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Chair of Organizational Design

Development, Change and Innovation in Organizational Structures

A consequential path towards size-related differences

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Abstract

Through a review of the most noteworthy theories and prominent findings hitherto, this master's thesis intends to provide a holistic and comprehensive overview of three main interrelated organizational topics: (1) Organizational Development (2) Organizational Change and (3) Organizational Innovation.

In particular, this work expresses the aim of exploring the complex behaviour that characterizes organizations during their life cycle as well as during their transformative organizational changes, lastly narrowing the focus on companies' innovative output.

Throughout this thesis, the attention on organizations' size-related differences will be gradually emphasized, bringing to light – especially in the last chapters – two main contrasting standpoints.

Ultimately, through the examination of the major research in the aforementioned subjects, the intent is to provide valuable insights to practitioners and managers who desire to thrive in the current market environment, building a stable and sustainable value proposition for their organizations.

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Introduction

Organizations have existed since human beings started to cooperate with one another in order to reach a shared goal. The mere simple form of organizations arose thousands of years ago, until reaching the structures that are currently acknowledged in organizational history.

Still, organizations are in continuous evolution, constantly renewing themselves, in order to survive in the ever changing competitive, technological, social and organizational environment. Indeed, challenges, increasingly burdensome, jeopardize the organizational long-term sustainability.

This thesis in organizational design has the aim of exploring the complex behaviour that characterizes organizations along their restless pursuit of organizational prosperity, along their life cycle and during their transformational organizational changes.

In order to reach this purpose, an analysis of the relevant past and present literature has been carried out. As a matter of fact, the most noteworthy theories and models have been reported, and, interestingly, contrasting perspectives emerged.

In particular, this work intends to provide a holistic overview of the most prominent findings that, hitherto, academics have observed in three main interrelated organizational topics: (1) Organizational Development (2) Organizational Change and (3) Organizational Innovation.

Moreover, with the examination of the major research in the aforementioned subjects is intended to provide valuable insights to practitioners and managers who desire to thrive in the current market environment, building a stable and sustainable value proposition for their organizations.

This paper - presented in a funnel pattern, from order of generalizability – is organized as follows.

Firstly, organizational development has been considered one preliminary and introductory matter for the purpose of this thesis. Indeed, not only is the understanding of organization's evolutionary process essential for managers who seek to improve the corporate performance, but it also poses the foundations in order to recognize patterns and processes inside organizations.

Moreover, in each development stage (e.g., birth, growth, maturity, decline), organizations manifest a unique set of structural configurations, which is reflected in their level of flexibility, formalization and bureaucratization. Understanding and recognizing an

organization's particular stage of development, consequently, help the formulation of strategies and the identification of risks, threats and opportunities. It is worth noting, that when a firm experiences the different phases of its organizational life cycle, substantial changes take place. It follows that organizational development is considered an actual change inside an organization.

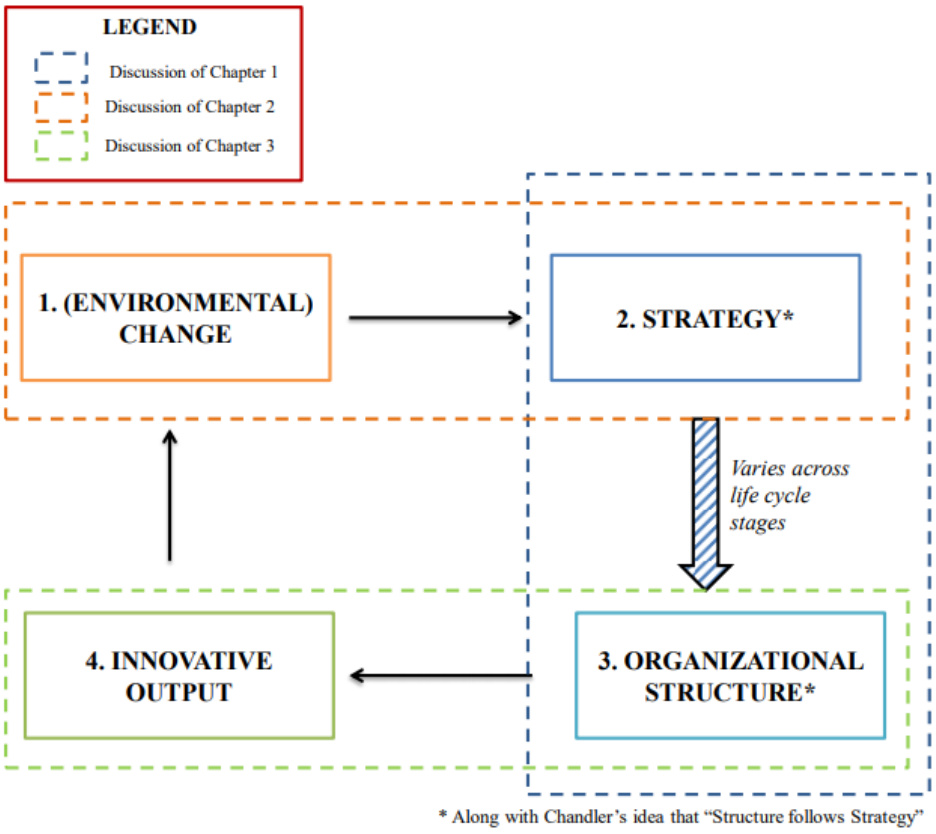
Consequentially, the second chapter of this thesis sheds light on the broad topic of organizational change. From this chapter, the role of size assumes particular relevance in the analysis of organizational adaptation.
Indeed, the literature generally assumes that as an organization matures and grows in size, its internal procedures become more rigid, inhibiting the organization's adaptability in the market environment (Gupta & Chin, 1994). The findings reported, help reviewing the contrasting perspectives on this relationship.

Lastly, the third and narrower chapter poses the attention on a particular type of organizational change: the implementation of a new innovation. Similarly, large and small organizations reported different behavioural patterns in relation with their innovative output. It will be demonstrated that increased size and, therefore complexity, on one hand prompt innovative output, while on the other hand it limit creativity.
Finally, at the end of this thesis, limitations and conclusions will briefly summarize the key elements emerged throughout the entire discussion.

However, before deep diving into the first chapter concerning the organizational development, the interconnectedness among the three chapters – that at first may appear subtle - has been conceptually represented in the figure below (Figure 1).
The picture shows that each of the three main topics of this thesis is profoundly linked to the other, creating a feedback loop.
Indeed, environmental changes force companies to adapt their strategy in order to align their internal structure with the external surrounding. Following Chandler's idea that "*Structure follows Strategy*", decisions implemented by an organization's top managers – in order to respond to externalities – shape the organizational structure. Undoubtedly, according to the degree of development in the organizational life cycle, factors such as the amount of resources, the number of employees, the level of flexibility as well as the degree of centralization and differentiation, substantially vary, leading to different strategic choices.

Moreover, as will be shown in the last chapter, structural as well as size-related differences affect the organizational innovative outcome. Organizations, grouping specialists and experts together, are, often, the greatest producers of innovations. Disruptive innovations, as the name suggests, are those innovations capable of disrupting the marketplace, threating established competitors and imposing new rules for those who want to survive in the market. Disruptive innovations, though, are just one example of how innovation and innovativeness are able to influence the environment, generating social, organizational and environmental changes, which in turn, recreate again the feedback loop.

Figure 1: Interconnectedness among thesis's topics.



Source: Personal graph

Chapter 1

Organizational Development: an Overview

1.1 Evolution of Organizational Theory and the Rise of Organizations

It is noticeable that, since ancient times, human beings have experienced the need to work cooperatively with others individuals to achieve a specific objective. Going back to some thousands of years ago, in Egypt, multiple individuals needed to collaborate to build the pyramids. Organizational forms are even visible in the traditional military structures or, simply in the hierarchical structure of the Catholic Church (Eriksson-Zetterquist, Müllern, & Styhre, 2011). Similarly, other historical eras witnessed the collection of multiple people as a tool to jointly reach a shared purpose.

However, even if cooperation and collaboration towards the achievement of a common objective are at the basis of organizational practices since thousands of years ago, organizational theory has a relatively recent history.

Startbuckt, in 1965, acknowledged that the difference between organizations and the formal gathering of individuals is rooted in the need to achieve goals "*by means of an explicit and stable structure of task allocations, roles and responsibilities"(*Starbucks, 1965, p.452*)*.

Certainly, the Industrial Age, as opposed to the mercantilism period, created a significant boost in the rise of the modern organizational forms. The stable and formal structure of organizations gained significant relevance during the 20th century, as modern factories, with common owned machinery and tools, emerged (Eriksson-Zetterquist, Müllern, & Styhre, 2011).

The importance of formal settings and design was outlined by Max Weber (1978), *with the Theory of Bureaucracy*, around the first half of the 20th century. Bureaucracy, meaning more efficiency, stability, accuracy, discipline and reliability, poses the basis for organizational theory and organizational design (Eriksson-Zetterquist, Müllern, & Styhre, 2011). Similar to Weber's idea was the perspective of Henry Mintzberg (1984). Mintzberg's machine bureaucracy organization structure was characterized by highly specialized and routinized day-to-day tasks. Procedures, rules, regulations were highly formalized inside the organization, allowing for a centralized decision-making power, a functional division of labor

and a clear separation between lines and staff activities (Eriksson-Zetterquist, Müllern, & Styhre, 2011).
However, if on one side, promoters of bureaucracy structure were highlighting the efficiency of this design, thanks to its rules and regulations, the possibility to transfer knowledge within different areas and the effectiveness with which standardized operations were carried out, on the other side pure bureaucracy was also heavily criticized for its inflexibility and impersonality (Gouldner, 1954; Parsons, 1990; Merton, 1968).

Despite the several aspects of this newly emerged structure, one of the most important achievement of that period was the acknowledgment of the organization as a means to create and bring value to society. During the 1500s, manufacturers, working individually in their homes, always produced the quantity they needed for themselves. Clothing manufacturers, for example, needed to carry out all the necessary tasks by themselves (e.g., carding, spinning, weaving) in order to turn wool into cloth. As a result, each task was individually repeated by each worker, with consequent unnecessary duplication of machinery and equipment (Eriksson-Zetterquist, Müllern, and Styhre, 2011). Several reasons, such as the difficulty in controlling the quality of manufacturers' work and the increasing costs of new tools and machinery, challenged this crafting system. Eriksson-Zetterquist, Müllern, and Styhre (2011) recognize also another reason that boosted the rise of organizations: the need to invest and save capital, a need that did not exist in the mercantilism system.

In simple terms, organizations, by combining individuals together, were, therefore, able to bring higher value compared to the outcome that the same individuals could have achieved working separately, thanks to a more efficient usage of technological innovation, the creation of synergies and the quality control that was finally possible.
Working with other individuals, in a formal setting enabled the division of labor and the specialization of work, even if this meant "*deskilling*" for most workers (Eriksson-Zetterquist, Müllern & Styhre, 2011). People were assigned to different tasks according to their strengths, having in this way the opportunity to fine-tune their set of skills and competencies in that specific area. Adam Smith in his book *An Inquiry into the Nature and Causes of the Wealth of Nations* emphasized the importance of specialization to boost productivity and efficiency. This clear division of tasks and responsibilities was also at the basis of the main classical theorists and prominent of the scientific management approach such as Taylor (1911) and his followers Henry Gatt, Frank and Lilian Gilbreth.

According to Charles Babbage (1885; 22-25), division of labor created efficiency with five sources of advantages: (1) shorter time required for learning, (2) less waste of material of learning, (3) savings in opportunity and transaction costs, (4) less change of tools, (5) skills acquired by repetitions of the same processes.
Moreover, as previously mentioned, technological innovations, tools and machinery were more efficiently exploited by the workers in the same workplace. Usage of large-scale technologies was facilitated, increasing economy of scale, thus reducing economic costs.

Although the aforementioned advantages of creating organizations were widely recognized, during the 20th century several different theories emerged, each one emphasizing a particular aspect of organizational perspective. Three main theories dominated the organizational landscape at that time: (1) the *Scientific Management Theory* by Frederick W. Taylor, (2) the *Administrative Management Theory* by Henry Mintzberg and (3) the *Behavioural Theory* by Elton Mayo.
At the very beginning of the 1900s, the focus was mainly on efficiency. Formal structures and bureaucratic organizations were created to improve the efficiency of processes and operations. Therefore, subsequently to Weber's *Theory of Bureaucracy*, a mere scientific approach started to be applied. Advocates of the *Scientific Management Theory*, such as Taylor (1911), believed that general principles of management could be applicable to any situation (Eriksson-Zetterquist, Müllern & Styhre, 2011). The four core principles of this theory clearly emphasized a scientific approach to workflow operations, aiming at improving efficiency as well as labor productivity (Scientific Management Theory, n.d.). Tasks needed to be analysed scientifically, to identify the "one best way" to deliver the greatest outcome. The role of managers was to identify and hire the most appropriate workers, training them, providing the right incentives to increase their performance. Division of line and staff was defined to allow the management to train and the labor to efficiently perform the assigned tasks (Scientific Management Theory, n.d.).

Ronald Coase, in 1937, believed that organizations exist as long as they lower transaction costs that are present in the market, thus increasing transactional efficiency. This partly explains why instead of working freely without formal boundaries in the marketplace, organizations were formed (Qadim, 2018). More precisely, the classical economic view supports the idea that organizations exist as they are the only form of equitable transaction

among individuals. An appropriate exchange of incentives is, therefore, what allows an organization to perform (Qadim, 2018).

In the Taylorism approach, external motives (e.g., higher wages) were considered the only incentives: the greater the performance of a worker, the higher his salary. Wages and monetary incentives were considered the only way to increase employees' satisfaction and productivity. Moreover, no interest was addressed to employees' personalities and identities, as they were considered tools to perform tasks and routinized activities.

In the middle of the 19th century, even before Taylor and the Scientific Management approach, Karl Marx (1844) had already recognized the possible downsides of such an economic system. An outcome such as a feeling of alienation may derive from the exploitation of workers forced to work to survive in the economy (Taylorism,n.d). Likewise, Adam Smith, while being an advocate of specialization of labor, also believed that the oversimplification and over standardization of tasks may lead to extremely demoralizing effect for workers (Taylorism,n.d).

Carried out around 1930, the Hawthorne Studies represented a turning point in Organizational and *Behavioural Theory*, as well as the basis for the *Socio-Technical Theory* developed during WWII by Eric Trist, Kenneth Bramforth and Fred Emery (Eriksson-Zetterquist, Müllern & Styhre, 2011). Conducted by Elton Mayo, the performance of six female workers at The Hawthorne Works was studied to understand group dynamics under specific circumstances (e.g., light studies, changes of environmental factors). These experiments showed how workers' performance was influenced by social issues and human relationships.

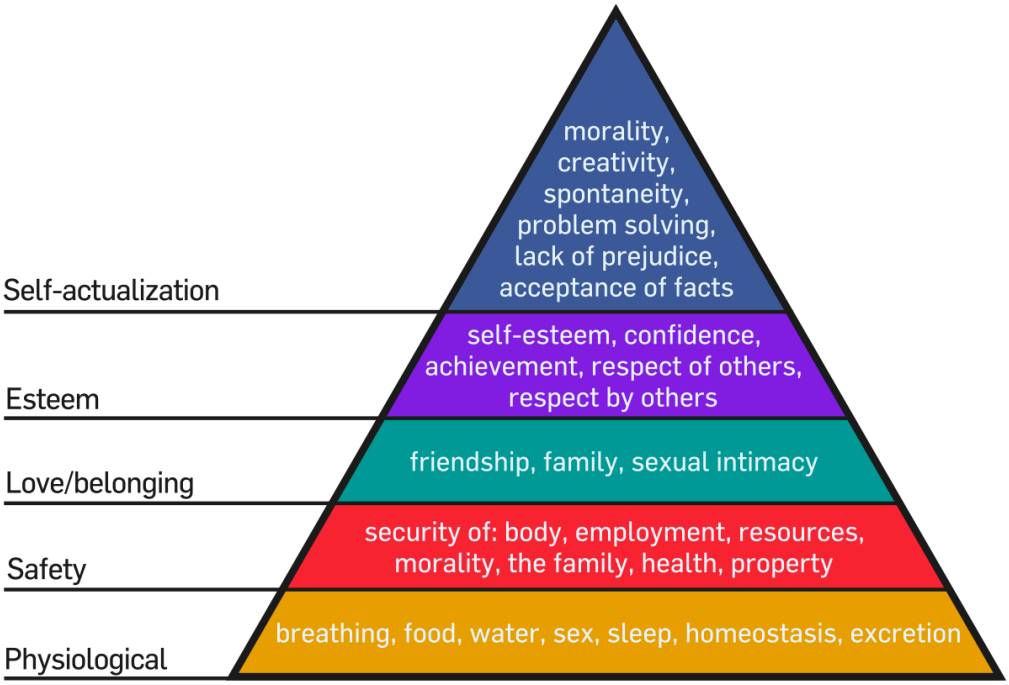
In contrast with the *Scientific Management Theory* – which viewed the organization as a mere technical system - the organization was seen as a social system, made up of human beings with different identities, emotions, feelings, attitudes and behaviours.

Therefore, if during the Taylorism, employees were incentivized by external and economic motivations (e.g., money, salary), Majo's experiments showed that workers' performance may increase with social, psychological incentives. It was demonstrated that productivity is not linked with a higher salary, but is strictly correlated with the employees' satisfaction and morale.

The middle of the 20th century was also dominated by several other theories. Neoclassical and Institutional Theory, System Theories and Contingency Theories led the 1950's scene.

The Hierarchy of Human Needs by Maslow recalled the idea of the Hawthorne Studies, shifting again the focus on human factors rather than monetary ones. Maslow (1943) recognized that human beings are incentivized and influenced by esteem needs and self-actualization needs, and they are, therefore, pushed by a sense of achievement, morality, creativity and respect (Figure 2).

Figure 2: Maslow's Hierarchy of Needs



Source: https://drsaraheaton.wordpress.com/2012/08/04/maslows-hierarchy-of-needs/

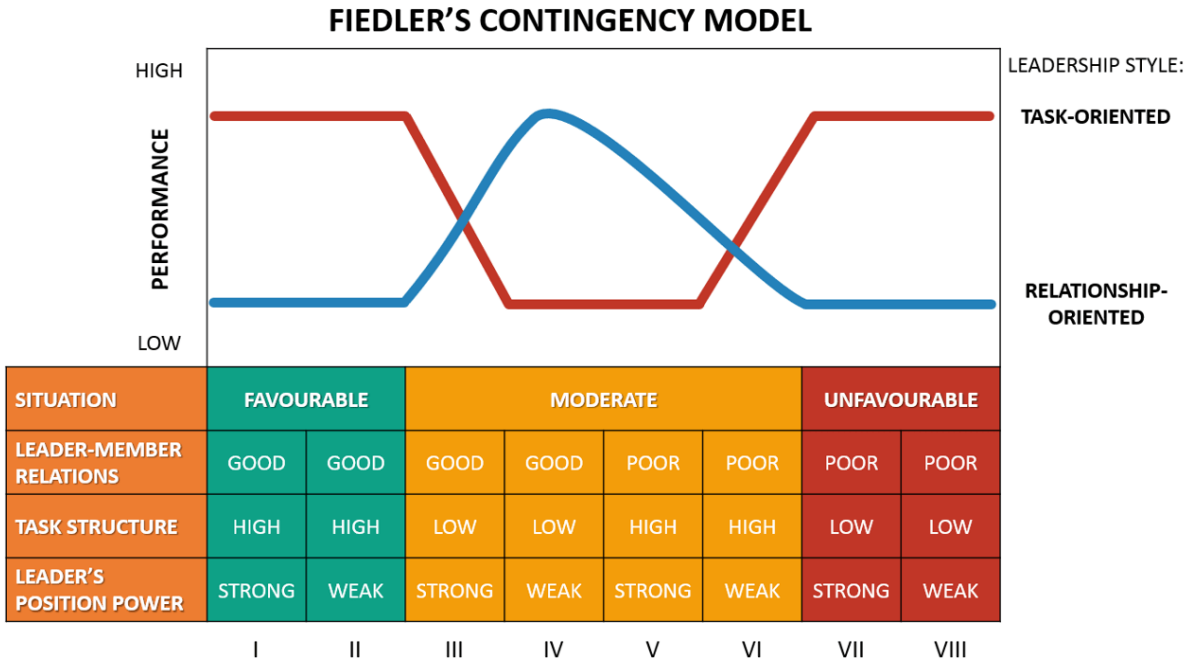
However, ideas such as the human bounded rationality, stemming from the *Bounded Rationality Theory* of Simon (1990), started to influence the role of organizations. The studies by Tversky and Kahneman (1974) showed that the choices of human beings are strongly based on prejudices and individual risk perception, as well as an individual sense of uncertainty for a specific event. Following this reasoning, the organization became the tool for coping with human's limited rationality in the face of complexity and uncertainty (Qadim, 2018).

The continuously increasing complexity, competitiveness and uncertainty of the environment in which the organizations operated, gave rise to the well-known *Contingency Theory*. This theory, being an open-system view, had a totally opposite perspective to the "one best way"

suggested by the Taylorism. Instead, no best way exists to manage organizations. The different environmental circumstances and conditions require dissimilar solutions.

Fiedler (1978) recognized several styles of leadership, according to the distinct situation that might occur (Figure 3).

Figure 3: Fiedler's Contingency Model

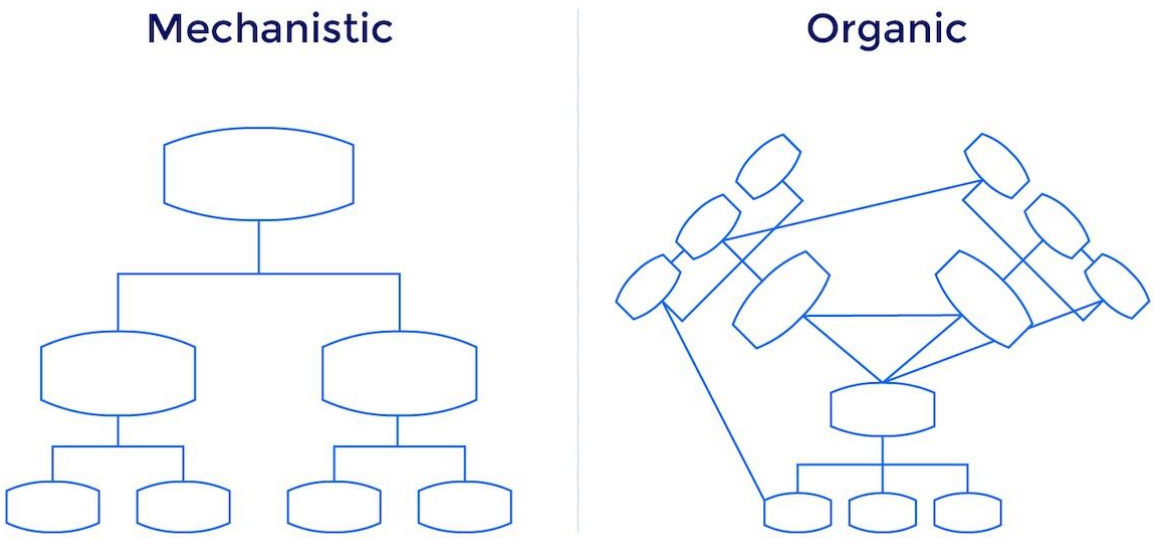


Source: https://www.business-to-you.com/fiedler-contingency-model/

To reflect the increased external complexity and taking into consideration both structural (e.g., hierarchy, centralization, formalization, specialization) and contextual dimensions (e.g., environment, goals, strategy, technology, size and culture), two main different organizational approaches were defined.

In contrast to the mechanical system design - as it recalls the hierarchical and bureaucratic structure already discussed with Weber's *Theory of Bureaucracy* - the natural or organic system design is a complex structure, characterized by high differentiation of tasks, decentralized decision making and low formalization to allow for mutual adjustment. A simple representation of both structure designs is depicted in Figure 4.

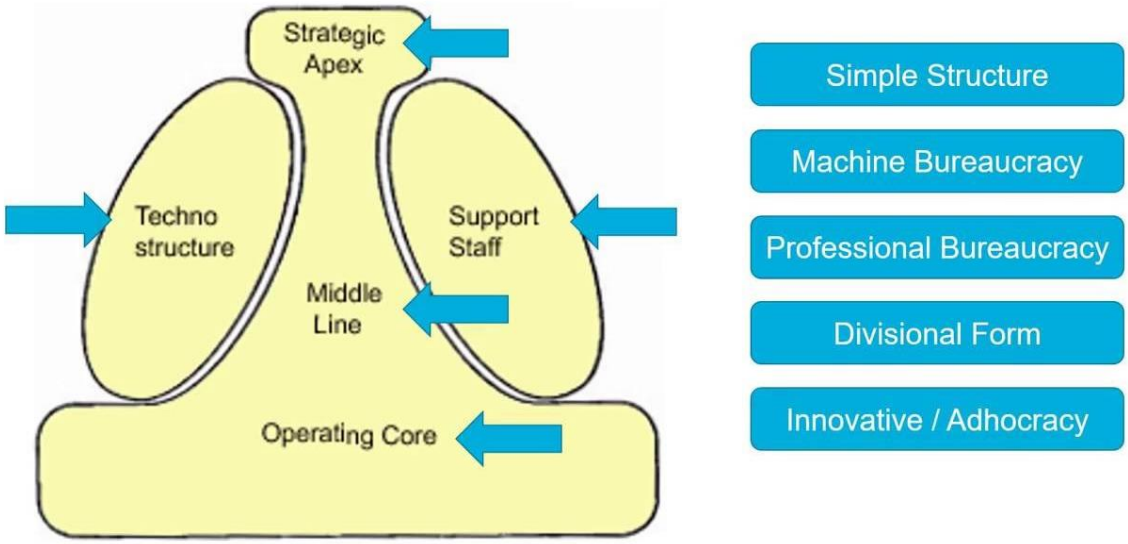
Figure 4: Mechanistic Design vs. Organic Design



Source: https://line.17qq.com/articles/cnmnmlpocv.html

Among the advocates of the *Contingency Theory*, particularly relevant was the work of Mintzberg (1989) with "*The Structuring of Organizations*". The organization composed of five parts: (1) the strategic apex, (2) the middle line, (3) the operating core, (4) the techno-structure and (5) the support staff needs to fit with the external environment, as no ideal way to manage an organization exists. The machine bureaucracy organization, mentioned in the previous paragraph, was only one of the organizational types proposed by Mintzberg, as a result of the different circumstances that require the organization to use suitable structures. The organizational types identified by Mintzberg are: (1) the entrepreneurial organization, the machine bureaucracy organization, (2) the professional organization, (3) the divisional organization and (4) the innovative organization or adhocracy (Mintzberg's Organizational Configurations, n.d.), (Figure 5).

Figure 5: Mintzberg's Structure Configurations



Source: https://www.youtube.com/watch?v=8wIch9TW8EQ

If for the beginning of the 20th century, the main focus was on the efficiency of an organization, between the '60s and the '70s, new approaches emerged, focusing as previously stated, on the external environment. The achievement of legitimacy became the key element for some theories and authors that emphasized the importance of conformity to shared rules and regulations. Theories of such kinds are based on the concept of isomorphism, the similarity of processes as a result of imitation under similar circumstances. Three main types of isomorphism, explained by Eriksson-Zetterquist, Müllern & Styhre, (2011), were identified by the *Institutionalism Theory*: (1) coercive (2) mimetic and (3) normative. The coercive isomorphism, as suggested by the name, refers to those regulations that are compulsory for a firm. The second type of isomorphism – mimetic – refers to the legitimacy that one firm gains imitating another firm (e.g., a similar company, a leading company in that specific sector). Lastly, the normative isomorphism refers to the shared ideology deriving from professional training that gives legitimacy to a professional group (e.g., doctors, nurses, professional groups).

Studies regarding firms' institutional behaviours have been numerous. Particularly insightful is the paper by Zhao et al., (2017), entitled: "*Optimal Distinctiveness: Broadening the interface between Institutional Theory and Strategic Management*". The authors compare two contrasting perspectives: (1) the Institutional Theory, which recalls legitimacy, imitation, conformity to rules, and (2) the Strategic Management view, which studies how firms can gain competitive advantage over their competitors, to strategically thrive in their industry.

Through the analysis of three dimensions, namely: (1) Orchestration, (2) Stakeholder Multiplicity and (3) Temporality, they discuss how companies can achieve an optimal distinctiveness, which, they state, it means: "*being different enough from peer firms to be competitive, but similar enough to peers to be recognizable*" (Zhao et al., 2017:93). This teach us that companies should follow rules and regulations to be recognized and legitimated, but they should do not forget to create their unique value proposition to differentiate from their peers.

To conclude, in 1977, Hannan and Freeman proposed the population ecology perspective; a perspective in contrast with the adaptation theory. The population ecology theory, based on the Darwinism evolution theory in biology, stands on the idea that inevitably, changes in the environment lead some organizations to failure, forcing them to exit the market environment. Other firms, instead, thanks to their organizational configurations manage to succeed and, thus, to survive (Astley, 1985).

This brief summary regarding organizational history, presented above, was an introductory paragraph with the aim to pose the foundations for the discussions that will follow throughout this entire thesis.
To summarize, organizations exist because the value they create is greater than the sum of the value that individual workers can bring to society. Organizations constantly evolve, renewing themselves. Recollecting the evolutionary history of organizations is a fundamental step in order to fully understand organizations' development and growth.
As a result, the next paragraph of this chapter will discuss organizational development by presenting the main theories and models related to the organizational life cycle.

1.2 Literature Review: The Organizational Life Cycle

Organizational development studies and Organizational Life Cycle (OLC) theories had their golden age during the '70s and the '80s (Jirásek & Bílek, 2018). Several theories from the 1960s until nowadays have tried to investigate, both theoretically and empirically, the stages that organizations experience during their lives, as well as the behavioural and structural implications associated with the different phases. Scholars have developed different OLC theories over time in order to explain the evolution of businesses.

Hanks (1990) believed that, even if OLC models present some dissimilarities, such as the number of stages, the name of the stages, the features of each specific stage and the consequential implications, some commonalities are present in almost all models (Lester, Parnell, & Carraher, 2003).
Two "*common themes*" are identified by Hanks (1990:1):

(1) Businesses develop through a series of distinct and recognizable phases and each stage presents unique contextual, structural and strategic configurations.
(2) Configurations are not applicable to all life cycle stages, instead, they are specific for some stages, and being appropriate in one phase does not indicate they are suitable also in another phase.

Gupta and Chin (1994:271), instead, affirm that despite the heterogeneous number of stages among the multiple life cycle theories, all the evolutionary stages present three common characteristics:

(1) They are sequential in nature
(2) They occur as a hierarchical progression, not easily reversed
(3) They involve a broad range of organizational activities and structures.

Usually, authors examine the changes according to contextual, structural and strategic characteristics (Hanks, 1990). Indeed, when developing and transitioning from stage to stage, multiple organizational structural elements simultaneously interact, changing the previous organization *status quo* (Mosca, Gianecchini, Campagnolo, 2021). Development, in those terms, can be been also seen as a transformational change.
Greiner (1998) states "*Managerial problems and practices are rooted in time. They do not last throughout the life of an organization".* Enterprises experience continuous re-adaptations of organizational features over their life span and, as companies evolve over time, managerial practices, structure, information networks and use of resources vary with them.

Recently, scholars such as Jirásek and Bílek (2018), or Mosca, Gianecchini and Campagnolo (2021), going through the past wide literature review, gave a more holistic approach of OLC theories. Interestingly, Mosca, Gianecchini and Campagnolo (2021), using as a basis the

Good Theory of Whetten (1989), analyse five OLC models, according to the five questions: Why, When, Who, What and How.

The structure of this paragraph is presented in the same way. Questions such as why organizations develop, when they do so and who are the main participants during the organization evolution are presented below in order to provide a complete analysis of organizational life cycle. The questions will be answered, using different perspectives and models that emerged during the review of the organizational literature.

1.2.1 Why

The immediate question that comes to mind when studying organizational development is the following:

Why do firms move from one stage of development to the next?

(Mosca, Gianecchini & Campagnolo, 2021:4)

In order to answer to this question, Chandler (1962), Baird and Meshoulam (1988), and Hanks (1990), cite the *Metamorphosis Theory*. According to that theory, a change in the organization occurs when the internal processes and structures of the company in consideration, do not fit anymore with the external environment, therefore threatening the survival of the company, which needs to renew itself.

A similar idea was expressed by the *Contingency Theory*, mentioned in the first paragraph of this thesis. A fit between the external and internal design is therefore widely recognized by the literature.

Likewise, according to Mosca, Gianecchini & Campagnolo (2021), the transition from one stage to the next is motivated by internal or/and external factors.

The model proposed by Dodge & Robbins (1992), which identified four stages: (1) Formation (2) Early Growth (3) Late Growth (4) Stability, rely on the transitions due to external factors. For example, the transition from stage 1 (formation), to stage 2 (early growth), is determined by the sufficient gain of financial resources and customer acceptance that makes the new start-up viable.

In the early growth phase, after having developed a feasible product or service, is, moreover, necessary to stabilize production and match the demand, until reaching the late growth phase. In this latter stage, external factors such as the new entrance of competitors, new disruptive

innovations, a saturation of the market, are likely to lead to a decrease in sales as well in profitability, until the stability stage is reached.

Other authors, such as Adizes (1979), with his ten-stage OLC model[1] or Galbraith (1982), with his five-stage model[2], both justify organizational evolution with external factors – respectively with adaptation with the exterior environment and with the increase in the size of the organizations.

According to Mosca, Gianecchini & Campagnolo (2021), the model proposed by Greiner (1972) similarly focuses on external motives of organizational growth. Greiner's model, in fact, analyses business evolution according to two organizational dimensions: (1) size and (2) age (Figure 6).

In particular, he noted that every kind of business goes through stages of evolution and revolution, and that the revolutionary phase poses the basis for the next evolutionary one. The revolutionary phase is characterized by period of crises inside the organization (e.g., crisis of leadership, crisis of autonomy, control crisis, red-tape crisis), therefore I believe that Greiner (1972) strongly takes into account also *internal organizational factors* as a driver towards stage transitions.

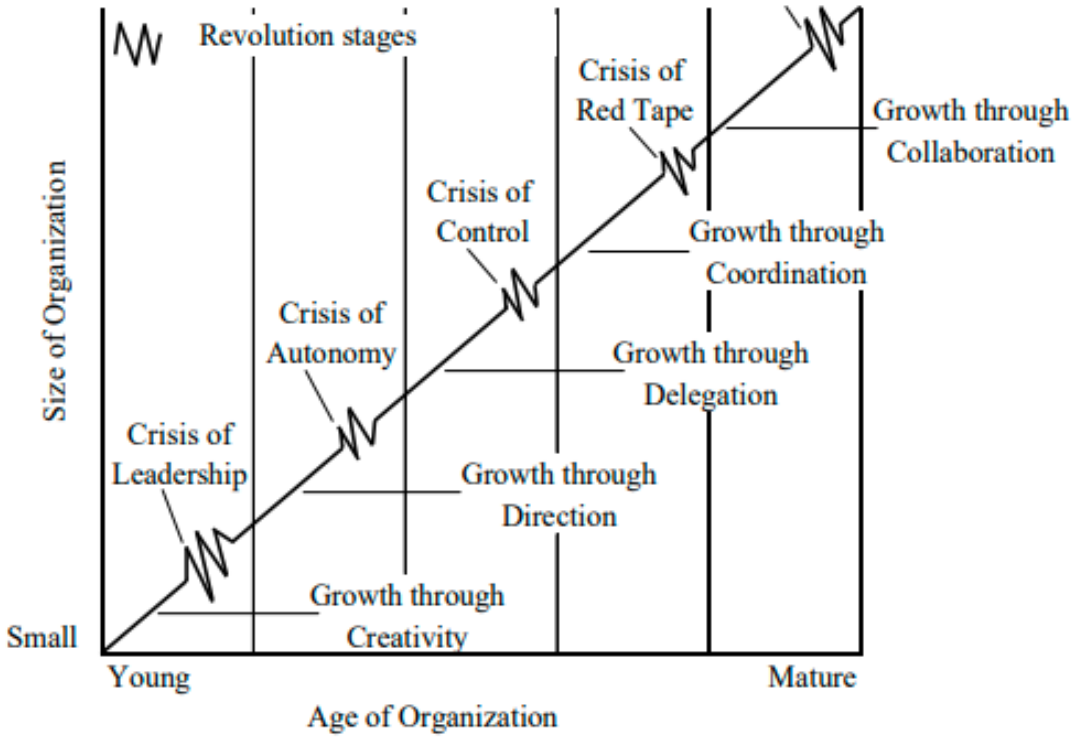
Similar to Greiner's idea of *evolution* and *revolution*, Hanks (1990:9) describes a life cycle stage *"a unique configuration of variables related to organization context, strategy and structure*". Hanks (1990)[3] believes that, after having reached a certain phase, the existing configuration, which is no longer suitable, needs to be reconfigured, to allow for successful growth. Figure 7 provides a representation of the Model of Organization Growth by Hanks (1990). The graph presented below has been readapted, but nothing has been modified from the original idea of the author.

[1] Adizes's ten-stage model: (1) Courtship (2) Infant Organization (3) The go-go stage (4) Adolescent Organization (5) Prime Organization (6) Mature Organization (7) Aristocracy (8) Early Bureaucracy (9) Bureaucracy (10) Death

[2] Galbraith's five-stage model: (1) Proof-of-principle Prototype (2) Model Shop (3) Start-up volume production (4) Natural Growth (5) Strategic Maneuvering

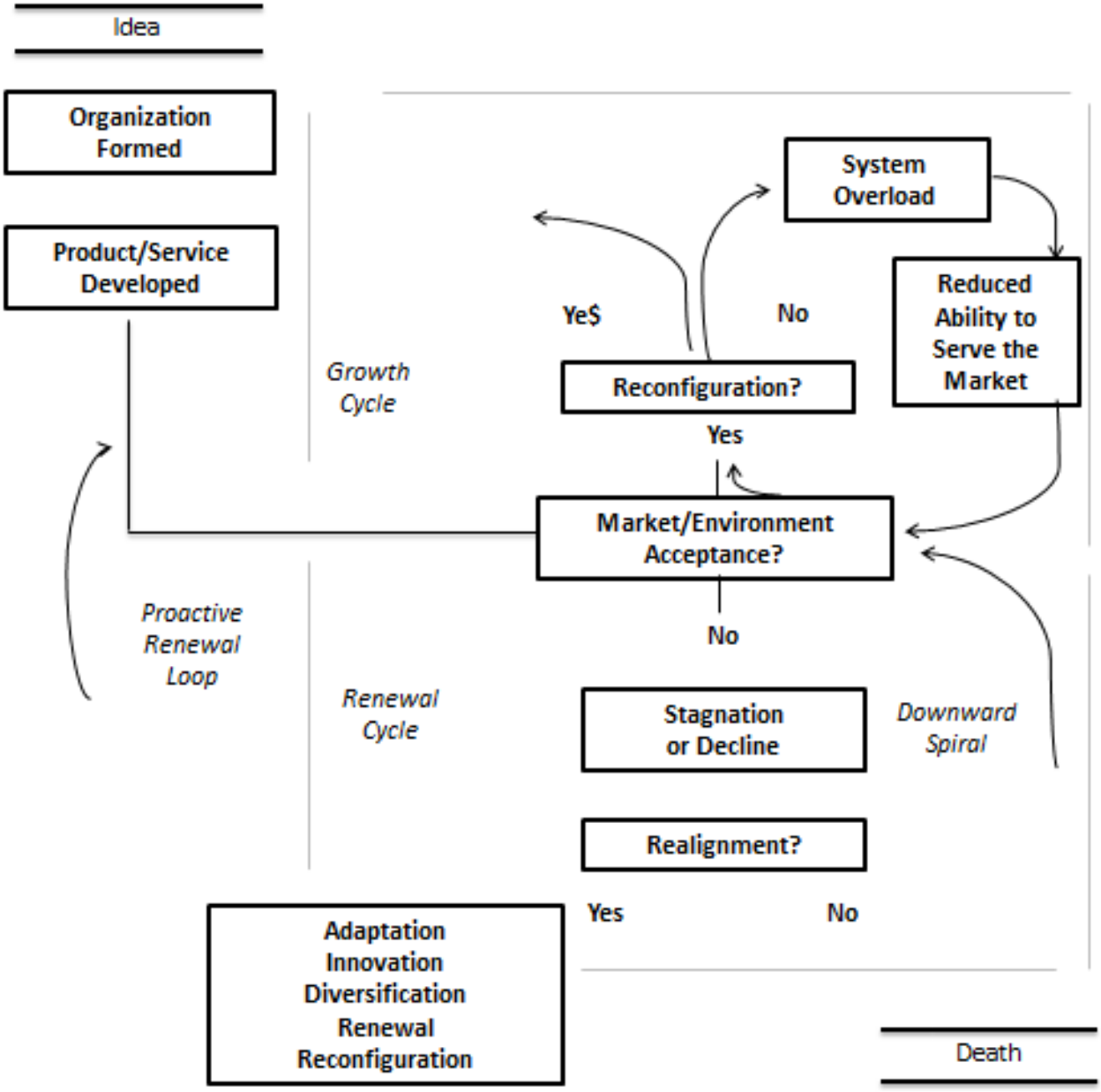
[3] Hanks's model includes five stages: (1) Start-up stage (2) Expansion (3) Consolidation (4) Revival/Diversification (5) Decline

Figure 6: Greiner's five phases of growth with stages of evolution and revolution



Source: Ionescu, G. G., & Negrusa, A. L. (2007). The study about organizational life cycle models. Review of International Comparative Management, 8(4), 5-15.

Figure 7: Model of Organization Growth and Decline



Source: Adapted from Hanks, S. H. (1990). The organization life cycle: Integrating content and process. Journal of small business strategy, 1(1), 4

1.2.2 When

The second question that Mosca, Gianecchini & Campagnolo (2021) presented in their models relates to:

"When does the organizational stage occur?"

Generally, theories associate the duration of each stage with the size of the business. Consistent with Greiner (1998), the speed at which the stages occur mainly depends on the market environment of the industry. A fast-growing industry may have a shorter time, while a slow-growing industry may have a longer duration.

Lippitt and Schmitd (1967) also recognize the importance of timing, to correctly address crises (e.g., launching the venture, survival and sacrifice, achievement of stability, pride and reputation, developing uniqueness, contributing to society).

1.2.3 How

"*How is the development process sustained?*"

In line with Lippitt and Schmidt (1967) and Greiner (1972), in order to move from one stage to another it is necessary to solve a crisis. The former authors identified six major crises that can occur during the different development stages (Table 1).

In Greiner's model, the crises previously mentioned, namely leadership crisis, autonomy crisis, control crisis and red-tape crisis can be solved respectively by direction, delegation, coordination and collaboration. What Greiner (1972) pointed out is that no movement from one stage to another is possible if the crisis is not solved first. Therefore, a business in the second phase (*Direction*) has inevitably already solved the leadership crisis that usually emerges in the *Creativity* stage.

In opposition to this school of thought, the study by Churchill and Lewis (1983) points out that previous studies erroneously assumed that "*a company must grow and pass through all stages of development or die in the attempt" (*Churchill & Lewis, 1983:2). Therefore, companies do not follow a linear pattern (Miller and Friesen,1984).

Table 1: Crises and Results in Lippitt and Schmidt model (1967)

Development Stage	Critical concern	Result if the issue is resolved correctly	Consequence if concern is not met
Birth	1. To create a new organization (Creation)	New corporate systems come into being and begins operating	Frustration and inaction
	2. To survive as a viable system (Survival)	Organization accepts realities, learns from experience, become viable	Death of organization Further subsidy by "faith" capital
Youth	3. To gain stability (Stability)	Organization develops efficiency and strenght, but retains flexibility to change	Reactive, crisis-dominated organization Opportunistic rather than self-directing attitudes and policies
	4. To gain reputation and to develop pride (Pride & Reputation)	Organization reputation reinforces effort to improve quality of goods and service	Difficulty in attracting good personnel and clients Innappropriate, overly aggressive and distorted image building
Maturity	5. To achieve uniqueness and adaptability (Uniqueness and Adaptability)	Organization changes to take fuller advantage of its unique capability and provides growth opportunity for its personnel	Unneccesarily defensive or competitive attitudes; Diffusion of energy Loss of most creative personnel
	6. To contribute to society (Contribution)	Organization gain public respect and appreciation for itself as an institution contributing to society	Possible lack of public respect and appreciation Bankruptcy or profit loss

Source: Adapted from Lippitt, G. L., & Schmidt, W. H. (1967). Crises in a developing organization. Harvard business review.

1.2.4 Who

To fully understand organizational evolution, the actors involved in organizational processes are of extreme importance.

"Who are the actors that lead the organizational development?"

Most of the models presented in the literature review recognize that in the early phase(s) of the business life cycle, the founder/entrepreneur or a small group of people are responsible for the development. While growing both in size and age, with an increase in demand for products and an increase in sales and profitability, the company needs more people. The increase in employment of the firm, inevitably, induces a change in the structure of the organization. Generally, the management or the top management are the actors more involved in the transition between stages (Adizes, 1979; Churchill & Lewis, 1983; Galbraith, 1982; Greiner, 1972; Lippitt & Schmidt, 1967).

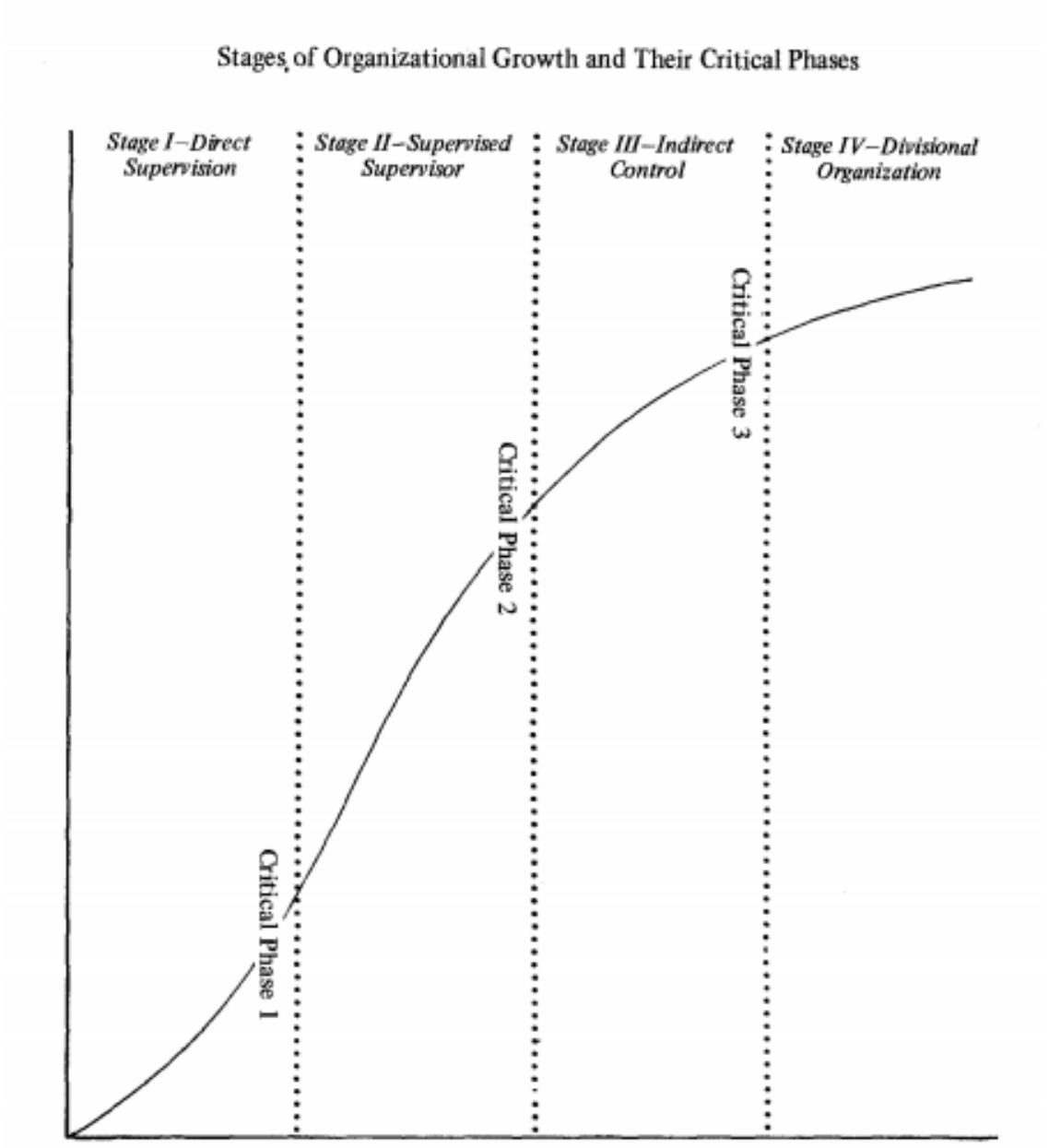
In the five-stage model presented by Scott and Bruce (1987)[4], the top management has clear and defined roles. In the Inception phase, the aim is to directly supervise the activities. In the Survival stage, supervised supervision is necessary. In the subsequent stage, the top management will delegate and co-ordinate some activities, while in the last two stages a decentralized decision making takes place.

Steinmetz (1969)[5], similarly, discusses that in Stage I, direct supervision is carried out by "*one-man operation*". As the size of the business increases, more personnel and staff are needed and the firm passes from Supervised Supervisor to Indirect Control in the third stage. In this phase, Steinmetz (1969) believes that the most crucial element is the loyalty of the divisional employees. Indeed, accurately training workers is fundamental to reach the last phase, where the divisional structure is embraced by the organization. The growth pattern is S-shaped, as represented in the graph of Figure 8.

[4] Five-stage model: (1) Inception (2) Survival (3) Growth (4) Expansion (5) Maturity

[5] Steinmetz model: (1) Stage 1 – Direct Supervision (2) Stage II – Supervised Supervisor (3) Stage III – Indirect Control (4) Stage IV – Divisional Organization

Figure 8: Stages of Organizational Growth by Steinmetz (1969)



Source: Steinmetz, L. L. (1969). Critical stages of small business growth: When they occur and how to survive them. Business horizons, 12(1), 30.

1.2.5 What

Lastly, after having presented the main participants of an organization's development, Mosca, Gianecchini, Campagnolo (2021) discussed:

"*What are the characteristics of the organizational structure while evolving?"*

Different roles inside a company are both vertically and horizontally differentiated. *Vertical differentiation* is based on the degree of authority and responsibility. Clearly, roles with greater responsibilities, at the top of the organizational chart, supervise the one under them, creating a chain of command among employees and managers (Mosca, Gianecchini, Campagnolo, 2021).
On the other hand, roles horizontally differentiated, are divided and grouped by function (e.g. accounting, marketing, HR). Generally, organizational theory recognizes that, as the number of employees, sales and revenue grow an organization experiences problem of coordination and communication. New functions emerge, levels in the hierarchy multiply and job becomes interrelated. Companies increase in size and complexity, creating the need to horizontally differentiate the different activities. However, a structure that grows horizontally increases the need of supervision at the top, therefore pushing the growth of vertical differentiation.

Even if these two design parameters are not discussed in depth in each OLC theory, a discrete number of models try to explain the change in these parameters in different stages.
It is generally accepted that in the first phase of evolution (e.g., birth, creation, existence), the internal structure of the business is quite inexistent and informal with centralized leadership and frequent share of knowledge and communication (Greiner, 1972; Jirásek & Bílek, 2018; Mosca, Gianecchini, Campagnolo, 2021).
Roles are not clearly defined, with a structure that is completely flat as the entrepreneur (owner) of the company carries out all the business activities. According to Galbraith (1982) and Churchill and Lewis (1983), in all the subsequent stages, structure becomes taller and taller, adding hierarchical levels, as the degree of complexity and size of the company increases. Greiner (1972), however, believes that the number of layers increases up to the last stage, where the organization becomes flatter again. Moreover, it is commonly stated that tasks are usually divided by function. As the number of products, markets and locations

increases, some authors opt for a divisional (Adizes, 1979), a matrix or a line-staff structure (Churchill & Lewis, 1983; Greiner, 1972; Galbraith, 1982).
Scott and Bruce (1987) recognized a functional structure up to the *Stage 4 - Expansion* phase, and a divisional structure only in the last stage of maturity.
Linked to the characteristics of horizontal differentiation are the coordination mechanisms, which help in coordinating the activities among different structural departments. However, there is no agreement on the best mechanism to use in each stage (Mosca, Gianecchini, Campagnolo, 2021).

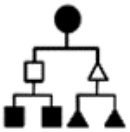
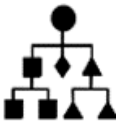
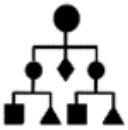
1.2.6 A focus on organizational size

The parameters of an organizational structure, not only change significantly over the time of the organizational life cycle, but they also change depending on the type and size of the business.
Among the existing OLC reviewed, it emerged that not enough attention has been addressed to the differences between growth evolution stages between large organizations and smaller ones. Although major stages may not differ according to the companies' size, other structural elements - such as formalization, size, separation of ownership, coordination mechanism, informal networks, and knowledge networks - may vary consistently between established firms and small start-ups or new ventures (Mosca, Gianecchini, Campagnolo, 2021).
Research such as the one by Churchill and Lewis (1983), Barnes and Hershon (1976), Bruce (1978), Steinmetz (1969), Dodge and Robbins (1992), Filley (1962) focus on small businesses, which, according to Scott and Bruce (1987), are defined by:

(1) Capital supplied and ownership held by small group or even one person;
(2) The area of the company's operation (that is usually local).

Churchill and Lewis (1987) present the characteristics of small business in each stage of development (Figure 9).

Figure 9: Characteristics of Small Business at Each Stage of Development

	Characteristics of Small Business at Each Stage of Development					
	Stage I Existence	**Stage II Survival**	**Stage III Success - Disengagement**	**Stage III Success - Growth**	**Stage IV Take-off**	**Stage V Resource Maturity**
Management style	Direct supervision	Supervised supervision	Functional	Functional	Divisional	Line and staff
Organization						
Extent of formal systems	Minimal to non-existent	Minimal	Basic	Developing	Maturing	Extensive
Major strategy	Existence	Survival	Maintaining profitable status quo	Get resources for growth	Growth	ROI

Source: Adapted from Churchill, N. C., & Lewis, V. L. (1983). The five stages of small business growth. Harvard business review, 61(3), 30-50.

Other researches on the other hand, have narrowed their attention to larger organizations (Scott & Bruce, 1987). Lastly, general OLC models such as the one by Greiner (1972), Scott (1971) and Dodge and Robbins (1992) seem applicable to either small or large businesses (Scott & Bruce, 1987). Consistent with Dodge and Robbins (1992), in fact, whether is a large, established, incumbent enterprise or a small start-up, newly born company, predictable sequential and progressive stages exist.

Scott and Bruce (1987), present a categorization of growth models, based on size that the authors of the selected studies decided to focus on. For the purpose of this thesis, the categorization has been represented in a table below (Table 2).

Table 2: Growth Models Categorization by Scott and Bruce (1987)

Categorization of Growth Models

	Authors	Year	Focus
Industry Growth Model	Wright Porter	1975 1980	How industries develop
Large Business Growth Models	Channon Salter	1968 1970	How large businesses change and expand
Small Business Growth Models	Maher & Coddington Bruce Steinmeitz Churchill & Lewis Barnes & Hershon	1966 1978 1969 1983 1976	How small businesses develop
General Growth Models	Scott Greiner Lippitt & Schmidt	1971 1972 1967	Development models applicable to all sized-businesses

Source: Personal table adapted from: Scott, M., & Bruce, R. (1987). Five stages of growth in small business. Long range planning, 20(3), 45-52.

Moreover, if some scholars view evolution as a series of predictable consecutive stages, others believe, instead, that organizational stages should not be considered strictly sequential and deterministic (Jirásek & Bílek, 2018; Miller & Friesen, 1984; Mintzberg, 1984).

Miller and Friesen (1984), through a study of 36 organizations, found that, although all companies move from birth/founding to decline, it may happen that they skip some steps in between, presenting some irregularities, therefore not progressing in a linear fashion.

Table 3*:* Summary of the five questions

	Why	When	How	Who	What
Question	Why do firms move from one stage of development to the next?	When does the organizational stage occur?	How is the development process sustained?	Who are the actors that lead the organizational development?	What are the characteristics of the organizational structure while evolving?
Answer	• **Internal factors** (period of crisis inside the organization) • **External factors** (e.g., financial resources, customer acceptance, adaptation to external environment - Metamorphosis Theory, Contingency Theory).	• **Depends on the industry's** market environment (e.g., fast or slow growing industry) • Timing is crucial to address crises	• **Solve the internal crisis**, otherwise a firm cannot proceed to the next phase (Greiner, 1972: Lippit & Schmitd, 1976) • Companies do not follow a linear pattern (Churchill & Lewis, 1983)	Management/ top management but **as firm grows more people** are involved	• **Vertical and Horizontal** differentiation change • Management style changes • The extent of formal system changes • The structure changes

Source: Personal table

1.3 Growth: definitions and motives

In the previous paragraph, the development of organizations has been discussed. When talking about the natural and spontaneous evolution of a company, the word "development" has been voluntarily used instead of the word "growth".

Although they are often used interchangeably, Starbuckt (1965) defined *development* as the change in organization's age and *growth* as the change in the size of an organization, measured by the number of employment. Development, a quantitative and qualitative dimension, is a gradual and transformational process that includes new skills and functions

able to bring higher quality to inner processes and greater value to the overall organization (The Difference between Growth and Development, n.d.). Growth, on the other hand is a quantitative, measurable dimension and it is reflected in the increased number of employees, increased sales and revenues.
Growth is a phase of an organization's development and evolution. For the purpose of this thesis, a brief discussion about growth and how it can be achieved could be useful for a better understanding of the next chapters.

Organizations develop over time, as a natural, spontaneous process, similarly to the development that life organisms experience (Gardner, 1965). Growth, on the other hand, is not spontaneous, neither random (Starbuckt, 1965). Undoubtedly, growth is driven by strategic motives.
To clarify the meaning of the word growth, we can refer to Filley (1965:16) that considers five ways in which this word could be defined.
Firstly, it could mean "*the achievement by a firm of an increasing share of industry sales"*.
Likewise, it could be measured by the achievement of a greater share in relation to the national product. Thirdly, taking into consideration the speed, a growth company could be a business that is able to rapidly accelerate. Moreover, not negligible is the absolute (increasing) value of assets, sales and all the other elements that can be indicators of a firm's healthy situation. Lastly, a growth and solid company could be represented by the increase in sales/assets, even in periods of depression or decline.
By the same token, examples of measures of growth are: total sales, total employment, income and total assets (Filley, 1965).

It is well known, that a company size can grow in two ways: organically/internally or externally. The former way encompasses and exploits the business opportunities that can arise from the internal processes of the company, therefore, by relying on its own resources. Usually, it means expanding the product range, diversifying, increasing the number of business units and number of locations.
On the other hand, the latter involves the creation of synergies and the exploitation of external resources. Strategies to grow externally involve M&A, Licensing, Strategic alliances as well as Joint Ventures and Franchising.
Startbuck (1965) proposes ten motives to organizational growth.

1) Achieve organizational self-realization. In particular, this self-realization can come in different forms. For example, increasing technology's know-how, attract retail dealers, as a response to customers' demand
2) Seeking new adventures and risk
3) More prestige and power
4) Increased executive salaries: salaries increase exponentially with a firm's increase in sales volume
5) Profit maximization
6) Costs: opportunity to exploit economies of scale
7) Revenues. With the increase in volume and sales, revenues also increase
8) Monopolistic Power
9) More Stability

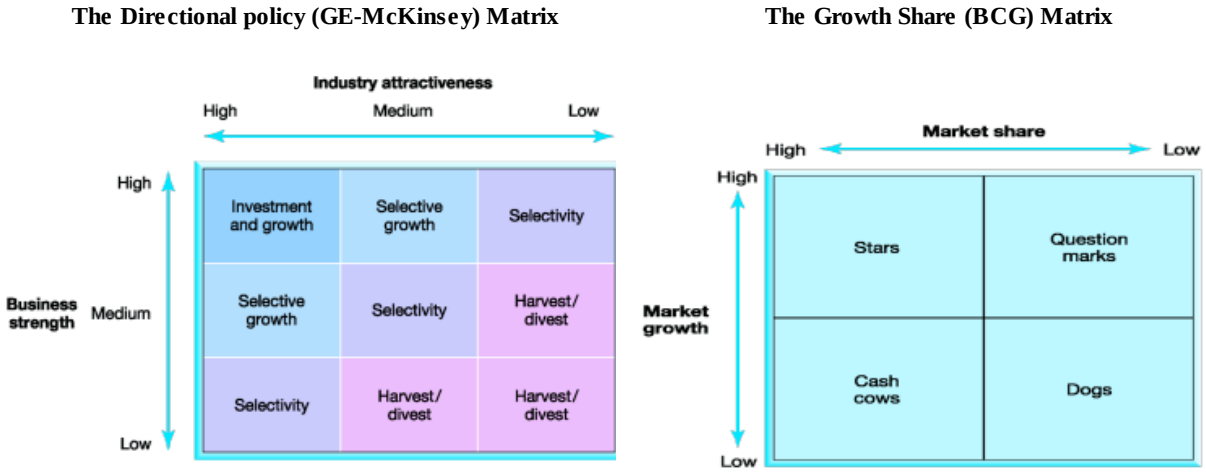
However, whether management's growth decisions imply scouting new opportunities, growing in different markets, developing new products, or merely exploring the environment, they should be positively correlated with the overall goals of the organization (Starbuckt, 1965). Sometimes, growth, increasing the size of the business as well as the company's prestige, can be a goal on itself. Other times it could be pushed by simple operational motives, therefore, not creating value per se. Nonetheless, whichever the motives behind growth are, Starbuckt (1965) reasonably suggests to managers not to lose sight of the business direction, in their haste to grow.

When a company grows, it can achieve a significant competitive advantage over its competitors. Strategies for business's growth have been developed by several models.
An example is *The Directional Policy Matrix* or *GE/McKinsey Matrix*, which using as dimensions industry attractiveness (e.g., market size, market growth, industry profitability, inflation recovery) and business unit strength (e.g., market share, competitive position, relative profitability) helps the company's management identifying which areas of the current business is required to "harvest", to "hold" or to "be built" again.
Market growth and market share are also useful indicators of a company's performance. The *Growth Share Matrix*, also known as *BCG Matrix*, categorizes business opportunities in four possible ways (Figure 10).

1) A star is an investment growth opportunity that promises high and stable earning as a result of high market share and market growth.
2) A dog is, in contrast, an area of the business with low, unstable earnings and, usually, a negative cash flow. Thus, no opportunity for growth can arise and divestment of that business should be implemented.
3) A cash cow opportunity is characterized by low market growth and high market share. Earnings are usually high, as well as cash flow. The strategy for growth is to exploit this opportunity, investing in that area of the business.
4) When cash flows are negative and earnings are low or negative but they are increasing, further analysis is necessary to determine whether to expand or to divest the relative business opportunity.

Moreover, the ability to grow and expand in other markets gives companies several, non-negligible advantages. Nonetheless, when deciding to expand in another market, a careful analysis of the industry attractiveness is necessary. The *Five Forces Model* of Porter is a well-known framework that allows analysing an industry based on five elements: (1) Competitors already present in the target industry (2) Buyers (3) Suppliers (4) Substitutes of the product intended to be sold in that industry and (5) Other potential entrants.

Figure 10: The Directional Policy Matrix and the Growth Share Matrix



Source: https://quizlet.com/295141693/q5-explain-i-the-growthshare-matrix-boston-consulting-group-and-ii-directional-policy-matrix-ge-mckinsey-what-are-the-advantage-disadvantage-of-using-these-matrices-use-a-figure-to-illu-flash-cards/

Chapter 2

Organizational Change and Adaptation

A focus on the differences between small and large companies

The previous chapter predominantly presented the development of organizations during their life time. It is observable that inevitably firms pass through a series of stages, from their birth, to their maturity and decline. One of the most salient points of the above discussion is represented by the evolution of structural configurations during organizational development.

It was outlined, indeed, that as a firm increases in size and complexity, formalization and bureaucratization became essential to provide organizational stability. The same logic applies to small and start-up firms, which initially, being constituted by one or few employee(s), do not possess formal role, hierarchy and defined tasks, but instead show a high level of flexibility.

These main assumptions, exposed so far, together with the idea that life cycle development can be considered - to all intents and purposes - an organizational change, raised the following questions:

1) *How small firms differ from larger ones in the process of organizational change?*
2) *Do the organizational configurations of small and large organizations influence the ability to adapt to changes?*

The focus of this topic stands on the fact that, among the organizational literature, little attention has been addressed to the different behaviour that characterizes the development of small and large organizations. However, as mentioned, size reflects dissimilar organizational configurations which inevitably affect the firm's adaptability to external changes (e.g., environmental turbulence, natural catastrophe) and/or internal changes (e.g., cultural change, development of the organization and shift to another life cycle stage).

Interestingly, D'Amboise and Muldowney (1988) emphasize the importance of organizational configurations, when examining a business. As a matter of fact, they assume that every organization can be analysed in terms of (1) *organizational configurations* (the formal and informal structure of the organization), (2) *managerial characteristics*, which includes all the objectives, goals and actions of the management and (3) *environmental task* (e.g., customers,

suppliers, competitors and all the entities and bodies that have influence on the way a business is run).

However, before proceeding further, a clarification of what is intended with small and large companies, is required.

2.1 Small companies

D'Amboise and Muldowney (1988:226) state: "*a small business is one which is independently owned and operated, and which is not dominant in its field of operation*". However, this definition is not comprehensive, and, often, scholars use other criteria to measure organizational size, such as the value of the assets, the total annual sales and the number of employees.

Generally, with regard to small businesses, total annual sales are, usually, less than 20$ million, while employees are not more than 500.

Moreover, although the workforce is limited, in terms of size, in comparison to larger organizations, Gleeson (2019) states that in smaller firms is more likely to be present a more diverse workforce, with different aspirations and goals.

By analysing a company according to the three factors expressed by D'Amboise and Muldowney (1988), we note that the task environment greatly influences the small business, as the limited market power, makes the firm generally more vulnerable to changes of the environment. More time is, in fact, spent in adjusting to the turbulence rather than controlling it and preventing it.

Secondly, with regard to the organizational configuration, a small company has generally a centralized decision making power, in contrast to the decentralization of a larger organization. Roles are also less formalized, with a structure that is therefore more flexible and less bureaucratic. Interactions and open dialogue with higher supervisors are more likely due to the lack of formal and structured roles. The organization generally flatters, with fewer functions, as probably the firm commercializes one or few products/services.

Thirdly, regarding the managerial characteristics, the manager of the small company is often also the entrepreneur who owns the business. "*The importance of owner manager in the small business cannot be overemphasized*", cite D'Amboise and Muldowney (1988:227).

The relevance of this actor has also been highlighted in the first chapter, where the role of the entrepreneur was essential in the initial phase of the development life cycle, in order to give rise to a business, putting into practice what initially was just an idea. There is a "*critical*

difference between starting a successful firm and managing a successful firm", highlight Boeker and Karichalil (2002).

Miller and Toulouse (1986) recognize that in small, centralized organizations, rather than in larger ones, the role of the CEO and his personality has much more influence, and it is closely related to the firm's strategy and structure. Although scholars are recently recognizing the growing importance of managing small and start-ups companies, a multitude of academic articles has focused on the role of CEO in large, bureaucratic companies (Wasserman, 2003).

To mention Filley, he acknowledged that the research literature was focused on the problems of running large and complex organizations, limiting the attention on the challenges that small businesses with limited resources and a simple structure have to face in order to become successful, established enterprises (Filley, 1962:2).

Wasserman (2003), recognizing the recent importance of entrepreneurial companies and the importance of their founders for the development and growth of their companies, conducted a study on what may affect the Founder-CEO succession in 202 Internet start-ups. In fact, he mentioned, there exist significant differences in the managerial succession between small and large companies.

2.2 Large companies

On the other hand, large organizations are, usually, mature, established firms, in the growth or mature phase of development, and possess high profit as well as more than 500 employees. It is generally assumed that the larger the organization, the more bureaucratic and hierarchical is the internal structure. The greater the number of employees, the higher the number of layers in a company's organizational structure and hierarchy. Recalling the first chapter of this thesis, companies, growing in size and age, reaching the last phases of their development, encounter problems of coordination and formalization.

Correspondingly, Haveman (1993), who - in his study - focused on large organizations, mentioned that larger organizations present more structural complexity, more formalization and a decentralized decision-making power.

To facilitate coordination and task delegation, one of the most used organizational configurations in large companies includes directors at the top of the pyramid and the line-staff at the bottom, according to degree of authority (Gleeson, 2019). This is a clear chain of command, with expertise at each level (Gleeson, 2019). In line with this structure, functional, divisional or matrix forms are also often utilize by big businesses. However, it is common

that in larger firms, interactions are limited with people specialized in the same functions, sometimes reducing the possibility to improve skills and competencies in other areas. In line with Haveman (1993), there exists, indeed, greater task specialization.

However, employees can also be different in terms of expertise and knowledge, but it is common that in mature and established companies, the corporate culture can be so strong that employees' goals became completely mirrored to the firm's ones.

To conclude and summarize the analysis, the table below (Table 4) provides the main differences between small and large companies.

Table 4: Major differences between size: small and large companies.

Differences between small and large companies	
Small Business	**Large Business**
Equity held by founder/Family	Mostly public investors-held equity
Owner –managed	Professional Management
Centralized decision making power	Decentralized decision making power and distributed by organizational hierarchy
Short term planning - aim is minimize failure	Extensive long term planning horizons - aim is maximize success
Informal Process - no real task specialization	Formal structure and processes - task specialization
Small customer base (local markets)	Diverse market (Global) with diverse customers
Limited personnel development opportunities	Multiple development career paths and programs
Little external input (friends and network)	Significant external input (network an consultants)

Source: Adapted from: https://www.slideshare.net/ramiyer/comparison-small-medium-large-companies

This brief introduction concerning the differences between small and large organizations intends to pose the basis for the discussion in the subsequent paragraphs.

The first chapter of this thesis focused on the development of firms along their life cycle. Yet, the transition from one life cycle stage to another could be considered an organizational change – and more precisely a planned change - that encompasses all the elements inside an organization.

Having said so, the following paragraphs will examine how small and large companies differently adapt to organizational change, with the aim to provide (1) valuable insights in order to understand how size-related differences affect companies' development and (2) practical suggestions to managers who aspire to learn how to counteract structural inertia, which often make organizations reluctant to changes.

2.3 Organizational Change

"*Organizational change is the process by which organizations move from their present state to some desired future state to increase their effectiveness*".
(Gupta & Singla 2016:8).

A significant part of the literature and research is devoted to the understanding of organizational change. Researches and authors have studied change from different perspectives. Some researchers have identified why firms need to change (Child & Kieser, 1981; Meyer, 1982) and what is the process involved in these changes (e.g., Bartunek, 1984; Dutton & Duncan, 1987; Milliken, 1990).

Other academics investigated the process of implementations and the manner at which changes occur (Kanter, 1983; Quinn, 1980; Robbins & Duncan, 1988; Tichy & Ulrich, 1984). A group of researchers and theorists examined the nature of change, and the continuous and discontinuous change (Tushman & Romanelli, 1985).

Moreover, studies regarding changes in response to environmental threats and opportunities have been conducted, too (Haveman, 1993). For example, part of the literature focuses on organizational resilience and crisis management, therefore investigating the changes and the actions that leaders and managers need to implement to counteract environmental adversities and abrupt shocks (Williams, Gruber, Sutcliffe, Shepherd, & Zhao, 2017).

While there are known types of organizational changes, such as radical and incremental, over the years academics have started to identify and categorize other types of change. According to Eriksson-Zetterquist, Müllern and Styhre (2011) a change could be a continuous improvement, a radical transformation, an incremental change, a transactional leadership or an organizational development.

Additionally, Flouris and Yilmaz (2009) integrated the concept of time while studying change. They identified the anticipatory change, which is implemented by a company, without an external demand; however, they may be triggered by an external input or signal,

anticipated by the firm in order to gain competitive advantage or to face a potential future adversity. The second category mentioned by Flouris and Yilmaz (2009), is called reactive change. Reactive changes occur in response to a danger and are also studied in crisis management. Other organizational changes, such as adaptive change, innovative change or radically innovative changes also have been subject of several studies.

Furthermore, it is possible to categorize between planned and unplanned changes. Planned changes include, *inter alia*, (1) changes in the products or services that the company produces or offers (2) the introduction and implementation of new technology/innovation (3) changes in organizational structure, size, or administrative system, but also transitions from one stage of development to the other, since while developing, the firm modifies its structure and size. On the other hand, unplanned changes are exogenous variables such as governmental regulations, competition, environmental pressures, and demographics changes.

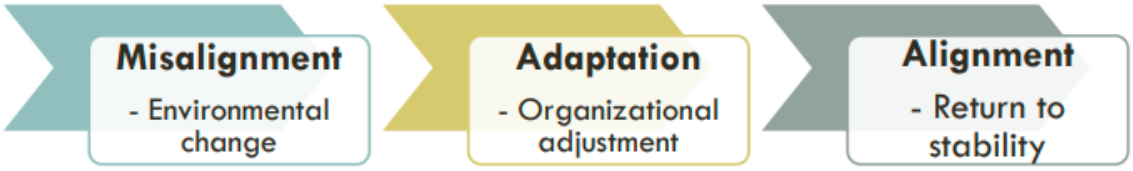
2.4 Attitudes towards change

The landscape of organizational change is mainly dominated by two theories, already mentioned in the first chapter: (1) the *Adaptation Theory* and (2) the *Selection Theory* or *Organizational Ecology Theory*.

The Adaptation Theory - which includes the contingency theory - assumes that organizations need to adapt to the external environment, using its own resources (e.g., RBV[6]) and therefore they should implement strategies and decisions to satisfy this aim (Haveman, 1993). Therefore, it is assumed that organizations constantly evolve and shift their structures and strategic choices to fit with the external environment, as it is also express by the *Random-action theories* (Haveman 1993). Advocates of the Adaptation Theory believe that transformational changes are triggered by misalignments between the company and the environment. It is believed, indeed, that changes in the external environment create, consequently, a misfit inside the company. Therefore, in order to realign the company and its internal structure, returning to the initial *status quo*, an organizational adjustment is required (Figure 11).

[6] Resource-based view.

Figure 11: Steps of Adaptation Theory



Source: Course material

On the other hand, the Selection Theory perspective, also known as Organizational Ecology, views organizational change as something that will decrease organizational performance, because, generally, firms are diffident towards the unknown.

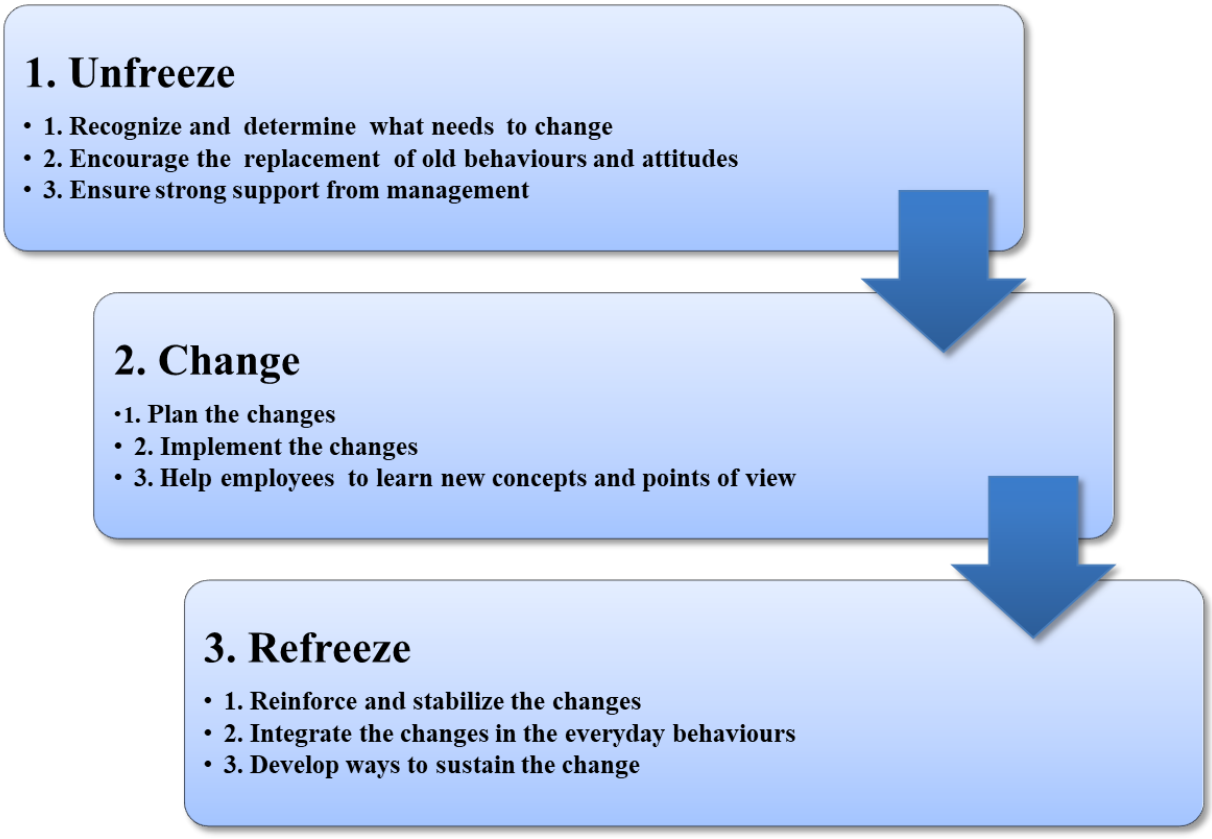
Specifically, especially two organizational theories, contributed significantly to the understanding of companies' adaptability: (1) the Institutional Theory and (2) the Population Ecology Theory. The idea of the work on population ecology by Hannan and Freeman (1977), recalls the Darwinism process of natural selection.
Kelly and Amburgey (1991:592) in their paper state that according to the Population ecology theory, "*change occurs primarily through the foundings and failures of organizations and secondarily through changes made by existing organizations*".

Over the years, other approaches to organizational changes have been identified.
One of the most influential theories in the 1940's organizational literature is Lewin's model. Suitable for planned, premeditated changes, the Lewin's 3-stage change model (1947) identifies *three conceptually distinct phases* (Ford, 2009) in order to implement a change inside an organization. Firstly, the current set of beliefs and system values rooted in a company need to be unfreezed. "*In the unfreezing phase, change is initiated by destabilizing the equilibrium between forces that drive and restrain existing behaviour*" (Ford, 2009:305). Only subsequently it is possible to *change* and then *freeze* again the corporate culture (Figure 12).
Thereby, in line with the idea that change is a process, Ford mentions (2009:304):

"*Change processes can be viewed as sequences of individual and collective events, actions, and activities unfolding over time in context that describe or account for how entities develop or change*".

Lewin's three-stage model appears, therefore, extremely insightful to the organizational change literature and, although on one hand, some authors theorize that the change process is non-linear, as opposed to what Lewin believed, this framework remains still valid for the comprehension of behavioural change patterns in both small and large organizations (Ford, 2009).

Figure 12: Three phases of Lewin's model



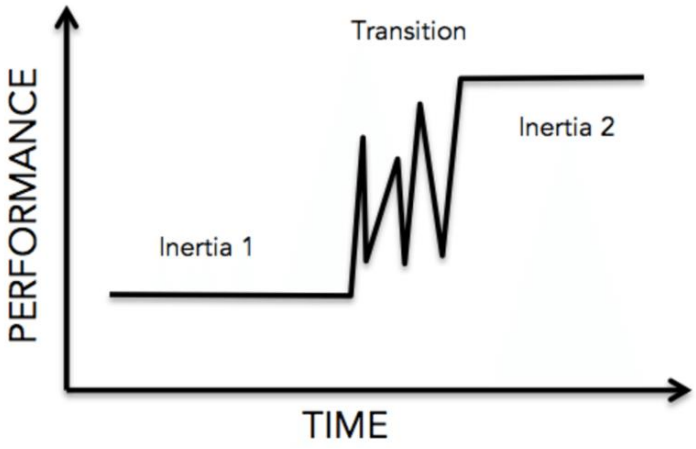
Source: Adapted from: https://online.visual-paradigm.com/diagrams/templates/lewins-change-model/lewin-change-model-template/

Additionally to the aforementioned model, scholars have recognized life-cycle model theories as another way to study organizational changes. To recall, the first chapter of this thesis present a review of the most known organizational life cycles models and theories and therefore, also helps us discern organizational change. Since a common path to every organization has been identified (e.g., Idea, Strategy, Growth, Maturity, Decline), supporters

of this model have tried to study the "transpositions" that business experience in their maturing.

Academics, such as Gersick (1991), presented another theory helpful to investigate fundamentals of organizational change (Romanelli & Tushman, 1994). As opposed to the gradualism theory, which views evolution as a gradual, incremental transformation, the Punctuated Equilibrium Theory (Figure 13), delineates equilibrium periods, also known as periods of stability or inertia, and short revolutionary periods (periods of fundamental change) (Romanelli & Tushman, 1994). As stated by Romanelli and Tushman (1994:1143): "*Organizational transformations will most frequently occur in short, discontinuous bursts of change involving most or all key domains of organizational activity*".
Although this theory has been used in several disciplines (e.g., sociology, biology, psychology), it is often employed to explain organizational transformations. However, several critics exist with regard to this theory. In this context, organizations are seen as stable entities, sometimes disrupted by changes. But the reality check shows that, more often, stability is not the normal order of things, while unanticipated activities arise in the every day-to-day business decisions (Eriksson-Zetterquist, Müllern & Styhre, 2011).

Figure 13: Equilibrium and Revolutionary periods in the Equilibrium Punctuated Theory



Source: Course material

2.5 Resistance to Change and Organizational Inertia

Having firstly discussed the theories and the approaches used to analyse organizational changes, the focus will now shift to the organizational inertia.
Inertia as well as resistance when facing the unknown is inherently present in human beings and, thus in organizations.
Indeed, when examining transformations and changes inside an organization, it is one of the major debated issues.

"Why is it so hard for systems to make major changes?"
(Gersick, 1991:18)

Already in the 1940s, Lewin in his three-stage model had recognized that there are some counteracting, restraining forces that tend to keep the organization to its initial status. The *unfreezing* phase, functions exactly as a mean to discard those beliefs that are deep rooted in the company and in employee's mind, creating an obstacle for the evolution.
According to Starbuck (1965), organizational rigidity – which could be a motive of resistance in Lewin's unfreezing phase - is rooted in the process of inducement (contributions typical of organizations). This means that all the members of an organization receive an inducement in exchange for their contribution to the overall enterprise's goal. Inducements, being salaries, statutes, methods and goals can often change during growth, encountering resistance from members that may take the decision to abandon the organization.
As explained by Hannan and Freeman (1984) there are internal structural factors, such as personnel, sunk cost, cost of plant and equipment that prevent a group from changing. External inertial factors also exist. They can be barriers to entry, regulations, or simply exchange relation with other companies.
The Selection perspective of organizational change views the change as something that will reduce the reliability of the business performance, increasing failure and thus instilling fear across the whole organization (Hannan and Freeman, 1984).
Gupta and Chin (1994) explained that the replication of activity programs (simply because they were previously successful) creates inertia over time.
Other academics, identified other major barriers, intrinsic in the human systems and, therefore, difficult to overcome.

For instance, Gersick (1991) mentions *Cognition*, *Motivation* and *Obligation* as major inertial forces against radical change. Resistance to change is, therefore, likely to be a common reaction among employees.

In addition to the three barriers mentioned by Gersick, also fear of change, complacency of workers, need to maintain current performance norms and the reliance on current skills can also play a negative role (Eriksson-Zetterquist, Müllern & Styhre, 2011).

Over the years, scholars and academics, building up on the initial Lewin's framework, have identified multiple ways to overcome such barriers and counteracting forces. For example, Gupta and Chin (1994:271) suggest some strategies to overcome structural inertia, which derives from the institutionalization of values and norms that a company experiences when it matures. The implementation of (1) matrix structure, (2) real time information systems, (3) multiple product lines and (4) decentralization/diversification, are all factors that help a company gaining structural flexibility.

It is evident, however, that the bigger and more complex the company, the greater the forces of resistance. Generally, a more rooted and established corporate culture, a less flexible ad versatile structure, together with standardized and formalized procedure are among the reasons of resistance in transitional periods.

Although the literature does not emphasize this organizational aspect as an element that create significant differences in the development of small and large companies, I believe that it was sufficiently relevant to be mentioned, since depending on the size, a business, undoubtedly, experiences dissimilar inertial forces.

Nonetheless, the literature still recognizes and discusses some divergences in the development of size-related businesses.

This chapter has the purpose of presenting those academic papers that are believed relevant in order to provide a comprehensive overview of the organizational size - organizational change relationship.

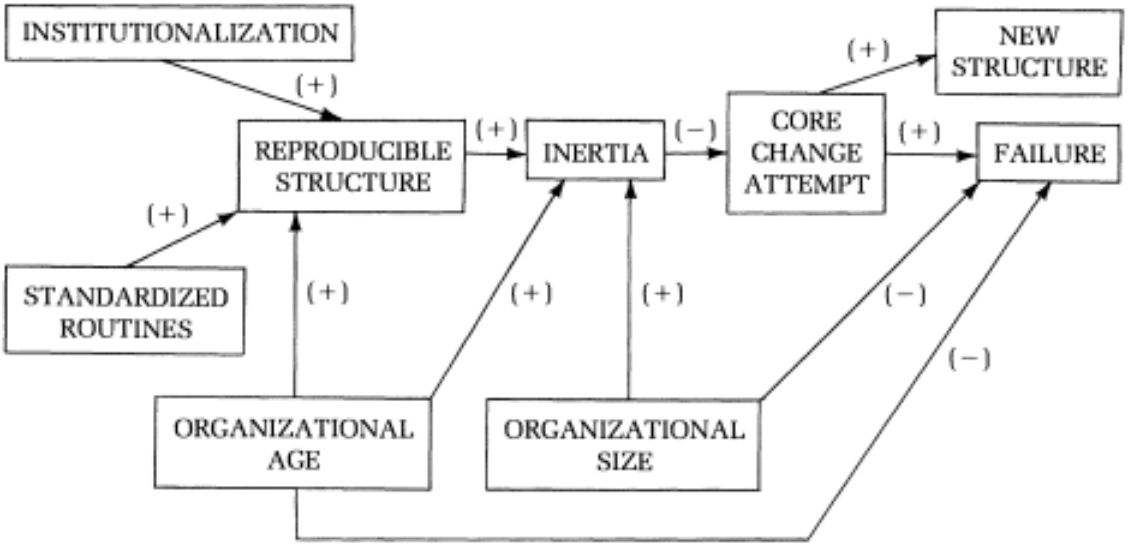
2.6 Change and Organizational Size

The relationship between change and size is a topic that does not present extensive research in the literature. Still, organizational size is one essential characteristic in the structure of an organization and studying its impact on organizational change is a logical task.

The relationship between organizational size and the speed and extent of organizational change depends on the degree to which there are differences in structure and behaviour between organizations of different size, says (Haveman, 1993) and, generally, this relationship depends on contextual factors (Ford, 2009).
Haveman (1993) proposed that the aforementioned relationship can be studied in terms of "rigidity of size" and "fluidity of size". While, the former limits adaptability, fostering inertia, the latter, instead, assumes that grater formalization, differentiation, but also greater market power increases the ability to change.

It is worth noting that there are two competing views regarding size and organizational change, which are summarized in Table 5.
A school of thought believes that organizational size and organizational inertia are positively related, implying a negative relation between size and change. In particular, Hannan and Freeman (1984) believe that size creates rigidity through formalization, standardization and resource dependency, therefore hindering the capacity of a firm to quickly adapt to changes.
It has been already discussed in the previous chapter, that when organizations evolve along their organizational life cycle, they tend to subsequently increase their degree of formalization as well as their control system, limiting the ability to adapt, thus increasing resistance to change.
However, with standardization and formalization, a company is likely to increase its stability. It follows, therefore, that as a company increases in age (and also in stability), it will also be less reactive to environmental changes or other adversities, as well as to simple structural changes to be undertaken inside the organization.
The figure below, inferred from the study by Kell and Amburgey (1991), clearly summarized the correlations between institutionalization, standardization, age, size and inertia (Figure 14).

***Figure 14*: The relationship between organizational inertia, age, size and relatively formalization and standardization processes.**



Source: Kelly, D., & Amburgey, T. L. (1991). Organizational inertia and momentum: A dynamic model of strategic change. Academy of management journal, 34(3), 591-612.

Notwithstanding, in the literature exists also another opposite stream of thought, which believes that formalization facilitates change, suggesting that size and change are positively related. To cite the Lewin's theory, this school of thought agrees by assuming that formalization eases the *unfreezing* stage.

In relation to that, authors, such as Child (1973) and Briscoe (2007), concluded that formalization may encourage differentiation, innovation and the necessaries expertise to counteract and act towards change. An interesting view by Stensaker et al., (2002) reports that a more structured organization might be more able to implement a more focused unfreezing, without risking an unnecessary reaction to insignificant environmental triggers.

Indeed, while some scholars assume that formalization hinder adaptability due to difficulty of coordination and communication (Frederickson, 1986), others still consider that only through formalization, companies can deal with complexity (Child, 1973). It is noticeable, in line with Briscoe (2007) that the competencies and expertise deriving from formalized roles and routine give the firm a solid understanding of what need to be changed and prioritized in order to adequately adapt to the environment and guarantee the firm's sustainability.

Therefore, following this perspective, small organizations with a less formalized structure encounter difficulties in implementing change.

Table 5: Summary of academic articles regarding the relationship between size and organizational change.

Authors	Year of Publication	Relationship between size and change	Explanation
Hannan & Freeman	1984	Size and change/adaptation are **negatively** correlated	Large organizations are less reactive to changes and less capable to adapt to new transformations. Formalization and standardization of roles create rigidity, hindering adaptation ability.
Kelly & Amburgey	1991	Size and change/adaptation are **negatively** correlated	Large organizations are less reactive to changes and less capable to adapt to new transformations. Formalization and standardization of roles create rigidity, hindering adaptation ability.
Frederickson	1986	Size and change/adaptation are **negatively** correlated	Formalization hinders adaptability due to communication and coordination difficulties.
Child	1973	Size and change/adaptation are **positively** correlated	Formalization facilitates adaptability, encouraging differentiation, expertise and innovation.
Briscoe	2007	Size and change/adaptation are **positively** correlated	Competencies and expertise allow to understand what need to be changed
Stensaker et al.	2021	Size and change/adaptation are **positively** correlated	Competencies and expertise deriving from a more structured organizations allow a focused change

Source: Personal table

The literature reviewed above sheds light on the different attitudes that small, less structured companies and large, more formalized organizations present towards change.

If we categorize organizational change as a process that passes through the three Lewin's stages, it is inferable that the unfreezing phase is the most complex one, especially for large

firms, which need to eradicate the every-day routines. On the other hand, small organizations lacking a formal structure, can easily adapt thanks to their flexibility.
Notwithstanding, a unique perspective doesn't exist and scholars are divided between those who believe that large and established companies, with a concrete formalized structure encounter difficulties in adapting, and others that assume that formalization spur innovation as well as a focused, rationalized change.

Using as a starting point and a benchmark the paper by Ford (2009) as well as Lewin's three stage model - *unfreezing, change and refreezing* – as a framework, size-related differences along the entire change process are identified in the following.

2.6.1. Unfreezing

The first phase of Lewin's change process - the unfreezing phase - is characterized by a destabilization of the equilibrium, necessary to the discard of old behaviours. In this stage, structural inertia is one of the major obstacles an organization can face. Being resistant to the change process can hinder the motivations to incur in a change process, abandoning the idea of changing from the beginning.
However, two perspectives exist and on one hand structural inertia, which increases with size, is considered to limit adaptability (Hannan & Freeman, 1993). On the other hand, formalization is seen to facilitate the unfreezing phase, through greater innovation, differentiation and augmented competencies. Moreover, Ford (2009) believed that standardization and routinization of tasks give the possibility to continuously scout the environment, seizing the right opportunity when needed.

2.6.2. Change

The second phase of Lewin's model, known as change or movement phase, occurs when unfreezing has been successfully implemented. Change is the phase where the management of the organization put into practice the new pattern of action.
Evidence of a change in progress is reflected in a transformation of the behaviour of the organization. Employees and all the other participants involved in the business should adjust to the new configuration.
Citing Haveman (1993), advocates of the "rigidity of size" assume that in this second phase, the greater the size, the greater is formalization and routinization of tasks, and therefore the

more difficult is to adjust to the new routines. Generally, in a mature and established firm, corporate culture is totally embedded in the organization's DNA. If on one hand, it creates stability and loyalty from its employees, it also makes organizational learning and unlearning, harder.

Supporters of the "fluidity of size" theory, instead, propose that only complex, formalized structure are able to rationalize what needs to be changed and, thanks to the knowledge coming from a differentiated set of competencies, they can understand how to adequately and efficiently implement the transformation.

2.6.3. Refreezing

Ford (2009) believes that the last phase of Lewin's change process - *refreezing* – presents the greatest divergences between diverse-sized companies.

This latter stage includes restabilising the new equilibrium of the organization, institutionalizing the new change (Ford, 2009). This phase is particularly crucial, because the temptation to fall back to previous pattern is strong. The role of managers is therefore to avoid the possible regression to old patterns of action (Ford, 2000; Lewin, 1947).

Generally, according to Ford (2009), guarantee of a successfully refreezing action is given by confirmation (e.g., positive feedback from people inside and outside the organization, rewards, comparison with competitors and other criteria/measurements). Zand and Sorensen (1975:535) claim that unfreezing occurs by means of (1) *confirmation*, (2) *psychological support* and (3) *heightened confidence*.

The major difference between small and large organizations in the refreezing phase stems from the fact that gathering data regarding change process feedback, could be arduous in small, informal organizations rather than in larger ones.

As reported by Child (1972), hierarchy facilitates the flow of information and feedback. It follows that larger organizations, with a hierarchical internal structure, can gather data more easily, obtaining a clearer response to the effectiveness of the improved performance.

In addition, routinized tasks allow for a regular check of performance, facilitating the feedback process.

In contrast, small organizations may be unable to collect the necessary feedback.

It is interesting to note that the study, about 44 small organizations (< 500 employees) and 54 large organizations (> = 500 employees), conducted by Ford (2009) revealed the following:

(1) Small organizations generally present significantly lower levels of refreezing than large organizations.
(2) Small organizations will generally achieve significantly lower levels of implementation success than larger organizations.

Finally, to carry out the reported study, the author identified six change process factors, which characterize the three Lewin's stages.
Specifically, the unfreezing stage possesses two factors: *problem analysis* and *action planning*. Indeed, destabilizing the old pattern of routines inside an institutionalized organization requires an ability to correctly analyse the environment and setting adequate goals and actions.
In the second phase, in order to implement and achieve the improved performance, the actors in the organization need to develop a new set of skills. Reasonably, *skill development* is the change process factor needed.
Lastly, refreezing phase, as previously emphasized, requires feedback and management control, since "*refreezing activities are confirmatory in nature"* (Ford, 2009:306).

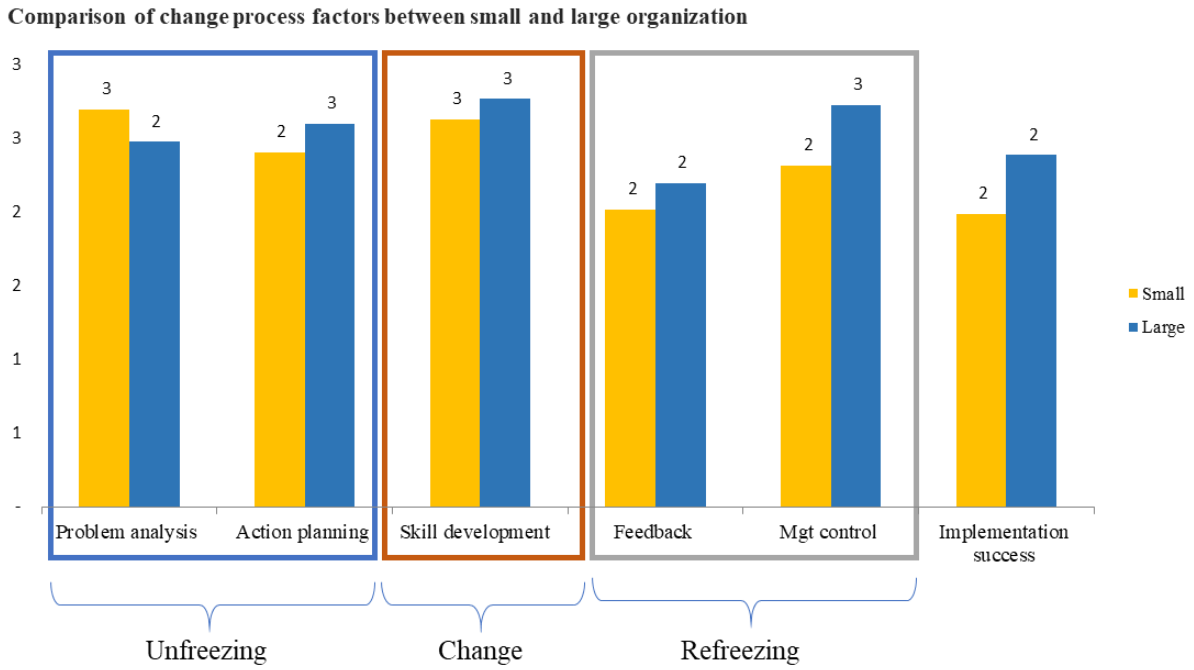
Finally, although not present in Lewin's model, I also found implementation success a reasonable success factor to include in the change process.
Reasonably, change implementation cannot be properly examined if the level of success is not taken into consideration (Ford, 2009; Zand & Sorenson, 1975).
Quinn and Rohrbaugh (1983) categorized three dimensions of organizational effectiveness, namely (1) internal focus versus external focus (2) stability versus flexibility (adaptation vs. predictability) and (3) emphasis on final outcomes/productivity versus emphasis on goal settings and planning.
The table and the graph below (Table 6; Figure 15), summarize the data gathered by Ford (2009) through the investigation of 45 small organization and 54 large organizations.

Table 6: Effects of organizational size in the change process

	Small #observations = 45	Large #observatiosn = 54
Problem analysis	2.70	2.48
Action planning	2.41	2.60
Skill development	2.63	2.77
Feedback	2.02	2.20
Mgt control	2.32	2.73
Implementation success	1.99	2.39

Source: Adaptation of data by Ford, M. W. (2009). Size, structure and change implementation: An empirical comparison of small and large organizations. Management Research News.

Figure 15: Change Process Factors Differences



Source: Adaptation of data by Ford, M. W. (2009). Size, structure and change implementation: An empirical comparison of small and large organizations. Management Research News.

2.7 Concluding remarks & limitations

The study proposed by Ford (2009) has been considered a helpful instrument in order to present behavioural size dissimilarities in organizational change. This chapter mainly focused on organizational change and adaptability, constituting a further step in the analysis of organizational development.

If in the first chapter, the development of organizational life cycle was examined, through a literature review of the main theories on the subject, the second chapter focused on organizational change, in order to outline if there are differences in the process of change implementation in size-related companies.

The development that a company experiences during its useful life is an actual transformational change and, as such, the importance of comprehending the behaviour of firms towards these structural changes cannot be overemphasized.

The literature manifested contrasting perspectives concerning size-related organizational adaptation.

Generally, the notion that small firms (e.g., start-ups) are more adaptable than large businesses, thanks to their structural flexibility, is widely accepted.

Authors such as Hannan and Freeman (1984), Kelly and Amburgey (1991) are advocates of this perspective. However, the investigation by Ford (2009), casts some doubts on this idea. Larger organizations possess more expertise, knowledge and market power to successfully face the obstacles along the change process.

Moreover, lack of formal and clear structure in small organization hinders the collection of feedback data, crucial in the refreezing phase.

However, the study by Ford (2009) poses the attention on planned change. Although, development is considered a planned change, therefore aptly applicable to our analysis, limitations to this study could emerge when discussing other types of change (e.g., emergent, not intentional, abrupt, urgent), or when adding other contextual factors.

Considerately, these limitations might prompt further research.

To summarize, it is generally difficult to draw conclusions about differences between small and large companies, due to the literature ambiguity.

Yet, Ford (2009) found that, using Lewin's model as a framework, main differences between small and large companies are evident in the last, refreezing, phase. Small organizations, due

to their lack of structure and formal roles are more prone to lose stabilization. Instead, while, on one side, larger organizations suffer from structural inertia, on the other side they offset the negative impact with greater competencies, implementing focused and thoughtful change, achieving improved performance.

To conclude this chapter, Table 7 will summarize the main characteristics of small and large companies in the three Lewin's stages.

Table 7: A comparison of the two main views during the three Lewin stages

	Unfreezing	**Change**	**Refreezing**
***Rigidity of size* perspective**	Structural inertia, which increases with size, limits the unfreezing stage	Formalization and routinization hinder the adaptation to the new pattern of action.	Lack of structure obstacles gathering of data and feedback, essential in this phase.
***Fluidity of size* perspective**	Formalization encourages innovation and facilitates the scanning of the environment, making the organization aware of what need to be changed	Complex, formalized structure thanks to the expertise and set of competencies, can understand how to efficiently implement the change.	Formalization and structural complexity foster social control and feedback, which in turn eases the refreezing phase.

Source: Personal graph

Chapter 3

Organizational Size and Innovation

Studies regarding organizational change confer valuable insights to organizations' managers and practitioners. Especially nowadays, companies face extremely burdensome challenges that jeopardize the firms' survival. As O'Connor (2006) suggests, companies need to continuously renew themselves to survive in the market environment. Changes foster new demand and organizations need to continuously create new products and services to efficiently satisfy the shifts in customers' preferences.

Firms that face market and technological challenges need to constantly improve their *modus operandi*, through innovative responses, in order to efficiently contrast their competitors. Innovation, indeed, is a source of renewal inside the organizations.

As recalled in the second chapter, in particular two widely known theories – the *Organizational Ecology Theory* and the *Institutional Theory* – explain the behavioural patterns of organizational change.

Hage (1999), in his paper "*Organizational innovation and organizational change*", integrates the more general theories of organizational change, with a narrower view regarding organizational innovation. It is noteworthy that implementing an innovation that improves the overall performance of the organization is to be considered, for all intents, a change inside the organization. Hage (1999) believed that organizational change theories (e.g., structural contingency theory, political theory, population ecology theory and institutional theory), are strongly related to environmental change, which in turn influences the choice of organizational form (e.g., mechanical, organic), therefore influencing the implementation of innovation.

Baregheh, Rowley and Sambrook (2009:1324) suggested that "*innovation is tightly coupled to change, as organizations use innovation as a tool in order to influence an environment or due to their changing environments (internal and external)"*.

The discussion presented in the previous chapter raises, therefore, an issue that is acquiring more and more relevance in recent times: the role of innovation in organizational contexts.

Although organizational innovation has been studied for more than thirty years so far (Hage, 1999), this topic has not been central in management or organizational theory.

If organizational innovation has not been discussed extensively in the literature, the correlation between organizational factors and innovative performance has been treated even less among scholars (Baldridge & Burnham, 1975). Undoubtedly, the size of a company and, consequently, its level of formalization/flexibility, standardization/adaptability, formality/informality, significantly impact the capability of a firm to innovate, its innovative performance and its innovation management capabilities. Thereby, this last chapter of this thesis has the aim to link organizational factors, with the degree of innovativeness inside firms, providing an overview of the findings of the main articles that, hitherto, have dedicated to this topic.

A review concerning the size-innovation relationship can be functional for scholars and practitioners, and understanding in depth the inconsistencies of some findings could be subject for future investigations.

However, the first step for the analysis is a review of innovation, which will be presented below.

3.1 Definition of Innovation

The term innovation applies to multiple disciplines and, consequently, it entails numerous and diverse definitions. Baregheh, Rowley and Sambrook (2009) wrote an interesting paper entitled *"Towards a multidisciplinary definition of innovation*", where they proposed a holistic, general but integrative definition of innovation. Specifically, they collected over 60 definitions of innovation from multiple disciplines such as (1) Economics, (2) Organization Studies, (2) Innovation and Entrepreneurship, (4) Business and Management, (5) Marketing, (6) Technology, Science and Engineering and (7) Knowledge Management. Through the analysis of the definitions encompassing all these disciplines, they identified six attributes to be in common in all these disciplines, namely: (1) Nature of Innovation, (2) Type of Innovation, (3) Aim of innovation, (4) Social Context, (5) Means of Innovation and (6) Stages of Innovation. The word frequency counting – that is the number of times that words related to the specific attributes appeared in the definitions they analysed - as well as the explanation of each attributes is shown in the picture below (Figure 16).

Figure 16: The six attributes: definition and word frequency.

Attributes	Definition of the attribute	Word Frequency count
Nature of Innovation	The form of innovation as in something new or improved.	92
Type of Innovation	The kind of innovation as in the type of output or the result of innovation.	98
Aim of Innovation	The overall result that the organizations want to achieve through innovation	31
Social Context	Any social entity, system or group of people involved in the innovation process or environmental factors affecting it.	60
Means of Innovation	The necessary resources (technical, creative, financial) that need to be in place for innovation.	69
Stages of Innovation	All the steps taken during an innovation process which usually start from idea generation and end with commercialization.	48

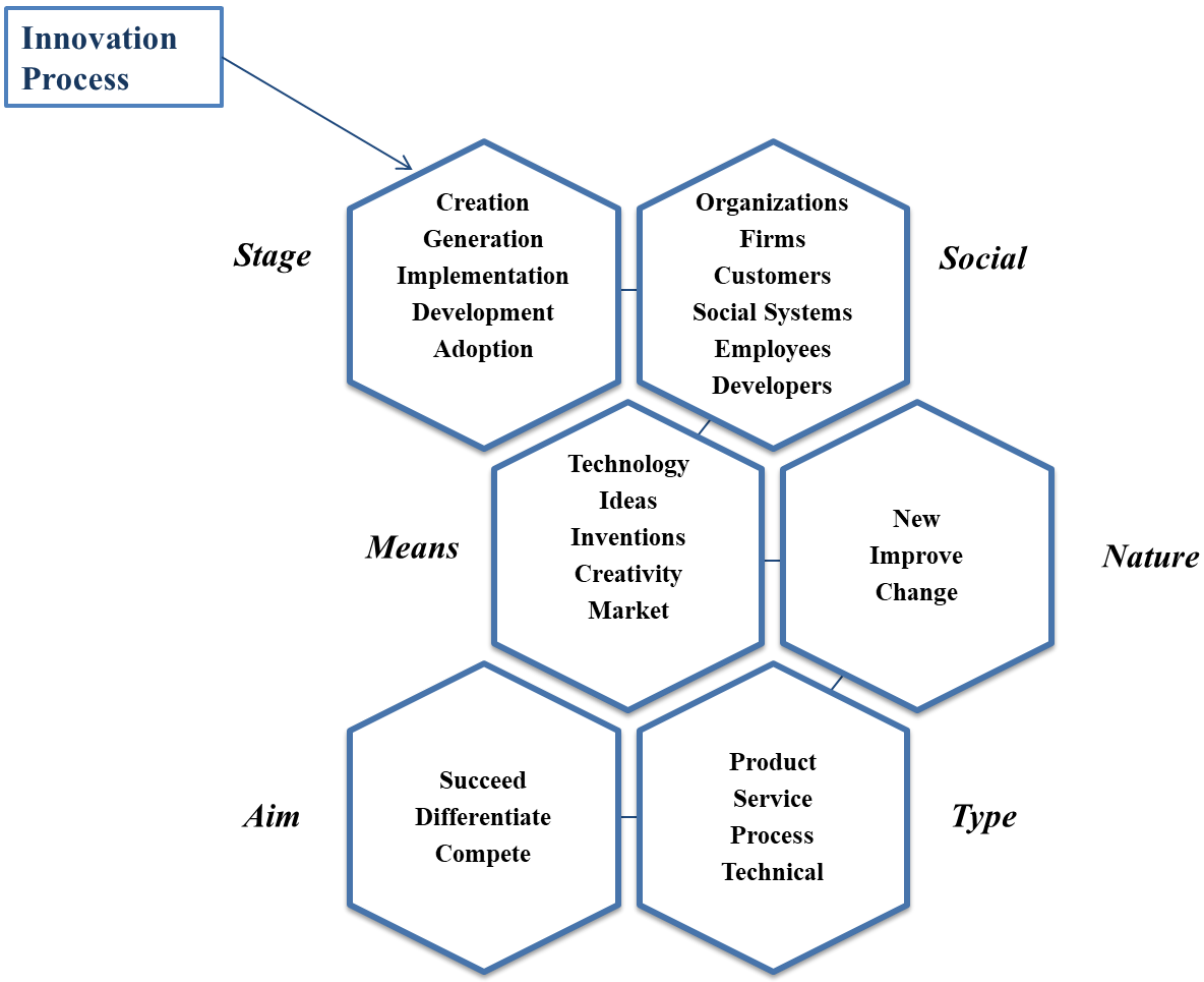
Source: Personal graph, adapted by Baregheh, A., Rowley, J., & Sambrook, S. (2009). Towards a multidisciplinary definition of innovation. Management decision.

The study of Baregheh and his colleagues, allowed them to create a definition of innovation, which captures the very essence of this process (Baregheh, Rowley and Sambrook, 2009) (Figure 17). They defined innovation in the following way:

"*Innovation is the multi-stage process whereby organizations transform ideas into new/improved products, service or processes, in order to advance, compete and differentiate themselves successfully in their marketplace*."

(Baregheh, Rowley and Sambrook, 2009:1334).

Figure 17: Diagrammatic Definition of Innovation by Baregheh, Rowley and Sambrook (2009).



Source: Personal graph, adapted by Baregheh, A., Rowley, J., & Sambrook, S. (2009). Towards a multidisciplinary definition of innovation. Management decision.

Although the authors of the study summarized above succeeded in defining innovation from a sample of disciplines, the investigation shows how broad the term innovation is. As a result, the size-innovation correlation is not unambiguous in the literature. As Camisón-Zornoza et al., (2004:332) suggest: "*the most consistent result found in the organizational innovation literature is that its research results have been inconsistent*".

Agreeably, academics (Damanpour, 1992; Kimberly, 1971) declare that one of the reasons of that inconsistency among results, in the innovation-organizational literature, derives from the

heterogeneity of methodologies employed, from the different size measurements used and from the dissimilar conceptualizations and definitions of innovation, as well as from the proxies considered.

One of the most cited definition in the relevant literature is the one by Schumpeter (1930). The Austrian – American economist distinguished between *innovation* and *invention,* emphasizing the significant impact that innovation can bring to economics and entrepreneurship. He viewed the innovation as both *creative* – new opportunities are created - and *destructive,* as new innovations or technologies, destroy the previous market.
Schumpeter defined innovation as "*a bundle of pre-existing resources packaged in a new way*" (Eriksson-Zetterquist, Müllern, & Styhre, 2011:198).

However, years later, a management guru cites:

"Innovation is the specific tool of entrepreneurs, the means by which they exploit change as an opportunity for a different business or a different service. It is capable of being presented as a discipline, capable of being learned, capable of being practiced. Entrepreneurs need to search purposefully for the sources of innovation, the changes and their symptoms that indicate opportunities for successful innovation".

(Drucker, 2014:19).

Damanpour (1992) in his study concerning organizational size and adoption of innovation, defined innovation as the adoption of something new to the organization, that could be either an idea or a new routine. It follows that new routinized tasks - mentioned in the previous chapter, as a result of successfully implemented organizational changes – can be considered a type of innovation. By the same token, the concept of adaptability to organizational change is not different to the idea - expressed by Damanpour - of adoption of innovation.

Thompson (1969:5) stated that innovation is "*the generation, acceptance and implementation of new ideas, processes and products or services. Innovation therefore implies the capacity to change and adapt*". He also believed that the capacity for an organization to change its routine and tasks, as well as the capability of adaptation of its employees, is an essential element in order to adapt to new demands in the marketplace (Eriksson-Zetterquist, Müllern, & Styhre, 2011).

To present innovation holistically, a summary of some of the definitions of innovation analysed for the purpose of this thesis, has been reported, chronologically, in the table below (Table 8).

Table 8: A summary of the definitions of innovation.

Author(s)	**Year of publication**	**Definition of Innovation**
Schumpeter	1939	*Innovation combines pre-existing elements in a new way.*
Evan & Black	1967	*Innovation is the implementation of new procedure, or ideas, whether a product of invention or discovery.*
Thompson	1969	*Innovation is the implementation of new ideas, processes, products or services.*
Kimberly	1981	*Innovation includes 3 stages: (1) innovation as process, (2) innovation as discrete item including, products, programs or services and (3) innovation as an attribute of organizations.*
Dewar & Dutton	1986	*Innovation is an idea, practice or material artefact perceived to be new by the relevant unit of adoption.*
Van du Ven	1986	*Innovation is the development of new ideas by people who engage in transactions with others in an institutional context.*
Damanpour	1992	*Innovation is the adoption of an idea or behaviour, whether a system, policy, program, device, process, product or service, that is new to the adopting organization*
Doughery	1999	*"Product innovation" is defined as the conceptualization, development, operationalization, manufacture, launch and on-going management of a new product or service.*
Slappendel	1996	*The term innovation is used to refer to the process through which new ideas, objects and practices are created, developed or reinvented.*
Wong et al.	2008	*Innovation can be defined as the effective application of processes and products new to the organization and designed to benefit it and its stakeholders.*

Baregheh, Rowley & Sambrook	2009	*Innovation is the multi-stage process whereby organizations transform ideas into new/improved products, service or processes, in order to advance, compete and differentiate themselves successfully in their marketplace.*
Lafley & Charan	2010	*An innovation is the conversion of an idea into revenues and profits.*
Drucker	2014	*Innovation is the specific tool of entrepreneurs, the means by which they exploit change as an opportunity for a different business or a different service.*

Source: Personal graph

If innovation has encountered many definitions (e.g., adoption of an idea/behaviour, creation of a new product/service, innovation as a means to fit with the external environment, innovation as a tool of entrepreneurs), ways of measure innovation have been numerous and not univocal in the literature, too. Adams et al., (2006:22) cite: "*the term 'innovation' is notoriously ambiguous and lacks either a single definition or measur*e".

Indeed, for a long time, innovation has been measured by the number of patents citation data. However, this indicator presents several shortcomings that over time have made authors questioning the validity of the analyses regarding the size-innovation relationship. Firstly, most patents are not commercialized, or they partly cover some new innovations, or they do not cover innovations at all. Furthermore, patents sometimes could be the result of appropriability strategies, and in general they are not precise indicators of the source of innovations (Laursen & Salter, 2006). Therefore some scholars (Laursen & Salter, 2006) have used other methods of measuring innovation performance inside organizations (e.g., survey).

Yet, whether deriving from different conceptualizations of innovation or from diverse methodologies of innovation performance, the outcome is clear: no unique relationship exists between organizational size and innovation.

Contextual and organizational factors, as well as types of innovation, or types of firms, undoubtedly create inconsistencies among results.

After having presented the categorization of innovation, this chapter will discuss the aforementioned relationship, through a review of literature research. It will be shown that

researchers have found either: (1) a positive correlation, (2) a negative correlation and (3) no significant correlation.

Finally, concluding remarks of this chapter will be outlined, together with the conclusion of the thesis.

3.2 Taxonomy of Innovation

Defining the taxonomy of innovation is an important step in order to fully understand the impacts that implementing innovation has inside organizations. One of the most common categorization of innovation is based on two dimensions: (1) the *technology* underlined in the new innovation and (2) the *market* in which the innovation operates. This matrix classification gives rise to four widely known types of innovation: (1) Sustaining; (2) Incremental; (3) Radical; (4) Disruptive (Figure 18).

Figure 18: Innovation Matrix

Source: https://www.viima.com/blog/types-of-innovation#:~:text=In%20the%20Ten%20Types%20of,focused%20and%20distant%20from%20customers.

3.2.1. Sustaining Innovation

Based on the two dimensions expressed above, a sustaining innovation is one that aims at satisfying new demand of existing customers, by slightly and efficiently improving features of an existing product. However, this improvement, even if gradual, can increase significantly the profit margin on the product, offering a better performance to the high-end customer (Kylliäinen, 2019).

Sustaining innovations are an innovative strategy used by most firms. They, in fact, allow a business to satisfy the demand of its customers, without taking great risks, as they do not introduce a new technology in the market place. As the name suggests, they help a firm sustaining its competitive position by slowly growing in the marketplace (Kylliäinen, 2019).

3.2.2. Incremental Innovation

Similar to the sustaining innovation, the incremental one is a gradual, continuous improvement of an existing product/service in the already existing market. The aim of this type of innovation is to make the existing product more efficient, without changing its core functionalities. Likewise the sustaining innovation, it is able to increase profit on the product, satisfying a greater portion of existing customers. Advantages related to this type of innovation are low – risk and no need of educating customers. However, these could result in a non-significant impact in the market environment. Moreover, incremental innovation cannot make an organization survive in the environment. Inevitably, a disruptive innovative technology - discussed below – will transform the current customer needs (Kylliäinen, 2019).

3.2.3. Radical Innovation

Radical innovation introduces a revolutionary technology in a new market. It, therefore, addresses needs in a completely new way, providing solutions to problems, changing the entire market and the economy (Kylliäinen, 2019). Dewar and Dutton (1986), explain that radical innovations are departures from existing practice. However, radical innovation is risky, and, as it is something completely new, it encounters factors of resistance at first. Indeed, as discussed in the second chapter of this thesis, adapting to the change is not trivial. Organizations and its employees, and in this case also the customers, are usually resistant when facing the unknown. When a radical innovation is introduced, costs have to be borne. The customers need to be educated in order to learn how to use the new technology. Often,

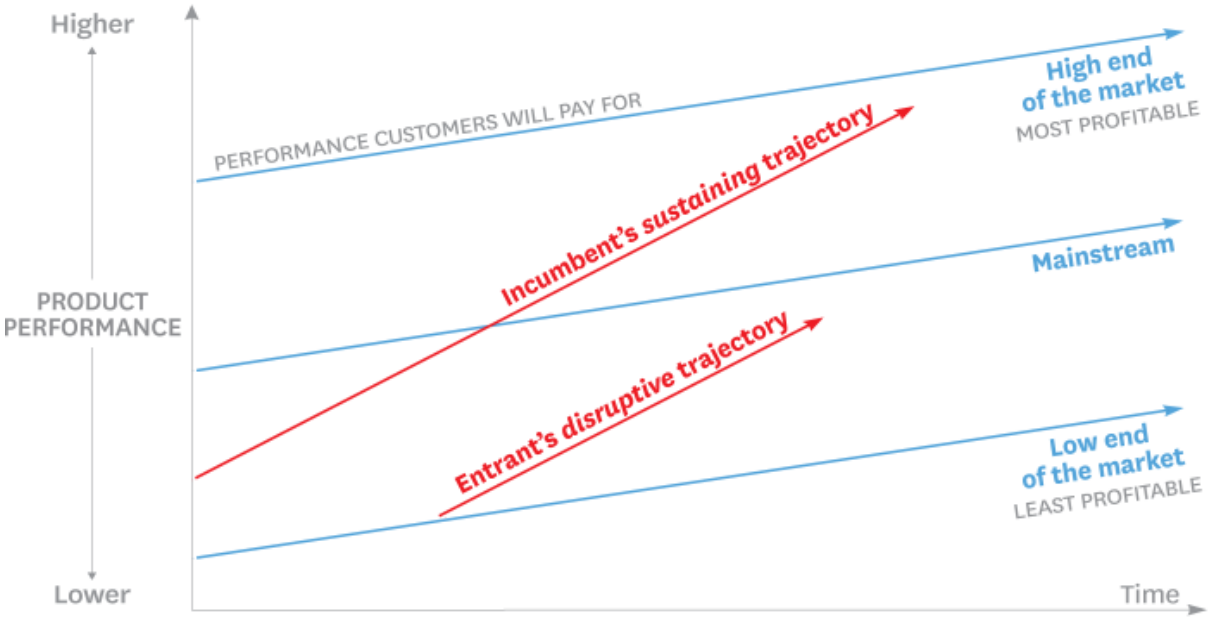
these costs are borne by the first introducer of the innovation, despite having the advantage of the first mover. Usually, the competitors that arrive later are able to free ride those costs.

3.2.4. Disruptive Innovation

In his book *Innovator's Dilemma*, the Harvard Business School Professor Christensen (2013) introduced the concept of disruptive innovation. Disruptive innovation introduces a completely new technology, creating completely new markets and reshaping existing ones. The logic behind this innovation is expressed by the two graphs below.

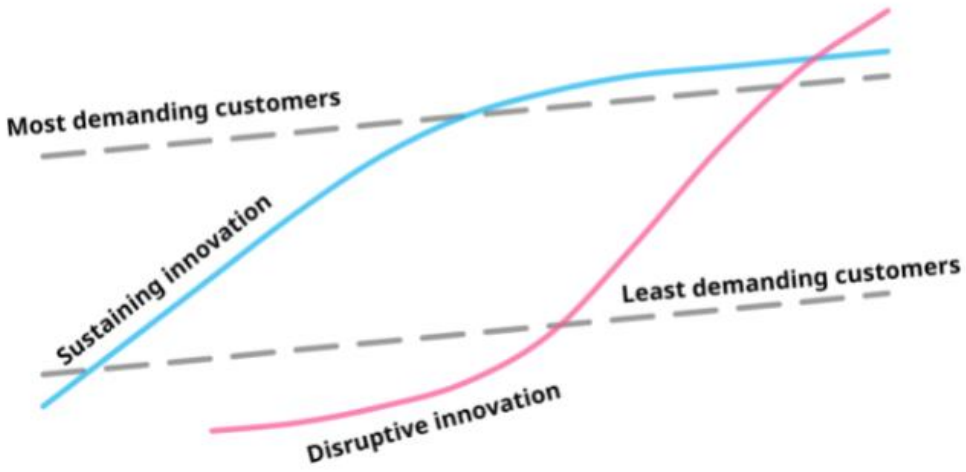
As the time passes, the performance of a business usually increases. Established, successful organizations keep focusing on their existing customer base, satisfying the demand with gradual, sustaining innovations. They rely on their past success, failing to recognize the new competition. In the meantime, a new entrant with a disruptive technology, starts satisfying the needs of the low-end customers. The incumbent does not recognize the new entrant as a potential enemy, since the entrant has not reached yet the mainstream market (Kylliäinen, 2019). However, at some point – which Christensen called the *disruptive moment* – the mainstream market adopts the new technology. Usually, it is now too late for the incumbent to catch up with the new innovation, and it risks going out of business (Kylliäinen, 2019).

Figure 19: Disruptive Innovation (1 of 2)



Source: http://futurescreening.com/research-news-disruptive-innovation-reflection-clayton-m-christensen-et-al/

Figure 20: Disruptive Innovation (2 of 2)

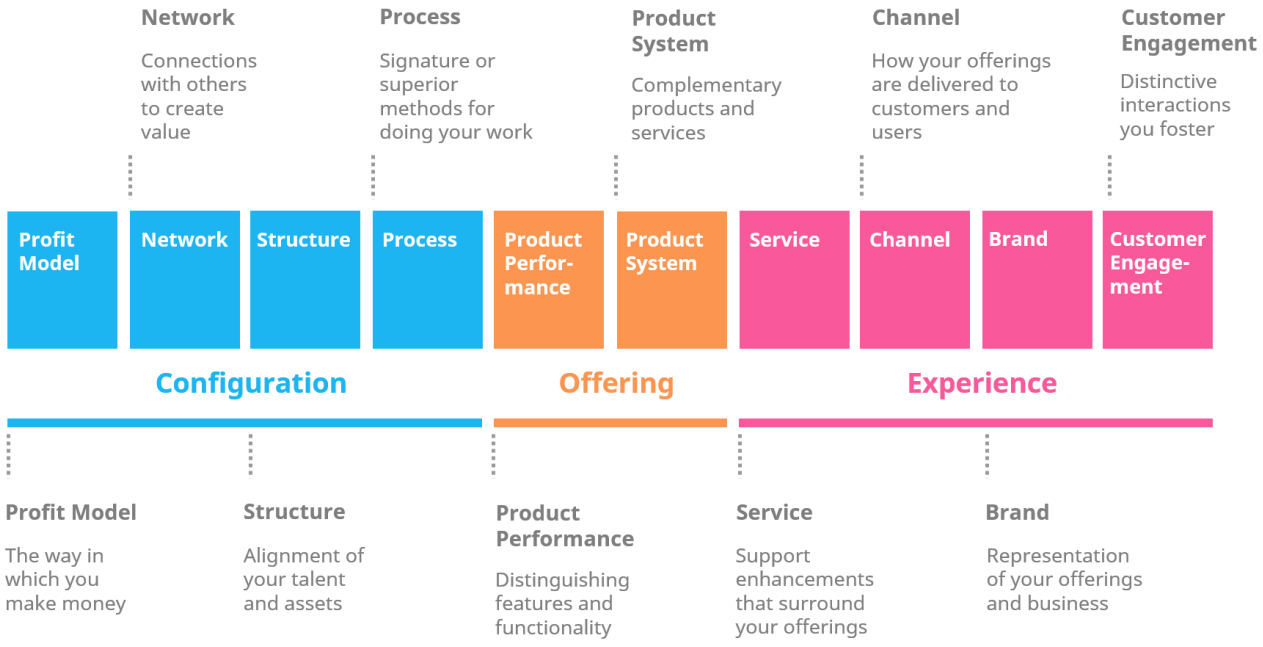


Source: https://www.viima.com/blog/types-of-innovation#:~:text=In%20the%20Ten%20Types%20of,focused%20and%20distant%20from%20customers.

Although the taxonomy presented above is one of the most common categorizations of innovation, it is not the only one. For example P&G introduces its own matrix with four types of innovation: (1) Sustaining (2) Commercial (3) Transformational Sustaining (4) Disruptive. Furthermore, using others dimensions, that define the problem and the domain faced by the innovation, other four types of innovation are created: (1) Breakthrough Innovation (2) Sustaining (3) Basic Research (4) Disruptive.

Additionally, during the '90s, the *Ten Types of Innovation Framework* was developed (Figure 21). This model identified three macro groups, namely: (1) Configuration (2) Offering and (3) Experience. This holistic framework helps understand how innovation can be implemented inside the organization and how it can be improved, giving practical insights to managers (Kylliäinen, 2019; Nieminen, 2020).

Figure 21: The Ten Types of Innovation Framework



Source: https://www.viima.com/blog/ten-types-of-innovation

At this point, it is noticeable that a universalistic theory is inexistent, given the fundamental differences across innovation types (Downs & Mohr 1976). Yet, organizations, depending on their internal and external needs, decide whether and which type of innovation to implement (e.g., product innovation, technological innovation, process innovation, business model innovation, marketing innovation, architectural innovation, social innovation, and administrative innovation[7]). For example, Kimberly and Evanisko (1981) noted that, for certain types of innovation (e.g., administrative innovation) size and, therefore, complexity and differentiation, are required in the adoption behaviour.

Though, whatever innovation/improvement a company employs, the importance of fitting with the environment to survive and thrive in the marketplace, cannot be overemphasized.

Moreover, a dual, ambidextrous focus seems crucial nowadays. Simultaneously exploiting the current business model and exploring, scouting new external opportunities and disruptive innovation, is the key to a long-lasting success (Kylliäinen, 2019).

Having introduced the types of innovation, we are now ready to discuss the size-innovation relation and its implications on organizational theory.

[7] Administrative Innovation, similarly to management innovation, is a change in organizational structures or in the administrative processes of an organization, through the implementation of new management practices and processes and structure (Bui, 2011).

3.3 Organizational Size and Innovation (Adoption)

Studies concerning organizational innovation have been numerous, but the focus on organizational factors has not been enough. Baldridge and Burnham (1975), recognize that the attention to organizational features (e.g., size, complexity) is important for two reasons in particular. Firstly, organizations are the principal adopters of social inventions and, secondly, features inside the organizations are the main independent variables that impact the entire innovation process, the amount of innovation implemented and the rate at which innovations are proposed and implemented.

The paragraphs above show that innovation is diversified and organizations employ what they believe could fit their business and their organizational goals.

The study by Dewar and Dutton (1986) mainly focused on two types of innovation: radical and incremental. The investigation revealed that radical innovation is mainly predicted by two factors: size and depth of knowledge. Evidence, therefore, demonstrate that size and innovation adoption are significantly correlated and that an analysis of this relationship is a reasonable task to undertake in the organizational literature.

However, while the authors found that the effect of size on the adoption of more radical innovation cannot be denied, there are no empirical evidence on the effect of size on incremental innovation. Dewar and Dutton (1986) found that, particularly in large organizations, radical innovations are more developed. In fact, larger organizations, supposedly, can afford more engineers and researchers to develop revolutionary innovations that require a significant amount of knowledge. Moreover, increased size leads to greater spaces or innovation labs and more research equipment. As previously mentioned, engaging in radical innovations involve higher risks, as the possibility of default increases. It is worth mentioning that larger organizations have a more risk-taking behaviour in comparison to small firms, as the latter need to constantly reduce the possibility of failure. Indeed, large firms are generally more focused on maximizing success, while smaller firms try to minimise their failures.

Smith, Dickson and Smith (1991) similarly found that, usually, small innovative firms, due to their lack of personnel with adequate knowledge, expertise and equipment, need to gain access to the resources of larger firms. The importance of inter-firm collaboration is therefore emphasized. Organizations of all size can benefit from collaboration, as it increases innovative outputs as well as technological gain and profits (Smith, Dickson and Smith,

1991). The authors identified several advantages that small and large firms can obtain by collaborating in innovation (Table 9).

Table 9: Large and Small firms' collaboration advantages

Small firms	Large firms
Small - Large firm collaboration advantanges	*Large - small firm collaboration advantanges*
1) Possibility to exploit new technologies	1) Access to people with right combination of skills to develop new product
2) Access to resources	2) Increase company range, provide customers with better service
3) Access to expert users	3) Strategic decision to invest in a key technology.
4) Management strategy for the firm -> the company can evolve from followeer to leader in technology	4) Access to smaller firm's expertise for product development needed
5) Opportunity to be approached by larger companies	
6) Joint development	
7) Way to extend client base	
8) Increase distribution network	

Source: Adapted from: Smith, H. L., Dickson, K., & Smith, S. L. (1991). "There are two sides to every story": Innovation and collaboration within networks of large and small firms. Research Policy, 20(5), 457-468.

3.3.1. Organizational Size and Innovation Adoption: A Positive Relation

Among the organizational literature, some scholars have found that increased size leads to more innovation performance and innovativeness, validating the hypothesis that the relationship size-innovation is positive.

As anticipated before, Dewar and Dutton (1986), discovered a positive relationship only in relation with radical innovation, but not with incremental.

Craig, in 1995, studying the bureaucratic Japanese systems found that large organizations, which are also the ones with greater degree of bureaucracy and formalization, are able to organizing in small departments or specific divisions, fostering in this way creative thinking, and consequently, innovation. The organizational structure of companies, can therefore strongly affect the type of innovation prompted, if the structure presents R&D departments as well as innovation labs (Argyres and Silverman, 2004). These views reflect the well-known Chandler's idea that "*structure follows strategy*", the concept that strategy leads to decisions regarding organizational structure.

Blau and McKinley (1979) recall that larger firms, which are also more complex, have higher capability to innovation in comparison to small firms. However, if on one hand the ecology theory teaches us that the more complex the environment, the more complex the internal organizational structure should be; there are no evidence that show that a more complex environment leads to higher innovative output. Anyway, Blau and McKinley (1979) criticize the perspective which views standardization and formalization as factors limiting innovation.
In line with Kimberly and Evanisko (1981), larger organizations, thanks to the greater volume of resources, are more capable of affording innovations. Moreover, since larger organizations simplify the process of innovation adoption, some types of innovation that necessitate of adoption behaviour, are possible only in large, formalized firms.
The reason behind this positive link, relies on the general assumption that the greater the structural complexity, the higher the likelihood of having knowledgeable specialists that can foster innovation activities (Baldridge & Burnham, 1975). Moreover, structural decisions such as structural complexity, decentralization and differentiation in business units can help promote innovation, grouping together specialists capable of generating more innovative and creative solutions to problems (Baldridge & Burnham, 1975). However, it is also experienced that this diversity and skilfulness among the employees, often, result in conflicts over resources and goals. Baldridge and Burnham (1975) suggest that these conflicts can be overcome by integration mechanisms (e.g., hierarchical decisions, coordination mechanisms).

Size, being related to complexity, also influences innovation (Baldridge & Burnham, 1975). As we already know, the greater the size, the greater the problems of control, coordination, and management. Promoters of the positive correlation, however, hold that these issues further incentivize innovation practices, since organizations must respond to these problems. Besides, in large companies, arises the so called "*critical mass*", which augmenting the entity of certain problems, fosters the adoption of innovative solutions (Baldridge & Burnham, 1975; Kimberly & Evanisko, 1981).
Lastly, the increased size makes the organization more expandable in the market environment, which increases innovation performance through an increased networks or greater inter-firm collaboration (Baldridge & Burnham, 1975).

3.3.2. Organizational Size and Innovation Adoption: A Negative Relation

The opposite school of thought, instead, proposes that large scale organizations are incapable of hosting innovative work.

Supporters of the negative relationship, such as Sharma (1999), strongly affirm that, large organizations possess a degree of bureaucratization that dampens innovative output. Although Sharma (1999) recognizes that established and mature firms have much more resources available than start-ups and small firms, this advantage does not offset the negative impact that cumbersome formalization and excessive routinized tasks have on innovation and creative thinking. Indeed, even if creative ideas are generated from the managers and the line staff, bureaucratic procedures hamper flexibility and responsiveness, required to implement the innovative changes. The only way for large firms to innovate, state Sharma (1999), is to emulate the model of entrepreneurial start-ups.

Comparably, Dougherty and Hardy (1996) found that, large firms, in general, are not properly organized to sustain innovation, in comparison to smaller firms.

3.3.3. Organizational Size and Innovation Adoption: Non-significant relationship

In their study, Aiken, Bacharach and French (1980) define innovation as a multi-phase process, starting from the proposal of a specific innovation and ending with the relative implementation. They examined the innovation proposals, specifically for technical and administrative innovations, of middle and lower echelon officials in 44 Belgian bureaucracies. The choice of bureaucracies stands on the underlining assumptions that on one hand, large, bureaucratic organizations have been considered incapable of hosting new innovation and adapting to it, while on the other hand, large organizations, thanks to their complexity have been deemed promoters of innovation, in comparison to more simple and dynamic organizational forms (Aiken, Bacharach and French, 1980). However, the findings of their research revealed non-significant relationship between organizational size, as well as complexity and innovation proposals. Organizational configurations, such as vertical differentiation, and horizontal coordination significantly vary, resulting in differences in the innovation proposals of the firm under consideration. That is why the examination of just one organizational setting creates limitations in the study.

The table below will present a summary of the proposed different outcomes, regarding the relationship under consideration.

Table 10: Summary of size-innovation relationship outcomes

Size and Innovative Performance			
Authors	**Year of Publication**	**Relationship between size and innovation**	**Explanation**
Baldridge & Burnham	1975	**Positive**	1) Large organizations must respond innovatively to problems created by size (e.g., coordination, control, complexity) 2) Differentiation and structural complexity of larger firms produce specialists/promoters of innovation 3) A heterogeneous environment incentivizes innovative respond behaviour
Blau & McKinley	1979	**Positive**	The complexity of larger firms provides the right capabilities to sustain innovation
Kimberly & Evanisko	1981	**Positive**	Large organizations can better afford innovation, thanks to greater amount of resources
Dewar & Dutton	1986	**Positive**	Large organizations are more equipped to sustain radical innovations
Craig	1995	**Positive**	Bureaucratic (Japanese) organizations are able to organize in small department, fostering innovation
Argyres & Silverman	2004	**Positive**	R&D departments foster innovation

Dougherty & Hardy	1996	**Negative**	Large firms are not organized to sustain innovation
Sharma	1999	**Negative**	Bureaucratization of large firms hampers innovation and flexibility
Aiken, Bacharach & French	1980	**Non-significant**	Size is not a significant variable of organizational innovation

Source: Personal table

3.4 Concluding Remarks

So far, the literature concerning the relationship between size and innovation has been presented. As anticipated, it is evident that inconsistencies among the results exist. Damanpour (1992) recognizes that one reason for these contradictory results is the diversity of size measurements employed in the studies under examination. Indeed, sometimes scholars have used organizational factors such as the number of employees, the value of total assets, a measure of capacity, a measure of work force, while other times, they have used contextual factors (e.g., the number of company's clients, the size of the market).

In order to avoid these inconsistencies - suggests Damanpour (1992) - researchers should take into considerations determinants of organizations. He, in particular identified four organizational determinants: (1) the type of innovation (2) the type of organization (3) the stage of innovation and (4) the scope of innovation.

It should be noted, moreover, that the stage of innovation, implies that innovation is a process and not a discrete act, as Baregheh, Rowley, and Sambrook, (2009), Aiken, Bacharach and French (1980) and Evan and Black (1967), similarly defined.

Furthermore, Kimberly and Evanisko (1981:701) highlighted the issue of generalizability as a cause for inconsistencies. While some researchers took into consideration only a single innovation, they suggest that "*the relationship between size and innovation depends on the particular type nature of innovation under consideration*" (e.g., technological vs administrative innovation); thus analysing a single innovation could be misleading.

Moreover, the impact that a specific innovation has on the size of the organization depends on the nature of the innovation. Therefore, when analysing this relationship, it could be practical and insightful to create a distinction between different types, similarly to what

Dewar and Dutton (1986) did, distinguishing between radical and incremental, or likewise Aiken, Bacharach and French (1980) who distinguished between technical and administrative innovation.

Furthermore, Pavitt, Robson and Townsend (1989) emphasized that the relationship size-innovation varies among firms in different industries. Evidence emerged from public and non–profit organizations, which showed different results in comparison to private, profit-making organizations. By the same token, organizational size can have a strong impact on the adoption of innovation in one type of organizations, but it may have a non-significant impact on the innovativeness of another type (Damanpour, 1992).

4. Conclusions and Limitations

In an age dominated by exponential growth of scientific production, literature reviews are essential. They diligently examine, analyse and finally report the past and present literature research to enrich the future writings.
The first chapter, through an examination of past studies and their major findings, answered to the five questions proposed by the *Good Theory* of Whetten (1989).

1) Why do firms move from one stage of development to the next?
2) When does the organizational stage occur?
3) How is the development process sustained?
4) Who are the actors that lead the organizational development?
5) What are the characteristics of the organizational structure while evolving?

Answering to these questions, using perspectives and frameworks of different scholars, was intended to provide a holistic and comprehensive overview of organizational development.
Specifically, it emerged that firms are forced to move from one stage to the next, mainly because after a certain period of time they face internal crises, which could be addressed only with evolutionary changes. Moreover, according to some theories, such as the *Contingency* and the *Metamorphosis* one, external factors pressure companies to adapt to their surroundings to survive.
If the timing of development mostly depends on the industry market environment, the way under these changes occur specifically relate to each single organization. One perspective, views this as a linear process, while others (Churchill & Lewis, 1983) emphasize the non–linearity and unpredictability of such evolutionary path.
Lastly, people involved in this process are employees and managers at the top of the pyramid; however, changes in structural configurations, such as vertical, horizontal differentiation, inevitably affect the entire organization.

The second and the third chapter focus their attention on the size-related differences; firstly with the change-size relationship and secondly with the innovation-size correlation.
Evidence demonstrates two contrasting perspectives in both relationships. On one hand, increased size is believed to augment stability, giving the necessary resources to capture

external signals and giving the necessary knowledge and competencies to adaptation. Moreover, greater size is related to greater complexity, which fosters the need of innovative solutions, spurring innovativeness and creative thinking.

On the other side of the coin, increased size is seen as a synonymous of bureaucratic structure and inefficiency, while small firms are considered efficient and easily adaptable to abrupt and unexpected changes, thanks to their flexibility and informality. Flexibility as well as the absence of routinized tasks is considered a great driver of innovation and according to this perspective, small firms and start-ups are identified as innovation incubators.

Notwithstanding, it is evident that development, change and innovation assume great importance in organizational contexts.

How they are managed inside organizations is a key strategic issue to both practitioners and researchers across a range of business and management disciplines.

However, this dissertation does not lack of limitations. Although intended to provide a comprehensive framework, the amount of studies reviewed are restricted.

Future research might want to extend the literature review to enlarge the amount of experiments and findings. Moreover, given the ambiguity of the relationships under consideration, a more extensive analysis could provide insights to understand which side of the coin is more prevalent in the literature.

Although this work has been, mostly a purely conceptual effort, it is hoped that the aspiration of providing practical advices will not be vain. Yet, if this paper has raised further questions, this thesis could be contentedly used as a starting point for future investigations.

Appendix

Table 11: Review of Organizational Life Cycle Models

# of stages in life cycle models	Author(s)	Year of publication	Classification of life cycle stages									
			1 stage	2 stage	3 stage	4 stage	5 stage	6 stage	7 stage	8 stage	9 stage	10 stage
3 stages	Filley*	1932	Small Business Stage	Dynamic Stage	The stage of Maturity							
	Davis *	1951	Pioneering - owner manager	Exploitation - Entrepreneur Promoter	Stabilization - Professional Executive							
	Downs	1967	Struggle for autonomy	Rapid growth	Deceleration							
	Lippitt & Schmidt	1967	Birth	Youth	Maturity							
	Scott	1971	Stage 1	Stage 2	Stage 3							
	Katz & Kahn	1978	Primitive system stage	Stable Organization Stage	Elaborative Supportive structures stage							
	Smith, Mitchell & Summer	1985	Inception	High growth	Maturity							
	Gray & Ariss	1985	Birth and early growth	Maturity	Decline or redevelopment							
	Gupta & Chin*	1994	Inception and Early Growth	Late Growth and Maturity	Decline							

*The authors are not present in the original table by Jirásek, M., & Bílek, J. (2018) but they have been added for the purpose of this thesis.

# of stages in life cycle models	Author(s)	Year of publication	Classification of life cycle stages									
			1 stage	2 stage	3 stage	4 stage	5 stage	6 stage	7 stage	8 stage	9 stage	10 stage
4 stages	Drucker*	1954	The small company	The fair-sized company	The large company	The very large company						
	Steinmeitz*	1969	Stage I	Stage II	Stage III	Stage IV						
	Lyden	1975	First stage	Second stage	Third stage	Fourth stage						
	Kimberly	1979	First stage	Second stage	Third stage	Fourth stage						
	Tyebjee, Bruno & McIntyre*	1983	Entrepreneurial Marketing	Opportunistic Marketing	Responsive Marketing	Diversified Marketing						
	Quinn & Cameron	1983	Entrepreneurial stage	Collectivity stage	Formalization and control stage	Elaboration of structure						
	Mintzberg	1984	Formation	Development	Maturity	Decline						
	Kazanjian	1988	Conception and development	Commercialization	Growth	Stability						
	Dodge & Robbins	1992	Formation	Early growth	Later growth	Stability						
	Jawahar & McLaughlin	2001	Start-up	Emerging growth	Mature	Decline/Transition						
	Dufour, Steane & Corriveau	2018	Acting the future	Reflecting on the past	Acting on the past	Thinking the future						

*The authors are not present in the original table by Jirásek, M., & Bílek, J. (2018) but they have been added for the purpose of this thesis.

# of stages in life cycle models	Author(s)	Year of publication	Classification of life cycle stages									
			1 stage	2 stage	3 stage	4 stage	5 stage	6 stage	7 stage	8 stage	9 stage	10 stage
5 stages	Rostow*	1960	The Traditional Society	The Preconditions for Take-off	The take-off	The drive to maturity	The age of high-mass consumption					
	Greiner	1972	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5					
	Gaibraith	1982	Proof of principle	Model shop	Start-up volume production	Natural growth	Strategic maneuvering					
	Churchill & Lewis	1983	Existence	Survival	Success	Take-off	Resource maturity					
	Scott & Bruce	1987	Inception	Survival	Growth	Expansion	Maturity					
	Miller & Friesen	1984	Birth	Growth	Maturity	Revival	Decline					
	Baird & Meshoulam*	1988	Stage 1 - Initiation	Stage 2 - Functional Growth	Stage 3 - Controlled Growth	Stage IV - Functional Integration	Stage 5 - Strategic Integration					
	Hanks	1990	Start - up stage	Expansion	Consolidation	Revival/Diversification	Decline					
	Hanks et al.	1994										
	Lester, Parnell & Carraher	2003	Existence	Survival	Success	Renewal	Decline					

*The authors are not present in the original table by Jirásek, M., & Bílek, J. (2018) but they have been added for the purpose of this thesis.

# of stages in life cycle models	Author(s)	Year of publication	Classification of life cycle stages									
			1 stage	2 stage	3 stage	4 stage	5 stage	6 stage	7 stage	8 stage	9 stage	10 stage
7 stages	Flamholtz	1990; 1995	New venture	Expansion	Professionalization	Consolidation	Diversification	Integration	Decline-revitalization			
8 stages	Torbert	1974	Fantasies	Investments	Determinations	Experiments	Predefined productivity	Openly chosen structure	Foundational community	Liberating disciplines		
10 stages	Adizes	1979	Courtship	Infant Organization	The go-go stage	Adolescent organization	Prime organization	Mature organization	Aristocracy	Early bureaucracy	Bureaucracy	Death

*The authors are not present in the original table by Jirásek, M., & Bílek, J. (2018) but they have been added for the purpose of this thesis.

Source: Personal adaptation from Jirásek, M., & Bílek, J. (2018). The organizational life cycle: Review and future agenda. Quality Innovation Prosperity, 22(3), 01-18.

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Master's Thesis

Summary

Development, Change and Innovation in Organizational Structures

A consequential path towards size-related differences

Introduction

It is noticeable that, since ancient times, human beings have experienced the need to work cooperatively with others individuals to achieve a specific objective. Going back to some thousands of years ago, in Egypt, multiple individuals needed to collaborate to build the pyramids. Organizational forms are even visible in the traditional military structures or, simply in the hierarchical structure of the Catholic Church (Eriksson-Zetterquist, Müllern, & Styhre, 2011). However, even if cooperation and collaboration towards the achievement of a common purpose are at the basis of organizational practices since thousands of years ago, organizational theory has a relatively recent history.

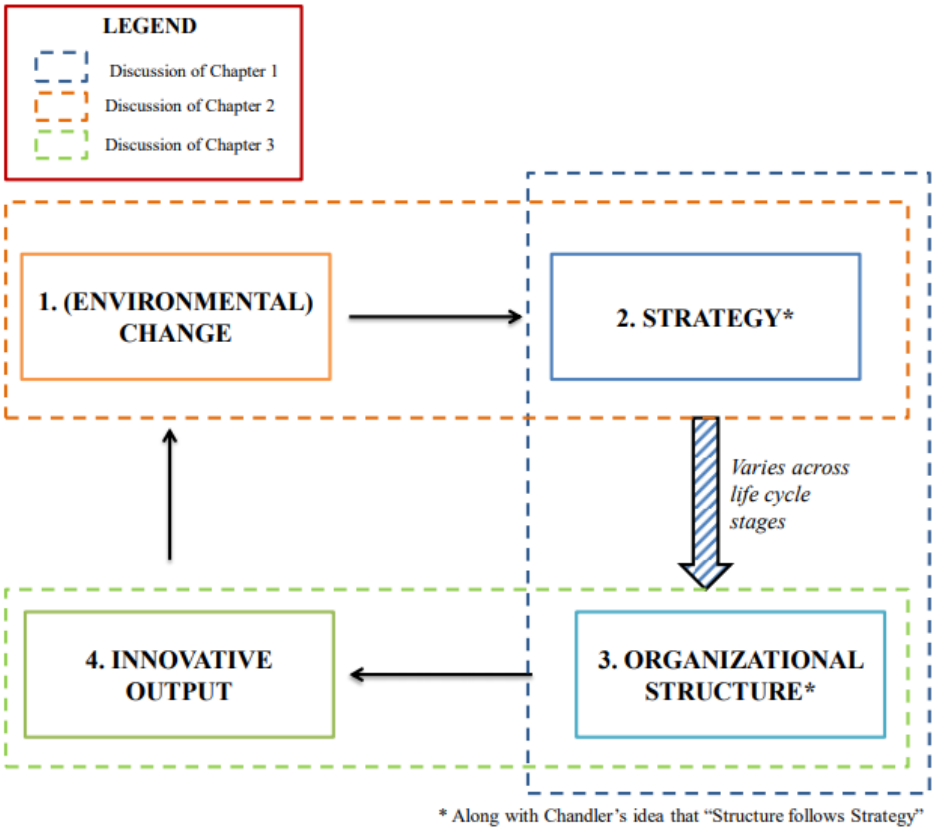
Now, more than ever, organizations are in continuous evolution, constantly renewing themselves, in order to survive in the ever changing competitive, technological, social and organizational environment. Indeed, challenges, increasingly burdensome, jeopardize the organizational long-term sustainability.

This master's thesis in organizational design has the aim of exploring the complex behaviour that characterizes organizations along their restless pursuit of organizational prosperity, along their life cycle and during their transformative organizational changes.

In order to reach this purpose, an analysis of the relevant past and present literature has been carried out. As a matter of fact, the most noteworthy theories and models have been reported, and, interestingly, contrasting perspectives emerged.
In particular, this work intends to provide a holistic overview of the most prominent findings that, hitherto, academics have observed in three main interrelated organizational topics: (1) Organizational Development (2) Organizational Change and (3) Organizational Innovation.
Moreover, the examination of the major research in the aforementioned subjects is intended to provide valuable insights to practitioners and managers who desire to thrive in the current market environment, building a stable and sustainable value proposition for their organizations.

The three major topics of this thesis are profoundly interrelated in a feedback loop. Indeed, before deep diving into the first chapter concerning the organizational development, the interconnectedness among the three chapters – that at first may appear subtle - has been conceptually represented in the figure below (Figure 1).
At first, environmental changes force companies to adapt their strategy in order to align their internal structure with the external surrounding. Following Chandler's idea that "*Structure follows Strategy*", decisions implemented by an organization's top managers – in order to respond to externalities – shape the organizational structure. Undoubtedly, according to the degree of development in the organizational life cycle, factors such as the amount of resources, the number of employees, the level of flexibility as well as the degree of centralization and differentiation, substantially vary, leading to different strategic choices.
Moreover, as will be shown in the last chapter, structural as well as size-related differences affect the organizational innovative outcome. Organizations, grouping specialists and experts together, are, often, the greatest producers and major adopters of innovations. Disruptive innovations, as the name suggests, are those innovations capable of disrupting the marketplace, threating established competitors and imposing new rules for those who want to survive in the market. Disruptive innovations, though, are just one example of how innovation and innovativeness are able to influence the environment, generating social, organizational and environmental changes, which in turn, make the feedback loop start again.

Figure 22: Interconnectedness among thesis's topics.



Source: Personal graph

Chapter 1

Organizational Development: an Overview

As a preliminary step, in order to introduce later the organizational development models, it was considered helpful to report a concise summary of the most relevant theories in organizational history. Recollecting the evolutionary history of organizations is a fundamental step in order to fully comprehend organizations' development and growth.

Undoubtedly, the Industrial Age created a significant boost in the rise of the modern organizational forms. During the 1500s, manufacturers, working individually in their homes, always produced the quantity they needed for themselves. Clothing manufacturers, for example, needed to carry out all the necessary tasks by themselves (e.g., carding, spinning,

weaving) in order to turn wool into cloth. As a result, each task was individually repeated by each worker, with the consequent unnecessary duplication of machinery and equipment.
The stable and formal structure of organizations gained significant relevance during the 20th century, as modern factories, with common owned machinery and tools, emerged. Indeed, around the first half of the 20th century, the importance of formal settings and design was outlined by Max Weber (1978), with his Theory of Bureaucracy.
Bureaucracy, meaning more efficiency, stability, accuracy, discipline and reliability, poses the basis for organizational theory and organizational design. However, if on one side, promoters of bureaucracy structure were highlighting the efficiency of this design, thanks to its regulations, the possibility to transfer knowledge within different areas and the effectiveness of day-to-day tasks, on the other side pure bureaucracy was also heavily criticized for its inflexibility and impersonality.

During the 20th century several other theories emerged, each one emphasizing a particular aspect of organizational perspective.
Advocates of the Scientific Management Theory, such as Taylor (1911), believed that general principles of management could be applicable to any situation. Tasks needed to be analysed scientifically, to identify the "one best way" to deliver the greatest outcome. External motives (e.g., higher wages) were considered the only incentives: the greater the performance of a worker, the higher his salary.
Later, carried out around 1930, the Hawthorne Studies represented a turning point in Organizational and Behavioural Theory. Conducted by Elton Mayo, those experiments showed how workers' performance was influenced by social issues and human relationships. Moreover, Neoclassical and Institutional Theory, System Theories led the 1950's scene.

In the same period, the continuously increasing complexity, competitiveness and uncertainty of the environment in which the organizations were operating, gave rise to the well-known Contingency Theory. This theory, being an open-system view, had a totally opposite perspective to the "one best way" suggested by the Taylorism. Instead, no best way existed to manage organizations.
Between the '60s and the '70s, the achievement of legitimacy became the key element for some theories and authors that emphasized the importance of conformity to shared rules and regulations. Theories of such kinds are based on the concept of isomorphism, the similarity of processes as a result of imitation under similar circumstances. Three main types of

isomorphism were identified by the Institutionalism Theory: (1) coercive (2) mimetic and (3) normative.
However, it also emerged that companies should follow rules and regulations to be recognized and legitimated, but they should do not forget to create their unique value proposition to differentiate from their peers.

The historical introduction was propaedeutic to the following discussion, focused on organizational development.
Organizational development studies and Organizational Life Cycle (OLC) theories had their golden age during the '70s and the '80s. Several theories from the 1960s until nowadays have tried to investigate (both theoretically and empirically) the stages that organizations experience during their lives, as well as the behavioural and structural implications associated with the different phases (e.g., Birth, Growth, Mature, Decline). Numerous models and frameworks appeared through the literature review, each one presenting dissimilarities, such as the number of stages, the name of the stages, the features of each specific stage and the consequential implications, but also some commonalities were applicable to almost all models. Hanks (1990:1) identified two "*common themes*" in OLC models.

(3) Businesses develop through a series of distinct and recognizable phases and each stage presents unique contextual, structural and strategic configurations.
(4) Configurations are not applicable to all life cycle stages, instead, they are specific for some stages, and being appropriate in one phase does not indicate they are suitable also in another phase.

According to Gupta and Chin (1994:271), instead, common characteristics in OLC models stage are that they are: (1) They are sequential in nature; (2) They occur as a hierarchical progression, not easily reversed and (3) They involve a broad range of organizational activities and structures.

Therefore, the aim of this chapter was to present a holist overview of studies that developed OLC models over time. In order to satisfy this purpose, the discussion has answered - taking into consideration different perspectives as well as OLC models - the five questions (Why, When, Who, What, How) using as a basis the Good Theory of Whetten (1989).

The immediate question that comes to mind when studying organizational development is the following:

Why do firms move from one stage of development to the next?

According to the Metamorphosis and the Contingency Theories, a change in the organization occurs when the internal processes and structures of the company in consideration, do not fit anymore with the external environment, therefore threatening the survival of the company, which needs to renew itself. Likewise, the transition from one stage to the next could be motivated by either internal (e.g., crises) or/and external (e.g., financial resources, customer acceptance) factors.

The second question presented was related to the timing that takes organizations to move from one stage to another (e.g., from Birth to Growth, from Growth to Mature). Simply, empirical research showed that the speed at which the stages occur mainly depends on the market environment of the industry.

Thirdly, the "how" question, and in particular "how is the development process sustained?" found answer in Lippitt and Schmidt (1967) and Greiner (1972) studies. In order to move from one stage to another they stated, that it is necessary to solve an internal crisis. Greiner, indeed, pointed out is that no movement from one stage to another is possible if the crisis is not solved first.

Moreover, the actors leading the organizational development ("Who") are identified, especially in the early phase(s) of the business life cycle, in the founder/entrepreneur of the business or in the small group of people that is responsible for the company's activities. However, while growing both in size and age, the company needs more people, thus, involves proportionally more people in development processes.

Lastly, after having presented the main participants of an organization's development, the "what" question has been discussed (what are the characteristics of the organizational structure while evolving?).

It is generally accepted that in the first phase(s) of evolution the internal structure of the business is quite inexistent and informal, with centralized leadership and frequent share of knowledge and communication. In all the subsequent stages, structure becomes taller and

taller, adding hierarchical levels, as the degree of complexity and size of the company increases as well.

Among the existing OLC reviewed, it emerged that not enough attention has been addressed to the differences between growth evolution stages between large organizations and smaller ones. As a matter of fact, in the following chapters the role of size assumes great relevance and each chapter will present the major perspectives concerning the relationships in consideration.

To conclude this first chapter, it was considered helpful to provide a summary table of the five development questions, together with their relative answers (Table 1).

Table 1*:* Summary of the five questions

	Why	**When**	**How**	**Who**	**What**
Question	Why do firms move from one stage of development to the next?	When does the organizational stage occur?	How is the development process sustained?	Who are the actors that lead the organizational development?	What are the characteristics of the organizational structure while evolving?
Answer	• **Internal factors** (period of crisis inside the organization) • **External factors** (e.g., financial resources, customer acceptance, adaptation to external environment - Metamorphosis Theory, Contingency Theory).	• **Depends on the industry's** market environment (e.g., fast or slow growing industry) • Timing is crucial to address crises	• **Solve the internal crisis**, otherwise a firm cannot proceed to the next phase (Greiner, 1972: Lippit & Schmitd, 1976) • Companies do not follow a linear pattern (Churchill & Lewis, 1983)	Management/ top management but **as firm grows more people** are involved	• **Vertical and Horizontal** differentiation change • Management style changes • The extent of formal system changes • The structure changes

Chapter 2

Organizational Change and Adaptation

A focus on the differences between small and large companies

If in the first chapter, the development of organizational life cycle was examined through a literature review of the main theories on the subject, this chapter mainly focuses on organizational change and adaptability, constituting a further step in the analysis of organizational development.

The development stages and the transition from one life cycle to another that a company experiences during its useful life are actual transformational and planned change and, as such, the importance of comprehending the behaviour of firms towards these structural changes cannot be overemphasized.

In relation to those considerations, together with the acknowledgment that attention on size-related differences is lacking in the literature, this chapter tries to answer the following questions:

3) *How small firms differ from larger ones in the process of organizational change?*
4) *Do the organizational configurations of small and large organizations influence the ability to adapt to changes?*

Indeed, in the first chapter, it emerged that size (which increases spontaneously with age and/or voluntarily with top management's decisions) reflects dissimilar organizational configurations which inevitably affect the firm's adaptability to external changes (e.g., environmental turbulence, natural catastrophe) and/or internal changes (e.g., cultural change, development of the organization and shift to another life cycle stage).

As a matter of fact, when a firm increases in size and complexity, formalization and bureaucratization became essential to provide organizational stability. The same logic applies to small and start-up firms, which initially, being constituted by one or few employee(s), do not possess formal roles, hierarchy and defined tasks, but instead show a high level of flexibility.

More precisely, analysing part of the literature available, two mainly contrasting perspectives concerning the size-organizational change relationship came to light.
Haveman (1993) himself proposed that the relationship between size and organizational change can be studied in two terms: (1) "rigidity of size" and (2) "fluidity of size".
While, the former limits adaptability, fostering inertia, the latter, instead, assumes that greater formalization, differentiation, but also greater market power increases the ability to change.

Advocates of the first perspective assume that size creates rigidity through formalization, standardization and resource dependency, therefore hindering the capacity of a firm to quickly adapt to changes. Moreover, with standardization and formalization, a company increases its stability. It follows, therefore, that as a company increases in age (and also in stability), it will also be less reactive to environmental changes or other adversities, as well as to simple structural changes to be undertaken inside the organization.

Notwithstanding, in the literature exists also another opposite stream of thought, which believes that formalization facilitates change, suggesting that size and change are positively related. Authors, such as Child (1973) and Briscoe (2007), concluded that formalization may encourage differentiation, innovation and the necessaries expertise to counteract and act towards change. An interesting view by Stensaker et al., (2002) reports that a more structured organization might be capable of more easily discard the old pattern, without risking reacting to insignificant environmental triggers. Moreover, Frederickson (1986) stated that only through formalization, companies can deal with complexity.

Particularly relevant in the context of organizational change is the three-stage Lewin's model.
Suitable for planned, premeditated changes, the Lewin's three-stage change model (1947) identifies *three conceptually distinct phases* (Ford, 2009) in order to implement a change inside an organization.
Firstly, the current set of beliefs and system values rooted in a company need to be unfreezed.
"*In the unfreezing phase, change is initiated by destabilizing the equilibrium between forces that drive and restrain existing behaviour*" (Ford, 2009:305).
Only subsequently it is possible to *change* and then *freeze* again (refreezing) the corporate culture.
A study conducted by Ford (2009) revealed the following:

(3) Small organizations generally present significantly lower levels of refreezing than large organizations.

Moreover, Ford (2009) also found that the last phase of Lewin's change process - *refreezing* – presents the greatest divergences between diverse-sized companies.

This latter stage includes restabilising the new equilibrium of the organization, institutionalizing the new change. This phase is particularly crucial, because the temptation to fall back to previous pattern is strong. The role of managers is therefore to avoid the possible regression to old patterns of action.

Generally, guarantee of a successfully refreezing action is given by confirmation (e.g., positive feedback from people inside and outside the organization, rewards, comparison with competitors and other criteria/measurements). The major difference between small and large organizations in the refreezing phase stems from the fact that gathering data regarding change process feedback, could be arduous in small, informal organizations rather than in larger ones.

Indeed, usually, hierarchy facilitates the flow of information and feedback. It follows that larger organizations, with a hierarchical internal structure, can gather data more easily, obtaining a clearer response to the effectiveness of the improved performance. In addition, routinized tasks allow for a regular check of performance, facilitating the feedback process.

In contrast, small organizations may be unable to collect the necessary feedback.

What is crucial, here, is that already in the 1940s, Lewin in his three-stage model had recognized that there are some counteracting, restraining forces that tend to keep the organization to its initial *status quo*. Indeed, when examining transformations and changes inside an organization, structural inertia and resistance are inevitable obstacles to organizational change.

Furthermore, they are one of the main moderators in the size-related differences in organizational change topic.

In fact, it is usually assumed that the bigger and more complex the company, the greater the forces of resistance. Generally, a more rooted and established corporate culture, a less flexible ad versatile structure, together with standardized and formalized procedures are among the reasons of resistance in transitional periods.

However, scholars also believe that larger organizations possess more expertise, knowledge and market power to successfully face the obstacles across the change process.
Instead, while, on one side, larger organizations suffer from structural inertia; on the other side they offset the negative impact with greater competencies, implementing focused and thoughtful change, achieving an improved performance.

Throughout this chapter, it is observable that a unique perspective doesn't exist and scholars are divided between those who believe that large and established companies, with a concrete formalized structure encounter difficulties in adapting, and others that assume that formalization spur innovation as well as a focused, rationalized change.

Chapter 3

Organizational Size and Innovation

To conclude the spectrum of this master's thesis topics, the third and last chapter of this discussion focuses on organizational innovation. Changes foster new demand and organizations need to continuously create new products and services to efficiently satisfy the shifts in customers' preferences.
Firms that face market and technological challenges need to constantly improve their *modus operandi*, through innovative responses, in order to efficiently contrast their competitors. Innovation, indeed, is a source of renewal inside the organizations.
Hage (1999) believed that organizational change theories (e.g., structural contingency theory, political theory, population ecology theory and institutional theory), are strongly related to environmental change, which in turn influences the choice of organizational form (e.g., mechanical, organic), therefore influencing the implementation of innovation.
Following this reasoning innovation is tightly coupled to change, as organizations use innovation as a tool in order to influence an environment or due to their changing environments (internal and external).
If organizational innovation has not been discussed extensively in the literature, the correlation between organizational factors and innovative performance has been treated even less among scholars.
Motives for this lack of attention seem unreasonable. Firstly, because organizations are the principal adopters of social inventions and, secondly, because features inside the

organizations are the main independent variables that impact the entire innovation process, the amount of innovation implemented, and the rate at which innovations are proposed and implemented.

Undoubtedly, the size of a company and, consequently, its level of formalization/flexibility, standardization/adaptability, formality/informality, significantly impact the capability of a firm to innovate, its innovative performance and its innovation management capabilities.
Thereby, this last chapter of this thesis has the aim to link organizational factors, with the degree of innovativeness inside firms, providing an overview of the findings of the main articles that, hitherto, have dedicated to this topic.

Before going through the salient points of this discussion, it was essential to provide a definition of innovation, a term that has been defined diversely across a range of multiple disciplines. The study of Baregheh and his colleagues, in particular, allowed creating a holistic definition of innovation, which captures the very essence of the innovative process. They defined innovation in the following way:

> "*Innovation is the multi-stage process whereby organizations transform ideas into new/improved products, service or processes, in order to advance, compete and differentiate themselves successfully in their marketplace*."
> (Baregheh, Rowley and Sambrook, 2009:1334).

Moreover, even if a great number of innovation types exist, organizations, depending on their internal and external needs, decide whether and which type of innovation to implement (e.g., product innovation, technological innovation, process innovation, business model innovation, marketing innovation, architectural innovation, social innovation, and administrative innovation[8]). Though, it was highlighted that, whatever innovation/improvement a company employs, the importance of fitting with the environment to survive and thrive in the marketplace, cannot be overemphasized.

The analysis of the size-innovation relationship led us to the discovery of two contrasting perspectives, similarly to what emerged in the previous chapter.

[8] Administrative Innovation, similarly to management innovation, is a change in organizational structures or in the administrative processes of an organization, through the implementation of new management practices and processes and structure (Bui, 2011).

Dewar and Dutton (1986) found that, particularly in large organizations, radical innovations are more developed. In fact, larger organizations, supposedly, can afford more engineers and researchers to develop revolutionary innovations that require a significant amount of knowledge. Moreover, increased size leads to greater spaces or innovation labs and more research equipment. As previously mentioned, engaging in radical innovations involve higher risks, as the possibility of default increases. It is worth mentioning that larger organizations have a more risk-taking behaviour in comparison to small firms, as the latter need to constantly reduce the possibility of failure. Indeed, large firms are generally more focused on maximizing success, while smaller firms try to minimise their failures.

In addition, it appeared that large bureaucratic organizations, which are also the ones with greater degree of formalization, are able to organizing in small departments or specific divisions, fostering in this way creative thinking, and consequently, innovation. The organizational structure of companies, can therefore strongly affect the type of innovation prompted, if the structure presents R&D departments as well as innovation labs.

As we already know, the greater the size, the greater the problems of control, coordination, and management. Promoters of the positive correlation, however, hold that these issues further incentivize innovation practices, since organizations must respond to these problems.

Besides, in large companies, arises the so called "*critical mass*", which augmenting the entity of certain problems, fosters the adoption of innovative solutions.

The opposite school of thought, instead, proposes that large scale organizations are incapable of hosting innovative work.

Supporters of the negative relationship, such as Sharma (1999), strongly affirm that, large organizations possess a degree of bureaucratization that dampens innovative output. Although Sharma (1999) recognizes that established and mature firms have much more resources available than start-ups and small firms, this advantage does not offset the negative impact that cumbersome formalization and excessive routinized tasks have on innovation and creative thinking. Indeed, even if creative ideas are generated from the managers and the line staff, bureaucratic procedures hamper flexibility and responsiveness, required to implement the innovative changes.

At the end of this chapter, a similar outcome of the previous topic is evident. Academics research split up between those who assume that greater formalization and differentiation foster innovative output and creative thinking and those who concluded that excessive

bureaucratization is a mere obstacle to the implementation of new innovation and technologies.

4. Conclusions and Limitations

In an age dominated by exponential growth of scientific production, literature reviews are essential. They diligently examine, analyse and finally report the past and present literature research to enrich the future writings.

The first chapter, through an examination of past studies and their major findings, answered to the five questions proposed by the Good Theory of Whetten (1989).

6) Why do firms move from one stage of development to the next?
7) When does the organizational stage occur?
8) How is the development process sustained?
9) Who are the actors that lead the organizational development?
10) What are the characteristics of the organizational structure while evolving?

Answering to these questions, using perspectives and frameworks of different scholars, was intended to provide a holistic and comprehensive overview of organizational development.

The second and the third chapter focus their attention on the size-related differences; firstly with the change-size relationship and secondly with the innovation-size correlation.

Evidence demonstrates two contrasting perspectives in both relationships. On one hand, increased size is believed to augment stability, giving the necessary resources to capture external signals and giving the necessary knowledge and competencies to adaptation. Moreover, greater size is related to greater complexity, which fosters the need of innovative solutions, spurring innovativeness and creative thinking.

On the other side of the coin, increased size is seen as a synonymous of bureaucratic structure and inefficiency, while small firms are considered efficient and easily adaptable to abrupt and unexpected changes, thanks to their flexibility and informality. Flexibility as well as the absence of routinized tasks is considered a great driver of innovation and according to this perspective, small firms and start-ups are identified as innovation incubators.

Notwithstanding, it is evident that development, change and innovation assume great importance in organizational contexts.

How they are managed inside organizations is a key strategic issue to both practitioners and researchers across a range of business and management disciplines.

However, this dissertation does not lack of limitations. Although intended to provide a comprehensive framework, the amount of studies reviewed are restricted.

Future research might want to extend the literature review to enlarge the amount of experiments and findings. Moreover, given the ambiguity of the relationships under consideration, a more extensive analysis could provide insights to understand which side of the coin is more prevalent in the literature.

Although this work has been, mostly a purely conceptual effort, it is hoped that the aspiration of providing practical advices will not be vain. Yet, if this paper has raised further questions, this thesis could be contentedly used as a starting point for future investigations.