The interplay between collective leadership and emerging innovation practices: evidence from two case studies

A cura di
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To my family that is at the same time my anchor and my wind in the back,

To my friends that didn’t care about the distance and continue to grow our friendship,

To my international friends that opened my eyes widely and motivated me for new adventures,

To the all the ones that are my inspiration, support me and believe in me and my dreams,

THANK YOU!

Мојој породици која ми је и сидро и ветар у леђа,

Мојим пријатељима који нису марили за удаљеност и који су наставили да граде наше пријатељство,

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ВЕЛИКО ХВАЛА!
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ABSTRACT

In this business era, innovation is the key for survival of the organization. Innovation management is a growing topic. Some authors highlight that to innovate is imperative (Tidd J., Bessant J., Pavitt K., 2005) while others stress this importance through the words: “It's war: innovate or die” (Cooper R.G., 2005). The innovation can be defined differently, and there are various ways to create one. Lately, this is becoming more and more challenging task. The different organizational factors, motivators, processes, participants, innovation models that change over time influence on the final outcome. What is lately becoming interesting to see is from whom innovations come from. Innovators can be employees, customers, partners or suppliers, competitors or even the public. (Morgan J., 2014) The aim of this study is to investigate emergent innovation practices that originate from employees. These practices can be both formal and informal (or structured and unstructured). On the other side, the collective forms of leadership and its existence is the other topic that should be covered, connected to the emergent innovation practices. Multiple case studies will be analysed through two aspects. Firstly, emergent innovative practices such as employee driven innovation, internal contests, and internal crowdsourcing will be discovered and secondly, leadership in the different collectivistic forms and its influence on the innovative activity will be described. Both classical and emergent innovation process will be identified and explained in details, as well as multiple leaders, multiple behaviors and dynamics, as variables of collective leadership.

Key words: collective leadership, innovation process, emergent innovation practices, contextual factors, leaders, behaviors, dynamics.

**Parole chiave:** leadership collettiva, processo di innovazione, pratiche di innovazione emergenti, fattori contestuali, leader, behaviors, dinamico.
EXECUTIVE SUMMARY

INTRODUCTION

The importance of studying the leadership in the innovation has always been high. Lately, the main focus is put on the collectives that are becoming new force for innovating. Leaders are facing with the challenges of leading informal roles, situational leaders that just arise in one part of the project, and then return to their primary role. Innovation activity is changing the tools for motivation of employees and non-monetary prizes, personal development and the opportunities for future improvement are becoming more suitable prize for their contribution. The companies need to find the way how to be flexible and agile while leading people in innovation process and how to be open for the suggestion that are coming from the employees, no matter from which position or level of the hierarchy they are coming from.

There have been considerable researches on creativity at the individual level of analysis, but the researches on the collective creativity and collective ways of innovating are still more limited. Until now, innovation was studied with respect to strategy, structure, climate, dissemination practices, group interactions and individual performance capabilities, but there was no exhaustive reference to the new, emergent, alternative innovation initiatives. Companies are doing a lot of creative activities connected to the alternative and collective ways to innovate. The collectives are used more and more in order to bring the diversity of the ideas, through the heterogeneity.

Topic that is becoming more challenging is collective forms of leading people in innovation process. Different forms of collective leadership such as shared, distributed and collective have been in the pick of the interest, but what is missing, is to understand what are the leaders’ interactions and actions to the informal, emergent, dynamic leadership that originate from the members of the collective itself (Contractor N.S., DeChurch L.A., Carson J., Carter D.R., Keegan B., 2012) and how the company can innovate using its own resources on the collective level - employee driven innovations.
Taking in consideration what was stated above, the goal of this research is to study in depth the emergent practices that take part in the company and bring innovations from the inside. These practices are usually known under the term of employee-driven innovation. On the other side the aim is to analyze how these internal resources are lead in the innovation process on the collective level.

First two chapters will present some of the main concepts from the literature about the innovation, with the special focus on the emergent practices and collective forms of leadership that takes part in the innovation processes. In the chapter three the research gaps will be highlighted. Also here, the framework and the research questions for this study will be formulated. The qualitative methodology of multiple case studies will be explained in the next chapter, together with the description of the companies used in the sample and main information about interviews done. The chapter five will bring the main findings from the case studies, while in the chapter six the connection between the literature and the empirical results will be drawn. Lastly, conclusion chapter will bring some managerial implications together with the limitations that arised. The suggestions for the future researches will also be provided in the last chapter.

**REVIEW OF THE LITERATURE**

It can be stated that innovation is the key for the survival of the organization (Cooper R.G., 2005) The innovations can be defined as the “... the generation, acceptance and implementation of new ideas, processes, products or services... for the first time within the organizational setting ” (Aiken M., Hage J., 1971) as also as “... the process whereby ideas for new (or improved) products, processes or services are developed and commercialized on the marketplace.” (Rasul F., 2003). On the other side, the creativity is the element without which innovation will not exist. Through the literature, creativity has been studied from many perspectives such as psychological, sociological and organizational, but the most suitable definition for this study was that creativity is seen as “... a continuous process of thinking innovatively or finding and solving problems and implementing new solutions.” (Basadur, M.S., Grean G.B, Green S.G., 1982).
There are different factors under which is most likely that creative and innovative process occur (Taggar S., 2002) (Eisenbeiss et al., 2008) (West A., 2002). These factors are called contextual ones and in the theory some of them, such as: skills, resources, organizational methods, leadership (Mulgan G., Albury D., 2003) and culture (Amabile T., 1998) were analysed. The ones for which the positive effect on the creativity, innovation and change was showed are: challenge and involvement, freedom, trust/openness, debate, idea time, playfulness/humor, idea support, risk taking (Ekvall et al., 2000).

Innovations can come from different types of innovators, such as employees, customers, partners or suppliers, competitors or public. (Morgan J., 2014) By the type they can be classified as a product, process, service innovations (Luecke R., Katz R. , 2003) (Albury, 2005) or organizational innovation (Sudnbo J., 2003) Many of the authors analized the innovation process and its characteristics with the different steps or the phases. Some of the most interesting innovation models are the ones by Rogers (Rogers, 1962), Cooper (Cooper H., 1986), Van de Ven (Van de Ven A., 1999), Mulgan and Albury (Mulgan G., Albury D., 2003), Verloop (Verloop J. , 2004), Cormican and O’Sullivan (Cormican K., O’Sullivan D., 2004), Tidd and Bessant (Tidd J., Bessant J., Pavitt K., 2005), Andrew and Sirkin (Andrew J.P., Sirkin H.L., Haanaes K., Micheal D.C., 2007), Jacobs and Snijders (Jacobs D., Snijders H., 2008) and Verganti and Dell’Era (Verganti R., Dell’Era C., 2012).

Special part in the chapter about the innovation is dedicated to the collective forms of innovation. The increasing number of the organizations rely on the team creativity to boost their innovation (Miron-Spektor et al., 2012). As the focus of this research were innovations that originate from the employees, only internal ones were taken in consideration. The idea for internal ways of innovating comes from the assumptions that employees have hidden abilities for innovation (Ford R.C., 2001) (Cohen et al., 1972). Some of the examples presented in the literature are the employee-driven or bottom up innovation investigated by different authors (Kesting P, Ulhøi J.P., 2010) (Park H.S., Kim J.N., Krishna A., 2014) (Vesper K.H., 1984), internal innovation contest (Terwiesch C., Xu Yi, 2008) especially important for the one of the case studies, internal crowdsourcing (Howe J., 2006) and collective entrepreneurship (Stewart A., 1989).
Talking about the leadership, lately, focus has been dedicated to alternative forms of leadership such as shared or distributed leadership, that can stretch over many actors (Spillane J. et al., 2004). This phenomena of having different and multiple leaders and distributed leadership roles among many actors, can be taken under definition of collectivistic forms of leadership. (Spillane J. et al., 2004). The collectivistic leadership is defined as a non-monopoly or responsibility of just one person. It is the leadership where the similar need for a more collective and systemic understanding of leadership as a social process is provided (Barker R., 2001) (Hosking 1988). The main focus is on the emergent network of leadership perceptions within work in team. (Mehra A., Smith B, Dixon A., Robertson B., 2006).

Some of the main factors that are influencing collective leadership are shared purpose and social support that represents an internal team environment and external coaching support (Carson at al., 2007). The culture of the company is playing another important role. All of the organizational factors that can influence can be grouped in three categories: endogenous, agency and exogenous factors. (Ulhøi J., Müller S., 2014)

What is stressed is that community based, collective leadership is a new way of innovation generation. As the collective leadership is based on the knowledge, lifelong learning, commitment and values for care, compassion and inclusivity (House R.J., Hanges P.J., Javidan M., Dorfam P.W., Gupta V., 2004) the companies that respect the principle of collective leading are more successful in achieving the innovation outcome.

There are three structural aspects of collective forms of leadership in the innovation process – people, roles and time. (Contractor N.S., DeChurch L.A., Carson J., Carter D.R., Keegan B., 2012). Under the aspect of people, multiple leaders, so informal and formal leaders, can be found defined by Friedrich (Friedrich T., Griffith J, Mumford M., 2016). Another aspect, the multiplexity has been presented through the multiple roles or multiple behaviors. Usually two leaders with different roles consistently emerged: highly task-oriented one and influential one that focus on the socio-emotional needs of the team. (Bales R., 1950) (Bales R., Slater P., 1955) In order to explain the main roles of the leader,
the four dimensional typology has been presented by the Hiller (Hiller et all., 2006) that includes: planning and organizing, problem-solving, support and consideration and developing and mentoring. The last aspect, the dynamic was explained as the necessary variable of the collective leadership by the Friedrich: “... collective leadership is not static. As different problem emerge, different skills and expertise will be more appropriate” (Friedrich T., Vessey W., Schuelke M., Ruark G., Mumford M. , 2009). Leaders are changing over the time and during the projects.

RESEARCH GAPS AND RESEARCH FRAMEWORK

On the basis of the theoretical background, the different research gaps were identified. There was split in three main groups – one connected to the collective leadership in the innovation process, another one to the emergent innovation practices and classical innovation process, and the third one, connected to contextual factors and longitudinal studies.

Connected to the collective leadership in the innovation process more empirical research needs to be emphasized (Cullen-Lester K., Yammarino F. , 2016). The engagement of the collectives in the leadership and innovation practices has to be future investigated. (Yammarino F.J., Salas E., Serban A., Shireffs K., Shuffler M.L., 2012). In the innovation process, extraordinary ways of influencing of leader on collectives needs to be analysed. (Kaiser R.B., Hogan R., Craig S.B., 2008). The process of employee driven innovation, as an emergent innovation practice, with the factors influencing on its different stages has not been investigated at fullest (Kesting P, Ulhøi J.P., 2010). Additionally, the focus should be on the facilitators of the collective leadership (Jain A.K., Jeppesen H.J., 2014) and the culture in the innovation process. (Jain A.K., Jeppesen H.J., 2014) How leadership network and collective leadership changes through different stages of team development (Tesluk P., Carson J. Marrone J. , 2007) and what is the setting in which collective leadership is mobilized (Realin J. , 2016) needs more researchers’ interest.

Based on them four main research questions were formulated:

**RQ1. Which emergent forms of innovations are present in the company and how they interact with the classical innovation process?**
RQ2. How collective leadership manifests itself in innovation process and how is it implemented in the company?

RQ3. How collective leadership is used within emerging and traditional models of innovation in the company? What is the interplay?

RQ4. What is the role of organizational practices in order to support collective leadership and emergent innovation practices?

On the basis of these research questions it was possible to draw the framework on which this thesis stands:

In the framework, three main parts are present. Innovation, where is assumed that the company is creating innovation through the classical innovation process and the emergent innovation practices. The collective leadership part, with all of the variables that ensure its existence in the innovation process: multiple leaders, multiple roles or behaviors and dynamics. And the organization that is representing context and the factors that can influence both collective leadership and innovation generation process.
Since the topic of this research is articulated and complex, a *qualitative research* was deemed the most suitable and compliant with the object of the analysis. Qualitative research helps in understanding of a complex issue and emphasizes detailed contextual analysis of a limited number of events or conditions and their relationships. (Conger, J.A., Toegel G., 2002)

As a case study is a methodology, particularly appropriate to cope with situations where there are more variables of interest than data points (Miles M.B., Huberman A.M, 1984), and taking in consideration that the research goal of this study was to investigate how collective leadership is used within both classical and emergent innovation processes, *multiple case studies* was chosen. A *case study* is an empirical research that investigates a phenomenon within its real context. (Robert K. Yin, 1984) It often uses archival or documentary data along with other sources, and examine the phenomenon or “case” as it changes over time.

In choosing the right sample there was no specific industry or area of business that the study will cover, but the two main criteria were respected:

1. The company is operating on the territory of the Italy and also has a multiple subsidiaries around the world – global or multinational companies
2. The company is known for some kind of emergent model for generating innovation

This resulted in the two different companies from two different business areas: 3M Italy as a technology company and Reply as a knowledge company.

For realization of this study primary resources were used. The interviews were done face to face in the company offices or through the phone call or web conferences. Beside this, company website and different studies and reports that are published about the company were taken into the consideration.

The interviewed persons were selected with the aim to be on the different positions in the hierarchy, having different roles and perspectives. In the 3M Italy Technical manager, talent development manager and technical supervisor were interviews, while in the Reply company Social network director, two social
network managers, two business consultants and two executive business partners. Total number of the page transcripted for the both companies are around 80 pages.

Reffering to the coding part, firstly listening of the records was done in order to write the script. Then the huge number of the first level of the codes were identified. In order to group them and make more defined, the second level of the codes was developed. Finally, all of the codes were grouped in the categories, and after it in the variables. Three main variables are found in the both of the case studies: organization, innovation and leadership.

THE RESULTS

The results were divided based on the three main variables found through the process of coding. First part of the results is dedicated to the topic of the existence of collective leadership in innovation process. Second part is about the emerging innovation practices and their connection with the classical innovation process, and the last one is covering the organizational factors that can influence on both of the aspects mentioned above.

The main findings connected to collective leadership in innovation process can be presented through the graph. For detailed analysis of the collective leadership found in the results it is suggested reading of the chapter number 5, subchapter 5.1
In both of the case studies the situation of multiple or more than one leader has been found. Hierarchical structure is respected, but beside formal leaders, that are having an official role announcement, informal leaders can arise. There is a need for both, formal and informal leaders and this is nicely described in one of the interviews through the quote: “The hand didn't want to feed the stomach and then it became weak.”

When it comes to multiple behaviors, the formalized list of the structured leadership behaviors has been found in the case of 3M company. The one that draw special attention was the innovative behavior. On the other side Reply company is not having the formalized leadership behaviors, but strive to build the continuous learning attitude and the way how the leaders should behave.

An interesting distinction was dedicated to the evaluation, where 3M company is doing the detailed evaluation of leadership behaviors, and through the trainings improves the capabilities of the employees, while Reply company is not relying on the evaluations, but on the principles of open leadership and continuous learning.

The last variable of the collective leadership is dynamic, that was recognized in both of the cases. Wether it is dynamic that is happening during the professional career of the employee or different phase of the project, diverse knowledge, skills and personal characteristics will be needed in order to achieve the exceptional result. Training and switching of leaders are important parts of the dynamic.

The classical innovation process in the form of the Stage-gate model has been identified in the 3M company, but not in the Reply company. In this company the more important are the emergent practices in which employees participate. The classical innovation process in 3M Italy is completely overlapping with all of the stages and characteristics with the one presented in the literature. The graphical representation is also provided in the Figure 3.
Emergent practices are presented in the both of the companies. In order to describe and formalize them better, they were divided into the structured and destructured ones. The structured emergent practices are the ones provided as a tool from company side. Some of the main structured emergent innovation practices found in the 3M company are: technical forum, circle of technical excellence, Carton society, dual ladder, Golden step award, while in the Reply company are hackathons, lab camp, xchange, learning remix. On the other side there are destructured emergent innovative practices that are the ones that were born based on the initiative of the employees. The destructured practices have only being found in the 3M company and they are: 15% of working time culture, expert team and global meeting. The more detailed description of them all of them can be found in the sub-chapters 5.3.1. and 5.3.2.

Interesting finding is connected to the rewarding system, where in the 3M case it is not connected to the idea, but to the tangible proof of the performances and in the case of Reply, the prizes and the rewarding don’t have the importance, as the main motivation for the participation is the new opportunities for the knowledge expanding.

General conclusion is that emergent innovation practices are usually the tool for generation of more structured and creative ideas by employees that will be after developed in the classical innovation process, while in the case of Reply company, they are completely substituting the classical ways for innovating.
Last area of the results was dedicated to the organizational factors that can influence on the both collective leadership and emergent innovation practices, and as it was shown in the figure below, they can be grouped in three categories: organizational structure, company values and company culture.

Related to the organizational structure the hierarchy was found as a complementary to the flat and agile organization. One big difference in orientation is that 3M is technological company and Reply is the knowledge company.

Some of the main company values found in the both case studies are trust on people, transparency, delegation, mistakes tolerance, teamwork and cooperation. The Reply company is giving especial importance to the speed of the change, agility and looking on the company as on the living organism.

What was expected and also found through the cases is the open and supportive culture. Company is ready to listen suggestions of the employees and employees feel free to challenge the existing procedures. The Reply company represents the example of the open leadership, while both the 3M company and the Reply are investing in the continuous learning of the employees and opportunities for the expansion of the knowledge, whenever it is possible. The more the team is diverse in terms of knowledges, nationalities, culture, job positions and experience, the more disruptive ideas will be generated. Flexibility and the agility approach to the everyday job is highly appreciated. Finally, both of the company are strongly supporting their employees in the networking as it brings broader network of contacts, development of professional capabilities and additional knowledge.

**DISCUSSION**

The main variables discussed in this chapter are: emergent innovation practices and the connection with the classical innovation process, the manifestation of the collective leadership in innovation process, the role of the collective leadership in the emergent innovation practices and the role of the organizational factors in both collective leadership and emergent practices. In order to answer on th research questions, some of the main statements are declared (showed in bold).
Main description of this bottom-up practice is that ideas are coming from the bottom, from the regular employees that are not assigned to the task. (Kesting P, Ulhøi J.P., 2010) One of the most important emergent practice that is applied in the company is the 3M company is % of working time, while in the Reply, possibility to participate in the hackathons. As there were identified many other initiatives during the interviews, the decision was to split them in the structured ones – that are provided from the company to the employees as a tool, and the destructured ones that were born form the initiative of the employees. More about these practices, found in the 3M and Reply company can be read in the chapter 5.3.

The classical innovation process has only been described in the 3M case and it is almost completely overlapping with the Stage-gate model presented in the literature by Robert R. Cooper (Cooper H., 1986) The main finding in the Reply company is that emergent practices are generating almost all of the innovations.

As the general conclusion can be stated that the emergent practices are kind of the tool or the starting point for the classical innovation process. Additionally, in the case of the Reply, emergent practices completely substitute the classical innovation process. Emergent practices are having a double effect: they strengthen up the classical innovation process, and they motivate employees. The general conclusion can be stated:

**There are different types of emergent innovation practices. The general classification can be done on structured – provided by the company and destructured – created based on employees’ initiatives. The emergent practices are the starting point of the classical innovation process.**

Beside the formal leader, informal leaders are having a great importance as they bring additional knowledge and take the responsibility for the leading in different phases of project. (Friedrich T., Griffith J, Mumford M., 2016) These leaders are reinforcing and grouping the behaviors inside of the team and build special relationships through the skills and trust. (Hollander E.P., 1961) There is a need for the existence of the both as they are complemental.

In the 3M company structured and formalized leadership behaviors have been found that are coherent with the four dimensional typology presented by Hiller
(Hiller et al., 2006) where he identified the planning and organizing, problem-solving, support and consideration and developing and mentoring role. Emergent thing found in the 3M case is the innovative behavior. On the other side, Reply company doesn’t have the structured leadership behaviors that employees need to respect, but they are trying to build the attitude in the people to behave in the certain way.

Whole process of the collective leadership in innovation process is not static (Friedrich T., Vessey W., Schuelke M., Ruark G., Mumford M., 2009). Changes are happening in the different point of time, because of the different skills, expertise and stages of innovation and development process. (Tuckman B.W., 1965)

All previously mentioned lead to the general conclusion that the existence of the collective leadership in innovation process is present. The collective leadership manifests in the innovation process through the three aspects multiple leaders, multiple behaviors and this is coherent with the theory. (Contractor N.S., DeChurch L.A., Carson J., Carter D.R., Keegan B., 2012) The general conclusion and the answer on the first research questions is that:

**The collective leadership is present in innovation process. It manifests through the multiple leaders, multiple behaviors and the dynamics.**

The connection between shared leadership and innovation behavior in the team has been proven. (Hoch J., 2013) The collective leadership can influence on the innovation in two directions – on the classical innovation process and on the emergent practices.

Some of main implications are that the more the structure of the team members is diverse, the more disruptive ideas will arise. The mix of different skills, knowledge and the experiences is needed. The more the team is multicultural and multinational, the better ideas will come up as an outcome. Dynamics and the change of the leadership behaviors and roles is happening during the time. Continuous learning and open leadership in light of the knowledge sharing will have a positive effect on the innovation outcome.
The general conclusion that is also supported through the theory is that the collective and shared leadership improve the innovative team performances and bring competitive advantage to organization. (Carson at al., 2007) In order to answer on the third research question, the statement was formulated:

**Collective leadership, made up of the multiple leaders, multiple behaviors and dynamics, is enabler of the emergent practices. The collective and open leadership support employees in order to express their ideas and create innovations in both classical and emergent innovation practices.**

First group of the factors identified through the case studies that influence on the collective leadership is the organizational structure. Hierarchy is present, but the organization is mainly flat. Some of the main principles are trust in people, transparency, and delegation, toleration of the mistakes and teamwork and cooperation. When it comes to the company culture, strong supportive culture has been found in the both of the cases. The transparency and the mutual trust, openness and the personal contribution is something that is making collective leadership possible.

In order to answer on the needs of employees and the market, the organization has to be agile. Open culture and the individual participation helps people in expressing themselves. Diversity is highly appreciated. In order to answer on the fourth research question, part connected to the organizational factors that are influencing collective leadership, the statement can be formulated:

**a) Different contextual factors can influence on the collective leadership. Open and supportive culture, teamwork and cooperation together with the agility and diversity are some of the main ones.**

Organizational climate that was found in both cases support and enable the creative thinking of the employees (Amabile T., 1998) and is crucial for innovation creation. Both of the companies are ready to tolerate mistakes and force people to experiment and do additional mistakes with the purpose of learning. The factors of organizational climate that have a positive effect on creativity, innovation and change are: challenge and involvement, freedom, trust/openness, debate, idea time, playfulness/humour, idea support, risk taking while other ones such as
conflict is negatively correlated (Ekvall et al., 2000). The diversity is one of the most important characteristics of the team that is needed for the disruptive innovations.

Lastly, in order to provide the answer on the fourth research question, part connected to the organizational factors that influence on the emergent innovation practices, the following statement has been formulated:

**b) Different contextual factors can influence on the emergent innovation practices. Company culture and climate, continuous learning, diversity, agility and the networking are some of the main ones.**

**IMPLICATIONS FOR PRACTICE**

There are many benefits that this research study brings for the area of the collective leadership in the innovation process and innovation management in general. There are emergent findings especially in the field of innovation management, such as the connection of the emergent and classical innovation process or the existence and role of the collective leadership in the innovation process, presented in the sub-chapter 7.1. There was a need for a more empirical testing and theory refinement specially connected to the how collectives engage in leadership and innovation practices (Yammarino F.J., Salas E., Serban A., Shirreffs K., Shuffler M.L., 2012) (Paunova M., 2015) and this study, through the qualitative method and interviews, provided the detailed descriptions of the processes, connections and outcomes, with the special focus on the inter-connections and effects that are coming from the influence of one variable on the another one.

Some of the managerial implications are that formal leaders have to be aware of the importance of the expertise while working in the team, and have to create the culture of the collaboration and teamwork. The informal leaders need to be listened by others, because they are adding the value by their knowledge and personal characteristics. Additionally, formal leaders need to recognize the informal ones and give them ability to contribute, through responsibility delegation.
The open culture, open leadership, continuous learning and agility are some of the main principles for realization of the emergent innovation practices. Hierarchy doesn’t mean a lot, and sometimes is slows down the process and the organization. The more flat organizational structure is needed and more informal relationships and points of contacts. The more the team is diverse; the better will be innovation outcomes as there will be possibility to see the project from the different perspectives. Challenge employees by mixing the team, rotating the job roles and giving to work on something that is not in their area of expertise. The disruptive ideas will come from the heterogeneous resources.

If one of the initiatives is working and bringing the satisfaction to the employees, it will motivate others to open up and to bring their suggestions and propositions. Don’t do the storytelling only to impress the external audience. Try to transmit the culture by doing and educate the employees to develop their own attitude, but still to be aligned with the company values. Motivate people to constantly learn and share the knowledge. The expertise that they have can be multiply if it is exchanged with some other one. Training doesn’t have to be only formally organized. Employees need to use every opportunity to catch new things and expand their interests.

The value of the networking is huge. Networking is bringing the additional value to the employees, but also to the company. Company can only grow through their employees. Customers are important, but the development of the internal resources is first on the prioritization list.

Employees are different, and their behavior change over time. Meeting the employees on the personal level and listening to them will bring the right approach how to lead them. Employee need to respect leader not because of the formal role and position, but because of his/her expertise, skills, professional capabilities and the personal characteristics.

LIMITATIONS AND DIRECTIONS FOR THE FUTURE RESEARCH

The two case studies are coming from the different industries, with different products and orientations and this can limit the results. The generalization cannot be made, as only one company per each industry was chosen. What can be the
topic of the future research is to see, how the collective leadership and emergent innovation practices are interconnected in the one specific business area and what are the difference in the approaches, taking in consideration the same business conditions and influential organizational factors.

Even though it can be understood that two companies can be not so strong empirical evidence of the existence, what has to be taken in consideration is the methodology and the quality of the analysis. First of all, the qualitative methodology of the interviews enable to investigate the multiple case studies in deep, going into the details, so the level of the peculiarities is really high. Additionally, in each of the case study more than one employee was interviewed. In the 3M company three, while in the Reply company seven people. This provides the heterogeneous of the perspectives, especially taking in consideration the fact that employees interviewed are from different hierarchy levels, different positions, experience and working stage in the company. The future research can be more focused on the longitudinal analysis and better, more formalized selection of the people interviewed.

Not all of the concepts investigated in the literature are taken in consideration. Beside this, because of the novelty of the emergent innovation practices topic, some of the researches can arise in the process of writing the thesis. The suggestion here can be to explore more frequently the new studies and to include also some other topic that can be connected in some way. Special attention in the future researchers needs to be put on the concept of the practice rather than on the formal name and definition.

Finally, further research activities need to be done in order to follow what is happened after the application of the emergent innovation practices or to see what the outcomes that are occurring in the future are. Here is mainly thought on the observation of the some emergent practices and providing surveys after the process in order to catch the feedbacks of the participants. Also, these practices should be followed in the longer period of time in order to spot what are the long term effects on the company and employees.
Creativity and innovation seems to be very important topics to talk about and act, lately. The organizations are facing different complex and evolving challenges: globalization, rapid changes in market needs, technology development and many more. All of them force companies to improve their ability of fast reaction to the change and to answer rapidly on all of the challenges. In order to see how organization can improve in the future, taking in consideration all of these factors, a deep understanding of these topics has to be developed.

In this chapter it will be introduced the innovation through it definition, types, contextual factors and phases of innovation process. Since the literature on the innovation is comprehensive, after providing the general concepts, special focus will be dedicated to the collective forms of innovation and emergent practices, present in the literature. Lastly, the connection between creativity and innovation, currently present in the research papers, will be presented.

The chapter outline is the following one.

CHAPTER OUTLINE

1.1. Introduction to creativity and innovation
   1.1.1 Influencing contextual factors
   1.1.2 Sources of innovation
   1.1.3 Types of innovations

1.2. Creative and innovation process
   1.2.1 Main discoveries in the literature

1.3. Collective forms of innovation creation

1.4. Conclusions
Innovation management is a topic for which interest is increasing from year to year. It seems that in this business era, innovation is the key for survival or organization. Some authors highlight that innovation is imperative (Tidd J., Bessant J., Pavitt K., 2005) while others stress their importance through the words: “It’s war: innovate or die” (Cooper R.G., 2005).

Nowadays, it is not so easy to define innovation. The environment is dynamic and changes are coming quickly. Situation that usually happens is that, when environment change through changing of customer needs or changing the regulation, it affects company and they are sometimes not able to adapt (Leonard-Barton D., 1992) (Benner M, Tushman M., 2000). Beside this, choosing the right actions in the right moment and in the right context is sometimes even more important than the properly defined approach. Markets are more and more competitive and companies are searching for new ways of innovating, hoping that they will, through the different processes, create something disruptive. In this search of the new way, the factors that can affect innovation are various. Depending on the project requirement and situation, models for creation and development of innovation can differentiate.

Firstly, all of the innovations were kept as a secret and they were part of the internal research and development process. Only specialists of specific areas were included in their creation, while the final result was relieved inside of the company, right before launch on the market. In the literature, usually it is showed, that companies used search to innovate (Winter S.G., 1984) (Huber G.P. , 1991) (Almeida P., Dokko G., Resenkopf L., 2003). Even though, more commercially successful searches were more distant from the current knowledge base of the firm (Taylor A., Greve H., 2006), companies still preferred to close and use firm’s existing activity (Helfat C.E., 1994) (Benner M.J., Tushman M., 2002).

But, before all, the difference between invention and innovation has to be made. The idea generation based on a technological advancement of something completely new, that still doesn’t exists and is usually protected by a patent, is an
invention. As author Schumpeter in 1939 stated, when invention is exploited and when it brings economic return, it is becoming innovation. So it can be said that innovation is the first commercialization of an invention.

Through the time and the literature, many of the definition of innovation have been presented. Not only innovation as a new product or service or a new usage, but also as a tool and value generator. Depending on authors, innovation can be considered differently: by type as product or service, by success if it needs to be successful in order to be verified as innovation or not (Hartley, 2005) (Jacobs D., Snijders H., 2008) by including or excluding the post-launch or commercialization phase (Drucker, 1985) (Jacobs D., Snijders H., 2008); (Tidd, Bessant, 2005).

For this study, the special aspect of innovation as a process will be interesting. As it was defined by some authors (Aiken M., Hage J., 1971) innovation is “… the generation, acceptance and implementation of new ideas, processes, products or services... for the first time within the organizational setting” as also as “… the process whereby ideas for new (or improved) products, processes or services are developed and commercialized on the marketplace. ” (Rasul F., 2003) Each and every time when the term of innovation will be mentioned in this study, these two definitions will be valid.

When talking about the innovation it is more than necessary to mention the importance of the creativity. Creativity is a prerequisite for organizational innovation, growth, and survival. It can have its role in all of the phases of innovation process, but mostly in the first phase of idea generation and last phase of implementation. Through the literature, the creativity has been studied from psychological, sociological and organizational perspective. Many of the research studies about the creativity have been made. Different definitions, by different authors, connected to various aspects are provided. Beside the ones focused on creative outcome, people or context, the most valuable seems the one where creativity is explained as a creative process. Hence, here, creativity is seen as “… a continuous process of thinking innovatively or finding and solving problems and implementing new solutions.” (Basadur, M.S., Grean G.B, Green S.G., 1982). This definition will be used in this study, when it is discussed about creativity.
In the next paragraphs it will be more deeply explained which factors are influencing on the process of innovation, what are the sources and what are the different types of innovations existing, until now, in the literature. What has been investigated about the new, emergent forms of innovation will also be presented.

1.1.1. INFLUENCING CONTEXTUAL FACTORS

It is not only the innovation process important for the success, but also elements that can influence that process. These elements are usually called contextual or situational factors. There are different conditions under which is most likely to achieve the creative process (Taggar S., 2002) (Eisenbeiss et al., 2008) (West A., 2002). Contextual factors can influence in the different phases of the creative or innovative process and depending on the organizational context and reaction of the company, can bring to different results. For the purpose of this study, only some of them will be listed.

An importance of skills, resources, organizational methods, leadership and culture for the innovation has been investigated by authors (Mulgan G., Albury D., 2003). Here, special focus is on the people and how they are organized, what is the hierarchy and the governance, what are the characteristics of the company culture, what is the type of leadership that is directing them through the process and what are the resources they are having on the disposal. Other authors (Cormican K., O'Sullivan D., 2004) were investigated more the role of strategy and some specific organizational process, such as planning and selection. Also here, an important part is dedicated to the culture and climate. The links of the organization with the environment strategic profile was investigated by Tidd, Bessant and Pavitt (Tidd J., Bessant J., Pavitt K., 2005). In their research, strategic context for innovation and innovativeness of the organization are in the focus. Lastly, other authors (Jacobs D., Snijders H., 2008) studied the influence of development, feedback, learning culture and implementation of routines.

Some authors specially explain the crucially of organizational climate that supports and enables the creative thinking of employees (Amabile T., 1998), but also major organizational dimensions under which are behaviors and characteristics that inhibit creativity in a work environment (Andriopolous C., 2001). Until now it is
shown that some factors of organizational climate have a positive effect on creativity, innovation and change: challenge and involvement, freedom, trust/openness, debate, idea time, playfulness/humor, idea support, risk taking while other ones such as conflict is negatively correlated (Ekvall et al., 2000).

The important element for the innovation beside the climate is a culture. There are dimensions that can impact the speed and frequency of innovation and organizational creativity and they are: risk taking, resources, widely shared knowledge, specific targets, tool and techniques, reward systems, rapidly formed relationships (Plesk P., Bevan H., 2003).

Possible, general classification of all contextual factors could be done by following categories: strategy, culture, leadership, organizational structure, resources/skills, links with outside organisation (Eveleens C., 2010). Additionally, these contextual factors can be differently grouped on the internal and external ones (Eveleens C., 2010) and the same can be done for the innovations.

More about the contextual factors and their influence on the innovation found in the literature, will be present in the paragraph about main discoveries, in the part 1.2.1. of this study.

1.1.2. SOURCES OF INNOVATION

The drivers that enable innovation can be different. As Dosi formalized in 1982, two main sources for innovation are the one coming from market needs and this strategy is called market pull and the other one coming from the technologies advancement and this strategy is called technology push. Of course, these two strategies for the innovation are not the only ones. The more and more attention is been given to the design as a powerful source of innovation (Verganti R., Dell’ Era C., 2012) In the next paragraphs, it will be shown what can be source for innovation, and from which part of organization innovation can come from.

Even though sources of innovation could be different such as firm’s value chain, partners or sponsors, the customers, suppliers, customers, complemenatry innovators, related industries, universities and research laboratories (Drucker, 1985) they can be organized in the seven sources:
- The unexpected – as a result of unexpected success, failure or outside event, environment is dynamic and companies needs to fastly adopt to the changes
- The incongruity – there can be discrepancy between reality and what everyone assumes it to be, thinking differently from competitors and from society in order can bring innovations
- Innovation based on the process need – when person or company is able to support the missing link, some imperfect task or step in an existing process, that is evident, but all people work around instead of doing something about it
- Changes in industry or market structure – this is the prime time for innovations, whenever changes are happening, the new products or services can arise as a response on the unbalanced situation
- Demographics – change in population that is bringing shift of the generation and different age distribution. It can be changes in population’s size, age structure, composition, employment, level of education.
- Changes in perception, mood and meaning – new innovations are coming when there are changes in the society’s general assumptions, attitudes and beliefs
- New knowledge – scientific and non scientific knowledge that helps in this knowledge-based innovation.

The author, Eric Von Hippel has also studied this topic. In his book, “The sources of innovation” (Eric Von Hippel, 1988) he explained in details that “innovator is individual or firm that first develops an innovation to a useful state, as proven by documented, useful output” and that “the source of innovation differs very significantly between categories of innovation”. Major product innovations are almost always developed by product users, while the product manufacturers and the suppliers are developing innovations in the other fields.

More recently, in the book “The future of work: attract new talent, build better leaders and create a competitive organization” (Morgan J., 2014) it was explained from whom innovations can come from. As this segment is particularly interesting for this research study, the types of innovations, based on the characteristics of innovations are:
- **Employee innovation** – where the main creators of the idea are employees. Usually, ideas are collected, best of them are selected, tested and then some or all of them are realized. This is also familiar as a employee-driven innovation.

- **Customer innovation** – here the participation of the end customers is needed. Some problem or the challenge is given by the company and the customers has to come up with solutions and send them to the company. The different prizes are provided. The other name for this kind of innovation is open source innovation.

- **Partner/supplier innovation** – the main idea is coming from the relationship with the supplier, that is feeling a lack of something or want to propose doing a business in a different way. The connection with the partners needs to be open and strong.

- **Competitor innovation** – competition is a great source of innovation, as it can influence in two directions. Firstly, it represent motivation for the company, that tries to create something better and more successful and secondly, it represent a inspiration, as some competitors’ products can be improved or the usage can be changed.

- **Public innovation** – again, external partner are the key source of innovation. Focus areas are defined by the company, and participant can propose whatever they think it will be from use.

Lastly, there is a classification, on the external innovations or ”supplier dominated” innovation, consumer interaction innovation or “client-led” innovation, in-house innovation or innovation in services and supporting the others innovation or innovation through services. (Bessant J., Davies A., 2007) Given this, by the place of origin innovations can be defined as internal ones and external ones.

For the importance of this study, as a source of innovation in focus will be the innovations coming from employees, that are created and developed inside of the company. The next paragraph is bringing different types of innovation.
1.1.3. TYPES OF INNOVATION

Before presenting the type, the existence of innovation needs to be proven. In order to identify if something is innovation or not, in consideration should be taken five dimensions (Eveleens C., 2010). These dimensions are: type and degree of novelty of the innovation, type and size of the organization in which the innovation project took place and the environment/sector in which the innovation was developed.

Discussing about the type of innovation, authors made a difference among product-, process- and service innovation (Luecke R., Katz R. , 2003) (Albury, 2005). For the purpose of the study, process innovation will be chosen.

If the novelty is considered, there is fuzzy approach (Jacobs D., Snijders H. , 2008) in which all innovation can be assigned along an axis from incremental to radical or authors that split it into incremental, radical and systemic innovation (Mulgan G., Albury D., 2003). Here, many of the studies have been performed (Ettlie J.E., Bridges W.P., Okeefe R.D. , 1984) that specially distinguish radical and incremental innovation.

By the type of organization, there are innovations of the private firm or public organization (Hartley, 2005). Important note is given to the place where innovation is created, as it represents a big difference. Taking into the consideration the management characteristics and strategic approach, but also size, different innovations can occur. Last one dimension is stability of environment and it affects in a great portion management style and relation between management and innovation.

Further on, through the literature, there are different classifications of the innovation. For example Godin (Godin B., 2008) defines 12 concepts of innovation that are grouped in four main categories:

- Innovation as a process of doing something new – where the innovation is considered as imitation, invention and discovery. In our study, main focus will be on innovation as an invention and as a discovery.
- Innovation as human abilities to creative activity – here is stated that innovation can be as imagination, ingenuity and creativity. Taking in consideration that one of the areas covered in this study will be creativity; this category will also be interesting.

- Innovation as a change in all spheres of life – innovation as a cultural change, innovation as a social change, innovation as an organizational change, political change or technological change. The organization and organizational context is playing a big role in the framework of this study, as also as culture and cultural changes.

- Innovation as a commercialization of new product – this category will not be so interesting for this study, as the main focus is more on the process of innovation than of the final outputs.

The multiple classifications of innovation process (Tidd J., Bessant J., 2007) present four types of innovation:

- Product innovation – that relates to new products or services or changes to products or services that brings benefits to the customers
- Process innovation – that represent an introduction of new device, method, tool or knowledge to produce a product or render a service
- Position innovation – more connected to marketing and positioning of certain product in specific industry or business segment
- Paradigm innovation – the innovations that shift the long-held assumptions about the modus operated in some industry or business.

In some other papers, types of innovation are often described as follows: ‘product innovation’ or introduction of a new product on the market; ‘process innovation’ or introduction of new production processes such as new work routines or those enabled by new technology; ‘organizational innovation’ introduction of a new new management philosophy or form of organization; and ‘market innovation’ denotes a firm’s new market behaviour such as a new strategy, new marketing methods, new alliances and so on. (Sudnbo J., 2003) As it was mentioned in the paper “Work package review on innovation in social services in Europe – health, education and welfare” (Na., 2012), in order to develop an extended paradigm, it is considered
eight types of innovation: product, process, marketing, organization, roles, relations, norms and values. Product, process and organization innovation was previously mentioned as an important one for this study. What can be additionally interesting are the ones related to roles, norms and values.

1.2. CREATIVE AND INNOVATIVE PROCESS

Innovation is the result of much bigger process that is called innovation process. The innovation process is defined as the development and selection of ideas for innovation and the transformation of these ideas into the innovation (Jacobs D., Snijders H., 2008). As always, there are some steps in managing innovation. First step is always that company understand what influence innovation process and what is the way to innovate (Van de Ven A.H., Poole M.S., 1990) (Rothwell R., Freeman C., Horsley A., Jervis V.T.P, Robertson A.B., Townsend J., 1974) (Andrew J.P., Sirkin H.L., Haanaes K., Micheal D.C., 2007). Among different important factors, that can influence this process, is knowledge. In order to management use the knowledge, the best practice model need to be developed. It increases quality and efficiency of the innovation process and decreases the time and the chance on failure (Cooper H., 1986) (Van de Ven A.H., Poole M.S., 1990) (Rothwell R., 1994) (Van de Ven A., 1999). Beside this, each innovation process model is based on the different set of dimensions and factors that can influence.

The innovation models have different phases or stages. Phases are helpful for conceptualising the innovation process and determining where drivers and barriers can occur. Some authors split innovation process into three phases: ideation (idea generation, evaluation, selection), invention (prototype development and testing) and exploitation (large scale production and commercialization) (Bergendahl M., Magnusson M., 2015) (Damanpour F., Schenider M., 2006) (Roberts E., 2007) (Schweisfurth T., Herstatt C., 2016). This is only one possible, general classification of the phases in innovation process.

Author Rothwell (Rothwell R., 1994) identified five generations of innovation management. Each generation was a response to the changes that were happening on the market such as economic growth, industrial expansion, inflation, economic
recovery etc. When it comes to the change of the generation in the company, company needs to update strategic focus, overhaul the innovation process and develop new market niches. First two generations, technology push and market pull, were formalized by Dosi in 1982.

First generation was technology push where the main focus was on the scientific breakthroughs – “the more R&D in, the more new products out”. Here, innovation arises from “technological developments within innovative organizations” (Convway S., Steward F., 2009) New improved technology leads to innovation of new products, services and processes. It consists from series of sequential steps – fundamental research (basic science), application research, design, engineering, manufacturing, marketing and sales. Scientists make unexpected discoveries which than, developed into the prototypes are tested before manufacturing and marketing.

Customer needs and market requirements are in the second plan, while in the first were investments in the technology. Customers represent passive recipient and s/he is not consulted for the feedback. It is presumed that the customer will accept the new product or service.

Market pull represents the second generation that includes and integrates the user needs and they are the key driver of innovation process. Here it is found that the marketplace can influence the innovation process. (Trott P., 2002) The steps of market pull innovation are: assessing consumer needs or market requirements, concept or idea generation, refining idea to at least meet consumer needs, design, engineering, and manufacturing, test, marketing and sales.

Main aim is to find consumer needs, through research of target market and define the strategies in order to satisfy these needs and develop products and services. The consumer is often asked for the feedback in order to improve existing products. The close relationship with consumers and the successfully satisfying the needs is from the high importance.

Both of the generations, technology-push and market-pull are graphically presented in the Figure 1.2.
Both generations explained in the previous paragraphs can be represented under the **linear innovation process models**. In order to minimize the risk, the product or service concept in the linear model is frozen at early stage. This innovation process represents a series of sequential phases or steps. One of the main rules is that preceding phase must be cleared before moving to next succeeding phase. There is a gatekeeper and the gate where the permission for the moving in the next, succeeding phase is enabled. The main requirement that needs to be fulfilled in order to pass the gate is defined in advance. Some general phases of linear model are: idea generation, screening or idea selection, development and diffusion or market or sale. (Trott P., 2002)

However, these two generations of the models are out of date as they don’t represent the true reflection of the innovation process by illustrating what drives innovation, but rather how it occurs. (Trott P., 2002) Taking this in consideration, other generations were developed.

The third generation of innovation models is **coupling of R&D and marketing**. Main characteristic is the corporate consolidation that resulted in “product portfolios”. Structured innovation process brought the stronger relationship between marketing and R&D and companies moved away from individuals R&D projects. Central driver for this model was cost reduction. (Rothwell R., 1994) In the “simultaneous coupling” model, innovation was coming from knowledge of three organizational functions: manufacturing, research and development and marketing. This third generation model process of innovation represent the
confluence of technological capabilities and market needs within the framework of the innovating firm. (Conway S., Steward F., 2009)

Further on, fourth generation model is the interactive one. This model links technology-push and market-pull frameworks and enables the critical interaction between organizational capabilities, science and marketplace. (Trott P., 2002) The stages are interdependent and they interact. When it comes to the flow of communication, it is not restricted and there is a feedback.

Lastly, network model is the last generation. Sometimes it is defined as system integration and networking as in the main focus is the external linkages. External inputs influence on marketing and sales, finance, engineering and manufacturing and research and development. The accumulation of the knowledge is enabled by the co-ordination and integration between and within each function. The network model enables flexibility and speed of development, and the external focus is on the business ecosystems. The collaborative marketing and research arrangements are setup in form of open innovation. (Rothwell R., 1994)

After the explanation of the five generation of the innovation processes by Rothwell, in the table will be presented some of the most important models in the literature, with the their phase. The design driven approach will be briefly
described while the Stage-gate process will be explained in details. (Cooper H., 1986)

**Overview of the innovation processes through the literature**

As it was mentioned before, through the literature many authors have analysed the innovation process. Even though some phases are similar and can be grouped into three main phases: ideation (idea generation, evaluation, selection), invention (prototype development and testing) and exploitation (large scale production and commercialization) (Bergendahl M., Magnusson M., 2015) (Damanpour F., Schenider M., 2006) (Roberts E., 2007) (Schweisfurth T., Herstatt C., 2016), each and every model is having its own peculiarities. Thanks to the author (Eveleens C., 2010) the figure 1.3. was provided where some of the most important innovation process were described through the phases. Through the visualisation and the colours, this table is explanatory enough to enable a comparison of different models developed during the time.

After presentation of the phases, stages, components and the main activities of the innovation processes, for the purpose of this research, the Cooper model will be explained into the details.
Design driven innovations

Lately, special attention has been dedicated to the phenomenon of design and its role in innovation management. The definition of design is not easy to be given, but authors (Verganti R., Dell’ Era C., 2012) grouped design’s explanation in three different clusters: design as the form of the things, design as a creative approach to problem solving and design as making sense of things. First cluster reduces design only to a stylish operations of giving shape and form to objects. Secondly, on the design is looked as a creative approach to problem solving, where design is seen as everything that has any connections with creativity. Lastly, design is presented as a making sense of things, where designers are becoming innovators and are proposing new values to the market by using new languages. If the last approach is used, it brings to the design-driven innovation. Here the concept of how design moves the reason of purchasing from the “what” to “why” is stressed. (Verganti R., Dell’ Era C., 2012) Among three common characteristics with the market pull and technology push (user needs’, technology and language) in this innovation strategy, the language is playing a crucial role. Managers do not look at the market,
but they do offers on it and they change the meaning and push new products to the market without exclusively considering the user’s needs.

**Stage-gate model by Cooper**

![Stage-Gate model](image)

**FIGURE 1. 4. STAGE-GATE MODEL BY ROBERT R.COOPER**

The stage gate model is made of five stages, where after each and every stage, there is a gate. Gate represents a quality – control checkpoint where decisions about proceeding with the project are made. These gates have their main goals: to ensure quality of execution, to evaluate business rationale and to approve the project plan and resources. The one identified in the Stage-gate model by the Cooper (Cooper H., 1986) are: idea screen, second screen, go to development, go to testing and go to launch.

As it has been stated above, the traditional stage-gate model has five stages. The first stage is scoping where large desk research and quick, inexpensive preliminary investigation has been performed. Next stage includes also customers, market and technical through the primary research that leads to the creation of the business case. This is called building of the business case and includes product and project definition, project justification and proposed plan for development. In the stage of the development detailed design and development of the operation or product process is made. This is required for eventual full scale production. Tests and trials in the lab, plant and marketplace are done in the testing and validation phase. Here the verification and validation of the proposed new products, brand/marketing
and production is performed. The last stage is launch one, where the commercialization of the product or service is done. It is beginning of the full scale operations or production, marketing and sales.

Beside explained stages, here are also two additional stages. The starting one is called discovery or idea generation, where many of the investigations and search are made. Here, a pre-work is performed with the aim to discover business opportunities and generate new ideas. The last one is post-launch reviews where are additional activities, needed on the market or as a support for the customers.

Beside the Stage-Gate model there are also the other ones, and there is a possibility of combining and adopting different models to different contexts. If generalization can be done in order to make mutual phases from different models, the starting phase would be idea generation. Main aim here is to come up with as much ideas and opening of possibilities, as possible (Mulgan G., Albury D., 2003) (Jacobs D., Snijders H., 2008). Next step is to select the project, so narrow down the options and make the decision with which project the company will proceed (Rogers, 1962)(Jacobs D., Snijders H., 2008). This step could also be called selection. It has to be aligned with organizational strategy and existing portfolio of projects. Here the goal is to judge if the innovation is potentially profitable (Andrew J.P., Sirkin H.L, 2007) or if it is potentially increasing public value (Moore M.H., 1995).

The next phase is to concretize ideas into product, process or service - something that has tangible results. It is usually named as development (Cooper R.G., Kleinschmidt E.J., 1995) (Van de Ven A., 1999) (Verloop J., 2004) or prototyping (Mulgan G., Albury D., 2003) or realization (Andrew J.P., Sirkin H.L, 2007) (Jacobs D., Snijders H., 2008) or manufacturing (Rothwell R., 1994). Under this phase, also testing is performed. Of course new, developed product, process or service has to be tried in the real world with the customer and supported by marketing activities. All of it is done through the implementation or launch stage.

Even though for some authors this represents the end, some proceeds with the next phase – post launch one (Rogers, 1962) (Mulgan G., Albury D., 2003) (Jacobs D., Snijders H., 2008) and even further phase of explicit learning (Mulgan G., Albury D., 2003) (Jacobs D., Snijders H., 2008). Each and every company has a
possibility to choose which model for generation of innovation best suits for their needs.

There are three features that characterize the creative process in the innovation generation model: process is consisted of stages, idea generation occurs through divergent thinking and the process is adaptive and goal is directed. (Harvey S., 2014). This is an obvious connection between creativity and innovation.

1.2.1. MAIN DISCOVERIES FROM THE LITERATURE

Even though topic of innovations and innovation process is still not completely investigated, many of the findings arise until now. In this paragraph some of the main conclusions will be stated, with the special focus on collective forms of innovating. The reasons why not all of them will be covered is: firstly, because of the constantly changes and dynamics happening in the companies, but also in the external environment and secondly, because this topic is still interesting and motivates scholars for some new researches. Beside this, different practical examples arise, that shows various applications of the innovation models, also interesting for investigation.

Some of main topics connected to innovation, covered in the literature, are the one about the factors that influence the process, both internally and externally. Among the most explored ones are knowledge as internal and competitors as external factor. After some years, it was shown that firms that recombine new knowledge with current knowledge are more successful in innovating (Tusman M., O'Reilly C., 1996) (Katila R., Ahuja G., 2002); (March J.G., 1991) (Siggelkow N., Rivkin J.W., 2005). Then it started to be studied how external environment, in terms of competitors and networks in which firm was belonging, can shape firms search and innovation (Katila R., Chen E., 2009) (Katila R., Chen E., 2009) (Katila R., Ahuja G., 2002) (Fleming L., Sorenson O., 2004) (Fleming L., 2001) (Rosenkopf L., Nerkar A., 2001) (Fleming L., King C., Juda A., 2005). Additionally, in the literature was shown the positive relationship between investment in R&D, collaboration and knowledge diffusion (Oerlemans et al., 2002).

One unavoidable factor that impact creativity, and further on innovations, is the leadership style. Importance of having leader’s support and it direct link on
creative endeavours, is presented in few research papers (Mumfrod M., Scott G., Gaddis B., Strange J., 2002) (Ambaile T., 1996). Others (Amabile T., 1998) recommend practices that enhance creativity such as: challenge, freedom, resources, work group features, supervisory encouragement, and organisational support. Until now, it is shown that the scope of ideas created by slightly changing a process or different variety of group creativity is enormous, from the incremental that are in continuum, to break through (Staw B., 2009).

As the company for innovating uses both internal and external resources, it is important to do the balance in the usage. When it comes to the capabilities, internal capability and external collaboration have been found to be complements rather than substitutes (Arora A., Gambardella A., 1994) (Pisano G.P., Shan W., Teece D.J., 1988) (Rothingam F., 2001).

Connected to performances and opportunities with external partners, clear conclusion was drawn between firm’s rate of new product development and the number of strategic alliances. Higher levels of expenditures in R&D and technological cleverness are positively correlated with higher levels of collaboration (Deeds D., Hill C., 1996) (Hagedoorn J., 1995). Some research papers investigated the connection between the number of collaborators and innovative output (Shan W., Whaker G., Kogut B. , 1994). Beside this, companies with strong internal research capabilities were more likely to collaborate, because they can bring skills and technologies to the table, making them desirable collaborative partners (Arora A., Gambardella A., 1994) (Rothingam F., 2001).

There are some characteristics, if company wants to have a positive influence on processes of knowledge creation, creativity and innovations. Firstly, it should be open to change, encourage and value free communication and new and/or unusual ideas, tolerate mistake and grow motivated staff. Leaders need to promote these characteristics as shared values and in parallel to challenge and empower the staff to generate new ideas. (Auernhammer J., Hall H. , 2014)

One of the general conclusions is that companies need more leadership than management. Also, the use of more collaborative approaches to business, working
Some researchers pointed that group usually choose average ideas like a most creative ones (Nijstad B., Stroebe W., 2006) and that group generates less creative ideas than one individual (McGrath J., 1984), (Diehl M., Stroebe W., 1987) (Diehl M., Stroebe W., 1991) (Paulus P., Nijstad B., 2003). Contrary to this finding, an increasing number of organizations rely on team creativity to boost their innovation (Miron-Spektor et al., 2012). The creativity on the group or collective level enables benefits for individual creativity. Some of the benefits are: the problem is understood from different perspectives (Koestler A., 1964) (Miron-Spektor E., Gino F., Argore L., 2011), knowledge is reorganized (Baughman W., Mumford M., 1995) and during the process novel problem is identified or constructed (Zhang X., Bartol K., 2010). These findings affects innovation in great amount as the creativity, both on the individual or group level, is one of the main factors used in the first stage of the innovation process – the idea generation. Building of the ideas, based on the ideas of other team members, is the argument that supports this connection.

Nowadays, the value of using the creativity on the collective level is much higher than the one for the individual creativity. Defined as a group or collective creativity, it occurs when group of individuals that are somehow bounded and recognized, work interdependently toward shared goal. (Hackman J., 1987). Moments of collective creativity can be described as involving: “Not only the original question, but also considering whether there is a better question to be asked”. (Hargadon A., Bechky B., 2006). Some authors call this process a creative synthesis (Harvey S., 2014). Here, the explanation of creativity on the group level is completely different and it occurs because different perspectives of group members influence on and stimulate other members’ thinking (Harvey S., 2014). This can have more than significant influence on the innovation process.
The continual development and ideas that have been multiple times refined, are improving group creativity (Nijstad B., Stroebe W. Lodewijxx H., 1998). On the other side, other group members can also influence negatively on the novel ideas of some participants (Mueller J., Melwani S., Goncalo J., 2012) (Runco M., Smith W., 1992).

The emergent practices for innovation generation brings additional motivation to the employees. Main motivation is to create something beside the formalized and structured processes that will also take part in the development of the professional network. It will represent one informal way for connecting with the other colleagues, through the work but also fun. On the other side, the emergent practices are opportunity for the additional knowledge. As in these practices the knowledge is shared and available for all participant, it is the ideal opportunity to grab new findings from the first hand of the colleagues, and through the practice. On the other side, the environment in which the emergent practices occur is relaxing so employees can feel free to expose their ideas. Main enabler of these practices are open leadership and supportive culture and this motivates employees to propose their ideas and challenge current solutions or procedures. Some of main barriers can be hierarchy and the bureaucracy that are not giving the freedom and the leaders that are respecting procedures and are not having the soft skills.

There are different collective forms for creation of innovation. These forms can be classified as the external, as the role of the co-creator usually has customers or partners, so subjects outside of the company (Mulgan G., Albury D., 2003). On the other side, some companies in the traditional industry recently started to apply this kind of practices internally, so these practices can be considered as emergent ones. The basic idea for internal ways for innovating comes from the assumptions that employees have hidden abilities for innovation (Ford R.C., 2001) (Cohen et al., 1972). As the focus of this study is innovation created internally, by the employees, in the next paragraph only internal forms of innovation generation will be explained.
**Employee-driven innovation or bottom-up innovation**

Employee-driven innovation or EDI represent the generation and implementation of significant new ideas, products or processes that originate from or single employee or a joint effort of two or more employees. Importance is that the employees are not assigned to this task and that EDI indicates that innovation can emerge from shop-floor workers, “ordinary” employees and professionals to middle managers. This innovation generation happens across the boundaries of existing departments and professions (Kesting P, Ulhøi J.P., 2010).

What have been found in literature, until now, is the positive correlation between: higher levels of management support and higher levels of employee involvement in innovative activities, higher levels of intra-organizational support (time, resource, collaboration) and higher levels of EDI, higher levels of distribute authority and higher levels of EDI, reward that appreciate collective innovative activities and EDI performances, and the low power distance and legislative regulation of employee representation in management and higher levels of EDI (Kesting P, Ulhøi J.P., 2010).

Creative groups usually don’t follow the expected process for idea generation, but they rather focus on the one idea and investigate it in depth. (Elsbach K., Kramer R., 2003) (Hargadon A., Bechky B., 2006) (Long-Lingo E., O'Mahony S., 2010). This is the way how ideas and innovations come from bottom to the top of the organization and it represents the opportunity for the company to increase employee’s voluntary intrapreneuership and motivate business information seeking and sharing. (Park H.S., Kim J.N., Krishna A., 2014)

The innovations that originate through informal, serendipitous ways when employees critically analyse and question routine procedures, services, product or when individual employees develop innovative ideas of organizational process from daily task operations, is called bottom-up approach of innovation generation. (Zhang X., Bartol K., 2010) As it was explained in the study, bottom up innovations are the ones: “employee initiative from below in the organization to undertake something new; an innovation which is created by subordinates without being
asked, expected or perhaps even given permission by higher management to do so” (Vesper K.H., 1984).

What has been found is that, decentralization of the power and communications are the key factors in development of the good relationships between organization and employees. (Park H.S., Kim J.N., Krishna A., 2014) On the other side, empowered employees are more likely to trust and to commit to the organization, so this practice encourage employee to be motivated for further activities. (Meyer K., Thieme M.)

There are different forms of bottom-up approaches that are provided by the company in order to foster the innovations from employees. One of them is percentage of working time, where the company is giving the support to the employees’ innovative activity through provision of the resources needed for development of the solutions. These practices, until now, are seen in the companies such as: Google, 3M, HP and others. Employees take these practices as a significant motivational factor in order to express their ideas. Other types of employee-driven innovation will be explained in the next paragraphs, more structured, under different types.

**Internal innovation contest**

Innovation contest can be classified on the external or internal one. Through the contest, the participants provide the solutions for the organizers with using of their skills, experience and creativity. By the form, it can be organized for the individual or for the group, with the aim to solve the certain problem. Some of the characteristics are that there is fixed time limit, participants can apply and solutions are made based on the knowledge, skills and imagination of the participants. It can work online or offline. (Yin Zhang, Ruoyu Lu, na) This way is becoming an effective way for gaining of innovative ideas, products and technology improvement scheme. (Yin Zhang, Ruoyu Lu, na). Under this term it can be considered also different types of hackathons.

This innovation model, the internal contest, brings more creativities and proposals. The benefits are high efficiency, low costs and large population of the solvers that bring more diverse set of solutions. (Terwiesch C., Xu Yi, 2008) (Yin Zhang, Ruoyu
Because of the benefits, the use of this approach is increasing. (Terwiesch C., Xu Yi, 2008) The task of the company, in order to gain the success, is to select the appropriate solution, based on the expect outcome of the context. One interesting finding is that, by changing the award structure, from a fixed-price award to a performance-contingent award by solver, inefficiencies connected to the underinvestment can be reduced. In this study has also compared the quality of the solutions and the profit of the company that was looking for solution. (Terwiesch C., Xu Yi, 2008)

Under the form of internal contest can also be different events and organized pitches, where ideas are evaluated by the top management and for the best ones are provided prizes. In the pitches, the challenge doesn't have to be posted by the company, but initiative can come from employee. Something similar has been organized in the next companies: Walt Disney (Shark tank pitch), Intel, PwC (PwC power pitch).

**Internal crowdsourcing**

Crowdsourcing has been widely applied in practice. The definition has been provided by the author Howe, that explained that: “it is the act of a company or institution taking a function once performed by employees and outsourcing it to an undefined network of people in the form of open call” (Howe J., 2006). This practice can be performed with external audience, but also internally, with the employees.

The organization of the internal crowdsourcing and potential outcomes will differentiate from project to project. Different positions of participants, experiences and personal motivation can influence on the whole process. (Zhao Y.C., Zhu Q., 2014) Various motivation factors might play different roles in relating to participation effort. Supportive approach to participant’s perceived motivational affordances might strengthen the relationship between the internal focus individual’s motivation and participation effort. (Zhao Y.C., Zhu Q., 2014) Beside this, the employees will have unequal commitment to the company, giving the rise to variability in the degree of trust and commitment in internal crowdsourcing arrangements. (Simula H., Ahola T., 2014)
Through the study performed by the authors Kåreborn and Howcroft (Bergvall-Kåreborn B., Howcroft D., 2014) it is presented the importance of the technology in shaping the work and employment practices, especially the ones that represent challenges or project. Technology that is provided for the employees is not only helping in the providing of the solution, but also in the planning and organizing activity, as it enables better communication and coordination in the team. Other antecedents of employee – driven innovation were deeply investigated in the some studies. (Ulhøi J.P., Smith P.)

The special funds can be organized from the companies for financial support of the best ideas of the employees. The examples of the companies are: Deloitte, E&Y, AT&T (Foundry program), 3M (Genesis grant)...

**Collective entrepreneurship**

The collective entrepreneurship may exist at various levels or organizing. The main focus is on the “entrepreneurial teams”. Here, skills, intelligence, experiences of individual work team member are integrated. This forms a strong collective capacity to create and innovate. When working in collective, individuals strive to understand the talents through emotions of one another. (Haskins et al., 1998).

The collective entrepreneurship is explained as work among entrepreneurial teams and collaboration among employees, within the organization. (Stewart A., 1989) On the other side, Lounsbury extends the idea of collective entrepreneurship by analysing how individuals sharing similar roles across various organizational context and construct a new occupational identity and mobilize resources to increase the status or “professionalize” their occupation. (Lonsbury M., 1998) Here, the organizational behavior management and dynamics plays a huge role.

The general conclusion, from a theoretical point of view is that, it makes perfect sense to involve ordinary employees in innovation decisions. However, it is also outlined that naive or ungoverned participation is counterproductive, and that it is quite difficult to realize the hidden potential in a supportive way. (Kesting P, Ulhøi J.P., 2010)
In this chapter a brief description of innovation and innovation process is provided. Firstly, innovation and creativity have been defined. The main contextual factors such as skills, resources, organizational methods, leadership and culture can influence in the great amount on the way how the innovation is created. For example, a positive effect on creativity, innovation and change are having challenge and involvement, freedom, trust/openness, debate, idea time, playfulness/humour, idea support, risk taking while other ones such as conflict is negatively correlated (Ekvall et al., 2000).

Talking about the origin and creators of innovations, different types of can arise. In the previous chapter mainly product, process, position and paradigm innovation was explained. Since this research will be focused more on innovation process and employee as a source of innovation, a deeper explanation of the innovation process and emerging internal forms of innovation is provided.

One of the innovation process explained in details in this study was the Stage Gate model. This innovation model by Cooper (Cooper H., 1986) has five phases: scoping, building of the business case, development, testing and valuation and launch while after each and every stage there is a gate, as a milestone or checkpoint. Other models, just shortly described in this part of the literature are formulated by the authors: Rogers (Rogers, 1962), Cooper (Cooper H., 1986), Van de Ven (Van de Ven A., 1999), Mulgan and Albury (Mulgan G., Albury D., 2003), Verloop (Verloop J., 2004), Cormican and O'Sullivan (Cormican K., O'Sullivan D., 2004), Tidd and Bessant (Tidd J., Bessant J., Pavitt K., 2005), Andrew and Sirkin (Andrew J.P., Sirkin H.L., Haanaes K., Micheal D.C., 2007) and Jacobs and Snijders (Jacobs D., Snijders H., 2008).

What has been presented in the literature is summarized in the part of the main findings. The special attention was dedicated to the collective forms of innovation generation, as it is proven that the group brings more benefits than the individual. Some of the practices interesting for this study, and, as well, investigated in the literature are employee driven innovation, bottom up approach, internal
crowdsourcing, internal innovation contests and collective entrepreneurship. These practices will be deeply investigated through the case studies, especially innovations that come from the employees or, how they are called, employee-driven innovations.

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CHAPTER TWO: COLLECTIVE LEADERSHIP

INTRODUCTION

There are various levels where the leadership theory can be studied: persons, dyads, groups and collectives (Dansereau F., Graen G., Haga W.J., 1984). Individuals are acting independently of one another in organizational settings. Dyads encompassed two individuals that were interdependent on a one-to-one basis. Two or more interdependent individuals interacting with each other (usually face to face) stands for a groups, while collectives were composed of a clustering of individuals, groups, departments, organizations and/or societies where interdependency rests on shared expectations or hierarchical structure (Dionne S. et al., 2014).

In this chapter the main focus will be on the collective forms of leadership that can be found in the literature, how they are manifested, what the main elements that need to occur in order to have the collective leadership existence in innovation process and what are the organizational factors that can influence. In the subchapter 2.3. some of the main discoveries connected to this topic will be presented. Which role the collective leadership plays in the emergent forms of innovation creation, with the special focus on employee driven innovation, will be explained in the last subchapter.

The chapter outline is the following one.

CHAPTER OUTLINE

2.1. Leadership and its types

2.2. Collective leadership

2.2.1. Influencing organizational factors

2.2.2. Multiple leaders, multiple roles and dynamics

2.2.3. Interplay of collective leadership and emergent innovation practices
2.2.4. Main discoveries from the literature

2.3. Conclusions

2.1. LEADERSHIP AND ITS TYPES

The definition of leadership can be various and the progression of thinking over the years has been developed. Nowadays, leadership is more understood as a flexible development process, but through the time many of the theories emerged. Situations, contexts, culture, working environment, new laws and regulations, information overload, organizational complexities and psycho-socio developments remarkably impact the leadership concept. (Amabile T.M. et al., 2004) Leadership theories that marked 20th century are: the great man theory, trait theory, process leadership theory, style and behavioural theory, transformational theory, transcational and laissez faire leadership theory. Briefly about all of them will be written in the next paragraphs.

Great Man theory

In the “great man theory”, by the Carlyle (1847) is claimed that leaders are born and that only those men who have endowed with heroic potential could ever become leaders. Leader cannot be made through the time, but he is born with all of his characteristics. Further on, authors Dobbins and Platz (Dobbins G.H., Platz S.J., 1986) expanded the Carlyle perspective and highlighted the impact made by eventful man vs the even-making man. The event making man’s role based on the “consequences of outstanding capacities of intelligence, will and character rather than the actions of distinction.” This was challenged by the cases of Napoleon and Hitler and the credibility of the great man theory was questioned. Leadership theory then progressed from dogma that leaders are destined by nature to be in their role at particular time and are born to a reflection of certain traits that envisage a potential for leadership.

Trait theory

In this theory, leaders were distinguished from non-leaders by some certain physical traits and personality characteristics. It was ignored whether leadership
traits were genetic or acquired. Two traits were identified. Emergent traits, that were dependent on heredity as height, intelligence, attractiveness and self-confidence and effectiveness traits, based on the learning or the experience that included charisma (Ekvall G., Arvonen K., 1991) This brought to the opinion that only minor variances exist between followers and leaders (Burns C., West A., 2003) such as differences in intellectual, physical and personality traits.

**Contingency Theories (Situational)**

These theories recommend that there is no leadership style that is precise and can stand alone. There is no single right way to lead, because the internal and external dimensions of the environment require the leader to adapt to that particular situation. The theories of contingency are a category of behavioural theory that challenge that there is no one finest way of leading and organizing. Style of leadership is operative and in some circumstances may not be effective in others. (Greenleaf R.K., 1977) The situational leadership stays to emphasize mostly upon the leader and have focus on the group dynamic. “The situational leadership model, introduced in the 1969, theorized that there was no unsurpassed way to lead and those leaders, to be effective, must be able to adapt to the situation and transform their leadership style between task-oriented and relationship-oriented.” The style of leadership should be accorded with the maturity of the subordinates (Bass B.M., Avolio B.J., 1997).

**Styles and behavior theory**

Each leader has its own style of leadership which s/he feels most contented. The certain leadership skills are necessary and serve as an enabler for leader. As one style cannot be effective in all situations, Yukl (1989) introduced three leadership styles: democratic leaders, enthusiastic and autocratic leaders. Further on, Feidler and House (Feidler F., House R., 1994) identified two additional leadership styles: consideration, so concern for people and relationship behaviors and commencing structure, concern for production and task behaviors. Different researchers proposed three types of leaders were: autocratic, democratic and laissez-faire. The autocratic leader makes decision without involving subordinates, laissez-faire take
no leadership roles, and leave subordinates make the decision alone while
democratic consult first the subordinates and then brings the decisions.

**Process leadership theory**

Under the process leadership theories are included servant leadership, learning
organizations, principal centered leadership and charismatic leadership with many
emerging every year. In the servant leadership, leaders should be focused on the
anxieties of the followers, their needs and should sympathize and take care of
them. The leaders in leading organizations are more servant of the vision and not
of the people within the organization. The vision is the main focus in the learning
organizations, as the leaders clarify and nurture it and consider it to be greater
than one-self. Here the alignment of the personal vision with the vision of the
company occur. Process leadership theories put a focus on the work of leaders in
order to contribute to the well-being of others.

**Transactional theory**

Through the transactional theories, the focus has been moved on the exchange
between the followers and leaders. Here, leader-follower associations were
grounded upon a series of agreements between followers and leaders (House R.J.,
Shamir B., 1993) where not only leader influence on the follower, but also follower
influence on the leader. The attitude developed in this theory is “management-by-
exception” and could be categorized as active and passive transactions, where the
difference is predicated on the timing of the leaders involvement.

**Transformational theory**

Transformational leadership presents the alignment to a greater good and propose
the involvement of the followers in processes or activities. This kind of leadership
raise the motivation and morality in the both followers and leaders. (House R.J.,
Shamir B., 1993) Leaders engage with the followers based on the common values,
beliefs and goals and this theory change the approach target on beliefs, values and
attitudes that enlighten leaders practices and capacities to lead the change. In
order to transform everyone into a leader by empowering and motivating the
followers, leader is focusing on the followers’ needs and inputs. (House R., Aditya
R., 1997) Some of main characteristics of transformational leadership are that leaders have the capability to identify what is needed to be changed, to gain the commitment and the agreement of others, to create the vision that in focus will have change and embed the change and that are visionary leaders who seek to appeal to their followers and move them forward.

Generally, there are three premises that seem to be shared by most authors, connected to leadership, (Bennett et al., 2003):

- “leadership is an emergent property of a group or network of interacting individuals”
- “there is openness to the boundaries of leadership”
- “varieties of expertise are distributed across the many, not the few”

It seems that time, when leadership is imagined as a centralization of the power and commands that were based on some traditional hierarchies, has passed. Different forms of leadership appeared. What became the most important is that people are gathered around common interests, objectives and responsibilities. Power started to be shared so, it was difficult that any single decision-maker and/or firm has monopoly over authority. Setting relied on coordination, mutual dependency and increased participation in organizational decision–making process. (Bennett et al., 2003)

More recently, focus has been dedicated to alternative forms of leadership such as shared or distributed leadership, that can stretch over many actors (Spillane J. et al., 2004). The possibilities of shared leadership have been explored through theory, but also empirically. The reorientation had to be made from classical understanding of leaders’ interactions and actions to the informal, emergent, dynamic leadership that originate from the members of the collective itself. (Contractor N.S., DeChurch L.A., Carson J., Carter D.R., Keegan B., 2012)

This phenomena of having different and multiple leaders and distributed leadership roles among many actors, can be taken under definition of collectivistic forms of leadership. (Spillane J. et al., 2004) These forms of leadership are becoming more interesting to the authors. Types of collectivistic leadership such
as distributed leadership, shared leadership or collective leadership, have been investigated, but more empirical researches are needed (Cullen-Lester K., Yammarino F., 2016). The influence of the collectivistic forms of leadership on the innovation process and especially on the emergent practices is the main subject of interest of this study. As it was mentioned in the Chapter 3, the part about research gaps, there is a lack of empirical testing and theory refinement (Yammarino F.J., Salas E., Serban A., Shirreffs K., Shuffler M.L., 2012) (Paunova M., 2015) that this study wants to fulfil. In the next paragraphs, shared and collective leadership will be more deeply explained as they are perfect representative of the collectivistic form of leadership.

Usually, shared leadership is defined as “a simultaneous, ongoing, mutual influence process” (Pearce C., 2004) in which there can be several, formally appointed and/or emergent, leaders” (Mehra A., Smith B, Dixon A., Robertson B., 2006). It occurs when the main goal of individuals in the group is to influence and lead each other in order to achieve group or organizational goals of both. Team members are here fully engaged and they influence and guide fellow simultaneously, using few official and unofficial leaders. (Pearce C., Manz C., 2005) This type of leading people enables maximization of the potential of the team members, but also the team as a whole. Some authors represent shared leadership as a “dynamic social interaction during which the participants lead one another in attempts to achieve collective’s, group or organizational wide, goals”. (Pearce C., Manz C., 2005) This definition will be used in this study, when referring to shared leadership.

Collective leadership doesn’t represent the monopoly or responsibility of just one person. It is the leadership where the similar need for a more collective and systemic understanding of leadership as a social process is provided (Barker R., 2001) (Hosking 1988). The epicentre of collective leadership is the interaction of team members to lead the team by sharing responsibilities (Hiller et all., 2006). It is property of the group, rooted in social exchange-based roles (Seers A., Keller T., Wilkinson J.M., 2003). More employees are sharing the leadership and different roles can occur, but the main focus is on the emergent network of leadership perceptions within work team. (Mehra A., Smith B, Dixon A., Robertson B., 2006) In the study, for the collective leadership it will be considered the collective
distribution defined by Spillane, where it represents “when two or more individuals work separately, but interdependently to enact a leadership routine.” (Spillane J.P., 2006)

2.2. COLLECTIVE LEADERSHIP

Collective leadership can be defined as a leadership process in which a defined leader, or set of leaders, selectively uses skills and expertise within a collective. They effectively distribute elements of the leadership role as the situation or problem at hand demands (Friedrich T., Vessey W., Schuelke M., Ruark G., Mumford M., 2009)

This collectivistic phenomena “involves multiple individuals participating and divests themselves of leadership roles over time as constituted by both formal and informal relationships” (Yammarino F.J., Salas E., Serban A., Shirreffs K., Shuffler M.L., 2012). Here, collectives will represent a cluster of individuals larger than group that can be organized as a department, organization or industry (Yammarino F.J., Dansereau F., 2011)

Collective leadership is related to the larger organizational collectives, alliance and network levels and involves more than one individual or changing of the leadership role during time. Through the literature it is known as a “we” or collectivistic leadership approach (Yammarino F.J., Salas E., Serban A., Shirreffs K., Shuffler M.L., 2012). Collectivistic approach can best be explained through the characteristic of independent followers that have autonomy and power to make decisions and take part in leading themselves or the group. Under this class usually is considered shared leadership, team leadership, distributed leadership, participative leadership, network leadership, complexity leadership, collective leadership, entrepreneurial leadership, complex leadership, self-leadership and empowering leadership (Dionne S. et al., 2014).

There are different organizational levels where it can occur: the inter-individual level (in the literature often referred to as co- or dual-leadership), the team or group level, the departmental level (in the hospital sector referred to as ward or unit level), the organizational level and the inter-organizational level. (Ulhøi J., Müller S., 2014)
In the next paragraph the main organizational factor that can influence on the collectivistic approach to the leadership will be presented, as well as the main findings in the literature.

2.2.1. INFLUENCING ORGANIZATIONAL FACTORS

There are some elements that enable development of collective leadership and that are creating organizational context. They can affect culture of the company and leadership. Some of the factors are (Shani et al., 2009):

- Work group characteristics – commitment to the group's mission and tasks, work group size and composition, work group design and autonomy;
- Dynamics about groups and departments – degree of dependency, communication process and cooperation;
- Managerial and leadership styles – philosophical process and output orientation;
- Organizational characteristics – missions, products and services, size, technology, reward system, organizational design;
- Environmental characteristics – industry, social, political, legal environment, competitive pressure
- The emergent features of the global market place.

Taking in consideration the collective leadership, some of the key ones are: shared purpose and social support that represents an internal team environment and external coaching support (Carson et al., 2007). The more company wants to be innovative, the more faster it has to adopt this shared concept (Pearce C., Manz C., 2005) especially as the relationship change from peer competition towards peer collaboration (James K., Mann J., Creasy J., 2007).

In the research paper (Ulhoi J., Müller S., 2014) has been discussed about the antecedents and outcomes of collective and shared leadership, where antecedents are divided into the three categories: endogenous, agency and exogenous factors. As an example, it will be shown just few of indicators from each of the category.

Endogenous antecedents represent: trust, interpersonal skills, co-responsibility, self-direction, self-management, jointly held vision, shared sense of social order,
lateral peer influence. All of them have an influence on the employees and the internal environment. (Ulhøi J., Müller S., 2014) Under exogenous are only few. As the external forces there are increasing pace of technology development and complex technologies, and they are influencing from the outside, usually touching technology and development. Finally, the agency antecedents are the ones most numerous: conflict management, encouraging autonomy, circulation of initiatives, inter-individual exchanges and social exchange - networking, collaboration, knowledge-sharing, bottom-up, active encouragement and engagement, iterative process and self-selection of stakeholders, dynamic delegation and power – relinquishment, heterogeneous or multidisciplinary teams/groups, encouraging autonomy and others. (Ulhøi J., Müller S., 2014) This third group of the factors will specially be taken in consideration while working on the case studies.

The insights into antecedents and outcomes of leadership that is shared and also the contingencies on these relationships are provided through some studies. (Mehra A., Smith B, Dixon A., Robertson B., 2006)

Community based, collective leadership is a new way of innovation generation. Achieving a new way of thinking requires a focused change in the underlying corporate cultural values and norms. (Burke W., 2008) (Daft R., 2010) Here it is mostly about building trusting relationships and alliances that will help in the managing tasks to achieve goals. The collective leadership is based on the knowledge, lifelong learning, commitment and values for care, compassion and inclusivity. (House R.J., Hanges P.J., Javidan M., Dorfam P.W., Gupta V., 2004)

Every culture is different from one organization to another and what works in one is not necessarily working in the other one. (Sathe V., 1985) (Barley S., Meyer, Gash D., 1988) There are three fundamental levels at which culture manifest it (Schein E., 1992):

- Observable facts – physical layout, dress code, company record, the way how people relate to each other
- Values, norms, philosophy, ideology – which values are shared among people, what kind of norms are created and respected in the company, which ideology employees have
- Underlying assumptions – organization relationship to the environment, nature of reality and truth, nature of human activity.

All of the factors are influencing on the different organizational levels. Together with the collective leadership, they are helping to achieve outcomes as job satisfaction, participative and innovative culture, enhancing dynamic capabilities, organization participation and involvement, institutionalized principals, practices and values, professional and organizational empowerment. (Ulhoi J., Müller S., 2014) In the end, as a final result, company reaches an increase in organizational effectiveness and performance.

2.2.2. MULTIPLE LEADERS, MULTIPLE ROLES AND DYNAMICS

There are three structural aspects of collective forms of leadership. First of all, people. This refers to the leaders, followers and their relationship. Second, roles, in terms of leadership functions and activities, and finally, time, that relates to the dynamics that is happening in the leaders and their behaviors. (Contractor N.S., DeChurch L.A., Carson J., Carter D.R., Keegan B., 2012) These three variables will be deeply explained as main pillars of the existence of the collective leadership in the organization.

People: The forms of collective leadership – concentration

Taking in consideration that multiple individuals are enacting leadership (Gronn P., 2002) the importance of understanding of structural form as well as intensity and direction of leadership relationships is more than important.

By some authors (Mayo M.C., Meindl J.R., Pastor J.C., 2003), that applied social network approach to map collective leadership, there were two aspects of forms to capture shared/collective leadership: centralization and density. When there are distributed aspects of collective leadership and leadership influence is dispersed evenly among all members of the collective, there is decentralization. The collective applies a practice of the shared leadership and everyone has an equal opportunity to undertake leadership and there is sharing of overall responsibility among all, for leading the collective. (Barry D., 1991)
On the other side, when there is a concentration of leadership influence in one or very few members of collective, it is the centralized aspect of form. (Mayo M.C., Meindl J.R., Pastor J.C., 2003) Some additional study has been done in this segment in order to investigate this more deeply. Here, the typology of collective leadership can be described through four patterns of leadership: leader centered, distributed, distribute – coordinated and distributed – fragmented. (Mehra A., Smith B, Dixon A., Robertson B., 2006) In order to measure the amount of shared leadership the density is used. This metric shows the concentration of collective leadership in one or a handful of individuals.

Leaders of creative ventures perform have, as their functions, four activities. These activities are used for the creation of the novel and useful ideas and they are: intellectual stimulation of followers, supporting for collective goals, involving and encouraging others to get involved in the innovation process and providing autonomy enough for follower, to create. (Mumford M. et al., 2002)

Aspect of people has been explained by different scholars in diverse studies. One author explained the concentration of the leadership as a distributed influence that can manifest through three patterns. First pattern represent concentration, as a distributed practice that is evident in the interaction of many leaders. The second one refers to two or more members that rely on each other and develop a close working relationship. And the last pattern as a leadership group that is headed by the first among equals. (Gronn P., 2002)

Additionally, Friedrich et all (Friedrich T., Vessey W., Schuelke M., Ruark G., Mumford M., 2009) defined the concentration as the form where “there can be shift in the need for a single leader, multiple leaders sharing the leadership roles or even a shift in the roles that each individual engages in.” By this definition, term multiple leaders means that there are both formal and informal leaders in the collective. The formal leader main role is to take action to set the condition for greater level of collective leadership and engage others in the process by distributing leadership responsibilities (Friedrich T., Griffith J, Mumford M., 2016) Informal leaders are more the experts that appears in some stages of process, and lead the team in the specific moment or period, without any formally recognized authority. (Friedrich T., Griffith J, Mumford M., 2016) The need for formal leader in
the collectivistic forms is in understanding and utilizing the capabilities, developing of collective leadership capacity and coordinating actions of leader by the collective. (Balkundi P., Kilduff M., 2005) (Friedrich T., Vessey W., Schuelke M., Ruark G., Mumford M., 2009) (Friedrich et al., 2014)

Important note is that, through the analysis of the case studies, formulation of multiple leaders will be used instead of people, concentration or forms of collective leadership.

**Roles: the multiplexity of collective leadership – roles**

The explanation of multiple roles of collective leadership lays in the assumption that leadership serves multiple collective functions or roles. (Contractor N.S., DeChurch L.A., Carson J., Carter D.R., Keegan B., 2012) The roles give understanding to the activities in the collectives or social group. By the definition, it is “a dynamic set of recurring behaviors in a particular group context, both expected and enacted.” (Zigurs I., Kozar K., 1994) Two important functions have been served by roles. First, role establish, through the interaction of members in a social unit, pattern for individual behavior. (Katz D., Kahn R.I., 1978) On the other side, it establishes expectations for the behaviors of others.

Even though there is a lot of difference among formalization of the roles needed in the team settings, overlapping is present mostly connected to the dual task and relational leadership roles. (Contractor N.S., DeChurch L.A., Carson J., Carter D.R., Keegan B., 2012) Especially in the emergent leadership practices and in the leaderless teams, two leaders consistently emerged: highly task-oriented one and influential one focus on the socio-emotional needs of the team. (Bales R., 1950) (Bales R., Slater P., 1955) Task oriented leader is explained through its instrumental behavior that in focus has assisting the team in achieving goals, while using task competences and skills in coordination of team task goals. The leader focused on the socio-emotional needs or relational behaviors is reinforcing and guiding group behavior, inter-member relations and group solidarity through skills in building trust. (Hollander E.P., 1961)

The four dimensional typology has been presented by the Hiller (Hiller et all., 2006) and it includes: planning and organizing, problem-solving, support and
consideration and developing and mentoring. He also defines the collective team leadership as a role structure based on leadership roles that are informally adopted and enacted by team members.

The authors (Tesluk P., Carson J. Marrone J., 2007) explained four most distinct roles for team leadership. These are: navigator, engineer, social integrator and liaison. The clear purpose and direction of the collective is established through the role of navigator. The leader with this role is envisioning (Barry D., 1991), direction-setter (Zaccaro S.J., Marks M.A., 1999), communicator, problem solver or planner (Hollander E.P., 1961) and initiator and energizer (Gibb C.A., 1954). In order to make more structured collective, organize the tasks and coordinate contributions of the members, to meet the goals of the collective, the engineer role is present. He is operational coordinator (Zaccaro S.J., Marks M.A., 1999), director of activity (Hollander E.P., 1961), expediter (Gibb C.A., 1954) and he is organizing the group structure (Barry D., 1991). The social integrator keeps healthy and productive social interactions and relational processes within the collective. His role is to be harmonizer (Gibb C.A., 1954), social integrator (Zaccaro S.J., Marks M.A., 1999) and adjudicator of conflict (Hollander E.P., 1961) and he effectively do the coaching and process assistance (Hackman J.R., Walton R.E., 1986) The last, liaison role helps in developing and maintaining productive relationship with key external stakeholders, serving as both an advocate and ambassador for the collective. This role is here in order to support context and enable adequate material resources (Hackman J.R., Walton R.E., 1986). Beside this, liaison, is doing external spanning (Barry D., 1991) and advocate (Hollander E.P., 1961).

Talking about leadership roles, nobody is assigned to a specific one. Roles can be different, so sometimes even employees' participation in distributed and collective leadership can be seen as an extra role behavior. (Barry D., 1991) The importance of the leadership roles is changing over time as well as the behaviours are changing, so in the next paragraph it will be explained into the details the dynamics of these behaviours as the third aspect of the collective leadership.
Time: the dynamics of collective leadership – time

The last aspect that characterizes collective leadership is that, multiple roles, that multiple individuals hold, change over time. This typological multiplexity dynamic was firstly investigated by Pearce and Conger (Pearce C.L., Coner J.A., 2003). This change of the forms and role structure was defined as “individuals ... can rise to the occasion to exhibit leadership and then step back at other times to allow others to lead.”

Firstly, it was investigated the general leadership roles. This variation of vertical leadership form, that is happening when there is hierarchical structure or top down division, can cycle among different members of the collective. (Contractor N.S., DeChurch L.A., Carson J., Carter D.R., Keegan B., 2012) On the one side, in the forms of collective leadership, the responsibility for leadership is shared serially or sequentially among group members. This means that all members of the team enact all of the leadership roles at all points in time. Compared to this, vertical leadership is when one person enact all four leadership roles at all point in time. The individuals’ behavior that enact the hierarchical leadership role shifts over time. So does the role. In order to support this dynamics, Friedrich et all. 2009 (Friedrich T., Vessey W., Schuelke M., Ruark G., Mumford M., 2009) defined collective leadership as “... collective leadership is not static. As different problem emerge, different skills and expertise will be more appropriate”

The time aspect can be conceptualized through the development stages of the team – storming, norming and performing (Tuckman B.W., 1965). During different phases of the team development different skills, knowledges and types of behaviors will be needed. Beside this, the team member will change its leadership role from formal to informal and s/he will increase her/his capabilities during the time. Additional explanation of dynamics can be done by using performance episodes (Marks M.A., Mathieu J.E., Zaccaro S.J., 2001) or it can be based on the task cycles – transition and action phases. (Marks M.A., Mathieu J.E., Zaccaro S.J., 2001)

In the collective leadership, it is not only important to have multiple leaders, that can be formal and informal, or only multiple roles, but to all of this leaders, together with their roles, change in the time. This dynamics can happen during
different phases of the team development or project realization. In the next paragraphs it will be more detailed explained the main findings, from the literature, about collective leadership and its applications.

2.2.3. INTERPLAY OF COLLECTIVE LEADERSHIP AND EMERGENT INNOVATION PRACTICES

Growing number of the researchers and scholars suggested that, for managing innovative organizations a collection of seemingly paradoxical activities need to be used. (Mumford M.D. et all., 2007) (Hunter S.T., Thoroughgood C.N., Myer A.T., Ligon G.S., 2011) (Miron-Spektor E., Argote L., 2011) Collective and shared leadership can improve the innovative team performances and bring competitive advantage to organization. (Carson at al., 2007) Still, the role of the collective leadership in the narrow part of the innovation management, the emergent innovative activities, has not been investigated.

What is found in one of the researches (Mei H., Wang J., 2013) is that shared and collective leadership influence innovation performances partially through knowledge sharing as mediating role. Additionally, when there is high task complexity, shared leadership will have more significant impact on innovation performances. (Mei H., Wang J., 2013)

The direct connection between emergent innovation practices, such as employee driven innovation, bottom up approach, internal innovation contest, internal crowdsourcing or collective entrepreneurship and collective forms of leadership, has not been proven. The aim of this study will be that through the qualitative analysis of the selected case studies, reveal how collective leadership influence on the emergent innovation practices and what are the main drivers of leadership that will be from highest importance for innovation success.

2.2.4. MAIN DISCOVERIES IN THE LITERATURE

Some authors explained the collective leadership as a property of the collective, that is not any more individual, but it is collectivistic phenomena. It involves multiple individuals that participate and divest themselves of leadership roles over
time and by that create both formal and informal relationships. (Yammarino F.J., Salas E., Serban A., Shirreffs K., Shuffler M.L., 2012)

The shared, distributed or collective leadership can have different outcomes, but also different influence on the other processes or organizational structure. An important role is playing the organizational factors that can make a direct influence on the collective leadership and an indirect one on the final outcomes. All of these relationships and the main discoveries from the literature will be explained further on.

The collective leadership and other collective forms became really interesting for the investigation in the past years. (Contractor N.S., DeChurch L.A., Carson J., Carter D.R., Keegan B., 2012) Many theoretical and empirical researchers were done with main aim to explore what are the possibilities of shared or distributed leadership, what does the reorientation on the emergent, informal and dynamic leadership means and what it brings for the collective. (Contractor N.S., DeChurch L.A., Carson J., Carter D.R., Keegan B., 2012) Still, some authors argue that this topic is under-explored. (Cullen-Lester K., Yammarino F., 2016)

In order to distributed and collective leadership exist, trust and job satisfaction need to be present. (Jain A., 2016) These two, further on, can influence job performances. Some of the papers have interesting findings about collective decision making in the innovation process, such as the one by (McHugh MD et al., 2016) where there is displayed, through the agent-based simulation and content-coded field study, a positive relationship between individual intelligence and collective one as well as collective intelligence and collective decision quality.

The shared and collective leadership influence on the self-rating creativity, creative takes and innovation climate, that can after influence the generation of innovation. What is found specially connected to the innovation process is that the collective leadership positively contribute to team creativity. (Peter et al., 2015) As it was discussed before, team creativity will influence on the innovation process. On the other side, the role diversity directly influences team creativity. This means that the more the team is diverse functional, the more will be stimulated creative behavior among members and it will increase team creativity. (Peter et al., 2015)
Team diversity can influence also negative, because of the attraction paradigm, social identity theory and self-categorization processes, where the differences among team members limits common understanding and shared experiences or it generates the conflicts. (Lee et al., 2015) These connected findings, showed one chain of influences, where there can be impact of collective leadership or the collective leadership can be affected one.

When it comes to behaviors, the use of collective leadership behaviors differs in predictable ways across individuals. It depends on cognitive ability and prior experience, because the use and development of the network is cognitively demanding. The use of different collective leadership behaviors also differed across different types of tasks that are realized during the innovation process or some project (Friedrich T., Griffith J, Mumford M., 2016) The connection between shared leadership and innovation behavior in the team has been proven. (Hoch J., 2013) Vertical transformational and empowering leadership and integrity enhanced shared leadership which further enhanced team innovative behavior. (Hoch J., 2013) This means that more delegation on of the leadership responsibilities on the followers, so more leadership performed on the collective level encourage the innovative behavior in the followers and bring to the more innovative outcomes in the process.

Self-leadership is positively associated with self and supervisor ratings of innovative behaviors. This influence after, the high-performance of organization and innovation output. Informal leadership is playing bigger and bigger role and it represents all the skills that employees can learn and develop at work. This also influences innovation behavior. The importance of the innovation is huge (Howell J., 2005) and the authors showed that there is a positive relationship between self-leadership skills and employee self-assessment of his/her innovative behavior at work. (Carmeli A., 2006)

The support of new ideas during the innovation process is helping in reaching variety of positive organizational outcomes. (Howella J., Boiesb K., 2004). Related to the creative industry, collective creativity is more the result of day-to-day interactions between communities (micro-creativity) and outcomes of the
hierarchical process organized by creative committee (macro-creativity) (Cohendet P., Simon L., 2007)

Related to the role of formal leader in collectivistic forms of leadership, it is shown that different type of tasks demand different collective leadership behaviours (Friedrich T., Griffith J, Mumford M., 2016). Through formal leader’s own experience, collective leadership, job satisfaction and empowering behaviours, leadership practices can be cascaded down to lower-level teams (Margolis J., Ziegert J., 2016). This is specially important when it comes to the emergent innovation practices, that are coming from the bottom of the hierarchy. With the empowering behaviors and collective leadership the innovation activities proposed by the employees can be turned into the innovation process, and realized on the company level.

Multiplexity in relationships, defined as relations involving more than one type of relationship, result in more creative outcomes in the creativity process (Albrecht & Hall, 1991). Applied to collective leadership, this view suggests that an advantage accrues to those collectives whose leadership ties carry more than one type of leadership relationship. An example of this using the Hiller et al. (Hiller et all., 2006) framework is that teams where the individuals who are setting direction are also developing and mentoring.

Erez, LePine, and Elms (Erez A., Le Pine J.A., Elms H., 2002), found that rotation of leadership role allowed all team members to feel responsibility for the team’s success. They also reported that such leadership increased the degree to which members offer suggestions for change in the team, and the overall level of cooperation within the team. However, rotated leadership may reduce continuity over time, and this form may not always be matched to team or task needs. (Erez A., Le Pine J.A., Elms H., 2002)

The empirical studies examined the relationship between collective leadership and group performance, have shown mixed support, and have assessed the phenomena in multiple ways (Hiller et all., 2006) (Mehra A.et all., 2006) (Pearce C.L., Coner J.A., 2003) (Carson at al., 2007). Next paragraph will explained more closely
influence of collective leadership on one, specific type of output that is emergent innovation practices.

2.3. CONCLUSION

In the Chapter two, the second pillar of this study has been explained. The origins of collective leadership and the definition of shared and collective leadership have been provided. Many authors discussed about the shifts from classical forms of leadership to the collective forms and about different ways how distributed leadership could be expressed. The collective leadership, that involves multiple individuals with autonomy and power to make decisions and take part in leading themselves or the group, can occur on different organizational levels such as inter-individual level, the team or group level, department level, organizational and inter-organizational level. (Ulhoi J., Muller S., 2014) Some of the main organizational factors that can influence on the collective leadership, that are explained in this part, are grouped into three categories: endogenous, agency and exogenous. (Ulhoi J., Muller S., 2014)

For the existence of the collective leadership in the organization, presence of the three aspects is needed. First of all, multiple leaders that represents the form of collective leadership or its concentration, where formal and informal leaders are concerned. Secondly, the multiplexity of collective leadership or multiple roles was explained. In order to explain the main roles of the leader, the four dimensional typology has been presented by the Hiller (Hiller et al., 2006) that includes: planning and organizing, problem-solving, support and consideration and developing and mentoring. Each role has it characteristics and performs different activities important for the success of whole teamwork and successful realization of the project. Lastly, the dynamics, in terms of change of the leadership roles as well leaders, during the time, is explained.

In order to show the interplay or mutual role of collective leadership in emergent and classical innovation practices, the part 2.4. is provided. Still, there is not so much literature. This connection should be further investigated also with this research study.
The subchapter number 2.2.4. highlights the main findings in the literature. Some of the main connections among different organizational factors and collective leadership have been explained, as well as the possible influence of collective leadership on the output of the collective. In the next paragraphs, the framework of this study, research questions and the methodology will be provided.

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CHAPTER THREE: RESEARCH GAPS AND FRAMEWORK

INTRODUCTION

The purpose of this chapter is to highlight what the gaps found from the literature are and to show research questions created in order to investigate these gaps. The framework will be graphically represented with all of the connections among main areas of the research. Based on this chapter, the chapter five, six and seven will be written. The Chapter outline is the following one.

CHAPTER OUTLINE

3.1. Research Gaps

3.1.1 Collective leadership

3.1.2 Innovation process and collective leadership

3.1.3 Emergent practices and collective leadership

3.1.4 Contextual factors and longitudinal studies

3.2. Research Questions and Framework

3.3. Conclusions

3.1. RESEARCHES GAPS

Different forms of leadership have been explored in great amount until now, but not a lot of empirical evidences have been connected to the role of collective leadership in the innovation process. Many scholars focused their attention on the innovation process, but it seems that there are some aspects that have not been completely mastered in literature, yet. Research gaps in this study are the ones connected to collective leadership in the innovation process that needs to be proven empirically, new emergent practices, classic innovation process and the factors that can affect both collective leadership and innovation process.
The purpose of the finding out what are the gaps is to see what is still unexplored or underexplored in the literature, connected to the topics of collective leadership and innovation processes, both classical ones and alternative, emergent ones. Further on, research questions will be formulated, based on the gaps found. Through the analysis of case studies, by answering on the research questions, the fulfilment of the gaps will be made.

The main gaps stated in this paragraph will relate to the collective leadership and its roles in the innovation process. From great interest is to understand who are the leaders in the different stages of innovation process, what are their roles and do they change over time and from one innovation project to the other. It is still not deeply investigated if leadership behaviors change in different stages of project development and if one leader, whether formal or informal can perform more than one leadership behavior at the same time. Which kind of impact this collective form of leadership do on the innovation process? Are there some benefits?

On the other side, emergent innovation practices are not investigated into the details. Special focus is on the structure of practices and application of them in the companies. What is the role of employee? Can employee generate an idea and transform it in the company? What are the other ways how ideas are born?

From previous two groups of the gaps, one connected to the collective leadership in the innovation process and the other one that relates to the emergent innovation practices, comes the intersection that will be particularily interesting for this study. The main goal of studing these topics together is to give the answer to the question: is the collective leadership more used in the innovation process when the form of the innovation is also collective? Does the collective leadership helps in organizing and realizing collective projects? Does the innovation projects bring more added value if the type of the leadership is with more leaders at the same time with the presence of both formal and informal leaders?

In the end, there is a need for future investigation of the organizational factors that can influence on the innovation process and collective forms of leading people. The role of culture, values, hierarchy has to be discovered. Important note is that there are mutual effects – organizational factors can create the context for the
application of collective leadership or innovation generation, but also these two process can shape the organizational factors in the future.

All the gaps found in the literature, connected to the main topic of this study, will be presented in the next paragraphs. In the chapter about results, case studies will be analysed, while in the discussion the comparison between the findings from the literature and findings from the practices will be provided.

3.1.1. COLLECTIVE LEADERSHIP

Both in academia and in practice there have been interest for the collective and network leadership. The advancements have been made in both theory and practice, but further empirical research needs to be enhanced and emphasized. (Cullen-Lester K., Yammarino F., 2016) Future work needs to be done connected to empirical testing and theory refinement, specially connected to the question of how collectives engage in leadership and innovation practices. (Yammarino F.J., Salas E., Serban A., Shirreffs K., Shuffler M.L., 2012) (Paunova M., 2015)

Even though advancements are being made that relates to how collectives engage in leadership (Contractor N.S., DeChurch L.A., Carson J., Carter D.R., Keegan B., 2012), (Yammarino F.J., Salas E., Serban A., Shirreffs K., Shuffler M.L., 2012) still empirical researches needs to be enhanced. The mindset, formal leaders, characteristics, behaviors of individuals within collectives in the combination with a characteristic of the task and broader organization, still need to be investigated. (Cullen-Lester K., Yammarino F., 2016)

Broader perspective is asked by some authors (Murphy S.E., Ensher E.A., 2008) where they express the need of study also followers’ perceptions and not only leader’s perception. The studying of perceptual reactions towards the leaders and the self and affective reactions of the followers needs to be made (Amabile T.M. et al., 2004) Exploration into collective decision making as a leadership process is necessary. (Cullen-Lester K., Yammarino F., 2016) It is important to discover how teams share and distribute leadership, through examining network centralization and density. (Cullen-Lester K., Yammarino F., 2016)
The work connected to the collective leadership can be grouped into three categories: conceptual developments, empirical tests of leadership forms on outcomes (Mehra A., Smith B, Dixon A., Robertson B., 2006) (Carson et al., 2007) and empirical test of the effects of leadership roles on outcomes (Hiller et al., 2006). Still, what future researches need to bring are new categories: empirical examinations of the factors that give rise to form of leadership, multiplex leadership relationships and to likelihood that collectives can reconfigure their leadership structures and empirical examination of consequences (attitudinal, cognitive, motivational, behavioral, performance) of various leadership forms, multiplex leadership relationship and dynamic leadership structures. (Contractor N.S., DeChurch L.A., Carson J., Carter D.R., Keegan B., 2012) Beside this, an interesting assumption that can be questioned here is, if there is any kind of problems such as conflicts, power problem or sharing of the control in-between of formal and informal leader through the innovation process and how these problems can be solved, so what are the solutions for these challenges.

Further on, the connection between shared leadership and creativity has been investigated (De Dreu CKW., West MA., 2001) (Hooker C., Csikszentmihalyi M., 2003), but how collective leadership influence on collective forms of creativity still needs to be discussed. Also, using different techniques, such as providing a template for idea generation in order to enhance creativity, on the group level, is still not clear. (Goldenberg et al., 1999).

One of the important things to see was, how collective and network leadership shifts and changes over time and under which task conditions. Beside this, authors (Schnake M., Dumler M., 2003) emphasized the need to study the organization citizenship behavior (OCB) at the group level.

3.1.2. INNOVATION PROCESS AND COLLECTIVE LEADERSHIP

Even though the scientific studies of leadership have recognized that the behavior of leaders can effect in the extraordinary way on collectives, including team, units and organizations (Kaiser R.B., Hogan R., Craig S.B., 2008), this topic has still not be well understood (Nicolaides et al., 2014). Additionally, interesting findings could arise from studying about how the employees’ perception of the work
environment and the behaviors of other employees’ condition influence an individual’s innovative activity. (Wojtczuk-Turek A., Turek D., 2016)

The nature of the collective creative process itself remains unexplored. (Harvey S., 2014) The process can be formulated like a traditional stage gate model (Cooper H., 1986) with different phases and checkpoint or like linear approach defined by Mulgan and Albury (Mulgan G., Albury D., 2003). Of course, these are just some of the models, besides many others, but in all of them, depending on the context and the characteristics of the final outcome, many changes can occur. Additionally, with the new ways of organizing and leading people with the collective approach, innovation process will have to be investigated.

Interest point could be an organizational citizenship behavior (OCB) and creativity that are influenced or are the results of any form of alternative leadership and are, further on, influencing innovation generation on the collective level. Aligned to this, more focus should be put on the question how interorganizational citizenship behavior occurs in the innovation process. (Gerke A., Dickson G., Desbordes M., Gates S., 2017).

The types or kinds of creative output inside of the collective/group level that company can get are still not so explained. (Harvey S., 2014). What is happening with the ideas from the early start of innovation process until the end, when only one is chosen for realization. Are these ideas taken in consideration as a start for some other innovation process? Besides this, what is needed to be more studied is how novel ideas are evaluated and retained by the group in the final creative output (Harvey S., Chia-Yu Kou, 2013) and how the process of collective idea suggestions differentiate from the individual idea suggestion process.

3.1.3. EMERGENT PRACTICES AND COLLECTIVE LEADERSHIP

The biggest challenge is to create that organization that will foster internal creativity with the different technology, structures, staff, individuals (Csikszentmihalyi M., Sawyer K., 1995). The role of leader support helps in producing higher levels of creativity in followers (Madjar et al., 2002) (Scott S., Bruce R., 1994) (Tierney P., Farmer S., Graen G., 1999), but the influence of
collective support on the innovation generation process still need to be investigated.

When it comes to emergent practices such as employee driven innovation, the influence of different factors in the stages of this, emergent innovation process, is still not discovered at fullest. (Kesting P, Ulhøi J.P., 2010) For example, the possible forms of management support and the quantity of the resources and time that should be allocated to employee in idea generation stage, autonomy and control question during the whole process and especially in decision stage and the organization of the transferring of some authority temporarily to ordinary employees still need to be investigated (Kesting P, Ulhøi J.P., 2010). How employees should communicate in order to seek for the strategic information that are needed for their innovative creativity and how to take the information back from their emergent innovation process to company is, until now, not clear. (Park H.S., Kim J.N., Krishna A., 2014)

There is no independent research tradition that specifically focuses on employee driven innovations. Additionally, research on (and practice of) corporate suggestion schemes mostly regards them as a means of continuous improvement and TQM, rather than vehicles for handling discontinuous change, has to be made (Slee Smith PI, 1981) (Lloyd G.C., 1999) (Rapp C., Eklund J., 2002) Beside this, the drivers that influence this phenomena have to be further elaborated and empirically tested. (Kesting P, Ulhøi J.P., 2010)

What is still not explored is how the new, emergent innovation practices influence the classical innovation process and how this influence manifests through each and every phase. Interesting will be to investigate the first phase - the problem setting and understand, if the emergent practices are some type of data collection and starting point for the traditional process. The hypothesis that emergent practices reinforce the problem setting phase needs to be examined. Also here the huge role is playing the collective leadership. What are the main characteristics of the these stages of innovation process, who are the leaders, how the decisions are made and many more questions need to be answered in the future.
3.1.4. CONTEXTUAL FACTORS AND LONGITUDINAL STUDIES

Related to contextual factors, future studies should focus on facilitators of collective leadership in an organizational behavior context (Jain A.K., Jeppesen H.J., 2014). There are different characteristics of the organization and of the task that can influence behavior of individuals in the collectives that can be, as an internal process, interesting for future investigation. (Cullen-Lester K., Yammarino F., 2016) Taking in consideration that culture can affect in a great amount on the application of the collective leadership and inside of the innovation process, the role of culture at both the organizational and national level has to be further investigated. (Jain A.K., Jeppesen H.J., 2014)

Not only contextual factors are important, but also to follow through the longitudinal designs the development of collective leadership over time. Special focus should be on the changes in leadership network and collective leadership during the stages of team development (Tesluk P., Carson J. Marrone J., 2007). An interesting segment for future investigation can be also about setting in which collective leadership is mobilized. (Realin J., 2016)

Under this topic, the important thing is to see is how collective and network leadership shifts and changes over time and under which task conditions. There are authors that believe in possible connection of OCB with collective leadership and innovation process and they emphasized the need to study the OCBs at the group level. (Schnake M., Dumler M., 2003)

3.2. RESEARCHES QUESTIONS AND FRAMEWORK

This study will focus on the existence and role of collective leadership in the classical and emergent innovation process and on the different forms of emerging models and practices for innovation generation. Is the type of leadership used in the innovation process the collective one, with more than one leader and distributed leadership roles? Does leader change over time and during the project, while formal and informal leaders occur, depending on the project needs for expertise and different skills? What characterize the leadership in plural and which effects it
is bringing back to the members of the collective? Are there some emergent innovation practices and how they influence classical innovation process? How collective leadership functionate in these practices?

In the previous paragraphs, the main research gaps have been highlighted. They covered three main pillars of this study: collective leadership in the innovation process, emergent innovation practices and organizational factors. Based on the identified gaps, the research questions have been formulated. Main aim is to through the analysis of the case studies, provide the answers on the research questions and justify new findings that will fulfil gaps previously identified. The research questions for this study are the following ones:

1. Throught the literature, lot has been investigated about innovation management, but still small amount is dedicated to the emergent practices. Beside this, the link between the emergent and classical innovation process is still not proven. Taking this in consideration, the existence of emergent forms of innovation and connection with the classical innovation process, the first research question will be:

RQ1. Which emergent forms of innovations are present in the company and how they interact with the classical innovation process?

2. The second research question is connected to the collective leadership inside of the innovation process. It is important to see if the collective form of leadership facilitate the innovation process and does the collective form of innovation requires collective form of leading people. The manifestation of the collective leadership in these process needs to be proven. Considering all said above, the formulation of this second research question is:

RQ2. How collective leadership manifests itself in innovation process and how is it implemented in the company?

3. After the role of collective leadership in the traditional, classical process of innovation it is important to see if there is also an influence on the emergent innovation practices. As it has been seen from the gaps, emergent practices are
not investigated at fullest and the collective leadership can be enabler of these practices. Connected to this, third research question has been defined:

RQ3. How collective leadership is used within emerging and traditional models of innovation in the company? What is the interplay?

4. Organizational factors are playing an important role in both of the collective leadership and innovation process. Not so rare, organization only with its characteristics can define if the collective leadership can be applied and if the emergent practices will be realized. In the literature it is still not precisely defined what are the organizational factors that can influence on the emergent innovation practices. In order to fulfil these research gaps, the fourth research question has been formulated:

RQ4. What is the role of organizational practices in order to support collective leadership and emergent innovation practices?

On the basis of the research questions stated before, initial framework of this research was created and showed below.
FIGURE 3. 1. THE RESEARCH FRAMEWORK AND RESEARCH QUESTIONS

The framework has three main parts that will be discussed in this study. The first part is connected to innovation. It is assumed that the company is creating innovations through a classical innovation process. This process has multiple phases and can differ depending on the context and company. Beside this, there are some emergent innovation practices or new ways to generate innovation. In this study, under the emergent innovation practices will be considered ideas and activities that are coming from employees. The employees, alone or by forming the group, come up with idea and develop innovation with or without formal support of the company. This topic is becoming especially interesting because companies are searching for new sources of ideas and the new ways for innovating. Some of the most disruptive innovations are coming from the inside, because the company leverage on the knowledge and creativity of its employees. Here, it will be interesting to understand, what the role of the employees is in the innovation generation. Additional question that can be posed is: what is the relationship between classical innovation process and these emergent innovation practices.
The second part is related to collective leadership and main variables that enables collective leadership inside the company. As it is mentioned in the literature part, in order to collective leadership exists in the company, multiple leaders, multiple roles or behaviors and dynamic needs to be present. Here, not only the presence, but also the connection between them and collective leadership will be explained. Through the case studies, in order to justify that some company applies collective form of leadership, these three variables need to be recognized.

The last one part, organization, is representing context and the factors that can influence both collective leadership and innovation generation process. These factors originate from the company and are, for example: hierarchy, culture, values.. The company perform a huge effort in order to provide the right variables and to cause the appropriate effects on the type of leadership used and on the innovation process. All of these elements will be further discussed through different case studies and the interaction between different parts will be explained.

3.3. CONCLUSION

In order to create the framework, previous chapters about the literature and empirical studies related to the topic of collective leadership and innovation process were used. The main purpose of the framework is to show what are the connection and what is the interplay between collective leadership and innovation process, both classical and emergent one. The organization factors are also important in order to show if there are other internal elements that can have influence.

Through the next chapters answers to the research questions will be provided together with the discussion about the main findings, further gaps and limitations and implications for the future researches.

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CHAPTER FOUR: METHODOLOGY

INTRODUCTION

The main focus of this chapter is on the methodology and tools that is used in order to investigate cases. First of all it is explained why the case study approach have been chosen and which are the benefits of qualitative research methodology. Information about the selected case studies is provided, together with the description of the companies. The coding process is elaborated in details. The Chapter outline is following one.

CHAPTER OUTLINE

4.1. Qualitative Research

4.2. Multiple Case Study

4.3. Cases and Sources

4.3.1 Case Choice: Why companies that innovate differently

4.3.2 Source Choice: Different Points of View

4.4. Data Collection and Analysis

4.4.1 3M Italy case

4.4.2 Reply case

4.1. QUALITATIVE RESEARCH

Taking in consideration that topics that this study has as an object are complex and can have different interpretations depending on the context, most suitable methodology for this research is qualitative research. Qualitative research helps in understanding of a complex issue or object and can extend experience or add strength to what is already known through previous research. It emphasizes
detailed contextual analysis of a limited number of events or conditions and their relationships. (Conger, J.A., Toegel G., 2002)

The importance of using qualitative research lies in the fact that this methodology is highly descriptive and shows interactions and communications among actors. This is especially useful when it is needed to see who said what to whom and how he said that, when and why as also as because of the possibility to describe the process and include all the details unfolding over time.

Beside the distinction from quantitative research (Gephart, 2004), qualitative methods are important tool specifically for the study of leadership (Conger, J.A., Toegel G., 2002). There are 3 main reasons. Firstly, qualitative method is helping to understand how leadership is applied differently at different levels of organization. Considering that leadership is a dynamic process, it can add depth and richness that researches done by questionnaires with data collection cannot provide. And lastly, qualitative methods can help in understanding the construct from multiple perspectives because, by some researchers and theories, leadership is considered as a socially constructed role.

Not only for investigating phenomena in leadership, but also in innovations and other areas, qualitative research methods are important because they (Miles M.B., Huberman A.M, 1984):

- Are concerned with opinions, feelings and experiences;
- Describes social phenomena as they occur naturally - no attempt is made to manipulate the situation - just understand and describe;
- Understanding is sought by taking a holistic perspective / approach, rather than looking at a set of variables;
- Qualitative research data is used to help to develop concepts and theories that help in understanding the social world - which is an inductive approach to the development of theory, rather than a deductive approach that quantitative research takes - ie. Testing theories that have already been proposed;
Qualitative data are collected through direct encounters i.e. through interview or observation and is rather time consuming.

No matter which type of quantitative researches is used, steps for using this methodology (Robert K. Yin, 1984) can be organized as:

1. Determine and define the research questions
2. Select the cases and determine data gathering and analysis techniques
3. Prepare to collect the data
4. Collect data in the field
5. Evaluate and analyse the data
6. Prepare the report

Of course, the critics of the qualitative method are present. Among some is the fact that a small number of cases can offer no grounds for establishing reliability or generality of the findings. This research is considered as useful, but only as an exploratory tool and there is the feel that the intense exposure to study of the case biases the findings. On the other side, advantages are that it includes data collection and analysis within the context of the phenomenon, integration of qualitative and quantitative data in data analysis, and the ability to capture the complexities of real-life situations so that the phenomenon can be studied in greater levels of depth.

As this study investigates collective leadership and its role in the innovation process, and because of all the reasons showed above, qualitative research is the most suitable method. The six step procedure will be applied in order to come to the main findings.

4.2. MULTIPLE CASE-STUDIES

Even though qualitative data could be collected using one or more research approaches such as case studies, interviews, observations, grounded theory and
textual analysis, this study will be mainly based on the interviews according to which case studies were created.

Researcher Robert K. Yin defines the case study research method as an empirical inquiry that investigates a contemporary phenomenon within its real-life context; when the boundaries between phenomenon and context are not clearly evident; and in which multiple sources of evidence are used. (Robert K. Yin, 1984) Case studies aim to analyse specific issues within the boundaries of a specific environment, situation or organization. (Robert K. Yin, 1984)

According to its design, the case study research method can be divided into three categories: explanatory, descriptive and exploratory. The explanatory case studies are answering to the questions “how” or “why” with little control on behalf of the researcher over occurrences of the event and their focus on phenomena within the contexts of real-life situations. Descriptive case studies analyse the sequence of interpersonal events after a certain amount of time has passed and they usually describe a culture or sub-culture. Finally, exploratory case studies, find the answers on the questions of “what” or “why” and their data collection methods are often accompanied by additional data collection method(s) such as interviews, questionnaire, and experiments. (Miles M.B., Huberman A.M, 1984)

As a case study is a methodology, particularly appropriate to cope with situations where there are more variables of interest than data points (Miles M.B., Huberman A.M, 1984), and taking in consideration that the research goal of this study was to investigate how collective leadership is used within both classical and emergent innovation processes, multiple case studies was chosen. Multiple case studies will help in analysing what affects collective leadership, how the collective leadership change over time and what are the leadership behaviors of individuals in the collective form that can arise through the innovation process.

Besides that, this approach is appropriate when the research questions focus on developing theory, especially the theory about the process (Creswell J., 1998) (Conger, J.A., Toegel G. , 2002) where it is found that qualitative research with multiple case studies is appropriate for this study. Case studies will be mostly explanatory nature.
4.3. CASES AND SOURCES

4.3.1. CASE CHOICE: WHY COMPANIES THAT INNOVATE DIFFERENTLY

In order to investigate collective leadership, the good choice of case studies had to be made. Many of the leadership practices have been discussed through the literature, but the empirical evidence is still missing.

It is true that some empirical studies in the traditional industries were presented, such as P&G company that uses technology support in order to shift to an open innovation model (Dodgson M., Gann D., Salter A., 2006) or different approaches to foster innovations such as Google (Copeland, 2010) or IBM (Dogson M., Gann DM, Phillips N., 2013), but still there are not a lot of examples that show the existence of collective leadership and its effects on innovation process.

Taking into consideration findings mentioned above, there was no specific industry or area of business that this study will cover. Of course, some criteria were used in order to choose the right sample of companies, such as:

1. The company is operating on the territory of the Italy and also has a multiple subsidiaries around the world – global or multinational companies
2. The company is known for some kind of emergent model for generating innovation

The first criterion was from the great importance as the case study method was chosen for this study, so the set of interviews had to be performed. Even though, thanks to the modern technologies, interview can be done remotely, face to face interviews were preferred in order to see the expressions, visit the company and get completely feeling of the company and the environment. As one of the goals in this study was to prove the existence of the collective leadership, having different subsidiaries around the world was even more interesting and valuable as the probability to have multinational team and diversified teams on the global level was higher.

The second criterion was the rigid one. Each and every company has its own way and process for innovating. But, the aim of this study was not only to analyze the
classical innovation process, but to see how collective leadership is used within the alternative processes for generation of product and processes – emergent innovation practices. All the companies that were applying the % of working time policy, hackathons and special events, internal competition and funds, gamification, were taken in consideration, as well as companies that are having flat organization and that apply practice of the intrapreneuership. Discovery of emergent practices was important in order to see what the influence of collective leadership in their execution is and how emergent practices further on impact classical innovation process.

This study is not having the special focus on any industry, as through the investigation, it was seen that lately more and more companies in the traditional business, such as industrial components, FMCG and hardware are trying to find the new ways to bring the innovations. Beside this, interesting point could be to see if companies from completely diverse industries are using the same practices for innovation and then compare what are the differences and what are the similarities in their application.

For this case study two different companies from two different business areas were selected:

- 3M (Minnesota Mining and Manufacturing) - industrial
- Reply – consultancy

In the next paragraphs whole process of data collection and analysis will be explained in details for all of the cases.

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4.3.2. SOURCE CHOICE: DIFFERENT POINTS OF VIEW

For realization of this study primary resources were used. The interviews were done face to face in the company offices or through the phone call or web conferences. Beside this, company website and different studies and reports that are published about the company were taken into the consideration. Videos, press releases, news was an important source for discovery of the emerging practices. Multiple sources were explored and this choice was made trying to keep under control different points of views. What seems to emerge from the literature is that
most studies on collective leadership tend to ignore substantial differences between leaders, between followers, and between contexts. Because of this, interviewed persons were selected with the aim to be in the different positions in the hierarchy, having different roles and perspectives. Only with this kind of observation and through correct coding the 360 view could be created.

4.4. DATA COLLECTION AND ANALYSIS

The data analysis started during the phase of data collection. After the selection of the companies, they were contacted in order to set an appointment with employees that were most suitable for this study. The appointment was made or directly at the company premises or through the phone and all of them dart between 1h and 15 min to 1h and 30 minutes.

Each and every interviewed person received the set of questions in order to prepare before the meeting and more detailed questionnaire was posted during the interview. The main areas of the questionnaire were:

1. Introduction – about the person interviewed and about the career path
2. About organization – subsections related to creativity-leadership-culture
3. Innovation – related to creative problem solving
4. Innovative initiatives – relationship between creative problem solving, collective creativity and leadership
5. Leadership – focus on leadership in plural
6. Closure – additional remarks and recommendations

4.4.1. 3M ITALY CASE

ABOUT THE COMPANY

Name: 3M - Minnesota Mining and Manufacturing

Vision: 3M technology advancing every company.

3M products enhancing every home.

3M innovation improving every life.
Minnesota Mining and Manufacturing Company, known later as 3M, was founded in Minnesota on June 13th, 1902. Currently as a big multinational conglomerate it employs around 90,000 people and in their portfolio has more than 55,000 products. Until now it has around 109,000 of patents and it is positioned in the one of the 30 companies on the Dow Jones Index. Four 3M’s fundamental strengths are: technology (materials, processing, capabilities, applications), manufacturing, global capabilities (sales in 200 countries, operations in 70, labs in 36, plants in 37 countries) and brand and business is divided into five business groups: health care, safety and graphics, industrial, electronics and energy and consumer.

Some product categories are: abrasive, laminates, passive fire protection, wax, dental and orthodontic products, medical products, optical films, electronic circuits while the most famous brands within 3M are: Post-it, Scotch-Brite, Scotch, Nexcare, Filtrete, Command, Scotch Blue.

3M owns its own code of conduct. Be 3M means: be good, be honest, be fair, be loyal, be accurate, be respectful and they have special developed leadership behaviors: play to win, prioritize and execute, foster collaboration and teamwork, develop others and self, innovate, act with integrity and transparency.

In Italy, the company is present from 1959 where the labs were mainly for recording materials purpose. Only two international companies, 3M Italy and 3M Canada got the Genesis grant in order to support entrepreneurial product development. In 3M Italy, the Ferrania research lab used the grant to work on an X-ray dosimeter program to measure radiation.

3M Italy continued to grow, so by 2000, 3M Italy was fourth in the Europe and fifth place in the world in total 3M business. Currently building where are the business offices, but also part of the lab was finished in 2009 in only 16 months. It is completely sustainable, energy efficient and respects all eco-friendly requirements. In 2015, the Innovation Center and Customer Technical Center were opened inside of this building in order to spur customer driven innovation and educate customers about the products and possibilities in the 3M.
ABOUT THE INTERVIEWS

Three interviews were performed in the 3M Italy with the people that are long time in the company and that are on the high positions on the hierarchical ladder. The face to face interview was made with the Technical Manager of 3M Italy while other two, with Talent development Manager and Technical supervisor were made through the phone call. Total number of hours of conversation duration is 3 hours and 15 minutes and total number of pages transcribed is 43.

Coding was done one by one interview, after the writing of the script. A huge number of different codes emerged from the first analysis, more precisely around 750 first order codes. As not all of them couldn't be taken into consideration, through the process of comparison and understanding the most important codes were detected. On this way the second level of the codes was formulated that was referring to similar context and topics. After this the categories were created and connected with the theory. All categories are grouped into three main variables: organization, innovation and leadership.

4.4.2. REPLY ITALY CASE

ABOUT THE COMPANY

Name: Reply

Vision: To excel in helping our customers to exploit relevant innovation brought about by economic transformations and driven by internet technologies

Company Reply was founded in 1996 in Turin, Italy. This company is specialized in consulting, system integration and digital services, with a focus on the design and implementation of solutions based on the web and social networks. Main aim is to support leading industrial groups in defining and developing business models to optimize and integrate processes, applications and devices. Reply is made up of a network of highly specialized companies and it is using new technology and communication paradigms such as Big Data, Cloud Computing, Digital Communication, Internet of Things, Mobile and Social Networking.
The Reply company operates in many sectors: telecom, media & entertainment, industrial products, distribution and transportation, banking, insurance, public sector and healthcare. Speaking about geographical expansion, the main one happened in 2006 when the new offices were opened in the England and Germany. Company is also relying on the existing acquisitions. With its offer, Reply covers three main areas of competence: processes, applications and technologies.

During the history, many company choose Reply as a partner, such as: Oracle, Microsoft, EMC Corporation and many more, but on the another side, Reply did many of the acquisitions (Motorola research center, SOA, SaaS, Communication Valley S.p.A..) This company also create dedicated units and new sub companies for the development for the special business areas such as: Live Reply – for design, development and distribution of services and contents on Mobile and TV, Open Reply – that offers complete solutions based on Google technology, Technology Reply – Reply company specializing in Oracle technologies, Storm Reply – specialized in creating innovative services based on Cloud Computing, Forge Reply – development of games for mobile devices, smart phones and tablets, @logistics Reply – for planning and development of Integrated supply chain execution solutions etc.

Starting from the 2000, the company was listed on the STAR segment of the Italian Stock Exchange – Borsa Italiana. In the February 2004, the Reply was included in the annual Forbes classification of the top 25 companies with the highest growth rate. In the 2016, with operations in Europe and main offices in Germany, Italy and UK, Reply achieved in excess of €780 million in 2016. It is assumed that in this company more than 5000 employees are working.

ABOUT THE INTERVIEWS

Four different interviews with seven persons on different position in the company have been performed. All of the interviews were done face to face in the company premises, while in one of the interviews the support of web conference was used. The interviewed employees were from different hierarchy levels, positions, departments and sub-companies that are inside of the Reply company. Question related to this study was posed to one director, two managers, two consultants and
two executive business partners. Total time of the interview is around 2 hours and 50 minutes, and the number of the pages transcript is 39.

In both case studies, coding was performed after each interview. The result of interviews was the audio recording, that firstly needed to be typed. After double check of the recorded questions and answers, the first step of coding was performed. Each sentence was read with the aim of understanding the main concepts that interviewed person brought while answering on the questions. The meaningful part of the sentence, or sometimes the whole sentence, was coded with the alfa-numeric code. Each code has it own abbreviation, number and the name. For example, OR-CUL-102 – supportive organizational culture. When all first level codes were generated, they were devided by the similarity into the groups of the second level codes. The second level codes are one degree more homogenous compared to the previous ones, and under one second level code could be found more first level codes. What was important here is to make a clear classification and distinction while merging, without loosing the main meaning. After that, the second order codes were further classified into the categories. Category represent broader theoretical area, such as contextual factors or leadership skills. The last step was to group the categories into the variables that are further on connected variable to the main topic of the research. Through the interviews, three main variables were identified: organization, innovation and leadership.

The deep description of the main findings will be explained in the Chapter Five – results and in the comparison with the literature will be provided in the Chapter Six - discussions. The conclusion will bring the implications for future research.
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CHAPTER FIVE: RESULTS

INTRODUCTION

In this chapter will be represented main findings from the analysis of multiple case studies. The results of qualitative methodology will cover main conditions for the existence of collective leadership and if it is or not applied in the company, the innovation process in details and the influence of organizational context on the both variables above.

The chapter outline is the following one.

CHAPTER OUTLINE

5.1. Collective leadership
   5.1.1. Multiple leaders
   5.1.2. Multiple behaviors
   5.1.3. Dynamics

5.2. Classical innovation process
   5.2.1. Formal innovation process
   5.2.2. Outcomes

5.3. Emergent practices
   5.3.1. Structured practices
   5.3.2. Destructured practices

5.4. Organization and contextual factors
   5.4.1. Organizational structure
   5.4.2. Company values
   5.4.3. Company culture

5.5. Conclusions
As one of the aim of this study is to understand if collective leadership is implemented in the company and how, the first research question has been posted. What was needed to be investigated in the case studies and data collected, was the existence of multiple leaders, multiple behaviors and dynamics of the behaviors both during the time and through the career of the employees.

The data was previously collected through the interviews. In order to identify common categories of meaning, data was studied intensively, first through coding the script and then through finding most frequently cited variables connected to leadership. Codes about leadership were regrouped in the codes of higher level and then into different leadership categories. In following paragraphs all the results will be described in detail with reference to each specific element of collective leadership.

The figure 5.1. below will show graphically the relationship between the elements needed for the existence of collective leadership in the company and collective leadership process.

**FIGURE 5.1. COLLECTIVE LEADERSHIP - VARIABLES AND CONNECTIONS**
In order to have collective leadership, there has to be multiple leaders or leadership. (Contractor N.S., DeChurch L.A., Carson J., Carter D.R., Keegan B., 2012) This means that different type of leaders can arise. In this study special attention will be dedicated to the typology of formal and informal leaders and they will be explained in the next paragraphs in details.

On the other side, multiple behavior is expected in the collective leadership. Again, behaviors can differ from person to person and from position to position, but some general categorization can be highlighted on formal and informal ones. (Friedrich T., Griffith J, Mumford M., 2016) Inside of this variable is also considered the evaluation. Not all of the companies are using the same way for measuring of leadership and behaviors, so this can also influence on the collective approach.

Lastly, the dynamics of the behaviors take a special importance. Leaders can change over time, their characteristics, approaches and leadership skills, depending on the job position or context in which they are working in. Development programs are used in order to constantly improve the skills and knowledge of the leaders and it can be on individual, team or organizational level.

All of these elements mentioned before will be explained deeply as the results of analysis of data collected. Beside this, the quotes of the employees interviewed will be attached for further understanding.

5.1.1. MULTIPLE LEADERS

First variable that is needed to be present in order to collective leadership occur in some context is the existence of multiple leaders. In the situation where there is multiple or more than one leader, the hierarchical structure is respected, but also employees that are not having official leadership or job roles can turn into the leader of some phase. This means that beside formal ones, that are having an official role announcement, informal leaders can arise. Taking in consideration this, this study will cover two types of leaders that both need to be present in order to have multiple leader and afterwards collective leadership – formal and informal ones.
Formal leaders are the ones that are officially recognized by the company to direct other people and to have the responsibilities for coordination, communication and delegation. Different evidences and formulation of this element have been found through the interviews, such as:

“It is hard to say who is the leader. There is no gradation. Yes, it must be hierarchy. I am not able to give an exact definition. There are the leaders by definition because they are leading people. I am the leader. My supervisor is the leader, but if you go down, even the assistant can be the leader. We have the scale graduation of job descriptions and job grade and from a certain level on you are the manager, supervisor, so these are formal leaders.”

(3M case)

“Formal leader has more like governance role. To maintain methodology, time constraint, find leaders, spot the problem solver.”

(Reply case)

It was not clearly explained how the formal leader has been born and chosen, but it is seen able that organizations and employees recognize it and respect its position. In the same case has been found that the leader can be on the different job positions, with different skills and knowledge, depending on the project.

“There is always a project leader, someone that is taking the leadership; they can be ether, technical guy or a business guy.”

(3M case)

The role of project leader, that is one of the forms of formal leaders named in the case, can be explained through the quote:
“So we have project leader that is the formal leader that come, arrive with this idea or question that is born from market side and then you put together people that can work together on this idea and understand the feasibility of that idea.”

(3M case)

On the other side, informal leaders have been mentioned in all of the interviews through different formulations. An important note is that informal leaders are not only the ones that arise because of the charisma or characteristics, but are the ones that are identified because of their knowledge, specialized working skills and expertise. So, we can see that during the project, it is important to have informal leaders that are specialist in any specific field:

“You switch on like a leader because there is a project that involve you and you are better than after two to three months is starting something else and you will follow him, this kind of liquid.”

(3M case)

“There is a formal leader, but inside of the team, when you work, there are side leaders, but not because you say, you have to do that, but because you can tell the people how to do stuff in the better way”

“For parts of the technical, people followed me. I had some knowledge before so people were listened me”

“There is no appointed leader. The leader is the one who proposed the idea, and people decide to work on the idea and follow him because they like it. So it just comes out. It happens that team leader is not the partner or consultant and inside of the team there was a partner or consultant.”

(Reply case)

On the other side, in the Reply company, informal leaders are leaders not only because of the expertise, but also because of the ability to take the responsibility and make other ones listen to them. They can be recognized from the early beginnings.
“Leader that can jump from the occasion to the occasion. They are recognized. They take the lead of the activity, write on the board, ask other colleagues. You can spot them, you can recognize it easily.”

(Reply case)

It is important to have informal leaders in the innovation process, because their expertise can be crucial for success of the project:

“This is mainly done because of course project leader is not super expert or super chemist or super guru of technology behind. And he needs to have the correct leader for every step that helps him in getting the result of the gate review, getting the correct information to pass a gate. And if something wrong and you are pushed back in gate review the project leader of the entire project will come back to the and start for example, working with the lab to understand how to modify or how to bring the correct results for the next session of the gate review.”

(3M case)

All of this doesn’t mean that when an informal leader takes a lead that the formal leader is totally out of his role. As it is explained in the one of the interviews those informal leaders:

“They are not taking the official leadership of the project, but of course they are working cheek to cheek with the project leader on their specific phase. “

“For example, we have this formal leader, but maybe during the concept phase, there are also other leaders that arise and that come from the lab.”

(3M case)

“The leader can happens also between colleagues. You expect that from manager, to be the leader, but often it happens between colleagues. I think I also behave like it.”

(Reply case)

Special focus can be put on dynamics and the moment when informal leaders are born. Of course that informal leader will have temporary leadership role that is not official. Additionally, the moment when s/he can arise can depend on her/his
ability and readiness to cope with the situation and also his/her self confidence and trust in the team. Connected to this, interesting quotes can be highlighted:

“All the member of the team could be a leader.”

“So, on that kind of meetings there is an enabler, facilitator that start and cheer meeting and introduce the meeting, but everyone is sort of the leader for his own job and bring his own experience”

(3M case)

“Leadership in Reply is not based on the age, it is not hierarchical defined, yes we have managers yes we have the senior managers, but in my experience leaders are also the consultants.”

“It is something you can teach, you can improve, but it is something that either person have or not. It is difficult to start with the person that don’t have this kind of attitude to be a leader”

“Leaders are all of them. We are not the army. We are single individuals, really expert. There are different kinds of leadership, and there is a challenge to leverage on the right leadership in the right moment.”

(Reply case)

As it can be seen from the previous examples, there is a need for both, formal and informal leaders, that has to cooperate, communicate and work aligned in the direction of the same goal.

The peculiarity of the Reply case is that the leadership and approach to leading of the people is depending on purpose. They make the difference between hierarchical or management leadership that is more connected to the formal parts like evaluating and rewarding, and the executive leadership that is based on expertise. These two need to be present together and they are obligatory for functioning of the organization. The balance between two of these is important. The company is explained like a living organism that has to have both the stomach to digest and the hand to feed the stomach.
“Hierarchical leadership are the one that decide about your bonus. And then there is topics related to let the things happen, so you have to give expertise to lead. No matter of hierarchy.”

“They do overlap but one doesn’t substitute another”

“Leadership depends on the purpose. If it is management leadership, it is one thing, if it executive leadership it is another thing. In the same company the two kind of leadership has to consist and the each of the two has to recognize the other leader role.”

“So I am the best expert in the team so let me drive to execute, but you are the one that decide if I get the promotion or not. Otherwise it doesn’t work. It is more about looking at organization as a living organism. Is it the stomach or it is the hand the leader. You know the metaphor that hand didn’t want to feed the stomach and then it became weak. It depends on what you have to do.”

(Reply case)

5.1.2. MULTIPLE BEHAVIORS

Having of multiple leaders is not the only condition for collective leadership to manifest itself. Another important factor is to have multiple behaviors. Behavior is characteristic of each and every person, but some companies such as 3M in this study, is putting special focus on the leadership behaviors in order to align personal behavior of each employee and the behavior that is expected from the company side. From this case and case of the Reply company, different explanations of the leadership behaviors have been found:

“To be a leader, in the 3M you have to have some special characteristics or better to say you need to be able to behave in the specific way.”

(3M case)

“Being a leader means to let people bring ideas, develop ideas, work alone, and bring different solutions, alternatives to solve the problems and then to evaluate them all together.”

(Reply case)
A great importance by 3M is given to the fact that leadership behaviors are measured for all employees, no matter on which job position employee is or how high/low s/he is on the hierarchical ladder. Beside this, employees learn during the time how to adopt themselves to some behaviors that are shared in the company as a company value.

“The behavior was that, that could be much more appropriate for everyone at every position.”

“They were in line with the sentences of each leadership behavior”

Companies can suggest employees to behave in some way, but the peculiarity of the 3M was that they actually have six formally defined leadership behaviors that need to be shown by the employees and that are later on evaluated for every position and every person. These leadership behaviors have been presented in the form of the table where the appropriate role of the leader is attached on the right side.

<table>
<thead>
<tr>
<th>BEHAVIOR</th>
<th>ROLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>“foster collaboration and teamwork”</td>
<td>support</td>
</tr>
<tr>
<td>“prioritize and execute”</td>
<td>problem solving</td>
</tr>
<tr>
<td>“develop self and others”</td>
<td>mentoring</td>
</tr>
<tr>
<td>“act with integrity and transparency”</td>
<td>planning and organizing</td>
</tr>
<tr>
<td>“play to win”</td>
<td></td>
</tr>
<tr>
<td>“innovate”</td>
<td></td>
</tr>
</tbody>
</table>

Multiple times it was mentioned that the collaboration and the teamwork is some of the core points of the 3M. The collaboration and teamwork behavior is expressed through the fact that people like to work together, learn one from another and support good team ideas and work.
“Well, starting from my organization, what I tried to build in the last years is the culture of team working.”

“So people that like to work alone, are not very well perceived in 3M. You can maybe get better results in very short term, if you are good in one role, but in the long term, what is paying back is working in the good team in a good relation between your peers and your supervisor.”

(3M case)

For the prioritization and execution, mainly the formal roles are assigned, but it is not so rare that the delegation of the responsibility happens in order to first decide what to do and next, to realize the activities. Here, supervisors or the formal manager especially appreciate the readiness of team members to take the lead and give its way for problem solving.

“And our supervisor is giving us the opportunity to do so, to run the things in our way and not just because she is the supervisor. She doesn’t want to come with everything alone and just give us the input.”

(3M case)

How the mentoring and the development is important in the company of 3M was shown the interviewed employees in all three interviews:

“Organization has to be able to regenerate them at whatever level, so each leader in the company needs to be able to keep its colleagues, take care of them and develop the talent that each colleague has, so trainings, different experience, and trainings on the field. We have scheduled programs to he our colleagues to develop themselves.”

(3M company)

About one behavior, company is really strict. It is act with integrity. Here, or the employee respect the company and play by their rules, or it is not any more member of the collective.

“The sixth is given to everybody, act with integrity. It is necessity, either you are in or you are out. Either you behave with the integrity or are not in the company.”
For the 3M company it is not only important to start the project or the activity and let the things happen by itself, but to do it with vision, passion and with the winning attitude. It is also an important behavior that makes a difference between leaders and those who are not it.

“Every people that is able to play to win which means the ability to finalize an action, not play to play but play to win.”

What was an interesting observation connected to this part is the existence of the innovative behavior that is not so common in the other companies. As it was said through the interview:

“ We felt for sure the leadership behavior that is different from other participants, because for sure everyone of us is different from other, but if you have innovate leadership behavior that is quite high, probably you are the most creative in the group or you can show different leadership behavior in any case collaborate I noticed people that preferred to build things together with others and involve the others in doing things.”

Through the interview with the company Reply, more than once was explained that the organization is functioning because of the attitude that is built over time. This attitude is something that shapes the culture and is the pillar of all innovative activities.

“Main goal is to reinforce the attitude of the continuous working. As long as Repliers keeps studying we are good. It is an attitude.”

“We have all of these lab camps, because we started from the attitude. There is a culture of Reply, it is not know-how it is attitude toward the innovation.”

As it could be understood, there are some behaviors that are expected to be applied from leaders and it will be further on defined as formal leadership.
behaviors, while on the other side there are leadership behaviors that are not asked and not defined, but they define the leader and they will be named as informal leadership behaviors.

The formal leadership behavior can be connected to organizational processes. This behavior is valuable for the execution of the everyday tasks and achievement of company goals.

“You are not the leader if you are not able to prioritize and execute, that is really important. Execution is, a company says, that leader needs to be able to execute. Visionary leaders, charismatic leaders are really advantageous. Maybe the innovation or characteristic of execution is not high, but they have charisma. It has to be able to balance characteristics. Also develop others and yourself.”

“Because if we need to be more keen to organizational aspect, my colleague from Germany, which is a blue so very, very organized, structured, she takes the lead of the project and help us working things. When we need to have much more creative, I am yellow so I need to provide my personal aspect so it is something that is giving us the opportunity to be leader in brackets for specific problems.”

(3M case)

“The capability to come with consensus the ability to cope with the conflicts, capability to lead the other colleagues, to gather ideas, to bring ideas, to consolidate ideas and sometimes the leaders’ idea is not the best idea identified. “

(Reply case)

While, on the other side there are leadership behaviors that are connected to process and practices, but more connected to people:

“We really would like to involve people because they feel it supports their goals.”

“There is not the boss, the organization has to be able to regenerate themselves at whatever level, so each leader in the company need to be able to keep its colleagues, take care of them and develop the talent that each colleague has.”
Beside formal behaviors, that are usually defined and that are something that leaders should obviously have, there are also informal one, that are more connected to personal characteristic of leader and behaviors that are not formally evaluated, such as interest for the others, not only connected to job, but to personal life segments and relationships with individuals. Through all three interviews, this segment was stressed.

“I am thinking now honestly at my previous supervisor, well, I appreciated from the very first time the way she approaches the team because she paid a very much attention and honestly, she is not the only one I could tell you other people, but I have in mind my boss now. She was interested in knowing each of us really, quite on the personal level. Not only professional aspect, but who really are you, what is the things you care most, what are your interest.”

(3M case)

“The leader itself goes beyond the title, in the sense of, you are the manager you are the leader, you do that. You are the leader if you have the knowledge of the project, you have enthusiasm and you are really interested and you can teach other people about direction to take, also because any authority to do that, but they follow you because they feel that you are right.”

(Reply case)

Other informal behaviors are connected to soft skills segment, such as the ability to make your opinion is listened.

“Yeah, you know leadership. At least for me it is a wider meaning. It is not just that somebody is having the direct reports. So when you are in the workshop and you can express yourself and you notice that what you are saying is listened by people and by the others, even if they are higher roles, you are a leader in that moment. You are taken into the consideration.”

(3M case)

“Leader has the ability to be listened by everyone and to manage the conflict.”
Some of the interviewee try to give their definition of informal leaders, underlining that a person that contribute to a cause with all his abilities, ideas and connections can be considered a leader. Also, s/he doesn't have to be the best in some particular area, but is having a mix of capabilities.

“You are the leader when you are contributing to something with your ideas and brain and with your person. And you can do it on your professional daily basis or as you are working in the teams. It doesn’t matter if you are the team leader. Also the member of the team could be a leader.”

(3M case)

“It is not the best technical, it is not the best problem solver, not the best anlysis, but it is mix of the capabilities that can help team members. The one that say ok, lets do the thing like that. “

(Reply case)

Taking in consideration everything mentioned above, it is clear that 3M and Reply companies are a right example of fostering collaboration and teamwork and that the fact of having informal leader and leadership is special appreciated.

Another aspect that can be put into the segment of multiple behaviors is the evaluation of multiple behaviors. In the case of 3M, the official evaluation process is applied in order to track the change of the leadership behaviors of employees. In the case of lacking of some skills, aim is to plan and execute development activities. This is one closed cycle where behaviors are measured, then developed, then expressed through everyday activities, through which are again measured and then developed. About the process the interviewee said:

“So here, every year, in the end of the year we are monitored about our performance, as it had the one official process in place at the end you will see the rate which goes from 1 to 5, from the lowest to the highest, but when we are monitored on that, and when we receive the feedback from our supervisor we also get the feedback on
leadership behavior, one by one. We really see the point also on each and every leadership behavior. We get the feedback on the results, for sure, but also how we get this result.”

(3M case)

The importance of measuring of leadership behaviors lies in the fact that these behaviors are measured in parallel with employees' working performances. In the end of the year there is an organized discussion with the manager about both of the results. This evaluation works for all, from the assistant to the top management and each leadership behavior is measured, one by one on the scale of 1 to 5.

Yes. Each person I would say not only the team, but each person is assessed on performance and leadership behavior. We have these points weighting for the performance and weighted for each leadership behavior.”

On the other side, Reply company is not satisfied with the formal evaluation of the employees, that is too long and highlight the high potential employees late, so they are doing the alternative form of evaluation of the people, through the hackathons and other emergent practices.

“The structure of evaluation allows to spot the high potential three years after entering. In the first year there is no evaluation process, then in the first year only one, but it is still difficult to spot the people. And after three years company is really spotting the high potential and it is really long.”

(Reply case)

Almost in all interviews in 3M it was stressed that it is really valuable, not only what you are achieving as a working performance, during the job and professional life, but the way how you do it. This requirement is well known by the employees and really visible. There is no proof that it is more significant to take a look at the leadership behavior ratings than at employees' performance ratings, but as it is mentioned, they are quite on the equal level.

“We have the process which is about leadership behavior which is link your EPR process that stands for Employee Performance Review with you because we think, as
I said before, that it is not only a matter of achieving a goal that every one of us is having during the years.”

“So people know that for the company it is not only the matter of numbers, I mean the sales people for itself, it is not just the matter of the forecast and how they did in the end in the numbers, but how they did it, how they managed, how they get in touch with the customers and so on. It is really something that is officially in the process and it is in our culture.”

“Leadership behaviors in these last years are really important. I don’t want to say much more than EPR – Employee Performance Review but they are at the quite of the same point.”

(3M case)

The company, in this case 3M, is aware that it is not normal and not possible to have all leadership behaviors on the highest levels, but they are doing a lot of activities in order to enable employees to develop their leadership capabilities as high as possible. For this purpose, discussion with the supervisor about the rating is unavoidable.

“ We don’t expect to have the highest ratings in each leadership behavior for sure. Because, as I mentioned before. Due to diversity, every one of us has strong points and the low points. I could be good, five of five in developing self and the others and probably just two in innovate because it is not part of me so we don’t expect to have high rates in each leadership behavior. It would be perfect. But we cannot expect that because we are the humans in the end. But what we try to do is to help people really focused on some behaviors so stay, you got two, probably you need something for that. So you probably need to put yourself on that specific leadership behavior. And that’s why every one of us discusses about leadership behaviors and not only performances with the supervisors.”

(3M case)

In the next paragraphs it will be explained what is the dynamic of leadership behavior and what are the activities needed in order to put ratings of leadership
behaviors on the higher level and to align more personal behavior to the company one.

5.1.3. DYNAMICS

As it was previously mentioned, both, formal and informal leaders will have different leadership behaviors. The way how they behave can be asked by the company in the form of some formal leadership behaviors, but on the other side, some own expressions and personal characteristic can shape these behaviors. Leadership behaviors depend on the situation, and change during the time. Indeed a characteristic of collective leadership is that it develops over time as certain individuals rise to the occasion to exhibit leadership roles and then step back to allow others to lead (Contractor et al., 2012). This will be called dynamics and it refers to the change of leadership behaviors that is happening during the career of the employee through time and situations. In the case of 3M, as the way of doing things is measured during the time, also the ratings will have its own dynamics.

Some interviewed employees have given their own definition of dynamics:

“Of course when I start in my career I had the evaluation of 6 elements of leadership attributes or behaviours. And those evaluations were based on guy that just joined the company. After one year I understood how to work in order to improve and to get better the results with the performances attributes or behaviour by myself. “

The dynamics means that different leaders can arise and then step back for the occasion. For the company is necessary to share the leaders and insert more dynamics in their careers in order to gain the benefits of their knowledge and network.

“For example, we have this formal leader, but maybe during the concept phase, there are also other leaders that arise and that come from the lab.”

(3M case)

“The appearance of the leaders depends by the project and the project length. You have many leaders, but particular stream of the project change the leader during the time. If you stick the leader in the particular position in particular customer doing
always the same things, this could be not more leader. Because, he is bored and he could leave. “

“You have to move the leader inside of the company, also in other companies of the Reply. You have to share leaders not only inside of the project, but inside of the company."

(Reply case)

Beside this, depending on the situation, different people can act like a leader, even if they don’t have formal role to do so. By doing this, they can improve their leadership skills, connections with other employees and knowledge. This also represents the way of the leadership development, for individuals, during the time.

“You switch on like a leader because there is a project that involve you and you are better than after 2 to 3 months is starting something else and you will follow him, this kind of liquid."

(3M case)

Even though leadership behavior can change by itself affected by working environment, experience and situations that can teach some important lessons, usually company is the one that want to control the development of these behaviors and foster their alignment with the shared values. In the 3M company, this is mainly done through organized trainings and workshops. These trainings are planned and executed by the Human Resource department but also can include some external guests from different departments and outside of the company. Specifically, in the 3M case, there are some kind of initiatives that as a main aim have growing of company through growing of employees.

“Well we have for example every year a development month. That is another initiative for talent development so we help people to dedicate during one specific month to development activities. So we provide the webinars, online courses, but we also put them together in workshops, face to face workshops. People are from different department from company and they are simply sharing their perspective on specific topics. For example, this year, and it was on last May, I had people, the younger one, up to 35 years in 3M and it was a group of 30 people coming from
finance, business, customer service. The cluster was only the age, it didn’t matter the level of responsibility or stating like that, only the age. So I put together 30 people and I help them, of course I facilitated the workshop, but on leadership behaviors I helped them to revisit each of them and to provide the point of view that respected as young people.”

“And it is something that improves the company and improves people, but improves also the company. About growth, not only professional also personal.”

(3M case)

Additionally, in the case of 3M, there is the development activities more focused on the leadership behaviors. These activities are part of the loop develop – act – measure – develop, that was explained in the part of evaluation. As soon as it is identified lack of some capability or low scores on some behavior, development plan is built with the aim of increasing the skills and putting the alignment with company values on the higher level.

“So in the cases, for example, develop selves and the others is weighted two, which is quite low, it means that this person has to do something on that. So probably he needs to be much more trained, much more included in the projects for his or her development.”

“And for those people that get the average evaluation or non-complete positive evaluation on that, we can build a recovery plan during the years. And this recovery plan can be maybe done with mentorship program, coaching section, formal training or for example just support on every day job, to have them understanding how to change their behavior in order to better perform the everyday job.”

(3M case)

What is maybe specificity of the case of 3M company, is the fact that employees are choosing which leadership behaviors they want to improve by themselves, based on the results of the evaluation. So it means that company is following the pace of employees in the way that it understands that not all behaviors can be improved in the same time and at once. Also for some improvements employees are ready, while for the other ones they need more time, experience or willingness.
This freedom in choosing in which aspect of personal and professional life employee wants to invest is motivational factor for achieving even higher results on the next evaluation.

Beside this, there is a **free choice for choosing the mentor**, as the company is giving full power to the employees to choose who will be the most suitable person for them. This is having double effect. Firstly, it is confirmation for someone that his/her leadership behavior is a real example how the things should be done, as it is recognized in the company by others. Secondly, it improves person that is lacking some capabilities, but, on the other side, it will also improve mentors’ capabilities for mentorship and training. Above all mentioned, it will create better relationship among employees that are maybe not in the same department and that don’t have possibility to work together. This possibility is transparent and available to all employees.

“If they need to do something to increase their ratings for sure they need to choose two or three of them”

“Anyone. You can decide. If I want for example, for one of my people in the team, in order to grow, I can also ask my manager Alessandro who can mentor for him and create a sort of mentee program in order to help the guy develop this kind of attributes that he is missing. It is possible also to schedule some meetings with the people that are not in the technical organization, but maybe because someone is lacking the more commercial understanding and you can schedule the call or meeting with sales and marketing manager. We are very flexible in that swap.
Managers in 3m are really willing to help people growing and they can always dedicate one or two hours for program like that helping other people to develop their career.”

(3M case)

The perspective of the Reply company is a little bit different. They actually think that the trainings are not useful, that you spend a lot of time while formulating who to develop, how to develop and who will manage the whole process. The importance is in bringing the culture of the continuous learning and development, so develop in the people the attitude for the learning and innovating and to support the
sharing of the knowledge and learning from the colleagues on the daily level. This happens in order to develop others, but also yourself.

“First thing that we realized, that while organizing training the innovation hype is already over. So you are late.”

“Because of growing really fast, and the need of middle management we used hackathons.”

“Training doesn’t work, because of the speed, because of the ability to pick right topic and teacher. We do have the experts, and we do have people that can get advantage in sharing, because while you are sharing you learn. You learn from the other. The more you share, the more you get the contacts with the right people.”

(Reply case)

One important transition that could be taken into consideration, when discussing about dynamic, is the shift that happened from leadership attributes to leadership behavior. As it was explained through the interviews, attributes are characteristic of the employees, such as courageous decisions. The attribute was given to the person or the role, and it was something static. It is something that became valid for that position or person, from that moment on. As the opinions are not changing fast, this was also not something dynamic. It was really difficult, almost impossible to change them once after they were defined for job role and person. They were more connected to the person and they had to be proven by doing whenever it was possible. Some employees, on some positions, felt not so free to express them, so it was sometimes perceived as a possibility available only for some. Because of that, in the 3M company, four years ago, happened the transformation from leadership attributes that are static to leadership behaviors that are more dynamic and that were available for all people on all positions. Thanks to this dynamic, changes could be followed and more precise and suitable development could be planned.

“3M always evaluated leadership and in the past they were called leadership attributes. Attribute is something more related to person and as soon as you start evaluating the person in his role you give this kind of attribute for that person in that
role, and that time it was really difficult to see somebody growing and changing his attribute. We made a change like four years ago instead of evaluating the attitude or attribute moving to the behavior point.”

More deep comparison between attributes and behaviors has been explained by one interviewed person in 3M that also explained the importance of having behaviors for the employees. Explanation is based on the example of one attribute, previously used, many courageous decisions.

“Well at the very beginning there were leadership attributes so it was something much more related to leadership, but something that you have to show somehow. I would try to recall one of them, which is no longer in place, which was many courageous decisions, for example. That is something that we had in leadership attributes, just to make an example. It was something that we requested people to show every time they had the possibility to do it. So, you have to do your work daily, but for sure, not always you are what you are requested to do, without adding your ideas, without providing any kind of support. We had a lot of people. Okay lets go with this courageous decisions. If you think that you are only requested to do something that probably you can do differently, because you have another idea, feel free to tell it to your supervisor to demonstrate which is possible another way to proceed it. That was really helpful for people because they felt the freedom to provide with their own contribution, but it was something that not all people, not every position had the possibility to show. So it was perceived like something available for a few, not for everyone. So attributes in the very beginning, we tough it was great name, but with all the years, the behavior was that that could be much more appropriate for everyone at every position. Because you can show your courageous, leadership and way to grow on your professional day through your personal behavior which for sure needs to be aligned with the values of the company.”

(3M case)

In order to conclude it can be stated that in the 3M case there are multiple leaders, formulated mainly as formal and informal. Different leadership behaviors are present such as: “foster collaboration and teamwork”, “prioritize and execute”, “develop self and others”, “act with integrity and transparency”, “play to win” and
“innovate” and more of them can parallel occur in one leader. Lastly, changes in behavior are tracked and evaluated, and based on that improved during the time, so there is also dynamics. On the other side, for the Reply company, behavior is something that is not formalized and strictly defined, but it is showed through the everyday activities by all of the employees. For them is more important the act of doing then act of telling. What brings to the desired leadership behavior is the developed attitude in the employees where the need for the continuous learning and the knowledge sharing is presented. All of these statements prove that there is collective leadership behavior present in the Reply and 3M companies.

5.2. CLASSICAL INNOVATION PROCESS

Beside investigation related to if there is collective leadership in the company or not, an important aim of this study was to see how the innovation process looks like, what are the specificities connected to it and what is the interplay of collective leadership in each and every phase of innovation process.

The six stages model has been identified in the case of 3M company. It can be classified as a Stage gate model with different stages, gate after each stage and the gatekeeper. Process is formalized, transparent and all ideas that went through the filters and selecting criteria can enter in it with the goal to be realized by the company.

On the other side, the innovation process in the Reply company is not formalized. The emergent practices are predominant and the innovation is understood through the different perspective.

“Innovation the word, but it means whatever. Innovation is for us a continuous question how can do it on the different way, how I can study, grow.”

(Reply case)

When it comes to the output, in the case of 3M, there is another one specific characteristic. As interviewed people were stressing, 3M is a company that is
technological and produce technology while the products are the secondary outputs.

About all of this mentioned above and about the results found from the studies, will be discussed more into the details in the following paragraphs.

5.2.1. FORMAL INNOVATION PROCESS

As it was mentioned in the previous paragraphs, 3M company is having formalized Stage gate model for generation of innovation. This process is pretty much similar to the models that can be found in the literature about innovation, but it has some characteristics that make a difference.

First of all, in the case of the 3M company, needs are coming mainly from the market. One of the interviewed explained that, this company, as a customer oriented company, is listening the voice of the customer and tries to produce the product and the technologies in order to fulfil the identified needs. This is fitting in market pull model for innovation, where the main desires and wishes are coming from the customers.

“Our customer are asking for new products, there is no way to say we have the always the same thing. Yes, I trust on some usual products, but they are asking you where are you with your researchers, what have you come with are you having something to give me.”

“Everything starts from the analysis of customer needs, so people are visiting the customers”

“...project leader that is the formal leader that come, arrive with this idea or question that is born from market side”

Inside of the company there is a specific job role, called application engineer that has an aim of understanding of customer needs and translating these needs into product/process requirements. All of these functional and aesthetic requirements, that are explaining how the product/ process should look like and what are main functionalities asked by the customers, go to the company labs. This job position, application engineer, is one of the most valuable.
“It can go to something on creativity, but normally the voice of the customer comes from application engineer, goes through the lab, come back to the customer through the application engineer. So it is true that there are different professionals of R&D and applications and they are really relevant.”

“Still this profession is center for initiative or our technology transfer. While reading customer needs and bringing to the customer solution in customized way, which the real need of our customer and way how to use the solution.”

“If you are application engineer there is no box, but the logic is always same, tangible results as an effect of your activity.”

When the needs are identified, the official process of innovation generation can start. Aim of the team, working in this process, is to come up with the application suitable for customer needs. This is the formalized process, done in the six stages, where after each and every stage is the gate. If the stage fulfills all of the requirements and successfully performs all the tests that are organized by the gatekeeper team, the gate will be passed and the project is free to go to the next stage. The whole process will be shown below, through the Figure 5.4.

![Figure 5.4. Classical Innovation Process in 3M Company](image-url)
This, as it will be called in this study, classical innovation process, was explained with its stages only in one interview, so it will not be drawn an additional attention and explanation in details of each and every stage. Of course, some peculiarities will be stressed and deeply investigated.

The classical innovation process in the 3M is having an official abbreviation of EMVA. It is well known in the company and it is structured in the formal phases. In the next paragraphs it will be cited what interviewed employees said for each and every phase and small explanation will be provided.

**Stage 1: Idea generation**

As it was mentioned above, market pull approach is the one usually used in order to collect the needs from the market. After this, the Hopper session is started with the aim to collect the initiatives from participants. Ideas are clustered, evaluated and selected.

> “Everything starts from the analysis of customer needs so people are visiting the customer. As soon as we collect this kind of new seeds, then we have external view of what market is willing to get. And then we can make this kind of internal Hoppering session where we all put on post-it note general tough about new product needs and then we cluster them, we make the internal evaluation and we understand which are the main area or gaps if I would want to develop something new.”

The result of the Hooper process is usually huge number of the ideas, but not all of them can go into the process. The ideas need to be prioritized and ranked in order to choose the most promising one for official entrance into the innovation process.

> “After this Hoper we come up with 10, 20 or maybe 30 different ideas with the support of six sigma we rank those ideas we weight those idea and we come to the correct prioritization and with global prioritization of this kind of idea we enter in what is the formal process of innovation of 3m that is called IMPI process. That is the process made of 6 different steps.”

In order to have as many good ideas as possible, it is important how the team is structured. There were some observations connected to that:
“Normally we put together cross functional team so it is it idea to work on the specific project, we are used to put together people coming from different department, different experiences and they work on specific topic and that is the normal process I would say, also within the the department of business ones. Because you put together different mindset and that is created for, it is nature of approach. Because during the discussion you see how everyone can give support, can provide idea and everything.”

Stage 2: concept

After the idea creation phase comes concept, where the ideas are formulated in the preliminary solutions and from which moment people from the lab are included. In this phase lot of different application and concepts researchers can come up with. In this phase, beside the project leader, the lab engineer is important role to have.

“And then you start from the idea that comes from the Hoper than you start having people from the lab that in the concept phase are working on the preliminary concept of the new product”

“... than you move form idea with the case zero to the concept and with the concept, if you are, for example, talking about abrasive or adhesive, someone in the lab that is direct for this, will start working on the preliminary formulation of that. They can work on anything, create a sort of new version of what a product need to be generated.”

“We go to the market, we make small trials, we try to understand if that is the product that market is waiting for and if that is the case, we give the feedback to the lab and then they start closing the formulation and then the tough thing understands when we can produce the product.”

Stage 3: feasibility

When the concept is formulated, next phase is to go to feasibility and do all the analysis that are needed in order to check if the future product/service/process is the one with which it should be proceeded.

“...and then they move to the feasibility.”
“In feasibility you really understand what you are preparing concept is stable and replicable and seed the need of the market. Already in the feasibility you can have a preliminary product you can test, of course with confidential disclosure agreement with the customer on the seeds and we close the formulation of the product in the feasibility.”

Stage 4: develop

Through the development phase, real product is developed with the aim to be launched on the market. Here, lot of different leaders have to work together in order to respect all of the technical, legal and aesthetic requirements. Coordination and communication are one of the key principles. Also, as this phase is one of the longer one, different changes can occur during the time. Markets are dynamic, people needs are growing and there is also a competition. What is important in this phase is the good planning and realization, but also working as better than and as fast as possible in order to arrive on the market before the others.

“If you take too much time to come to market with new product and maybe takes three years for development, guess what the market in the three years can be changed and if you don’t open up your mind and if you don’t understand what are the changes on the market you can come really to the market with something that is not what the market is looking for.”

(3M case)

Stage 5: scale up

In the scale up stage, the transition from the lab to the plant occurs. Until this period, new product was developed in the lab and went through number of internal test and the revision. It is also possible that the product is launched on the small piece of the market, in order to test what are the impressions of the customers, as it was explained in the concept phase. Everything of this, need to be done under a strict rules and secrecy.

“After that mainly the development and the scale up is moving the product from the lab to the plant.”
Stage 6: launch

When it comes to the launch phase, here the final product is ready to be placed on the market. What is needed is that the production is constant and those products are good quality. 3M company has many huge partners, which need for the products are enormous, so there should not be any mismatch between demand and delivery. To be informed about the partner business activity and to deliver everything in right time, to right place and to the right customers are some of the main principles here.

“We need to produce, we need to be constant in production, we need to be sure that in our supply of row material are able to supply and maintain the demand. And all of those phases are mainly built, are mainly made to build a strong process, to have product stable and available on the market. Just imagine if you are working in electronic market you cannot go to the apple and say, we have the perfect product for you, but we can supply you the product for only 100 IPhone a day. You need to be there. You have to know their volume and you need to be sure that you are able to produce in time what is needed on the market. And it is something completely different just having the product that is working in lab.”

As it is already said, this innovation model is the Stage gate model that means that after every phase, there is a gate. Gate represents small check-point where different tests are performed in order to ensure that the product is going in the good direction. After passing gate, team has an official allowance to continue with the work and each gate represents a small milestone in the product development.

On behalf of gatekeepers, that are main responsible for all check-ups performed in the gap, is diverse team of managers. Depending on the project, the structure of the gatekeeper team can be different. Usually, business manager, technical manager and lab manager are present, while there are managers from other department, such as quality, legal, toxicology. This diversity is from the great importance, taking in consideration that different expertise are needed in order to finalize the project, with passing of all gates. Sometimes, project can be returned from the gate. In this situation, additional revisions and changes need to be done, together with the
manager of the specific phase. Gate team is recognize as one of the main stakeholders.

“After every phase you have the gate and you have gate keeper that can evaluate the result of the previous phase.”

“Gate keeper is the team made of business manager, technical manager and lab manager, toxicology and quality and according to the phase you can have also manufacturing or the legal. We don’t want, of course, to break any patent, but we want to protect our invention with the new patent. You know that 3M is having more than 100.0000 patents, so every new idea has to be early patented as soon as possible. And so, legal is also part of the team. And those people review the team work of every phase.”

“Than you need to understand who are your main stakeholders, and stakeholders are by the way the gate keeper, and to understand which are the one that will give you the main, best support in case of route block. You can find them on the project.”

(3M case)

“While working on the project, there were different skills, some people more creative for presentation, other people more in the technical part, problem solving of the project itself. Different skills of different members are needed in order to ensure better results”

(Reply case)

Final remarks connected to classical innovation process are that it is strict and formalized process, where every good idea can be implemented by the support of the resources of the company. The project can go through some phases multiple times, as it is iterative and need to get the approval to continue from the team of experts from different business departments. This model is made from check points in form of the gates, that enables identification of waste and possible wrong direction in the early beginnings.

“This process is done in order to cut in very early phase the project that are not stable and that are not on the right path to bring the results that we are expect.”
Case of 3M Italy can be specifically interesting, taking in consideration that even though this company is from industrial area it is producing wide range of products for different applications in everyday life of people. Usually, outcomes can be different kind of products, process or services. 3M characterized itself through the interview differently, compared to the other companies:

“But I see them, in my opinion, I think that this company, 3M, finally can practice the innovation as we are not product company we are technology company, and this is the kind of the set is it an outcome.”

The type of outcome that was stressed multiple times was technology and technological process.

“Because we can also come with new technologies, because we do not only develop product, but we are developing new technologies, it is more rare because of course you need different investment for new technology, but if you look at abrasive market, five years ago, 3M was really invented completely the way to build abrasive with the patent trade secret technology to build this micro replicated grain of abrasive that last 10 times of standard abrasive. And in that case it was not only the product that was born from R&D but it was completely technology innovation that thanks to new way to create the plant to build the abrasive to build our own machine to build that kind of abrasive.”

Employees in the 3M company are aware of the fact that innovation is the obligation and necessity and that they always have to deliver something new, something that customer lack and that will answer on their needs. The connection between innovation and the success is quite direct and strong.

“The reason of continues and stable success is related to that we have a lot of products and new products, but this is the second output, the first one is the technology.”
5.3. EMERGENT PRACTICES

Lately, companies are trying new ways for spurring the creativity and generation of innovation. The creation of the product or services, from the ideas that are coming from the outside, from the market, is already well known and investigated. The customers are perceived as partners and their participation is equally important as well as participation of the people from the company. There are different benefits of this approach, such as precise requirements from the customer, giving the first hand insights about need and then open criticizing of the solutions. The difficult part is connected to finding a lead users, the one that will reveal something new, that is still about to come in the future and is not presented on the market in the current moment or near period.

One another way that is starting to be applied by the big companies is the innovation from the inside. Even though this may sound as something that is already used in the great amount, there is the main difference. Here ideas are coming from the inside, from the employees. They can follow some organized activities that company provides in order to foster their creativity and innovation skills, while on the other side, they can accompany their inner feeling and organize alone themselves. Main motivation lies in the desire to create something new, useful, to release their creativity and open up their mind. In this way, they can create something applicable inside of the company, or products that can go out on the market and be sold to the external customers. The driver for this activity is entrepreneurial spirit that comes both from the person and is communicated in the company. The personal contribution of individual is here from the great importance.

During the research phase of this study, different types of emergent practices were found. Still, great amount of these practices are not applied properly or at all, while there is a assumption that lot of them are used inside of the companies, but they are not so transparent to the external observatory.
Second criterion for case study selection, emergent models for innovation creation, explained in the chapter four, can be manifested through different forms:

1. % of working time policy – this practice is connected to the dedication of the part of the working time to the purposes of the development of some project by the employee
2. Intrapreneuership or intrapreneual bricolage – company support employees for creation of their own start-up by company resources
3. Competitions, hackathons and funds – employees are performing the pitch in front of top management. The requirements or the problem that needs to be solved is usually coming from the company side. The participants are presenting their own ideas usually through the business plans. Best ideas are founded and supported by the company resources.
4. Flat organization – this is is the practice that foster innovation. There is no complex hierarchy, but great amount of the work is done by the self-managed teams. The levels of middle management are almost eliminated. The relying on the command and control structure is minimal.

Of course that one company will apply some of these categories of emergent models for innovation, or in the best case few of them. What was the aim of this study is to see what practices are present in the company and how their application is organized. Additionally, the connection needed to be proven is if emergent forms are influencing the classical innovation process and in which moment is happening the merging of these two processes.

What is found in the case of 3M Italy company are different activities that differ from classical innovation process and can be grouped into two clusters, as it was graphically presented in the Figure 5.5. below.
On the other side, the company Reply is only having the structured forms of emergent practices, which they are using in order to create innovations internally and start the classical innovation process. Through the interviews it was pointed out that there are many initiatives, and proposals for them are coming each and every week, but only about some of them was discussed. They will be presented in the Figure 5.6.

Emerging innovation found in each of the cases, as well as deeper explanation of clustering and each of the activities will be discussed in the next paragraphs.

5.3.1 STRUCTURED EMERGENT PRACTICES

The structured emergent practices are the ones that are provided as a tool from company side. Whole process, rules and resources are enabled by the organization. The participants are employees and their participation is voluntary, but beneficial.
Different job roles and job grades are using this opportunity, usually for the knowledge and information sharing. The rewarding mechanisms are provided for some activities that are organized in form of competitions. Each of these opportunities, identified in the 3M case will be explained in the details below.

Important note, connected to the case of the Reply company, is that the emergent practices found through the interviews are mainly the structured ones. How they work, who can apply, what is the motivation and process and what are the benefits, will be presented after the practices found in the 3M company.

3M STRUCTURED EMERGNET PRACTICE: TECHNICAL FORUM
This portal connects employees from all around the world with the aim of exchanging experience and knowledge. Not all of the employees can participate, as the portal content is closely related to the technical topics. This can represent source of motivation, but also source of knowledge and information. Here is what interviewed employee from 3M told about Tech Forum:

“We have a Tech Forum, it is a portal and it is forum, so virtual connection with real people, more than 10,000 employees in 3M. From this forum we have a possibility to share a lot of things and give a lot of trainings, learning, have seminars, chat with colleagues, share plans, best practices. That is one of the fostering mechanisms, one of tools that company gives to employees to foster collaboration in the light of innovation.”

3M STRUCTURED EMERGNET PRACTICE: CIRCLE OF TECHNICAL EXCELLENCE
Another opportunity for technical people is Circle of technical excellence that is organized in the form of competition. Employees from technical area can apply for it. The idea of this activity is to submit some individual or team project together with the results that project achieved, and then the committee is doing the evaluation of each and every project. This is a huge scale competition where the best project gets rewards, according to the level of the project. About Circle of technical excellence or shortly CTE is said:

“There are several kinds of rewards, the main one; in the technical area you can find the circle of technical excellence award. Project that generate the new product or new technology come to a committee in the US that once a year make the evaluation
of all of the project and rewards the best projects. You have... Rewards can be just, according to the level of the project, just an official reward with the dinner of managing director that appoint you as an or give this kind of small sculpture that represent that you was part of circle of technical excellence award.”

“2 main programs for innovations are: contest that is global that is called Circle of Technical Excellence and Innovation – this is a global contest where you are on annual base and with the remuneration team that is peer team, form each part of the world in the end of the year. There is portal that measure metrics that you used and result and output, to areas. There are single projects; coming from single person, technical persons or team projects, where more people is included. There are different tracks on that, you post your proposal. There is committee evaluating (Europe, EMMA, Asia pacific and Americas) and deciding for ranking of this. There are 3000 participants.”

“(Who can participate?) Everybody in technical area. And there is the winner for 3 different areas in the world and winner of the global scale that is getting the prize. That goes to the ceremony and there are lot of great opportunities in company that is the ticket for growth in the company or promotions.”

3M STRUCTURED EMERGNET PRACTICE: CARTON SOCIETY

This society got the name by the famous researcher in the 3M. By his example he showed that even technical people can climb on the professional level, to the top management positions. This is the society of the top scientist in the 3M, top researchers that have made a lot of patent and through the product, brought to the 3M huge earnings. As the interviewed employee stated, in the corporate lab in Sao Paolo, there is a Hall of fame with the pictures that consist of all significant researchers of the company. This for the researchers and people from the lab represent great motivation. Top scientists in the 3M are recognized and highly respected.

“Another one is much higher level and for fewer people, usually scientist, we in Italy don’t have scientist. Which is called Carton society and that is the hall of fame for technical people, there is hall in 3M with their pictures, you have top scientist in 3M
and top scientist of the year, and all of them are great, they have thousands of patents. It is for our top scientist and researchers.”

“Carton society award is the Carton was one of the top scientist coming from ’50, he get up for the top level of the company. So the name of the award goes because of them, he was the demonstration that from technical person you can go up. “

“And when you go to corporate lab and the lab in Sao Paolo where we have main researchers, those people that generate product that sold maybe billions of dollars in years, have a sort of Hall of Fame. We have like 60 or 70 scientists that are part of this Hall of the fame that are really well recognized on the global level of the company.”

3M STRUCTURED EMERGNET PRACTICE: DUAL LADDER
In order to enable same opportunities for progress on the hierarchical scale, the dual ladder was made. This is special opportunity for the technical people that beside the regular ladder in the technical area have another, business one. This means that, if they show their managerial skills, beside the engineering ones, they can one day come to the top management position in the company.

“Dual leader of career development – scala of job grades, you are coming as an assistant than you become... Then director. So you grow and it is present. Each one is having the number defining position. But for technical people there is a second ladder. This is specifically true in Italy. Technical roles are not normally roles that enable you to go to the top. Somewhere you will stop. There is somebody that is more manager than you and maybe is better than you. But this is not situation in the 3M. We do have a ladder and you can enroll in this parallel ladder in the way you become vice president there. Again this is a way we use to foster the innovation, because we love our technical people and scientists and we want to develop them in the way they deserve. The dual leader is one of the way that is used to promote.”

GOLDEN STEP AWARD
Special kind of the awards and competitions also exist for the other departments. As 3M is not only the technical guys, but there are also people from R&D, marketing and commercial areas, there is golden step award, that is given to the
ones that has most promising initiatives and that enable fast grow of the company through the results.

“...because we have more further awards such a golden step award, for the fast growing initiatives, that are normally found in R&D and innovation, but in the kind of more marketing oriented award.”

REPLY STRUCTURED EMERGNET PRACTICE: HACKATHONS

These interesting emergent practices, organized in the Reply company are, with the other initiatives, the most common way how the innovations are generated. It is made in form of the competition, where employees have the possibility to upload their ideas or projects to the topic company previously proposed. The topics are changing for the next hackathon and they represent mainly some new trends or some future needs that can happen on the market. This practice is also helping in coping with the continual changes and the growth.

“We have our own form of hackathons.”

“Project is based on the intrinsic motivation. The company gives a topic, but then employee proposes the project, but there are a limited number of teams. You are free to develop your idea. It is prototyping, not customer based. There are hackathons with the customer, but the goal is not to make customer happy, but it is to experiment. “

“All the team is focused on bringing results. Hackathons are based on project execution.

“After event we are sure they shared the experience, create the network of competences for future projects. They are all leaders of the projects. “

These topics don’t have to be always connected to the market, but also to the some internal needs or improvements that can help in the everyday job to the employees. The important thing is that initiative is coming from the employees and that company is by the resources help to the employees to compete among each other, while working all together and come up with the interesting solutions.
“The project was the assistant for everything, for buying the train tickets, giving the information, and there was a customer”

Everybody inside of the company can participate and contribute. For the uploading of the idea or taking part in the hackathon there is no need for the permission from the supervisor or manager. Compared to the other emergent practices, here is an exceptions connected to the financing of the event. In order to participate in hackathons, teams have to ensure funding. Sometimes it can happen that employees are rejected to participate if they don’t fulfill some of three main criteria: number of the countries, number of the companies and variety of the skills.

“There is a restriction of the members, from at least three different companies and countries and there should be also some different skills.”

“In hackathons, people have to organize the financing of the trip.”

“The competences are needed beside the companies and countries, and we are checking that if there are different skills in the team.”

“Some colleagues were rejected because they didn’t fulfill the requirement of the different countries. So it is possible.”

“Rule – when group is confirmed they have to build team composed of five to six people. They have to be from different companies, not to be friends working together. We want to mix developer, designer, and data scientist. “

The application is working by the principle of first application, first team member, so employees that need to be the part of some project has to be quick.

“In the team that I joined I was not rejected, because I applied in the same time when it was notified. But it is very strict in time. Sometimes you have five to six minutes until the seats are fulfilled. You have to be ready. Who applies first and fulfils the criteria, he gets in the team.”

The main motivation for the application in the team is those employee loves some idea, want to share the knowledge or help in developing and want to expand the connections with the colleagues.
“I joined a team because I liked the idea of hackathons itself. The motivation was the experience of the hackathon itself and the opportunity to meet all of the people. It is very interesting”

“It is competitive but some teams help to each other’s.”

The team is quite mixed and different roles can participate. This is one of the main requirements, as the meeting of the new colleagues and expanding of the professional and expert network is the imperative.

“The team composition is that people come from different countries and different companies and different positions also. You have sometimes the partners or clients. It can be that on some teams has a client.”

“There are forced to mix from different company, at least three companies and at least three countries.”

“The team leader was senior consultant, and other roles. There were people from my same level.”

“Sometimes it happens that there are friends in different teams, so it is funny to see how they work together besides working in their teams.”

The whole process is made from few steps: application of the project, selection of the team members and building the team, working in advance online, reaching the place where the hackathon will take part, creating the solution during the weekend, participating in creative activities and presenting the final solution in front of the jury. One interviewer explained the process as an observatory.

“We collect project proposals from employees on the topic. They point what they want to achieve on the event. Then we collect the project, we create a line up and open the registrations. Team leader propose the project, and team members, and two or three seats available for other Repliers.”

“We, as a company, give them a topic, they do idea proposition and team building usually online.”

“Before the hackathon we exchange some info via email and some calls.”
“It is up to them if they want to work in advance. From the moment from team is establish they can work on the setting point, the basis, through the Skype or meeting.”

“On Friday night, the participants arrive and upload the presentation with the idea. On Saturday they decide what they want to do and they start working. They present it to the all of the other groups. Also on Sunday morning. Then they need to submit the total project that has to be usually presentation and working demo. If you have application.”

“While working in hackathon, they split the task, you see some people working together on some part and others working on another one, and then they share together works. Some other group preferred to work on the pool side, other in the room. That is also the way to work. “

“Last day we presented the project, we had five minutes and it was strict. In that time we presented solution in the best way we can show and in the final ranking we arrived in the third position. So we were really satisfied.”

“We have the part of the day that is called the fun activity, fun moments. You don’t have to work. Last time we went on kayak. It depends on location. In these fun moments we organize the teams that are different from the developing project, so there is a possibility to also know others. You can find somebody that has the knowledge that you need for your project”

The best projects will be announced by the jury. There are different types of jury depending on the topic. Sometimes it is the commission formed of the business partners, consultants and maybe client and sometimes is the principle of the audience voting, where all of the participants are giving vote for the best idea.

“The judge was internal.”

“There might be a jury, there can be popular choice. It depends.”

“Jury depends; there can be someone from Community of practices, Social network or it is selected from board itself.”
“If there is external jury, they need time to decide about who is the first, the second, the third one. In another cases the participant are voting the best one. Everyone that was participated is voting, not for himself. Who has the more point is the winner.”

What is also interesting is that the main motivation is not the prize, but the ability to learn and connect with other colleagues. Of course, some small symbolic prizes are presented.

“Prize was the beautiful headset.”

“Prize are nice, but it is not about the prize. It is about motivation”

Of course that because of the format of the activity, there can be some conflicts. Here, usually, they are solved by the project leader or formal leader.

“There were critical moments, but it is normal because the team was formed for that event, so you don’t know all of the people. There were some contrast, but then we find the agreement.”

“When it was a conflict different ideas came in order to see how to solve it. But in this case there is always a formal leader that has to lead the conflict.”

“The better is to talk to understand different point of view and to find intermediate solution”

These ideas can be accepted and future developed in the Reply company and offered to the external customers. The responsibility for the realization can be different, and the ways how the idea will proceed to the final product depend usually from the formal leader.

“After the hackathon there was event where the project was internally presented. After that the team leader took the responsibility for the realization and I gave my ability for helping”

“Realization of the product will start from the department from which the formal leader is. I don’t think that the team from hackathon will do the development. We had the collaboration, but we understand that it is a different department and different project from what we are doing. It is possible to be included after in the realization.”
During the interviews the purpose and the importance of the Lab Camps has been explained. The main idea is to transmit the knowledge you have to the other employees in form of the teaching session, by improving yourself besides improving the others. Participants are free to apply, based on their readiness to show their expertise.

“The employees propose themselves as self-trainers on topic they were studying. Now it is rolling mechanism. We have a lot trainers and it is auto generated. When I do in the lab camps, I get the advantage so I propose myself as a trainer.”

“Employee proposes themselves as an expert. There is formal selection, and application is on the internal platform. The selection is based on the topics and on quality of the proposal. In many case we evaluate the previous feedback on this kind of activity.”

“The initiative is from me, but it is related with the direction the manager wants from me. It is connected to what we are doing for the project”

“It is possible because I have some targets to teach some hours for colleagues. And I have the expertise.”

The ideas for the hackathons are mainly coming from the proposed topics on the Lab Camps. This is not the weak connection; as all initiatives and ideas are coming from the employees that are up-to-date with the main future trends and that continuous learn about new applications or developing new skills.

“In this initiative we spot the topics. What are most followed. Topics for hackathons can come from Lab Camps. It is the opportunity to spot the high potential. “

There is another one, more commercialized, emergent practice that is used in the company. It is Xchange, the global conference that takes part in three cities where the Reply offices are – London, Munich and Milan. The purpose is to give the transparency to the good ideas and to promote some employees, to expand the professional network and to take part in the sessions in order to increase the knowledge capability. This is one of the main touchpoint between the company and employees.
“These are more conferences, and they are bigger. So more broadcasting than sharing. It is bottom up proposal of the topics, with the selection of the CEO. This is the good way to have a highlight if you are newcomer.”

“During the last Xchange, we had more than 50 sessions. This is good touch point for the company, to give the opportunity for everyone to participate. It is about creating opportunities and then measuring the opportunities, so who gets them. It is helping in creating the attitude. “

“We do it one in London, one in Munich and three days in Milan it is one for country. “

“Xchange and lab camps are open for everybody, from every country and you don’t have to ask for the permission. “

**REPLY STRUCTURED EMERGNET PRACTICE: LEARNING REMIX**

In light of future education and continuous learning, the learning remix is presented. It works like some kind of game that is having multiple benefits. In order to share their knowledge as much as possible, for the employees is created this type of the activity where they can learn, apply like a expert, transfer the knowledge to the others and earn the berries. The berries are not something monetary, but can be used in order to “pay” for monetary things, such as books, trainings, conferences, travels. If employee share the knowledge and gets positive feedback, that assure more berries. The berries will be used for the future knowledge generation and represent the opportunity to learn more. Benefits are multiples – on the one side, the knowledge is shared and employees are educating among each other, so the potential of the experts is used internally, at the fullest. On the other side, people by developing others gain the opportunity to develop further themselves without any additional payments.

“Learn share online, experiment, attends internal and external events, share, apply as a speaker. Share the knowledge and collect your berries. Next time when you want to expand your knowledge and go to the conference, pay it with your berries. Remix the knowledge with other colleagues and get more Reply berries. “
“They learn whenever they want, they introduce themselves as a speaker and they earn berries. If you get good feedback from the participants you can get the extra bonus, so more berries.”

“Form of reward is to get the opportunity to learn more.”

“You can use for everything you want. You can use it externally. It is open. You choose, books, conferences.”

5.3.2. DESTRUCTURED EMERGENT PRACTICES

Destructured emergent models for innovation generation are the ones that were born based on the initiative of the employees. They started from individual request or idea of some group of employees. Main motivation was to make a professional network and to do the updates across the world about new product, applications and practices. These practices exist in the company and can be used any time when it is needed inspiration, additional support by colleagues or just a team for the realization of some individual idea. On the other side, nobody is obliged for the participation, but some values that are developed through this kind of opportunities are highly appreciated in the company (such as networking). The destructured practices have only being found in the 3M company.

15% OF WORKING TIME CULTURE

Next practice, that created many new products in 3M company, is percentage of working time culture. For this type of the activity all of the employees can apply and inside of the 3M company it has a long tradition. The initiative came from the former president as he wanted to hear all of the good ideas of employees and to help them, by company resources, in the realization into the real applications on the market. As one of the interviewed employees explained:

“There is also the second process that is defined as a official program, but is more related to individual or small team of individuals, that is called 15% time culture. It was very long, it was launched many years ago, in ’50, I think. Former president, CEO of 3M, said that every employee can come up with an idea and so, if you have the good idea and you present it to your manger, you can take 15% of your using 3M capabilities to develop your own idea.”
In order to start this process it is needed to create some kind of presentation of the idea and first contact point is the supervisor or manager.

“You create sort of one pager of your idea. You collect your idea. You put official, very short presentation of one or two chart presentation of what you willing to do.”

Some of the main peculiarities of this practices are the volunteering participation of employees, diversified teams, structured from different department and possible remote way of working, as the employees doesn’t have to be in the same office in order to develop the idea. In some special cases, not only resources in form of time and access to the labs will be enabled, but also the sponsorship for the supply of the raw materials. Usually, new products or ideas are patented and while some are directly launched on the market, the other ones are waiting for the right moment and right needs. All in all, this is really structured process that is formal tool in the company for fostering creativity and innovative spirit. One of the employees described his own experience.

“I was part of 15% culture of time project back eight years ago, for new adhesives. With the colleagues from Germany. And this is something; again, really open you don’t need to be in the same office to take time for 15% cultural program. We were sitting together and we said: “Why we don’t try to do this?” and we had an idea, visiting the customer, of an improvement to make new adhesives. He was the chemist, I was more mechanical guy, so I put on the paper my idea of what is, how these adhesives should be in term of mechanical performances and he start asking his manager 15% of time, and he got approval. Sometimes you can even get an internal sponsorship up to 10.000 euro to develop, if you need to develop something new, buy row material or buy small equipment. He presents to his manager, he made some trials and he came up with the kind of new concept of adhesives. And after that, he presented patent request and he patent that process to create this feature into adhesives. So it was something. And for example, this is not on the market. Was then the business decision now own the technology, now we know how to do that we have in our driver and if one day 3M will try to invest on that kind of technology we have it there.”
Not only for the success of products and services, but also for the creation, the personal contribution is needed. The employees need to have the initiative and the idea, the courage to apply for this process and ask for the 15% of working time from the manager, to trust in the idea and to stand behind it and to be persistent in all of the phases and all of the stages where progress can get wrong.

“So, there is no way to say for me that from initially you go on by your own in 15% policy and then you go in the pipeline EMVA process, which is the schedule process in 3M. My perception, is that the impact of the personal initiatives while generating products and new application is really high.”

When it comes to measurement of the success of the project, officially there is no evidence about the number of ideas that are generated by this practice or how many of them have entered in the official, classical innovation process. Still, there are, in the form of legend, many stories about successful products created in this way, through the additional devotion, such as post-it, scotch tape...

“I don’t have any kind of metric. It is kind of feeling, rather than data driven. I think that level of the ability to convert 15% of time, for your own researches turn it into new and successful product, is high. Because, we don’t flag the project that started for single guy in the 15% time. But many of the products there are legends, post-it was generated.”

“And we have many different examples of products that are now on the market, that are developed with the 15% culture of time, and of course, you can find story of the post-it notes, scotch tape or on the other products, that became very famous brand. But we also have the products that are very strong in sales, with not that kind of strong brand position, that we generated on the 15% culture of time, of someone that is taking the time to develop something, not directly related to his own job but to fit 3M needs.”

EXPERT TEAM

Expert team is the example how some initiatives can start from the group of employees that are willing to develop themselves and others and get benefits from creation of the business network. The participants can be anyone that is from
technical department and is employee in 3M, worldwide. The participation is voluntary and the main aim is to do knowledge and information sharing.

“Which we called the Expert team, we have both in Europe and all over the world. The expert team is a group of application engineers or technical guys doing the same job in different countries. They meet on the monthly, six weeks base on the phone call and start sharing. It is not something mandatory, but it is something that is start from and individual idea, that you want to connect people around the world and around the Europe. And people are joined this kind of call because they want to create their own network and they want to share their own experience. In this way you start getting connection with other colleagues. Sometimes, we also have the opportunity to have those people meeting face to face, maybe once a year or once every 18 months.”

Also in the other practices, but especially in this, is highlighted the possibility to create own professional network. This is something that is helping in developing the employees, but also something that helps in growth of the company. The human resources are wide spread and these kinds of practices enable generation of the new ideas from the diversified resources.

“Of course, with this time in Europe we are growing, but the growth is not the growth of China or Asia, we cannot travel so much, but having the opportunity to meet face to face once a year is a really good opportunity to build your own network. And as it is in Italy that people joined 3M are quite stable in their role, we don’t have such a high turnover, so people maybe stay on the position for five to six to seven years, maybe growing on that position, they have time enough to build their own network.”

As it was mentioned above, the idea for creating this kind of activity came from employees that wanted to be constantly in touch with other colleagues, all around the world and that wanted to exchange information, updates and to cooperate together.

“Yeah, it was something started seven or eight years ago. We meet for new product launch meeting in Europe with all of the colleagues and during that time we said why wouldn’t we schedule a call once a month, just to share info we get from the lab, opportunities that we have, new application that we develop. And so it started.”
The participation is not mandatory, but there are also not a lot of the rules or structures inside of the Expert team. It seems that everything is organized on the base of mutual agreement.

“Someone take the lead and it is sort of rolling lead, once a year you are the chair person, that is only the person that scheduling the meeting and is opening the meeting with just a couple of minutes of presentation and it is taking the meeting minutes. But that everything is not forced, it is not based on your goal you are having during the year and this allows people to be free to attend this type of meeting. So they are not forced and they can really get the real benefit.”

GLOBAL MEETINGS

Of course, there are a lot of other activities that are initiated by the employees, and in which the participation is not mandatory. One of the practices mentioned is also the global meeting, where the mixed teams are gathered in order to share the perceptions and find a solution for some global business challenges.

“I was just back up two weeks in US where was the global meeting for one division that is industrial adhesive and tape and all the managers of the technical area of industrial adhesive and tape gathered for two weeks in US. One week dedicated to a program to build a program that want to innovate our way to approach the market and our way to collaborate on the global base with our application engineering team. So, sort of break the silos we have in every single country and try to build common culture of collaboration and sharing of information on the global base. And we spend one week of building the plans for this pivot and we now have time till the end of the year to implement the preliminary change and we want really to see this kind of global collaboration of our coworker in the future.”

Both, for classical innovation process and structured and destructured emergent practices, could we really interesting the rewarding system. Many companies are providing the prizes for the best ideas, but through the 3M case it is seen that prizes are based on tangible proof of performances. This means that all of the ideas are working in practice before they are applied for the competition. As it was said in the interviews:
“They get the price because of the rank, but there are all applied. The price is not given to the idea. It is price given to an action that you perform or are performed. You did it in the way that you can tangible proof that you did it.”

“And because of that I am saying that for researchers it is easy, they make the new box, yes, you can run for the prize. If you are application engineer, there is no box, but the logic is always same, tangible results as an effect of your activity, so you can apply for the prize.”

**CONNECTION ONE AND TWO**

Until now, two main research questions have been answered. First question was connected to the emergent practices. As it can be seen, from the part of this study, in the point 5.3., structured and destructured emergent practices can occur, that are having the influence on the classical innovation process that is explained in the point 5.2. Second one, whether the collective leadership is present in innovation process of the company or not, is answered in the chapter 5, point 5.1. Here, the existence of the multiple leaders, multiple behaviors and dynamics was proven.

In the next paragraph it will be shown the connection among the collective leadership and innovation practices, both emergent ones and classical ones. The role of the emergent into classical innovation process will also be discussed. With this finding it will be answered on the third research question.

**Connection one: What is the role of the emergent practices in the innovation process?**

In order to explain the second connection, firstly, connection between emergent innovation practices and classical innovation process, showed in the Figure 5.6. needed to be defined. As it could be understood from the interviews, in the 3M and Reply company, emergent practices are used as a kind of tool or starting point for starting up the classical innovation process. In the Reply case, it is mentioned that almost all of the innovation is coming from the emergent practices, while the classical innovation process is formally presented, but is not generating a lot of new ideas.
“There are communities of practice, they are the one that collect initiative and try to drive and execute it. There is chief technology officer that has sometimes initiative. But the most of the innovations come from this forms and events.”

“No one came but itself, without point or contact. The 90 % of initiatives are coming from hackathons and lab camps.”

(Reply case)

There are two paths for creation of innovation: first one is to go from the start with the classical innovation process, where, based on the market need, Hooper session is organized. After selection of most promising ideas, the development of the product or service will be realized in the six phases. After each stage there is a gate that has a role of the check point. Different teams are included through this process. Another one path is to start the innovation process from the emergent practices. The ideas that were created through the new, alternative ways will in the one moment enter in the formal process and follow the steps mentioned above.

**FIGURE 5. 7. CONNECTION BETWEEN EMERGENT INNOVATION AND CLASSICAL INNOVATION PROCESS**

Here it could be highlighted that alternative practices that are structured or distructured, as a main aim have connection of the employees. Starting from the assumption that emergent practices are for the small teams or individuals, that maybe don’t have a power for starting a formal process, this could be understood as an opportunity for all employees to participate and to contribute. The products
created should have different application, but again something that fit needs of the company. The connection is not so strongly proven through the interviews, but some statements could be cited:

“*When ideas comes from bottom line “*

“...have a possibility to share a lot of things and giving a lot of trainings, learning, having seminars, chatting with colleagues, sharing plans, best practices, that is one of the fostering mechanism, one of tools that company gives to employees to foster collaboration in the light of innovation.”

“There is also the second process that is defined as an official program, but is more related to individual or small team of individuals”

“*Former president, CEO of 3M said that every employee can come up with an idea and so if you have the good idea and you present it to your manager, you can take 15% of your using 3M capabilities to develop your own idea. “*

“...someone that is taking the time to develop something not directly related to his own job but to fit 3M needs.”

(3M case)

These emerging opportunities for all people with the ideas will have a double effect. It will strengthen the classical innovation process as the idea will be filtered, tested and selected. Beside this, inventors will be motivated to work more, with bigger passion and commitment which is something crucial for the success of the project. On the other side it will contribute in creation of the open and entrepreneurship culture, where participation is not mandatory, but where all good ideas are accepted and supported by company.

**Connection two: What is the role of the collective leadership in the emergent innovation practices?**

Now, when it is explained the connection between all possible ways to innovate inside of the company, both alternative, emergent ones and the classical, it is important to see how the collective leadership is used within. Connection, showed
graphically in the Figure 5.7., is not so transparent through the interviews, but some conclusions can be draw.

Collective leadership can influence innovation in two directions: firstly, on the formalized innovation process and secondly on the emergent practices. The collective leadership has its own role in each and every stage of classical innovative process. This importance and relationship was explained in one of the interviews:

“You cannot go to any kind of stage innovation or innovation process without any leadership addressing each issues, it is not the side process of innovation. You go in front whenever you get some insights about innovations. You need a leader. It is another spontaneous process it is not happening by chance it is happening because there is a leader, and there are different levels of leaders in different areas with different characteristics. In this characteristics are that you are able to play to win, there is not figure of renting.. For a leader the must is to foster the collaboration and teamwork. If you are not able to be an enabler of learn people working or peer people working, the connection with USA and Germany labs working, you are not the leader.”
Beside this, main principles of collective leadership are enablers for the disruptive ideas. The more the team structure is diverse and the more different are participants, related to culture, nationality, experience, education, knowledge, the better ideas will come up as an outcome.

“Having diverse team will help you in generate really disruptive idea that can go on the market. If you have an non diversity team you will not get the real benefit of that.”

(3M case)

“Put together different partners with different offering, and you try to find the best solution for the market.“

“This is design with the Reply heterogeneous structure. Teams are always more heterogeneous. The execution is what drives the same team through different phases; you have to be fluid on that.”

(Reply case)

In the case of the 3M company, is also explained that sometimes, it is better to group people and let them work on something not connected to the everyday job, because this opens the mind for ideas and generates something above the regular solutions.

“If you have the same people doing the same job it is different, it is difficult to get something that is completely new and you need to bring the culture of change. I will give you another example. Six years ago, we were developing; we were in a need of new adhesive for industrial market. Guess what. We never asked industrial adhesive division to develop that adhesive and for example, for the pivot experiment, we took people that were developing adhesive for the oral care division in 3M. Something that has nothing related to industrial market. And we asked those people, that were developing adhesive for teeth, to develop the adhesive for industrial application. And guess what? This product came to the market and it is really good product. Now we are selling it with really good results all over the world.”
“We wanted to make something that was disrupted and completely new. So the way to do that is to take someone that was not related to the standard market and we created this cross functional team that was able to generate something completely new.”

The switch of the leaders in the different phases of the innovation process, the multiple roles, is visible and extremely important as a proof for the connection two:

“So, for the idea generation you just put in the team people that are idea generation and then in the second phase, as soon as you have decided about the idea, you just give to the developer team with no influence from the outside the development phase. So you change leader for every phase. On the other side if you want more complete and robust projects that can highlight were project need to change in my opinion you have to have more diversity in the team.”

“And he needs to have the correct leader for every step that helps him in getting the result for the gate review, getting the correct information to pass a gate. And if something is wrong and you are pushed back in gate review, the project leader of the entire project will come back to the lab and start for example working with the lab leader to understand how to modify or how to bring the correct results for the next session of the gate review.”

Through the emerging forms it is normal to have multiple leaders, multiple behaviors and the dynamics. Sometimes, in order to realize the ideas, employees need to ask for the support to the other employees. 3M company appreciate researchers and is fostering collaboration in light of innovation. The importance of the expertise can be crucial for success of the emergent initiative.

“He was the chemist, I was more mechanical guy, so I put on the paper my idea of what is how this adhesives should be in term of mechanical performances and he start asking his manager 15% of time and he got approval.”

“Again this is a way we use to foster the innovation, because we love our technical people and scientists and we want to develop them in the way they deserve. The dual leader is one of the ways that is used to promote. “
“And we are fostering their creativity separately. We dedicate special attention to both of them, but they have to work together.”

Specific types of leadership behaviors can arise, with the special focus on delegation and coordination. Not only in the emergent practices, but also in the classical innovation process, structure of the team can differ and usually there are self-managed teams.

“There are self-managed teams there are peer group teams. About the leadership, which has too much to do with delegation, because you need at least situational leadership, in order to delegate. So we have a lot of situations in which my boss is my peer, or I am the leader in this situation where I have people bigger than me. Or my colleagues that are working in my team call me consultant or peer.”

It seems that because of the habit of being leader in different situations, and not connected to the hierarchy and official role make the emergent practices that are available in the company successful. In the next paragraphs it will be answered what is the role of the organizational and contextual factors in both of the collective leadership and innovation processes. The connections three and four will be explained in details.

5.4. ORGANIZATION AND CONTEXTUAL FACTORS

This study provided the insights about collective leadership and innovation in different cases, but also, an important aim was to see how organization functions and what are the contextual factors that can occur. As it was seen from the interviews, the contextual factors can influence on both of the leadership and innovations. Possible classification could be done by following categories:

- strategy - that explains company approach to the everyday business and activities in the long term;
- culture - that gather all the values, legends, rituals that one company develop during its history and share inside,
- leadership - that defines the way of leading people in the direction of company improvements and growth,
organizational structure - that can enable different forms of interactions and by that, different forms of innovation,

- resources and skills - that are mainly connected to the company possibility to provide all the necessary conditions for the cooperation of employees and achieving of the company goals and

- outside relationships with the partners, sponsors and the customers, that can be from the crucial importance for all of the processes mentioned above.

Such as contextual factors can be differently grouped, on the internal and external ones. Different cases bring different organizational factor that are influencing differently. Considering 3M case and the Reply case, the Figure 5.8. is valid.

More detailed about factors found in the interviews will be explained in the next paragraphs.

5.4.1. ORGANIZATIONAL STRUCTURE

Through the history of the company, it is can be notices that organizational structure changes over time. It can be transformed from one form to another, but this is not the easy-way process in the short term. Some companies need a years to adopt to the changes, and more importantly, to learn how to function and get all of
the benefits. Usually, the bigger is the company the stricter is organizational structure, with defined hierarchy, job role and all of the relationships. In the past years, this “rule” started to change, as now, companies are looking for the new ways of innovation.

In the case of 3M company, that is long-history company with around one hundreds thousands employees, hierarchy was found.

“Yes, it must be hierarchy. “

“Above me I have my MD, vice president and national executive and CEO. I am forth level after the CEO. And in this company the 3rd level is good. I have two levels below me, so lets tell we have six levels”

(3M case)

On the other side, even if not so young, Reply is having the structure of the network company that try to leverage on the resources of all members of the network and on small to middle size of the companies, because of the flexibility and agility. Company is compared to the living mechanism, made of network and cells.

“Network of the company is the network structure. Each company has medium small size. When they attempt to grow bigger we split them in the different companies, we keep the tension of small entities. Each company is having specific focus and has CEO, he is free to move. He is the one who hires people, find high potential. And has only few restraints by holding, typically on growth terms. Another one is on recruiting, you can recruit whoever you want, but he has to pass some standard level with HR and all of the people have to have same opportunities, connected to evaluation, participation on the event. Each company can work with other company, they leverage of being part of Reply. ”

“The claim of the Reply is living network. Idea is that the company is a living organism, so each cell each company grows. “

“This model requires a really strong leadership. It has a lot of advantage of agility and moving really fast in the same time. “
Additionally, as it was said in the 3M interview, there are six levels in hierarchy, but for the company this scale, it is not a huge number of the layers. So this brings another conclusion - that organizational structure is organized in the hierarchy, but by characteristics and leadership, really flat.

“Our organization is really flat.”

“Level of leadership in our pyramid that is really flat by the way”

(3M case)

The flat organization as a main characteristic has the almost absence of the middle management, so elimination of the levels between staff and executives. Unfortunately, from the interviews, the precise organizational structure in the case of 3M company cannot be identified.

On the other side, Reply company respects both the hierarchy and the fast changes through agile approach. As there is the special point in the company for the formal, single roles there is also the place for the experts, and they are equally appreciated.

“You still have the hierarchy even if you have to keep it agile and you still have key driving leadership and you still have to focus on the results rather than on the hierarchy. It is always the mater to be really flexible and respectful of the single role. Respect the boss, but also the expert”

(Reply case)

Additionally, 3M company is customer oriented. As the focus of their business are innovation that they create for the need of the customers. Whole process is starting from the identification of customer needs, while during the development of solution are possible consultation and small test with the isolated group of users on the market. In the end, company success depend on the market acceptance of the product and based on the feedback of end users, the improvements can be done.
“Our customer are asking for new products, there is no way to say we have the always the same thing.”

“Everything starts from the analysis of customer needs so people are visiting the customer”

“...While reading customer needs and bringing to the customer solution in customized way... Which are the real need of our customer and way how to use the solution.”

(3M case)

Contrary to this, Reply is oriented on the results and delivering of innovations, where in the focus are employees and their opportunity to grow on knowledge and have equal opportunities. In this company is more important to make satisfied the employees than the customers.

“We are managed by the objectives, so topic, results, and few constraints.”

“We have to be on hype of innovation, so when customer is asking for it, we are prepared. It is not easy. Each and every partner has to be aware of what he has to do. And it is strong mechanism of control and monitoring. “

“Customer participates, but the driver is not what the customer wants but it is what is interesting and valuable to do. We have the marketing that is working for the customer, focus on people you are working on people and the knowledge. So don’t make customer happy, but make people to know more.”

(Reply case)

An interesting finding was that 3M company is characterized by the employees as a boss less company. The ability of self-regeneration is needed. There are many stakeholders, but there is no major one. So it is important to develop self and others and take care of other colleagues.

“... Also develop others and yourself. That means that, in the logic of regenerating the organization, company is owned by nobody. This is the kind of public company, where there is no major stakeholder. We don’t have because we were generated that way,
biggest investor is really small in term of percentage, we are not owned by anybody relevant. There is no boss, organization has to be able to regenerate themselves at whatever level, so each leader in the company need to be able to keep its colleagues, take care of them and develop the talent that each colleague has.”

Shortly, the organizational structure can be explained in the case of 3M through few key words: hierarchical but flat, customer oriented, public and self-regenerated. On the other side, the mindset about the factors is different in the Reply company. It is not something that influence, but it is the reason why they do the activities on the way they are doing.

“It is not the influence it is the reason why we are doing this. We are doing all of this in order to have this culture. Since I am open and innovative and continuous learning company, how I make it happening. That is not the influence, that Is why I do it.”

(Reply case)

5.4.2. COMPANY VALUES

Through all of the interviews, many variables that are describing company values have been found. As it was said in the one interview, the company culture is defined through the core principles or values, such as: trust on people, transparency, delegation, mistake tolerance and teamwork and cooperation.

Special focus in the Reply company is dedicated to the speed of the change, the agility and explanation of company as a living organism.

“Overall culture is made of our founder principles that are made of transparency and good level of delegation, trust on people, and much worth in trusting in people. If you don’t trust to people you miss hundreds of the opportunities or suggestions by people.

Yes, maybe you also avoid some situation, but it much more pays whatever opportunities you gather with trusting in people, then delegating them, letting them make mistakes and tolerating, asking to do it again, do it differently, start again. That is the principle that is in the culture and is coming from our legacy. That is more than 100 years that we are moving that way. Cooperation, so working together, teamwork is for sure there. And the personal contribution and example of 15% free of time is that.”
(3M case)

“Excellence, innovation, speed, team, ethic, transparency, honesty. And the claim is designed from beginning. Bring innovation to customer. But it is not the point to write this down, but to show it with culture and by doing. The organization is like living organism, it is never just a cell, you cannot isolate. The system itself makes this work. If something is not working the whole system is sick.”

(Reply case)

These values are transparent to all of people inside of the company premises, but also to the all visitors. As it represent the base of the company or better to say pillars, on which whole company is based on, values are respected as a valuable from all people.

“I would say that values are base, the fundamental in 3M. It is coming from corporate and it is spread to the subsidiaries and countries, we have poster about that, post-it in every points in 3M. So it is really visible to every one of us.”

Different rituals, symbols and legend are present in the 3M case. First of all, legends and storytelling are part of the company culture and shared values.

“Let’s say that is kind of the legend, and we have so many of them. And it is again the part of the culture. The ability to tell ourselves the story of this company, first of all internally, because all of us, assistants, workers in the plants, managers, all of us are aware of some part of legends about the post-it.”

Here, one of the most famous legends is the legend about the post-it. As it was mentioned in the interview, stories are made in everyday situations, and they are, during the time, transferred into the legends. Then, through the storytelling, they are becoming history.

“But many of the products there are legends, post-it was generated. It was true, but it was legend. It happened that the guy was making mistake and then he discovered that this stupid glue, that was not glue, can have function. He was playing the violin and he uses it to mark the pages. This case is true, but become the legends. We do
have stories. Like for one of the most relevant guy, I see it without going away and going in legend, but looking in reality.”

The Reply case brings different perspective to the storytelling. Here, the storytelling is actually not something that is said, but something what company is doing. Through different activities, events, actions by company side, the employee will create the story that will transmit the values and the cultures in his everyday life. The main value of the company is to constantly enable the opportunities for the employees.

“It is way to tell to the Replier, you are Replier, you are working for the company, I take care that you have the same opportunity and you will leverage on the knowledge, you will have the benefit.”

“It takes few months when you enter in the Reply to realize how the things are happening. It is not saying we are Reply and describe us when somebody enters in the company, but it is just keep proposing opportunities that in the end gives you that vision.”

“It is the base of the culture. We do it before we tell it. If we tell, we don’t get any result. If we let you get the advantage of it, it is much more about, you don’t transmit the values by storytelling, you transmit them with daily life. Teaching by example, doing.”

“It is connected to open leadership. The department of social network is just the executive hand of the idea how to manage the company that include really strong leadership from the head.”

(Reply case)

In all of the interviews, the feeling of the proud was present. And it is not only verbally manifested but physically, through the innovation center and special book, made of stories of employees.

“Our legacy, tradition, myth, legend are part of our DNA and culture, that we transfer outside with proud.”
“...the innovation center is made of stories. These are stories (showing the book), which we put together in the 3M Italy internally, that cannot be shared, because of the confidentiality, but as it can be seen these are the stories about the program you seen.”

(3M case)

“The idea of belonging in big company. You work in specific environment with the special events, hackathon, booth camp, aperitivi. This is the feeling that you are in the big company about you are feeling really proud.”

(Reply case)

The innovation centre is the special area inside of the building where every small detail speaks the story of the 3M. It was build few years ago, and it gathers all of the products and all of the stories created in the company, during the time. Main aim of this innovation centre is to engage different actors that can be universities, partners, customers and employees, into the story of the 3M.

“We have customer innovation center, to talk about 3M, so customer from outside can come to 3M and have the idea of what we are and what we do and having the access to the customer innovation center where people can look at our products.”

The importance of right storytelling and innovation centre for 3M company was seen able through all of the interviews. Not all of the employees are able to get access to the innovation centre and to tell the story about the company and the products. The once that are selected, need to be trained in order to transfer the real messages of the innovation centre.

“But, honestly, in very particular way. Some years ago we build customer innovation center and then we ask ourselves, now everyone can go down and have the access with customers and explain about products. And we said no, for sure. Because technical can do it, salesman can do it, but me as a HR, I am not the expert of products. But, we don’t only have customer like commercial one, for us customer can be university or consultancy coming from outside.”
“Because we have decided to have this area, innovation center, allowed to the trained host or navigators for storytelling. So you have to go on training. Other ways your badge is not working and you cannot get the book.”

The peculiarity of 3M case is that a lot of attention is devoted to the story that will be told to the internal and external customers. The aim was not to tell about the products and their technical specifics but to narrate the interesting and attractive story that explains what 3M company really is. Because of this, all narrators need to be trained.

“So, for this point, me as HR needs to be in the position to talk you about 3M, but in really attractive, appealing way, because you are not interested in having technical details about products, but much more in who 3M is, how we deal with people, what is behind our product. We decide to go with storytelling ability, so we trained many employees coming from different department, we used consultancy for sure, because storytelling needs to follow specific technical aspect and we decided to train the people in order to have them explaining 3M as a story and not just the list of the company, products, and what we do and where we are. But where we born, about our foundation.”

“Have people really engaged in story of 3M and when we talk about our products, we talked using for example, how post-it was born or why we had a city a small one, showing how our products about energy interacts through themselves... It is built in sort of path, touching base on different, I don’t know how to explain in English. But we collect all of our products in the way that they can give you the feeling of our really force and why our product which are so technological, scientific are really applied to life. Because in the end, you know, our tag is 3M science applied to life and that is true. And that is why we use stories. And we don’t answer in really beginning about specific technical details about the products, because that can come at the later time, but very first approach is to tell about us, that we are sort of family, what we did, why we are doing this, why do we believe in this. Which is human approach.”

Connected to the company values, as it was found in the Reply case, it is not only important to have this somewhere written, but to see it through different activities
and by doing of the other employees. And other employees can feel these values in everyday work.

“The historical values in the company are presented in the actions basically. There were just the bullet point of the first slide, but then, it is not the bullet point. But you can feel these values and apply it in everyday life thanks to this events and projects. “

(Reply case)

5.4.3. COMPANY CULTURE

Strong supportive culture has been identified in the cases of the 3M and Reply company. Starting from the relationship with the employees that are based on transparency and mutual trust to the openness on the both sides – company that is ready to listen suggestions of the employees and employees that are free to propose to the company new ideas and way of working.

“So we are always open to hear the employee’s perspective, to listen, to new ideas, and we have this kind of culture.”

“And don’t be afraid to raise your hand and say: “Gentlemen, I think that this product in this stage will not bring the result we expect on the market, so let’s check if it is really what is needed”. And this is of course something that you can do either before the review or talking with your manager, so as soon as you have doubt about that. You can really have an open discussion. The point is that it is better to early kill the project, than spending time of people that are working on something that will never bring the results.”

(3M case)

“Some key words that describe our culture are innovation, teamwork, openness. You can see even by looking around and by walking. People are proactive. “

“The idea of the collective intelligence and open leadership, power given to the young one to the expert ones. “

“I am one year, but until now I learned a lot. From the technical side, but also for the human side. And I apply this culture in my daily life.“
“They could decide to keep everything closed, so everybody needs to do what they want, only to execute, but this brings no value. They decided to keep this open. To build the initiative to be the one who creates opportunities. We are executors, but everything that is done is because we wanted to do it this way. They put a lot of risk and freedom. The community is checking it by itself. Let’s have people telling what they want. And this brings the ideas.”

“I want to be open leader, to convince them that they are working in the right direction and I trust them. You have to have strong leadership attitude. There has to be freedom, trust to open up. Top management encourages to sharing and support economically.”

(Reply case)

Importance of the teamwork is stressed not only in one interview. It seems that the key words, beside the innovation are collaboration, teamwork and delegation. Working together is perceived as a better way of working that is more beneficial for the employees and for the company.

“So people, that work alone are not very well perceived in 3M, you can maybe get better results in very short term if you are good on roles, but in the long term, what is paying back is working in the good team in a good relation between your peers and your supervisor. This is the main culture we want to grow inside of our organization.”

“... One week dedicated to a program to build a program that want to innovate our way to approach the market and way to collaborate on the global base, with our application engineering team, so sort of break the silos we have in every single country and try to build common culture of collaboration and sharing of information on the global base.”

(3M case)

The individual contribution is highly supported by the company and it can be said that it is expected from all employees. What is specially requested is that all of the employees add ideas and challenge the way of working.
“Every time we have the workshop, meeting we really try to involve people, to be part of, and not only remain employee and come here to do their job and go to house in the evening, but really to apply your contribution, your personal contribute. We try really to involve people in every moment.”

“So, you have to do your work daily, but for sure not always you are what you are requested to do, without adding your ideas, without providing any kind of support.”

This open and supportive culture in the 3M is appreciated by the employees that try to contribute in strengthening it by their personal behavior. The feeling of being proud is present and the sense of the belonging is widely spread.

“But we do really believe in the values. People need to follow culture of respect of being part and being proud of staying in 3M and in Italy. In 3M. Not only in Italy. It is something that is global, something that we spread within the company.”

Especially in the Reply case it was mentioned the importance of the open leadership that supports the initiatives coming from employees. It is not an easy task to lead people that are having freedom to decide what and how to do the thing in the best way.

“It requires much stronger leadership in head than structure leadership. The commanding the army is easy, I give you the order you execute. Commanding the community where you explain which is your choice and where you have to involve people to work on the same goal requires stronger leadership.”

Further on, the culture of the never stop learning is widely accepted in Reply. Employees are aware that education is not stopping with the university and that they need to improve their knowledge on the daily base. The continuous learning is one point that was multiple times stressed, in order to show the importance of the knowledge and openness to the new findings. The sharing of the knowledge occurs on the voluntary base, without any of the reward or compensation; it is understood as a main requirement for growing. Employees need to respect the customers, but the flexibility in performing of the activities and suggesting alternative solution is highly appreciated.

“All of the asset is the knowledge and competences.”
“You have some knowledge in your head, but you never finish the education.”

“Our asset is the knowledge and knowledge is never done. As long as you are not studying for the one day, you are losing that part. We have to introduce the effective way of continues learning. It is not a matter to propose the big catalog of trainings, but working on the attitude. Explain that learning is the key object. If you keep learning your value grows and the value of the Reply grows. And it is a win-win situation. Keep posing, highlighting any kind of knowledge sharing.”

“Creating the culture of the continues learning, you don’t have to ask for the permission to learn.”

“The historical value of flexibility and focalization and culture meant as continues learning. So I am graduated and it is fine. No. It is continues learning. You never stop learning. Flexibility doesn’t mean you have to do everything customer asks. No. You have to serve the customer but to stay stable on the requirements or you find alternative solution. Flexibility with stability.”

“Collective knowledge sharing is not based on the money. You share because you will get the benefit out of it. It is voluntary based. You don’t do this in order to get the price, you do this because you believe in it, you like to share competence, you are part of the expert community and you want to show how good you are.”

(Reply case)

As it is usually situation with the multinational companies, such as 3M is working in the team is bringing diverse cultures and people with different mindsets, values and habits. The culture that 3M grows is the one where having differences is something valuable and that is bringing benefits on the global level.

“Because, as I mention before, my role is also at European level, so we usually put together not only Italian, high potential but we put together an Italian, Iberian, Greece. For example, we have the region that is called DAG because it is German, Austria and Switzerland. We put together different cultures, relate improving network for, but also the idea is to put together different cultures for different ideas. And that for us is really important. Because when you look at them working together is wow, so energetic.”
“We have so many different cultures in 3M and it is a real real advantage of bringing something new. Having people from different countries and from different cultures also open up your mind in understanding that some time you have to step a little bit back and listen more to the other people.”

“As soon as we were able to build up the team with all of those different culture and able to understand how your Chinese colleague is working or how your Korean colleague is working, than you start really generating something new. And you start really working in the team.”

Not only once, but multiple time it was highlighted way of working. Listen to the other people, be open for all proposes and changes, contribute and work together are just some characteristic of it. Special attention is dedicated to argument that with the control, command and force not a lot can be done and it will not bring anything good in the company.

“Let’s listen to everybody and we have to do the team work and let’s come to the decision all together and not force people in team.”

“...but that everything is not forced, it is not based on your goal you are having during the year and this allows people to be free to attend this type of meeting. So they are not forced and they can really get the real benefit.”

“And you know we could say that, we are the direction and the general direction that is a company and we obliged you to come. But it is not the way to provide. We really would like to involve people because they feel it supports their goals.”

(3M case)

One of maybe main characteristics, seen able in 3M case, is the networking. This aspect draw additional attention in all of the interviews and is recognized as one of the key points in the 3M company.

“... that networking and collaboration are key points in 3M.”

Building of own professional network seems to be a must in the company and it is highly appreciated for culture creation. It is performed with the main purpose of exchange of the information, knowledge and information.
“So we really want to understand if someone is building his culture in terms of working with his colleagues and it is able to build his own network inside 3M.”

“… so people maybe stay on the position for five to six to seven years, maybe growing on that position, they have time enough to build their own network.

Sometimes, the connection between the ability to create own network and the success in the job is directly drawn.

“So, people that are able to build their network, inside 3M Italy and inside 3M Europe and inside 3M global company, are people that can really better succeed.”

Also, from the company side, there are different activities that are organized in order to increase the capabilities for network creation. The creation of the network inside of the company is crucial, but trainings can be also organized in order to increase the value of the external networks and understanding of all of the benefits of networking.

“We tried to force people to build their own network and to expand their own network, not only as a local base, but as a global base.”

“So, we used to have one or two times a year official training with external consultant that allowed us to increase our network capabilities, that forced us to understand the real value of the network, that helped us in using the new tools. For example, not only internally, but also externally in using LinkedIn in correct and to understand real value of networking.”

Supportive proofs for the importance of the networking have been found also in the Replay company. Here, the focus was more on the enablers of the networking such as is the network of the experts that is establish on the companies and leveraging on the internal resources – knowledge and openness.

“All of this we can do thanks to the good developed network based on the expertise. Also our department is made as a mix of development, HR, marketing, internal communication and we want to connect the people with different expertise in order to share and increase the knowledge.”
In the next paragraphs will be presented the next two connections, where the main factors included are organization and organizational context. All of the interactions of these variables on the collective leadership and innovations will be explained in details.

**CONNECTION THREE AND FOUR**

With the part of the study, connected to the organization and contextual factors explained through the part 5.4., the answer on the fourth research question have been provided. Depending from case to case, different variables from can have a crucial importance for the innovation process and application of collective leadership.

**Connection three: What is the role of the organization and situational factors in the collective leadership?**

Firstly, the connection between organization and leadership has been drawn. In this study the investigation of collective leadership occurred, where multiple leaders, multiple behaviors and dynamic was analyzed. On the other side, there are factors from the organization or from the context that can influence these leadership variables one by one or whole process of collective leadership. In the Figure 5.9. it is shown graphically this connection.

![Diagram showing the role of the organization in collective leadership](C4)
The organization can differently influence the leadership in the organization. First of all, the fast changes are happening on which organization has to answer through the people and leadership. In order to overcome all of the challenges those are present on the market, organization need to be agile. Through the interview, in the case of 3M and Reply, this aspect was mentioned, specially connected to the leadership, job roles and agility:

“What I would like to suggest you is to define what we envisioning in terms of organization and leadership in the organization, that is exactly this. Agile in assigning roles, because technical roles are not so easily changeable and interchangeable, because there is an issue of other competences. It is difficult move this people.”

(3M case)

“We were designed in this structure, speed is important. I don’t want to become slow, I want to keep agile, my asset is my knowledge. And social network of people inside of company. That was the investment. Let’s keep people and knowledge to emerge.”

(Reply case)

The importance of the agility was mentioned connected to rapid changes and its effects on the planning and organizing activities:

“What agility means is that you know what is changing rapidly and now it is not really possible to say: “I have five years plan.” There is a possibility to define planning principle, but today is much more important to be agile, practicing immediately when things are changing. And this means also in organization, even in leadership.”

(3M case)
“As soon as project goes faster and faster, that has to do with the agile methodology, you cannot set the project to think in five years period, but you have to put it to work day by day. Speed and execution is becoming the king and you have to have the expertise to drive. You need to have the ones who know how to do it.”

(Reply case)

In the end, the connection of agility of organization with the formal and informal leaders, so multiple roles and hierarchy, is presented:

“It is becoming more and more relevant in the organization to define situation temporary leaders, project leaders, rather than managing directors and vice presidents. Of course we need these people because of core their responsibilities and there are things that only they can do, but it is much more relevant to have kind of leadership that is more related to projections and processes or situations. And these are really agile.”

General conclusion can be that, because of the existence of the agility in the organization, the collective leadership process can be differently structured, with different actors and it is valid to say that because of the agility in the collective leadership the innovation process can be done in the way it is done.

Not only agility is important in order to explain the relationship between organization and collective leadership. The leadership behaviors can shape the culture of the organization and how individual behave is strongly connected to the values that are shared inside of the company. In order to prove this, in the 3M case, statements were found:

“I think that in this point, and there is about five years that we are having leadership attributes and then behaviors, so it is long journey for sure. It is not something recognized immediately, but now I can say that people really understand the meaning of leadership behaviors. So it is something that entered in our culture.”

“Because you can show your courageous, your leadership, your way to grow on your professional day, through your personal behavior, which for sure needs to be aligned with the values of the company, but the freedom to have your really personal behavior.”
Beside this, the open culture, that appreciate individual participation and the personal contribution of all, is making people free and without the fear to express them. Special values seem to be diversity.

“Another thing, I didn’t mention before, but it is really part of our values, is diversity. And so, having the possibility to behave, every one of us, in the personal way can help to the growth of the company.”

(3M case)

“The goal is to get the common culture in the company. We appreciate the differences. We don’t want similar people. It is like a body. We have a hand; he has a foot, different aspect different roles, but we work well because we have both. We are able to walk and to grab something. We appreciate being different.”

(Reply case)

Connection four: What is the role of the organization and situational factors in the innovation processes?

It is obvious that, if there is a connection between leadership and organization, it will affect also the innovative activity. Company, through the supportive culture, supports the employees to organize the innovation process and provide ideas. The choice of the team structure, steps, timelines, is free and managers are there in order to help and give their expert advices or suggestions. In the Figure 5.10. this relationship in the framework will be graphically presented.
FIGURE 5. 11. ROLE OF ORGANIZATIONAL FACTORS IN THE INNOVATION PROCESS

Through the interviews were found statements in which the impacts of some organizational factors on the both, classical and emergent innovation process are shown.

“... you are asked to provide the ideas. Even if you are the last of this company, why not. We are all persons we are all people with ideas, so it is important to tell to the company something.”

(3M case)

“Especially for this kind of events, there is no hierarchy, no filters.”

(Reply case)

Beside this, the diversity is playing an important role, so different cultures, values that international employees are bringing into teamwork and innovation process can bring the different innovative practices and more valuable outcomes.
“...it depend what is the goal of the project. When we come talking about diversity in the team, build diverse team will bring you disruptive results...”

(3M case)

“Each single Replier, each single team is different one from the other one and we have to be adaptable to the customers. “

(Reply case)

Personal contribution is needed, not only in the emergent innovation process, where it is something expected, but also in the classical innovation process. Employees should not only do what they are asked by the job roles and job description, but should always challenge the way of working. Here, open relationship with the supervisor is from the great importance.

“If you think that you are only requested to do something, that probably you can do differently, because you have another idea, feel free to tell to your supervisor to demonstrate which is possible another way to proceed it. And this was really helpful for people because they felt the freedom to provide with their own contribution”

Agility also has an influence because of the challenges which company is facing in the dynamic external environment. The approach that the company is having is the one that promotes innovation.

“But what I want to highlight relevant for innovation process is the fact that we are called in our company especially in this period is to be agile.”

Additional to the all of the findings stated above, networking is playing a crucial role. It is an enabler of the emergent innovation practices and classical innovation process and it is a channel for employees to perform their collectivistic activities while working on the project.

“Connect people around the world and around the Europe and people enjoyed this kind of call because they want to create their own network and they want to share their own experience.”
“And for small subsidiaries like Italy, what is the key point is getting in contact and start working with your peers or with your colleagues somewhere else in the world where the main labs are.”

Main purpose of the networking activity is knowledge management, where different experiences, information and knowledges are shared among participants of the network with possible inclusion of the external participants. Almost all emergent practices can be understood as a network opportunity.

“We share the best practices, we do share megatrends, analysis, we normally we go also and try to understand if we invite the special guest from other functions of the companies and that from outside.”

“The expert team is a group of application engineers or technical guys doing the same job in different countries ... It is not something mandatory, but it is something that is start from and individual idea, that you want to connect people around the world and around the Europe and people are joined this kind of call because they want to create their own network and they want to share their own experience. In this way you start getting connection with other colleagues.”

CONCLUSION

In this chapter was answered, through the citation from the interviews, on the all four research questions. Firstly, the existence of the collective leadership was proven. The multiple leaders were identified with classification on formal and informal ones, the six official leadership behaviors were explained together with the evaluation process and the dynamics was analysed thanks to the changes of the employees’ behaviors and development activities.

Further on, classical innovation process was broken into the six stages, while for the each and every phase the main characteristics were highlighted. Special attention was dedicated to the emergent practices that were split into structured ones – organized by the company and destructured ones – where initiative came from the employees. Here, some first connections were presented. Connection one that showed the role of emergent practices in the classical innovation process and
connection two that highlighted the interplay of collective leadership and innovation practices.

Last, third part of this chapter as a topic covered the organizational factors that can influence on both previous mentioned variables. Here, it was discussed about hierarchy, organizational structure and company culture and values. In the cross analysis, some of the main connections about the impact of contextual factors on collective leadership and both emergent and classical innovation process were found.

In the next chapter, chapter number six, will be opened a discussion about main the similarities and differences between results from the qualitative research and theoretical findings from the chapters about literature review. The test of the framework, presented in the chapter three will be performed.
CHAPTER SIX: DISCUSSION

INTRODUCTION

In the previous chapters, firstly it was given the theoretical view of the innovation and collective leadership, with the special focus on the emergent practices. Then the research gaps from the literature were identified and presented in the Chapter three, while the methodology of multiple case studies was explained in the Chapter four. Two cases were chosen to be analyzed in the details in the results part. In both of the companies different insights were found that can give the answer to the research questions. The main aim of this Chapter is to highlight the similarities between the cases, and draw the general conclusions, based on the sample. The next one is to stress what companies are doing different compared one to another one and how it affects the results they are achieving. The last one aim is to prove if the situation found through the cases is supporting findings in the literature and specially to highlight what has been found new in the practice, that is still not investigated by the scholars.

The variables that will be explored, according to the assumption made in the Chapter three, are: the manifestation of the collective leadership, emergent innovation practices and the connection with the classical innovation process, the role of the collective leadership in the emergent innovation practices and the role of the organizational factors in both collective leadership and emergent practices.

The chapter outline will be the following one.

CHAPTER OUTLINE

6.1. Emergent innovation practices
   6.1.1. Structured emergent innovation practices
   6.1.2. Destructured emergent innovation practices
   6.1.3. Classical innovation process

6.2. Manifestation of the collective leadership
   6.2.1. Multiple leaders
6.2.2. Multiple behaviors

6.2.3. Dynamics

6.3. Interplay of the collective leadership in the emergent innovation practices

6.4. The role of the organizational factors

6.4.1. Organizational factors that supports collective leadership

6.4.2. Organizational factors that supports emergent innovation practices

6.5. Conclusion

6.1. EMERGENT INNOVATION PRACTICES

As it was mentioned in the book “The future of work: attract new talent, build better leaders and create a competitive organization” (Morgan J., 2014), innovation can come from the different sources. Innovators can have diverse characteristics, creating by that the different types of innovative outputs. Maybe the main classification used in order to explain from whom the innovation is coming from is presented by the Morgan. There are employee innovations, coming internally, based on the expertise of the employees and the synthesis of the different knowledge, customer innovation, where as a main idea creator is customer with his/her needs, partner or supplier innovation that comes up from the professional, business requirements in order to improve the business activities and lower down the costs, competition innovation that is motivating company to always create more and the public innovation, that was generated by the external audience and realized by the company. (Morgan J., 2014)

In order to see from whom the innovations are coming form, what is emergent in that area and how the new innovative practices that are influencing traditional innovation process, the first research question was formulated:

RQ1: Which emergent forms of innovation are present in the company and how they interact with the classical innovation process?
Even though some researchers pointed that group usually choose average ideas like a most creative ones (Nijstad B., Stroebe W., 2006) and that group generates less creative ideas than one individual (McGrath J., 1984), (Diehl M., Stroebe W., 1987) (Diehl M., Stroebe W., 1991) (Paulus P., Nijstad B., 2003), the other authors declare that there is an increasing number of the organization that rely on team creativity to boost innovation. (Miron-Spektor et al., 2012). This theoretical assumption of using the collective creativity was proven through the case studies, as the collective forms of the innovating, both in the 3M company and Reply were identified.

The collective forms of innovating are bringing a lot of benefits among which that the problem is understood from different perspectives (Koestler A., 1964) (Miron-Spektor E., Gino F., Argore L., 2011), knowledge is reorganized (Baughman W., Mumford M., 1995) and during the process novel problem is identified or constructed (Zhang X., Bartol K., 2010). They can be grouped as external ones, as the role of the co-creator usually have customers or partners, so subjects outside of the company (Mulgan G., Albury D., 2003) and internal ones, generated by employees inside of the companies.

As it was explained in the chapter four, for this study, the sample of the companies needed to fulfil two criteria's. Firstly, because of the qualitative type of the analysis and the organization of the interviews, the company need to operate on the territory of the Italy, but to also have offices around the world. The second criteria, more restrictive one, were that company needs to apply some type of the emergent model for generation of the innovation.

Based on the second criteria of the case selection, the 3M company and the Reply was choose. One of the most important emergent practise that is applied in the company is the 3M company is % of working time, while in the Reply, possibility to participate in the hackathons. As there were identified many other initiatives during the interviews, the decision was to split them in the structured ones – that are provided from the company to the employees as a tool, and the destructured ones that were born form the initiative of the employees. In the next paragraph the practices will be mentioned and shortly described, while for the deeply understanding it is referred to have a look at the chapter five, results.
Even though the focus was in identifying emergent innovation practices, the classical innovation process was also analysed as it can be directly influenced by alternative practices. The connection between classical innovation process and the new practices had to be analysed.

6.1.1. STRUCTURED EMERGENT INNOVATION PRACTICES

Through the literature there is not mentioned the formal classification of the structured and destructured emergent innovation practices, but some of them are mentioned and analysed by different authors. Main description of this practice is that ideas are coming from the bottom, from the regular employees that are not assigned to the task. (Kesting P, Ulhøi J.P., 2010)

In the case of 3M company a lot of the structured emergent innovation practices have been found. First of all the Technical forum, that gives employees an opportunity to exchange the knowledge, make a professional network or find a team for the realization of some own project. The next one is the circle of technical excellence, that is specialized for the technical people and it is in form of the competition. Employees apply for the participation alone or in the group and the commission is evaluating the projects and announce the prize winner. Carton society is the special community of highly appreciated experts, which are getting the prize in the form of the presence in the hall of fame for the technological achievement. For the technical people, the dual ladder is provided in order to insure that both the managerial and engineering roles have the same opportunity for professional grow and development. This enables technical people to reach managerial positions. In the end, the golden step award is given to the best project realized in the R&D, marketing and commercial area.

On the other side, in the Reply company, it was discussed about four main initiatives. First one is the hackathons that is representing the form of the contest, where the overall benefits connected to the knowledge, networking and learning are important and not the prize. On the topics proposed by the company, employees are applying with the project. Other employees can also participate as team members, where some of the main criteria, connected to the number of the countries, number of the companies and the skills in the team need to be
respected. Hackathons are usually organized outside of the company premises, on the interesting places, that give the opportunity to the employees to meet, share the experience and knowledge and have fun. The winner of the hackathon is announced by the jury or by the vote of the audience. The main motivation for the participation is personal development and expansion of the professional network. The second emergent practice is the lab camp. Lab camps give the opportunities to the people that have some knowledge to transmit it to the others. On this way, they are developing themselves, but also others. Employees are applying by themselves and proposing the topic that needs to be interesting, inspiring and presented on the high level of the expertise. Here, the employees are in the role of lecturer, and mainly the ideas for the hackathons are coming from these events. Xchange is the conference that gathers employees with the vision, expertise and willingness for the networking. The main purpose is to ensure the transparency of the ideas and to promote high potential employees. This activity is done globally. The last one, and maybe the most individual one, is the learning mix. This initiative is strictly connected to the company principle of continuous learning and sharing of the knowledge. Each employee has the possibility to share what s/he learned until now, and by sharing to ensure the resources for the future knowledge opportunities. The principle is to, with each and every session or lecture, the lecturer collect the berries, that can after be used in order to pay for some monetary things, such as conferences, seminars or books. This is the circle process, available to all.

From both of the companies, what is found about the internal innovation contest, whether in form of Technical forum, Hackathons is aligned with what is discussed in the theory. Of course, every of the initiative can be different one from the another one, and their structure change over time, but what is sure is that they are helping in generation of the new ideas, products and technology improvement scheme. (Yin Zhang, Ruoyu Lu, na) Also there are bringing benefits represented as diverse set of the solutions, lower costs and high efficiency. (Terwiesch C., Xu Yi, 2008)

Beside the structured practices, there are also the other ones, destructured that are born from the idea of the employees, based on the personal initiative. In the
case of the Reply company, these practices were not found, but in the next paragraph the destructured practices in the 3M company will be explained.

6.1.2. DESTRUCTURED EMERGENT INNOVATION PRACTICES

Main motivation for doing something beside the formalized, structured ways for innovating was the development of the professional network and gaining the additional knowledge. These practices were born from the initiative of the employees and there are not strict procedures or rules. Everybody can apply, but nobody is obliged to participate. As it was also mentioned in the theory, this enable the strong collective capacity to create and innovate and while working together, individuals strive to understand the talents through emotions of one other. This finding is also supported in the literature (Haskins et al., 1998). What was found in the 3M case is that people can work alone, but mainly in the team. The main principles are the collaboration and openness among employees, and this is coherent with the literature (Stewart A., 1989). Through these practices employees are sharing the similar roles and construct a new occupational identity and mobilize the resources to increase the status or “professionalize” the occupation. (Lonsbury M., 1998) Some forms of employee driven innovation and the collective entrepreneurship have been found in the 3M case.

First initiative is the 15 % of working time culture. If the employee is having the good idea, and if s/he wants to realize it, the company will support him by the resources in forms of time and the space. Many of the products were generated in this way. The trust and the openness need to exist between the employee and the manager, as the supervisor can use some contacts or knowledge that can develop more further the project. Further on, expert team is the initiative that started from application engineers that wanted to stay up-to-date with the colleagues about the main findings and applications. They decided to organize themselves in form of the team that will gather offline or online in some period of time in order to strengthen up the professional network, improve the knowledge and stay in touch with other colleagues. On the more global level there can be organized a global meeting, for the specific topic, where different job levels and role can participate.
What is specific for both structured and destructured practices in the 3M company is the rewarding system. Here is the emergent that not the idea is evaluated for the possible prize, but the project that already brings the results. In order to earn some prize, the tangible proof of the performance needs to be presented. This is something that is still not discussed in the literature. When it comes to the rewarding in the Reply company, the main prize is the knowledge earned, while the monetary prizes are not so motivational and appreciated.

6.1.3. CLASSICAL INNOVATION PROCESS

When it comes to the classical innovation process, through the literature there has been present a lot of different definition of the innovation and innovation processes. However, the one that has been found also in the case of the 3M is the Stage-gate model presented by in the literature by Robert R. Cooper (Cooper H., 1986) The innovation process was through the study defined as a classical innovation process, that, coherent with the theory, consists from six phases. This process starts from the needs coming from market, as the 3M is a customer oriented company. In order to transfer the needs of the customer into the functional requirements, the positon of the application manager is used. S/He is the mediator between the market and the engineers that will develop the final products. After the identification of the needs or interviewing the leading users, the official process of classical innovation is starting.

The first phase is the idea generation, where the Hooper session is performed. The main goal is to collect the initiatives and to cluster, evaluate and select the best ideas. Through this session a lot of the ideas will be generated, but only some of them will have the value to be developed. The next phase is the concept phase, where the preliminary solution is made. From this moment, support is needed from the people from the lab. In order to check if the concept is stable, the project enters in the feasibility phase and if everything is in the perfect condition it proceeds to the development phase. In this phase, special importance is given to the communication and coordination, as a multiple leaders can arise and the conflicts between the task and the leaders are possible. If project successfully finish this stage, and is ready for the next one, the final product is entering in the scaling up process, where transition from the lab to the plant occurs. After the set
of the test, the launching phase occurs and the product meets the customer on the market.

What is important to say for this innovation process is the existence of the gates or the check points after every stage. The special team of the 3M employees on the higher managerial position will be made in order to check if the project is ready to cross in the next stage. If not, additional work needs to be done and the project is returned in the previous phase. This characteristic was also explained through the literature (Cooper H., 1986). The main goal of the gate is to ensure the quality of execution, to evaluate business rationale and to approve the project plan and the resources, and also this is aligned with the theory. (Cooper H., 1986)

What is present in the literature, but was not found completely in the case of 3M company is one additional stages. Post-launch phase defined by Cooper (Cooper H., 1986) need to be present in order to review the additional activities on the market, such as support for the customers.

The Reply company is also having the classical innovation process, that was not described into the details during the interviews. The main finding is that the emergent practices that are happening in the company are generating almost all of the innovations. The company is having a trust in them, and invest a lot of the resources for their organization and the realization of different project of employees.

In order to completely provide the answer on the first research question, the connection between emergent innovation process and the classical innovation process need to be presented. As it was understood from the both cases, the emergent practices are kind of the tool or the starting point for the classical innovation process. Even in the case of the Reply, emergent practices completely substitute the classical innovation process. Companies are more trusting in the innovations generated by the employees that are leveraging on the internal knowledge and capabilities.

So the general conclusion is that emergent opportunities will have a double effect. Firstly, they will strengthen up the classical innovation process, as the ideas will be filtered, tested and selected. On the other side, it will help in generation of more
ideas, as the inventors will be more motivated to work, with bigger passion and commitment. The emergent practices are having one additional effect. These new ways for creation of the innovation will create an open and entrepreneurship culture, where participation is not mandatory, but all of the good ideas are recognized by the company, supported by company resources and have a huge potential to be realized. In order to group the entire conclusion, the statements can be defined.

1. **There are different types of emergent innovation practices. The general classification can be done on structured – provided by the company and destructured – created based on employees’ initiatives. The emergent practices are the starting point of the classical innovation process.**

6.2. **MANIFESTATION OF THE COLLECTIVE LEADERSHIP**

Another topic of this study was to discover in which form the collective leadership occurs in the innovation process and in with which characteristics. While choosing the case studies, the criterion was not some specific context in which company operates. Important was that the company is applying shared, distributed or collective form of leadership and that is transparent to observe it through the interviews. Through the gaps it was seen that the empirical evidence related to this topic are still lacking (Cullen-Lester K., Yammarino F., 2016) and that future works need to focus on the empirical testing and theory refinement (Yammarino F.J., Salas E., Serban A., Shirreffs K., Shuffler M.L., 2012) (Paunova M., 2015). Based on this gap, the second research question was posed:

**RQ 2: How collective leadership manifests itself in innovation process and how is it implemented in the company?**

As it was discussed in the literature, the collective leadership doesn’t represent the monopoly of the responsibilities of just one person. There is a need for more collective and systemic understanding of leadership (Barker R., 2001) (Hosking 1988). One of the main characteristics is that the responsibilities are shared (Hiller et all., 2006) and the exchange of the roles is happening often and unplanned (Seers A., Keller T., Wilkinson J.M., 2003). Team is perceived as a
network of leadership perceptions (Spillane J.P., 2006) in which individuals with their individual expertise, characteristic and skills contribute together to the goal of the collective.

What was found through the case studies is that the concept of “we” explained by the authors (Yammarino F.J., Salas E., Serban A., Shirreffs K., Shuffler M.L., 2012) exists, both in the 3M and in the Reply. The individuals are independent followers and they have expertise, autonomy and power to make decisions and they take the part in leading the group and themselves. These characteristics of the collective leadership has been found through the interviews in the different organizational levels - on the inter-individual level, team or group level, department level and organizational level, what makes the empirical results coherent with the theory.

Three structural aspects need to be fulfilled in order that collective leadership occurs in innovation process. First of all, concentration or the people that refers to the formal and informal leaders, than the multiplexity of collective leadership and the roles or the multiple behaviors and in the end, changes that are happening to the leaders and the roles during the time or dynamics. (Contractor N.S., DeChurch L.A., Carson J., Carter D.R., Keegan B., 2012)

6.2.1. MULTIPLE LEADERS

The multiple leaders, by the literature, can be explained through two aspects: centralization and density. (Mayo M.C., Meindl J.R., Pastor J.C., 2003) In the collective leadership is happening the high decentralization of the leadership responsibilities, as leader can be anybody. This aspect was highlighted in the both of the cases, where there was made a clear differentiation among the formal and informal leaders.

While the formal leaders are the ones that do the coordination, communication, delegation and mainly has governance role, the informal ones appears in the situation where the additional expertise is needed. In both 3M and the Reply case it was explained that, beside the formal leader, informal leaders are having a great importance as they bring additional knowledge and take the responsibility for the leading the part of the project in the different phases. This is coherent with the theory, as in the work of Friedrich, Griffith and Mumford (Friedrich T., Griffith J,
Mumford M., 2016) the formal leaders are setting the conditions for greater level of leadership and engage others in distributing of the leadership, and informal leaders are more experts that lead the team in the specific moment without formal recognized authority.

An interesting explanation of the informal leaders comes from the interview with the Reply company, where the informal leaders are the ones who are listened and appreciated by the others. This doesn’t mean that the formal ones are forgotten in the process, but they are complemental. The moment of the arising of the informal leader can differ, but it is depending on the readiness to cope with the situation and confidence related to the expertise.

The peculiarity found in the Reply case is that they divide the leadership in two forms. First one is the management leadership that is more connected to the formal activities of the leader, while the other one is the executive leadership that is based on the expertise. This is nothing more than different perspective of looking on the leadership that can differ and depends on the purpose.

6.2.2. MULTIPLE BEHAVIORS

Another aspect of the collective leadership is the existence of the multiple roles or behaviors. (Contractor N.S., DeChurch L.A., Carson J., Carter D.R., Keegan B., 2012) Each and every employee, based on the position, will have different kind of the behavior that will change over time. Through the interviews, leaders were mainly described through the actions that they need to do or the way how they have to behave. Some of the companies, like a 3M are having the formal list of the leadership behaviors that need to be respected and used in everyday job, but also in the daily life. On this list the behaviors are: foster collaboration and teamwork, prioritize and execute, develop self and others, act with the integrity and transparency, play to win and innovate. These behaviors, connected to the theory, can be linked to formal roles of support, problem solving, mentoring and planning and organizing, respectively. It means that the findings from the cases are coherent with the four dimensional typology presented by Hiller (Hiller et all., 2006) where he identified the planning and organizing, problem-solving, support and consideration and developing and mentoring role. As it was explained in the
research by Mumford (Mumford M. et al., 2002), there are four activities that leaders need to perform: intellectual stimulation of the followers, supporting for collective goals, involving and encouraging others to get involved in the innovation process and providing autonomy enough for follower, to create and this theoretical part is in the great amount supported in the 3M case.

Emergent thing found in the 3M case is the innovative behavior. The company is asking from the employees to bring innovative solutions in every action and this aspect is also equally evaluated with the other leadership behaviors. It was explained that the innovation part is so important, that from each and every employee it is expected to have some level of this behavior.

On the other side, Reply company doesn’t have the structured leadership behaviors that employees need to respect, but they are trying to build the attitude in the people to behave in the certain way. There is only the definition how the leader should be, with stressing the importance of the mentoring, supporting, organization and problem solving. The right leadership behavior is present in everyday job of all employees and it is rather learning by doing, that just communicating it verbally. Beside this, not all of the innovators are the leaders, and not all of the boss can be a leader.

All of these formal leadership behaviors presented in the both cases can be attached to the type of highly task-oriented leader, found in the theory. (Bales R., 1950) (Bales R., Slater P., 1955)

On the other side, there are some, informal leadership behaviors identified in the cases that are more connected to the social aspect and soft skills. As the authors explained (Bales R., 1950) (Bales R., Slater P. , 1955) this can be put under the influential leaders, the ones that are having the focus on the socio-emotional needs of the team. These leaders are reinforcing and grouping the behaviors inside of the team and build special relationships through the skills and trust. (Hollander E.P. , 1961)

In the both of the cases it was explained that informal leaders occur because of their personal characteristics, expertise and interest for others and common group goals. They are behaving in this way through the personal contribution and mix of
the capabilities. Special focus is dedicated to the collaboration and the team work leadership behaviors.

Even though in the 3M case the great importance was dedicated to the evaluation of the leadership behaviors through the formalized mechanism, the situation in the Reply is quite a different. 3M company measure all of the aspects of leadership behavior in order to see the spots for the future development and what the employees need to improve, while the Reply company consider this process quite a long and without the effects. While for the 3M company the leadership behaviors are important almost the same as the performance of the employees, Reply is more focus on the opportunities that can be generated, connected to the increasing of the expertise and sharing of the knowledge. These opportunities they are creating by different events such as hackathons and lab camps, where they also spot the high potential employees earlier. This alternative way is for the company more agile and is shorter, while the results are more effective.

6.2.3. DYNAMICS

The personal characteristics and the different life experiences can shape the employee’s leadership behavior. What is known is that it will change over the time and that it is something very dynamic. Through the literature, this was firstly recognized by the Pearce and Coner (Pearce C.L., Coner J.A., 2003), where it was usually explained as a change of the forms and role structure, during the time. Talking about the collective leadership, from the beginning was assumed that it is not static process, and that in the different point of time, different skills and expertise will be more appropriate. (Friedrich T., Vessey W., Schuelke M., Ruark G., Mumford M., 2009). This assumption was also proven through the both cases.

The dynamics also means that the leaders will change in the different stages of the innovative process. Each phase will bring the need for the different leaders and the expertise. (Tuckman B.W., 1965) This was also supported in the practice, through the 3M case, where it was showed that in the different stages of the classical innovative process the switch of the leaders is happening. In some stages, somebody will be more expertise to take the lead and then, after the realization of that part, the other leader will appear, that will be maybe more appropriate for the
other phase. The case of 3M is bringing a few examples of how this dynamics works in the real project. This switch can depend from the length and characteristic of the project, as it was shown in the case of the Reply.

The topic of the development and training is connected to dynamics, also. While in the 3M company, after the formal evaluation trainings are used in order to improve capabilities, the Reply case is not believing in the purpose of the training and they are trying to develop the attitude in the employees, something that is permanent, accepted and that is forcing people by themselves to invest in the continuous learning.

What can be understood as a common point for these two cases is that employees are having the freedom to choose the mentor and the topic they want to improve. In the 3M company it is something more formalized, that occurs through the development plan and different programs and trainings, while in the Reply company the concept of the open leadership is respected where the sharing of the knowledge is a must and the peer-to-peer learning is strongly supported.

Under the dynamics, but only in the 3M case, can be considered also the shift form the leadership attributes to the leadership behavior. This is something that happened over the time, and was changed in the company for a purpose, in order to ensure equal opportunities for all of the employees on all positions.

All previously mentioned lead to the general conclusion that the existence of the collective leadership is present in both the 3M and Reply company. The finding from the empirical analysis are coherent with the state of the art in the literature, that declares that the collective leadership involves multiple individuals that participate and divest themselves of leadership roles over time and by that create both formal and informal relationships. (Yammarino F.J., Salas E., Serban A., Shirreffs K., Shuffler M.L., 2012)

The manifestation of the collective form in the innovative activity is through the three aspects: multiple leaders where formal and informal leaders can occur with their characteristics; multiple behaviors, where employees either have formalized way how to behave or have developed attitude and in the end, the dynamics, that explains the change happening both in the structure of the leaders roles and the
leaders’ behaviors itself, during the time. Also this part is coherent with the theory that was presented by the researcher Contractor at all. (Contractor N.S., DeChurch L.A., Carson J., Carter D.R., Keegan B., 2012)

As the final conclusion the statements were formulated:

2. The collective leadership is present in innovation process. It manifests through the multiple leaders, multiple behaviors and the dynamics.

6.3. INTERPLAY OF THE COLLECTIVE LEADERSHIP IN EMERGENT INNOVATION PRACTICES

The role of collective leadership in the innovation process has been investigated until now. The connection between shared leadership and innovation behavior in the team has been proven. (Hoch J., 2013) A lot of authors were discussing about the positive benefits of using the collective leadership in the organization. Both in the 3M and Reply company is found that this type of leadership that appreciate the ideas of the employees, where the employees are having a freedom to propose their own ideas and realize them, create culture that support innovation activity. This culture ensures that employees are listened, the suggestions of the employees are accept and it relies on the internal knowledge, expertise and networks. This has benefits both for the company and for the individuals. The benefits found in the cases are overlapping with the one identified in the literature, as the collective and shared leadership improve the innovative team performances and bring competitive advantage to organization. (Carson at al., 2007)

As it was found in the case studies, the collective leadership can influence on the innovation in two directions – on the classical innovation process and on the emergent practices. The first influence was investigated until now, by the authors (Mei H., Wang J., 2013), but the role of the collective forms of leadership as shared or distributed in the emergent innovation practices, have still to be discovered. This represents one big gap found in the literature that this study wants to fulfil. As it was stated in one of the research papers, future work needs to be done connected to empirical testing and theory refinement, specially connected to the question of how collectives engage in leadership and innovation practices.
So, in order to see how the “we” leadership influence on the employee driven and bottom-up innovations, internal innovation contests, internal crowdsourcing or the collective entrepreneurship, the research question number three was defined:

**RQ 3: How collective leadership is used within emerging and traditional models of innovation in the company? What is the interplay?**

In the both of the cases, the more the structure of the team members is diverse, the more disruptive ideas will arise. The mix of different skills, knowledge and the experiences is needed. The more the team is multicultural and multinational, the better ideas will come up as an outcome. Especially in the Reply case it was mentioned that the company was designed in that way, to be heterogeneous. They are using every opportunity to mix people that don’t know each other from before and see what they will create together. On the other side, 3M company experiment with the teams, so some of the most innovative products were actually created by the departments that are not having any kind of touch point with the product. For this purposes also cross-functional teams are used.

Some of the main variables of the existence of collective leadership, such as dynamic is playing a big role in the emergent practices. As it was described in the 3M case, project can be started by the one, official project leader, but during the time, and through the different phases, the other informal leader will arise, based on their expertise. This is double side effect. On one side there is a dynamics and the change of the leadership behaviors and roles during the time, while on the other side, there are mutual leaders, both formal and informal. Main conclusion drawn from the both of the cases is that, the expertise is more important than any kind of hierarchy.

3M and Reply is a real example of the supportive cultures that invest a lot in the cooperation among the employees. Employees are encouraged to ask others for the suggestion or the help. Not so rare, the delegation of the leadership role will happen. Some leaders will be at the same time problem solver and coordinator, so
there are a multiple behaviors. Beside this, being supportive and listen to the other makes employee a real leader.

An important assumption, taken from the Reply case, that have the collective characteristic and is affecting the emergent innovation practices, is knowledge. As main principles in the company are attitude to continuous learning and open leadership in light of the knowledge sharing, the knowledge generated and spread in the collective will have a positive effect on the innovation outcome. This support findings from the literature where was stated that shared and collective leadership influence on innovation performances partially through the knowledge as a mediating role. (Mei H., Wang J., 2013)

All of the employees will have the equal opportunities for the knowledge and innovation. As it was mentioned in one of the Reply interviews: “The culture of the continuous learning means that employees don’t have to ask for the permission to learn.” And this culture together with knowledge sharing will influence on the collective form of leadership and then, bring the impact on the emergent innovation practices. In light of what previously was said, in the Reply company, the open leadership will support initiatives that are coming from employees. It will give the participants freedom to propose their ideas.

This relationship has not been investigated in the literature, so this represents a new finding. Based on the case studies and in order to provide the answer to the third research question, the main statements were formulated:

3. Collective leadership made up of the multiple leaders, multiple behaviors and dynamics is enabler of the emergent practices. The collective and open leadership support employees in order to express their ideas and create innovations in both classical and emergent innovation practices.

6.4. THE ROLE OF THE ORGANIZATIONAL FACTORS

Contextual factors can influence in the different phases of the creative or innovative process and depending on the organizational context and reaction of
the company, can bring to different results. Factors are usually influencing on the one part of the process, but the effect is after spread on the other processes.

Through the literature there is a clear split between the factors that can influence on the collective leadership and other ones that can influence on the innovation process. Supporting this, in the both case studies, this division has also been done. As each and every company is different, so are the factors that are influencing, especially taking in consideration the diverse contexts in which these two companies operate. It is important to mention that the 3M company is a technology company, that is bringing the technology, products and the solutions, while Reply is the knowledge company that provide the services to the wide spectre of the customers. But, even with this important distinction, there are many overlapping. It seems that the factors that are influencing are not connected to the context, or company activity, but are more connected to the final results, that are disruptive innovations. Both Reply and 3M are having supportive, open culture, more relaxed and flat organizational structures and principles and values in which they believe in.

In order to investigate what are the organizational factors that can influence collective leadership in the case studies, but also the emergent innovation practices, the fourth research question was formulated:

**RQ 4: What is the role of organizational practices in order to support collective leadership and emergent innovation practices?**

Based on the literature, the contextual factors are split into the ones that support collective leadership and the ones that support emergent innovation practices. On the other side, through the case studies were identified three main categories of the organizational and contextual factors: organizational structure, company values and company culture.

In the next paragraphs organizational factors will be explained, connected to the theory, compared between the cases and including both of the classification mentioned above.
First group of the factors identified through the case studies is the organizational structure. The insights from the 3M and Reply company are showing that the hierarchy is present, but the organization is mainly flat. The Reply company is organized in the form of the network of small companies and this is having a great benefits for all of the members. They can leverage on the knowledge and the expertise of the other companies that are belonging to the network, while on the other side they are using all of the potential of the small company in order to organize better and faster collectives and be more agile.

Additionally, 3M company is characterized as a boss less where the ability of the self-regeneration is needed. The development of self and others is mandatory in order to reach the collective level of the leadership. These and other factors such as knowledge sharing, collaboration, bottom-up, active encouragement and engagement, dynamic delegation and heterogeneous or multidisciplinary teams were also analysed through the literature in the group of the agency antecedents for collective and shared leadership (Ulhøi J., Müller S., 2014) so the findings from the cases are coherent with the literature.

Connected to the same paper and compared with the 3M case, the endogenous antecedent were found in both of the companies. (Ulhøi J., Müller S., 2014) Some of the main principles are trust in people, transparency, and delegation, toleration of the mistakes and teamwork and cooperation. In the case of the Reply company special kind of factors was found that is the speed of the change, because the company is considered as a living organism. Beside this, there is some overlapping with the 3M case in the innovation, excellence, teamwork, transparency, honesty.

When it comes to the symbols, rituals and storytelling both of the companies see it from the different perspective. For the 3M company it is a way to transfer the story of their success and products to the external clients and to show their shared values. For this purposes they are using the innovation centre and the stories of some most successful products, such as post-it. Differently to this, the Reply company doesn’t feel the need to tell their story to the external audience by telling. They want to show their values by doing, through the events and actions. The
storytelling is dedicated to the internal customers that are employees with the goal to create an attitude of every employee and insert the values of the company in the everyday life.

In the both of the cases the feeling of the proud and belonging is present. Employees align their life values with the values of the company and show them transparently.

When it comes to the company culture, strong supportive culture has been found in the both of the cases. The transparency and the mutual trust, openness and the personal contribution is something that is making collective leadership possible. As it was also discussed in the paper (Howella J., Boiesb K., 2004) the support of new ideas is helping in reaching variety of positive organizational outcomes.

As it was mentioned in the Reply case, the continuous learning is facilitator of the collective leadership. When employee possesses the knowledge or the expertise, and can provide benefits for the others, whole collective profits. Some of these aspects can be found explained in the literature, where it is stated that collective leadership is based on the knowledge, lifelong learning, commitment and values for care, compassion and inclusivity (House R.J., Hanges P.J., Javidan M., Dorfam P.W., Gupta V., 2004), so the empirical findings are aligned with the theory.

Connected to the structure of the team and the diversity, the more the team is diverse functional, the more will be stimulated creative behavior among members and it will increase team creativity. These assumption is also present in the literature by Peter (Peter et al., 2015).

The main variables of the collective leadership, the multiple roles and the dynamics were showed as facilitators of the cooperation. Also in the literature, the rotation of leadership role allowed all team members to feel responsibility for the team’s success that brought more suggestions from the team members side and the bigger level of the cooperation within the team. (Erez A., Le Pine J.A., Elms H., 2002)

In order to answer on the needs of employees and the market, the organization has to be agile. Agility is connected both with the leadership behaviors that need to
adopt fast and change over time, but also connected to the formal and informal leader and the multiple roles and hierarchy. Open culture and the individual participation helps people in expressing themselves. Diversity is highly appreciated.

Based on the all the previous mentioned, the final statements can be formulated, in order to give the answer on the first part of the research question number four:

4.1. Different contextual factors can influence on the collective leadership. Open and supportive culture, teamwork and cooperation together with the agility and diversity are some of the main ones.

6.4.2. ORGANIZATIONAL FACTORS THAT SUPPORT EMERGENT INNOVATION PRACTICES

One of the main organizational factors, found in the cases is the organizational structure that is almost flat. In the 3M company elimination of the middle level of the management happened, which brought the positive effect on the innovation generation. Now, the path of the innovation to start from the employee and come to the top management is shorter and not so formalized. Also the possible gap between the job roles or misunderstanding among different hierarchy levels has been lower.

In order to answer on the constant changes and to fulfil the innovation needs fast, in the Reply company, the agility approach together with the hierarchy is used. As it was said in the interview, these factors are not influencing the innovation process, but they are reason why they are doing the innovation on the way they are doing it.

When talking about the orientation, 3M company is the customer oriented that search for the needs of the customers on the market and try to fulfil this needs with the biggest level of satisfaction. Contrary to this, Reply cares more about internal resources and equal knowledge opportunities for all employees. The main focus is to find the way how to make employees happy and more educated, while the fulfilling of the needs of the customer is task of the marketing and it is in the background.
Company culture and the climate is one of the most important factors for the generation of the innovation. In both of the cases, the culture is open for the suggestions of the employees, supportive and encouraging. This finding is coherent with the findings in the literature, where the organizational climate that support and enable the creative thinking of the employees (Amabile T., 1998), but also major organizational dimensions under which are behaviors and characteristics that inhibit creativity in a work environment (Andriopoulos C., 2001) are crucial for innovation creation.

Not only once it was mentioned that the company is always open to hear employees’ perspective, that is ready for the new ideas and that is accepting critics and appreciate suggestions for the improvements. Employees are free to tell what they are missing, which changes they want to make, or what is the alternative or different way, so how they want to do some things. Both of the companies are ready to tolerate mistakes and force people to experiment and do additional mistakes with the purpose of learning. Also through the literature it was shown that factors of organizational climate have a positive effect on creativity, innovation and change are: challenge and involvement, freedom, trust/openness, debate, idea time, playfulness/humour, idea support, risk taking while other ones such as conflict is negatively correlated (Ekvall et al., 2000).

Especially in the Reply case, the importance of the continuous learning was stressed. Employees are aware of the benefits of learning, and that if they are not learning they will be behind and will not fit to the environment. Because of that the attitude of the nonstop learning is tried to be developed in all of the employees, with the purpose to gather the new knowledge. What was showed through the cases was also found in the literature, and that is that the recombination of the new knowledge with the current one is bringing more success in the innovating. (Tusman M., O'Reilly C., 1996) (Katila R., Ahuja G. , 2002); (March J.G., 1991) (Siggelkow N., Rivkin J.W. , 2005). This topic, together with the importance of the development, feedback, learning culture and implementation of routines was analysed in the research also by Jacobs and Snijders. (Jacobs D., Snijders H., 2008)

The diversity is one of the most important characteristics of the team that is needed for the disruptive innovations. Both in Reply and in the 3M, the
heterogeneous structure of the team, mix of the nationalities, cultures, experiences and multiple job roles and expertise are causing as a positive impact. The aspect of skills, resources, organizational methods, leadership and culture for the innovation has also been investigated in the literature (Mulgan G., Albury D., 2003).

Importance of having leader's support and it direct link on creative endeavours, is presented in few research papers (Mumfrod M., Scott G., Gaddis B., Strange J., 2002) (Ambaile T., 1996), but also identified in the Reply and the 3M case. Beside its formal behaviors, leader has to have the soft side, where he is giving the support to the employee, follow his/her work, and motivates him/her in the realization and accomplishment of the goals. In order to create the knowledge, creativity and innovation, company should be open to change, encourage and value free communication and new and/or unusual ideas, tolerate mistake and grow motivated staff. Leaders need to promote these characteristics as shared values and in parallel to challenge and empower the staff to generate new ideas. (Auernhammer J., Hall H., 2014) Here the linkage between empirical results and theory has been established.

Sometimes, in order to motivate more employees in light of creating the innovation, supervisor will use some of the aspects such as challenges, freedom, and encouragement. These aspects can also be found in the literature (Amabile T., 1998), and the findings in the case studies are coherent with the findings in the literature.

The last one aspect, found in the both of the cases is the networking. There is a huge importance given by the company to the ability of creating own professional network and developing individual knowledge through the exchange of the experience with the other colleagues. Many of the activities can be provided by the company, but employees should strive to find their own way to develop self and other in this aspect.

In order to give the general answer on the second part of the research question number four, taking in consideration that this topic is not so good investigated in the literature, the next statements are formulated:
4.2. Different contextual factors can influence on the emergent innovation practices. Company culture and climate, continuous learning, diversity, agility and the networking are some of the main ones.

6.5. CONCLUSION

Chapter six brought the final discussion about the things that are found in the literature and through the cases. Also, the comparison between two cases is performed. The main aim was to, by using the framework and the main findings, try to answer on the research questions presented in the chapter three. Some of the main findings are:

- There are different types of emergent innovation practices. The general classification can be done on structured – provided by the company and destructured – created based on employees’ initiatives. The emergent practices are the starting point of the classical innovation process.
- The collective leadership is present in innovation process. It manifests through the multiple leaders, multiple behaviors and the dynamics.
- Collective leadership made up of the multiple leaders, multiple behaviors and dynamics is enabler of the emergent practices. The collective and open leadership support employees in order to express their ideas and create innovations in both classical and emergent innovation practices.
- Different contextual factors can influence on the collective leadership. Open and supportive culture, teamwork and cooperation together with the agility and diversity are some of the main ones.
- Different contextual factors can influence on the emergent innovation practices. Company culture and climate, continuous learning, diversity, agility and the networking are some of the main ones.

The next, last one chapter – the conclusion will bring main remarks and the overview of the study.

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CHAPTER SEVEN: CONCLUSION

INTRODUCTION

In order to conclude, the last chapter, the conclusion was formulated. The purpose is to summarize the importance of the results found in the cases of 3M and Reply company for the field of collective leadership and innovation management. Besides this, possible managerial implications will be highlighted in order to support the management in the collectively leading people in emergent innovation practices. The limitations will be described in details and the suggestions for the future research will be proposed.

The chapter online is the following one.

CHAPTER OUTLINE

7.1. Contribution of the study to the fields of the collective leadership and innovation management

7.2. Managerial implications

7.3. Limitations and directions for future research

7.1. CONTRIBUTION OF THE STUDY TO THE FIELDS OF THE COLLECTIVE LEADERSHIP AND INNOVATION MANAGEMENT

There are different finding that came up from this research study. There are the number of the noteworthy conclusions that are adding value to the fields of the leadership and innovations with the special focus on the collective leadership in the innovation process and emergent innovation practices.

Talking about the leadership field, some practical findings confirm assumptions already existing in the literature connected to the collective leadership. First of all the main variables for the existence of the collective leadership in the innovation process are also found in the case studies. In order to collective leadership occur,
by the theory, the multiple leaders, multiple behaviors and dynamic need to be present (Contractor N.S., DeChurch L.A., Carson J., Carter D.R., Keegan B., 2012). What was found through the case studies is that variable of multiple leader is respected through the formal and informal leaders, where informal leaders are usually not formally announces, but are recognized because of their expertise. In both case studies, multiple leadership behaviors are defined. In the 3M on the more structured and formalized way, through the six leadership behaviors, while in the Reply company on more desctructured and informal way, through continuous learning attitude. In the end, about the dynamics, as it was stated in the literature, leaders can arise from the different situations and can change their roles and the behaviors during the time and depending on the project characteristics (Pearce C.L., Coner J.A., 2003). This aspect is also found in both of the case studies. Beside this, the need for the different skills, knowledges and experience is stressed, both through the literature and in the companies.

On the other side there are also the additional findings, still not supported in the literature. First of all connected to formal and informal leaders, in the Reply company, management leadership and executive leadership is identified, respectively. Even though they are describing leadership in the same sense, this type of formulation does still not exist in the literature. Talking about the leadership behaviors, besides innovative leadership behavior, an interesting point has been found on the side of the evaluation. 3M company evaluate employees on their leadership behaviors and it takes almost the same importance as the evaluation of the employee' working performances. On the other side, Reply does not believe in evaluation and trainings and use alternative ways such as hackathons to spot the high potential employees. 3M case explain the development process as a structured, where there is a freedom to choose to topic and the mentor, while in the Reply case, development activities are not something that is given on the request, but employees need to do continuous development through continuous learning and sharing of the knowledge.

This research study brings a lot of emergent findings in the field of innovation management. The classical innovation process was identified in the 3M company and is same as the one explained in the literature by Cooper (Cooper H., 1986). It
consists of six defined stages, with the gate after the each and every stage. It is a classical Stage-gate model used in the literature until now. On the side of the emergent practices, a lot of new and interesting initiatives have been found. Some of them are described in the literature such as hackathon or employee driven innovation, internal crowdsourcing and internal entrepreneurship. What is emergent for the practices identified in the case studies is the different structures and characteristics they can have. Even though the division on the structured and destructured emergent innovation practices is not made in the literature, this was helpful in the case studies in order to understand more in deep the peculiarities and the process. In the 3M company, both structured and destructured practices have been identified in the great amount, while in the case of Reply, only structured. More about them can be read in the chapter one – about the innovation, chapter five – about the results and chapter six – about the discussion. Additional statement found in the Reply case is that emergent practices are tool for the classical innovation process, and that almost all innovations are coming from employees, through these practices.

In the end, as in the literature, organizational factors were split on the ones that can influence collective leadership and others that influence emergent innovation practices. Usually, the factors connected to the leadership has already been investigated through the literature, such as teamwork, collaboration, active encouragement, engagement, knowledge sharing, bottom-up, trust in people, transparency, delegation, cooperation (Ulhøi J., Müller S., 2014). The strongly open and supportive culture and shared values (Howella J., Boiesb K., 2004) were also confirmed through the case studies. Specially in the Reply case, the continuous learning and knowledge sharing was stressed. A lot about this can be found in the literature, also. (Howella J., Boiesb K., 2004) Of course more diversity, agility and freedom was important, both for the collective leadership and emergent practices.

Some of the factors that are found in the case studies, as a main facilitator of the emergent innovation activities are organizational structure, agility, company culture and organizational climate that has already been investigated in the literature (Amabile T., 1998) as well as trust, freedom and idea support (Ekvall et al., 2000). Especially in the Reply company, the aspect of the knowledge and
continuous learning was mentioned, but this aspect is in the literature only connected to the classical innovation process. (Tusman M., O'Reilly C., 1996) (Katila R., Ahuja G., 2002); (March J.G., 1991) (Siggelkow N., Rivkin J.W., 2005). Maybe the most important one is connected to open leadership and supportive leaders that was found as an crucial in the cases, but also through the literature. (Mumfrod M., Scott G., Gaddis B., Strange J., 2002) Lastly, one organizational aspect was highlighted in the both of the cases, but not a lot about it was found through the literature. It is the value of the networking for the sharing of the knowledge; expanding of the professional connections and enlarging own professional capabilities.

Finally, a big contribution has been given through the answering on the research questions. There was a need for a more empirical testing and theory refinement specially connected to the how collectives engage in leadership and innovation practices (Yammarino F.J., Salas E., Serban A., Shirreffs K., Shuffler M.L., 2012) (Paunova M., 2015). This study, through the qualitative method and interviews, provided the detailed descriptions of the processes, connections and outcomes, and this will not be possible through the other methods such as surveys.

Important is that all of the findings can serve for the other companies and other business contexts as a startingpoint or for the comparison.

7.2. MANAGERIAL IMPLICATIONS

This thesis brings also some managerial implications connected to leadership approach in the innovation activity and the attitude connected to the emergent practices.

Firstly, formal leaders have to be aware of the importance of the expertise while working in the team, and have to create the culture of the collaboration and teamwork. The informal leaders need to be listened by others, because they are adding the value by their knowledge and characteristics. Additionally, formal leaders need to recognize the informal ones and give them ability to contribute, through responsibility delegation.
The open culture need to be present in order that the spirit of collective leadership lives. People have to use their personal values in order to gain even more values, and they have to be motivated by the opportunities for extra knowledge and the experience and not by money and prizes.

In order to answer to the all of the changes and dynamic that is happening on the market, company, team and personal level, the fast reaction is need, so the agility principles will be used. Hierarchy doesn’t mean a lot, and sometimes is slows down the process and the organization. The more flat organizational structure is needed and more informal relationships and points of contacts.

The more the team is diverse; the better will be innovation outcomes as there will be possibility to see the project from the different perspectives. Challenge employees by mixing the team, rotating the job roles and giving to work on something that is not in their area of expertise. The disruptive ideas will come from the heterogeneous resources.

Company need to support every emergent innovation practice and the initiatives of employees. If one of the initiatives is working and bringing the satisfaction to the employees, it will motivate others to open up and to bring their suggestions and propositions. Use the emergent innovation practices as a starting point for the classical innovation process. It will bring more ideas based on the freedom and diversity and strengthen up the classical innovation process. Don’t do the storytelling only to impress the external audience. Try to transmit the culture by doing and educate the employees to develop their own attitude, but still to be aligned with the company values.

Additionally, motivate people to constantly learn and share the knowledge. The expertise that they have can be multiply if it is exchanged with some other one. Training doesn’t have to be only formally organized. Employees need to use every opportunity to catch new things and expand their interests.

The value of the networking is huge. Networking is bringing the additional value to the employees, but also to the company. Company can only grow through their employees. Customers are important, but the development of the internal resources is first on the prioritization list.
Finally, there is not the right style to lead people. Employees are different, and their behavior change over time. Meeting the employees on the personal level and listening to them will bring the right approach how to lead them. Employee need to respect leader not because of the formal role and position, but because of his/her expertise, skills, professional capabilities and the personal characteristics. Main motivators for the employees are knowledge, opportunities and networking. If they are used together with the work they will bring mutual benefits, both to the company and to the employees.

7.3. LIMITATIONS AND DIRECTIONS FOR THE FUTURE RESEARCH

This thesis was not investigated in some specific context. So the limitation can be too wide choice of the companies, and two narrow sample, because the companies were chosen based only on the two criteria. The two case studies are coming from the different industries, with different products and orientations and this can limit the results. The generalization cannot be made, as only one company per each industry was chosen. What can be the topic of the future research is to see, how the collective leadership and emergent innovation practices are interconnected in the one specific business area and what are the difference in the approaches, taking in consideration the same business conditions and influential organizational factors.

Another one limitation can be the number of the cases provided in the study. Even though it can be understood that two companies can be not so strong empirical evidence of the existence, what has to be taken in consideration is the methodology and the quality of the analysis. First of all, the qualitative methodology of the interviews enable to investigate the multiple case studies in deep, going into the details, so the level of the peculiarities is really high. Additionally, in each of the case study more than one employee was interviewed. In the 3M company three while in the Reply company seven people. This provides the heterogeneous of the perspectives, especially taking in consideration the fact that employees interviewed are from different hierarchy levels, different positions, experience and working stage in the company. The future research can be more focused on the longitudinal analysis and better, more formalized selection of the people interviewed.
Third limitation is connected to the theory, as not all of the concepts investigated in the literature are taken in consideration. Beside this, because of the novelty of the emergent innovation practices topic, some of the researches can arise in the process of writing the thesis. The suggestion here can be to explore more frequently the new studies and to include also some other topic that can be connected in some way. One of the difficulties was in the definition of the terms used in order to explain these practices. Special attention in the future researchers needs to be put on the concept of the practice rather than on the formal name and definition.

And lastly, additional further research activities need to be done in order to follow what is happened after the application of the emergent innovation practices or to see what are the outcomes and effect that occur in the future. Here is mainly thought on the observation of the some emergent practices and providing surveys after the process in order to catch the feedbacks of the participants. Also, these practices should be followed in the longer period of time in order to spot what are the long term effects on the company and employees.

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