemes building; long-term goals understanding; support for decision-making and operational activities	Long-term change	
	Specific information	Security; operations	Web platform; printed material (dematerialization process)	Rulebooks; periodic schedules and alerts	Knowledge and awareness about how to run a store; daily and periodic assignments communication	Short-term change	Section for leaving suggestions and signaling problems; feedback gathering (data, errors, implementation,...)
TRAINING	General/specific information	Customer; product; store; operations; SERVICE MODEL	E-learning videos; front-end lectures	Data/info; explanation of behaviors' paths and rationale	More engaging learning; knowledge about the key elements of the offering and the store; awareness of which behaviors to enact depending on the situation	Mid, short-term change; local constant adaptation	Feedback gathering (data on test results, completion,...)
MEETINGS	Specific themes	Functional personnel (organization, e.g. HR; retail personnel, e.g. District Managers); home or also foreign personnel	Headquarter's specific rooms (or local subsidiaries' ones)	Specific/Updating training; information/opinions sharing	Specific knowledge to target functions; knowledge circulation (diffusion, sharing) fostering		Direct feedback gathering

What's more, a new core competence, a set of routines, is developed, spread and refined through the training activities (knowledge integration, articulation, diffusion, and so on) in the realm of the front-end customer management style, a distinctive capability supporting the existing one regarding R&D activities. In a turbulent, uncertain environment, flexibility and sense-making abilities, continuous resource orchestration and development, are key factors for a superior and ongoing success.

The training function gives this structured and rather rigid firm the flexibility it needs for correctly executing plans, deploying its strength, leveraging its wide international network to seize the advantages each market offers for enhancing its strengths. It enables the circular flow of knowledge thus knowledge deployment, renovation and creation that help the firm engaging in knowledge exploitation and exploration; employees empowerment and the combination of harder and softer information energize both rigid and modified routines deployment according to the situation at hand, thanks to structures, rules,

values and mindful employees. Written artifacts, both more or less specific and detailed, and e-learning and front lectures, reinforce the communication of the values and facilitate the decision and choice on stability/change about routines' implementation.

It can give rise to Mirroring Back phases as soon as feedback from foreign operations is gathered, processed and integrated into the existing knowledge base and business model, reducing the friction arising from existing structures and procedures, thus the barriers that prevent information sensing, gathering, and integration through variation.

The training function, enabled by the web platform and the e-learning activities, is able to manage, exploit and develop organizational knowledge and human resources, both reinforcing one another, driving firm's expansion and success building strong but flexible basis for long-term sustainable competitive position. It can be identified as another core and dynamic capability as it evolves year after year in the effort to manage resources and exploiting current and building new strengths. It represents another ability whereby the organization develops and accumulates knowledge upon which other abilities are built. It is therefore at the center of company's success creation and maintenance. The development of the service model as a core distinctive strength has also the property of overcoming the paradigm exploitation versus exploration of knowledge, thus competences, therefore of reconciling the goals of efficiency and variation, in that the set of routines that constitute it is transferred in its conceptual basis and then differently deployed for fitting with each diverse context. The alignment between strategy (goals) and local context does not derive from efforts to strictly implement the format anymore, rather from its mindful variation to accommodate (or shape) the local context. The ability of the firm and its employees to manage the performance and both exploitative and exploratory activities simultaneously will improve and enable it to both enhance its core competences on R&D and retailing and employ them for fruitful results. The company has the possibility to reinforce its ability in managing customers in a distinctive and valuable manner thanks to training initiatives and training on the service model, consolidating the brand image worldwide, as well as its long-

term competitive position. An initial effort towards training modules (above all regarding the service model) into the main foreign languages, their incremental diffusion and the subsequent translation into other languages (as Chinese) increases the possibility to overcome cultural, and linguistic, barriers, to more effectively tap diverse environments, and develop and spread a common framework for communicating.

In the coming future, with the process of web-platform integration, thus e-learning modules and service model principles and aptitude spread all over the network, specific hubs could be built for leveraging the domestic- and foreign-generated knowledge and their connection and integration. Following the business case of Ikea's specific structures for supporting local format variation, it is possible to recognize the value of such support in the process of knowledge forward and backward circulation, but also its impact on the cultural frameworks channeling individuals' behaviors and approaches. Dedicated and facilitating structures are tangible manifestation of the need to be flexible; they nonetheless enable that such variation is controlled, to be able to make sense of it, to maintain consistency throughout the organization, and to recognize and exploit the outcomes of such variation. Since the firm has considerably expanded its boundaries and resource base, it could benefit a lot from dedicated mechanisms or structures in charge of monitoring the local situation in every key area and of gathering and processing data, for supporting the role and the function of the training department.

CONCLUSION

This thesis represents an effort to understand the origins of organizational success, which increasingly depends on the ability to adapt to the fast-changing, volatile, uncertain market conditions, thus on more intangible assets and on managerial abilities. The roots of success are identified in the ability of the firm to build, deploy, reconfigure and change its strengths. The dynamic capability in charge of performing these activities is above all the learning activity, which creates and accumulates past and current information and experience, thus knowledge, that enable current and future strengths to be built and mastered, which represents distinctive advantages to the firm. The storage and flow of knowledge thanks to organizational routines enable knowledge use (exploitation) and creation (exploration), thus organizational learning, thanks to the dynamic dialogue between their theoretical representation and their actual deployment by mindful organizational members. Routines are therefore considered powerful means driving firm success through both assets (knowledge) exploitation and development, that is, through stability and flexibility as two intertwined and complementary features, having therefore the feature of ambidexterity. They contribute also to the international expansion of the firm, as soon as they are replicated abroad and locally employed and changed; they enable the exploitation of possessed strengths abroad, adapting for maintaining the fit between the company and the new context, and the exploration of foreign contingencies, again through adaptation, enabling in turn the firm to be ambidextrous in managing its assets (knowledge). Two kinds of gains pushing for internationalization can therefore accrue: benefits from distinctive resources exploitation and benefits from new knowledge exploration and acquisition. The traditional conceptualization of the strategies pursued for internationalizing are questioned in that the routines composing the business model are inherently variable and generative, those features representing a success factor to be leveraged rather than to be blocked. The traditional fear of uncertainty and variation and quest for more control on dispersed operations

cause the firm unuseful efforts whose outcome is mainly a misfit between firm's structure and processes and foreign environment. Traditional paradigms of firm expansion and assets exploitation crash against the wall of market diversity, variety, and frequent changing. Understanding the need for variation and enabling flexibility of processes and therefore structures to emerge provides the company with the chance to seize the opportunities arising from foreign operations and enhancing its overall performance, while overcoming the administrative heritage inhibiting learning and changing. Organizations can overcome the trade-off between the competing goals of efficiency and variation thanks to routines' generative potential. These results are obtained also through a mechanism some scholars (Vescovi & Pontiggia, 2014) recognized in the backward flow of knowledge (and variation) from subsidiaries to the headquarter and the subsequent implementation through business model revision; the mirroring-back effects manifest as soon as the company modifies its posture and expansion strategy (its business model) after new insights emerge from international operations, after the mirrored processes and structures variate according local contingencies and are recognized and understood. Routines as generative systems able to “remember the past, imagine the future, and respond to present circumstances” (Feldman & Pentland, 2003) can help in exercising the organizational ability to deploy its assets, adapting them, and thus avoiding the emergence of and the risk to fall in path-dependency traps, which prevent the firm from gathering information, sensing threats and opportunities, adapting to changing conditions, thus learning and maintaining long-term success.

The firm here analyzed under the lens of its competences and internationalization process shows initial strong national and European expansion through mirroring strategies and slight adaptations as market knowledge accrues, propelled by its new technological advancement combined with the products they design and sell. The core competences possessed up- and downstream in the value chain (in the R&D and retailing activities) are not sufficient for sustaining the astonishing worldwide success reached up until 2007, when the company suffers from financial crisis implications and

managerial errors. Two contrasting foreign experiences are espoused more in depth, namely the one in the US and the one in the Chinese market. Although operations are supposed to be less critical in North-America, the break-even point has never been reached yet, while Chinese operations provide for double-digit sales increase almost every year. The higher cultural distance supposed to exist (and actually existing) with respect to China induces the firm to adopt a slight more flexible approach when approaching that country, enabling subsidiaries to adapt more features to the circumstances. The firm nonetheless gained relevant knowledge from US operations (in the realm of product distribution), which has been acquired locally, transferred to the headquarter and then mirrored back to domestic and international operations through its integration within the business model. Knowledge flow, integration and generation is recognized within the training department, which plays a pivotal role in knowledge and human resources management. These activities are enabled by the combination of, above all, an internal web platform and e-learning modules for delivering and building hard and soft skills and diffusing forward and backward information throughout the network. It contributes especially to build, refine and diffuse a new core competence linked to customer management at the level of the mono-brand network, called the service model. Since the training on the service model has more to do with corporate values and culture and less with dogmatic provisions, employees are responsible for deploying the acquired knowledge (procedures) adapting it to better fit local conditions; they are also empowered through the possibility of monitoring their performance relative to the mean of their colleagues, thus of understanding what contributes to lower it and how to improve it. The necessary flexibility and variation are reached, and thanks to the feedback deriving from the subsidiaries new insights are gained, so that the entire business model can be modified as well for future expansion. A function responsible for knowledge and human resource management let the barriers to diffused communication across levels and locations be overcome, like the mindless tightness to past experience, and fosters the development of the absorptive capacity the subsidiaries gain by engaging in learning activities and use for managing knowledge themselves.

The training department and its initiatives, together with the development of the firm distinctive service model, can contribute to revamp the organizational worldwide position and to sustain long-term success. With the future development and thoroughness of training activities abroad (among which training through e-learning and especially about the service model) the firm could take advantage of the creation of specific mechanisms with function of hubs for foreign situation monitoring, data gathering and evaluation. Such hubs for knowledge backwards flow, evaluation and final integration could bridge the gap between the need for consistency of strategies and control over sparse operation that a distributed network requires, and the need for following local idiosyncrasies and taking advantage of them as a source of new knowledge (thus, of potential Mirroring Back).

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