The Emotional Side of Innovation

The Role of Leader’s Emotional Intelligence in influencing Innovation Implementation

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Abstract

Today’s organizations struggle to remain competitive within the contemporary turbulent business environment and are therefore demanded to develop and implement new working processes. Organizations, although striving for innovation, frequently fail to fully benefit from them due to implementation failures. An often-disregarded issue is the entanglement of emotions during this phase. Thus, this thesis aims to investigate how innovation implementation is related to emotions, addressing it towards the team’s working climate and leader’s emotional intelligence. For this purpose, we employ a conceptual research approach to build an integrated conceptual model that, by proposing hypotheses and propositions, may serve as a starting point for future empirical studies. With this model, we suggest that leaders with higher levels of emotional intelligence, by the mindful management of emotions, can consciously influence the emotional contagion process and therefore affect the team climate. By establishing a climate for innovation characterized by a team vision, participative safety, task orientation and support for innovation, emotionally intelligent leaders can thus positively influence innovation implementation. The thesis does thereby contribute to an understanding of the factors that affect innovation implementation within teams.

Keywords

team, innovation, innovation implementation, team climate, emotional contagion, emotions, emotional intelligence
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1 Introduction

1.1 Background

Nowadays, organizations are currently witnessing the fourth industrial revolution initiated by scientific discovery and disruptive technological advances that shape and dramatically transform economy, society, and industries. New forms of machine intelligence, breakthrough materials, and growing influence of digitalization on economies have enormous potential to improve the efficiency of business and organizations, but at the same time may bring great peril for organizations if they fail to adapt to these shifts (Schwab, 2016). Against the background of an increasingly changing, turbulent environment with increasing international competition and shifting market conditions, organizations’ innovation becomes increasingly important. The continual development and application of novel, improved products, procedures, and ways of working (West, 2002) has become an important factor to gain a competitive advantage in today’s markets and it is thus crucial to remain viable within the contemporary global business environment (Amabile, 1998; Tidd, Bessant & Pavitt, 2006). That said, if organizations want to remain competitive and ensure their long-term sustainability, investing in innovation becomes a duty (Khalili, 2016).

1.2 Problem Discussion

Although the considerable resources organizations invest in innovation, many organizations fail to achieve the expected benefits of the introduced innovations (Klein & Sorra, 1996). Thus, if on the one hand there is an urgent need for organizations to innovate, on the other hand they face issues to benefit from them. This problem lays the foundation for shedding light on the causes that limit organizations to take full advantage of innovation.

In order to reach innovations’ benefits, organizations have to successfully address both stages of the innovation process: creativity and implementation. Creativity refers to the generation and suggestions of ideas, in particular new products, processes or ways of working that are novel and potentially beneficial to the prevalent workplace (Amabile et al., 1996; Scott & Bruce, 1994). Achieving the potential benefits of these ideas, as for instance higher efficiency through improved novel working procedures, subsequently requires the second stage of the innovation process: innovation implementation. This phase refers to the process of transferring the initial ideas and suggestions into practice, and thereby the transition to a consistent, skillful and committed use of introduced changes as a routine (Klein & Sorra, 1996). Throughout this stage,
employees adopt and integrate the new ideas in their day-to-day work (e.g., De Dreu & West, 2001; Hülsheger, Anderson & Salgado, 2009).

Both creativity and implementation are necessary parts of innovation. Yet, excelling in idea generation is not sufficient for being innovative, since it neither automatically leads to valuable benefits nor provides organizational advantages. It, therefore, needs effective and successful implementation. Only when the introduced ideas are accepted and consistently used by the involved employees, organizations achieve the expected benefits. As Amabile et al. (1996) proposed: “(a)ll innovation begins with creative ideas” (p. 1154), creativity is indeed a necessary part, though not sufficient. Innovation needs the transition of the novel ideas beyond its initial stage through successful implementation.

Implementation of innovations regularly involves more than a single individual as, in order to reach a successful implementation, the involved persons have to collectively accept and use the introduced novelty. Therefore, the team members’ collective engagement is more crucial than single individuals’ committed use (Choi & Chang, 2009). Consequently, these socio-interactive dynamics between individuals make innovation implementation assuming a team level perspective (Van de Ven, 1986). To create a consistent level of analysis, we focus on a specific form of introduced ideas: process innovations as “new production methods, new management approaches, and new technology that can be used to improve production and management processes” (Wang & Ahmed, 2004, p. 305).

The problem is that implementation of process innovations is reasonably not an easy issue. Various cases can exemplify why implementation can not be treated lightly. When new production methods are introduced to increase the productivity, when new software programs are introduced, or when cooperation practices and processes between departments are redesigned to reduce interface losses, changes of current working practices and procedures for organizations, teams, and individuals take place. Albeit innovations are introduced to benefit the organization at a macro-level, teams at a meso-level or single employee at an individual level, can evolve resistance, frustration, and irritation. This is a consequence of the teams’ and individuals’ tendency to feel more comfortable when carrying out their routines and sticking to familiar situations, rather than changing them (Staw, 1995). The initiated change of the status quo through the introduction of new working procedures can furthermore create tensions, uncertainties, and anxieties within individuals (Zhou & George, 2003) as employees face unexperienced situations and working characteristics where they have not sufficient skills yet. When employees are unskilled with the newly introduced procedure or are uncertain about its
usefulness and necessity for their day-to-day work, feelings as helplessness, despair or defensive restraint may result (Farr & Ford, 1990; Klein & Knight, 2005; West & Sacramento, 2012). Consequently, emotions are permanent features accompanying the innovation process within organizations. Thus, when they strive for innovation to remain competitive, emotions are inseparable issues from the organization’s work environment (Zhou & George, 2003).

Given this emotionally burdened context, it does not surprise that organizations fail to achieve the expected benefits of the introduced ideas because of an inadequate implementation, rather than strategical inappropriateness (Klein & Sorra, 1996). That said, it is not only necessary to investigate the influencing factors and underlying processes regarding innovation implementation but is also needed to study them with special regards to the entanglement of emotions. Regarding influencing factors affecting implementation, the pertinent innovation implementation literature identified that employees’ perception of contextual factors as policies, practices, and procedures addressing innovation shape their reactions, attitudes towards and intentions to assimilate and implement new processes (Choi & Chang, 2009; Klein & Knight, 2005). Furthermore, it has also been presented that contextual factors influencing implementation may be affected by, as well as lead to, positive and/or negative emotions. Therefore, emotional reactions may mediate the effects of policies, practices, and procedures on employees’ collective willingness to accept and continuity to use an innovation, thereby determining implementation effectiveness (Choi et al., 2011). Thus, in alignment with Choi and Chang’s (2009) suggestion that contextual factors shape employees’ beliefs and reactions concerning implementation, we acknowledge the important effect of collective perceptions of those contextual variables and team processes at the team level. When teams strive for innovation implementation, contextual factors related to innovation shape team members' cognition and behaviors by providing meaning and understanding of the situation, offering guiding norms and creating deeper values (Choi & Chang, 2009). Hence, the contextual factors and team processes induce a collective perception of the extent to which the implementation of process innovations is expected, supported and valued within teams (Klein & Sorra, 1996; Choi et al., 2011). This shared perception of team process variables and contextual factors has widely been recognized as parts of an institutional environment (Scott, 2014), organizational climate (Reichers & Schneider, 1990), or respectively team climate for innovation (Anderson & West, 1998).

In this perspective, the role of the leader assumes critical importance. As they act as role models, their active involvement and engagement underline that innovation is necessary and beneficial, thereby legitimizing innovation use of others (Baer & Frese, 2003; Scott, 2014). In particular,
the team leader’s support by praising, expecting, and rewarding innovation use, as well as conveying pervasive reasons for implementation, has been outlined to be of particular relevance (Klein & Knight, 2005). Consistently, a vast pool of literature has claimed that managers’ commitment is a strong predictor of innovation implementation (Holahan et al., 2004; Klein, Conn & Sorra, 2001).

As it has been outlined that innovation implementation is emotionally laden, that the perception of contextual factors – recognized as a climate – influences innovation implementation, and that team leader’s actions are of particular relevance throughout the implementation stage, the concept of emotional intelligence arises as relevant. Emotional intelligence (EI) can be defined as the ability to monitor one’s own and others’ emotions, to distinguish between different emotions, and to use this information effectively to guide one’s thinking and actions (Salovey & Mayer, 1990). These abilities and competencies may help team leaders to affect their team members’ emotions during the implementation stage, thereby shaping their perceptions of a climate that favors the development of a positive attitude regarding the introduced processes.

1.3 Research Issues and Research Questions

The dynamic and shifting market conditions give rise to high demands for companies, which, in turn, take innovation as a fundamental driving force for ensuring performance, success and long-term survival (Greenhalgh et al., 2004; Mone, McKinley & Barker, 1998). Thus, not surprisingly, the interest on innovation has exponentially increased over the past decades (Anderson, Potočnik & Zhou, 2014).

Throughout the problem discussion, it has been outlined that the implementation stage of the innovation process is an issue that demands particular attention since it has been recognized as a critical source of innovation failure (Klein & Sorra, 1996). As this stage is a necessary part when organizations want to achieve potential benefits of introduced novelties within a team, the influencing factors assume central relevance. We introduced that emotions are entangled throughout the implementation stage, that the perception of a certain climate is influential, and that emotional intelligence of leaders can be related to the topic as well.

The concepts of climate, the characteristics that facilitate innovation in general, and the concept of emotional intelligence, are vastly popular topics within organizational research. However, there is, to our knowledge, neither a theoretical model, nor empirical research that explains or investigates the interaction between innovation (in particular the implementation of process innovations), the climate dimensions that aid innovation, and the entanglement of team
members’ emotions. In addition, the influence of team leaders’ emotional intelligence has not specifically been related to this interplay.

Given these research issues, we seek to investigate the role of team leader’s emotional intelligence throughout the implementation stage with special regard to the perception of a climate for innovation. Furthermore, against the background of the entanglement of individual and team members’ emotions, we want to clarify the interplay of these emotions with the team leader’s emotional intelligence. In addition to that, we want to provide an understanding of how the interplay mentioned above influences the climate. Consequently, we want to investigate how a climate for innovation influences the implementation of innovations. Based on these research issues, the following, overarching research question arises:

**Research Question**

*What is the relationship between leader’s emotional intelligence and team climate for innovation against the background of innovation implementation within teams?*

Along with this broader research question, two sub-questions can be derived in order to narrow the specific object of study. Particularly, within the context of innovation implementation, we want to investigate the ‘emotional side’ of innovation to answer our main research question and thus, we ask:

**Sub-Question 1**

*How does the interplay between leader’s emotional intelligence, individual and team shared emotions influence the climate for innovation?*

In order to answer our main research question, we also investigate how the perception of procedures and practices regarding innovation influences the implementation stage of innovation. Thus, we also consider:

**Sub-Question 2**

*How does the climate for innovation influence the implementation of innovations?*

### 1.4 Purpose and Added Value

The purpose of this thesis is to investigate the relationships between the concepts of innovation, in particular the implementation stage, team leader’s emotional intelligence, team climate for innovation, and emotions. The main contribution to the scientific research is based on the fact that these concepts have not been related to each other in previous organizational research. Studying this interrelationship may bring potential insights to understand and explain behaviors
throughout the innovation implementation stage, thus bringing new perspectives not only to scholars but also to practitioners.

Relating these concepts to each other may help scholars to further develop innovation implementation literature. It provides an initial conceptualization upon which further theories, which explains influencing factors and dynamics throughout innovation implementation, can be built. Given this perspective, our final aim is to synthesize the aforementioned concepts in an integrated conceptual model, illustrating and highlighting their interrelationships.

Despite the central role of the innovation process for organizations and the considerable history of investigation in academic research, the research on the implementation stage is yet underdeveloped (Kim & Chung, 2017; van Knippenberg, 2017). In addition to that, a small number of studies have investigated innovation on a team level of analysis (Hülsheger, Anderson & Salgado, 2009), and even less have investigated it with the particular focus on the implementation phase. Thus, the present study contributes to innovation research by specifically addressing this specific level and stage of innovation. Hence, understanding of the concept of innovation as a whole can be advanced as the study sheds light on an underdeveloped area and an issue that has not been studied in this sense.

For practitioners, this study may be important if the suggested interrelationships are true within a real-world context. Even though this has to be tested, the present study may be valuable for practitioners, as it brings insights about influencing factors that need to be considered when organizations strive for innovation in order to remain viable and gain competitive advantage. Further insights about the impact of leader’s emotional intelligence can help organizations to identify critical behaviors, skills, and abilities that their leader needs in order to facilitate innovation, in particular its implementation.

1.5 Thesis Scope and Delimitations

We are aware that the concept of innovation is in some facets related to organizational change; however, we do not include literature of organizational change within this thesis. The reason for this choice lies in the fact that it is out of the scope of our research endeavor to provide a comprehensive review of several distinct fields of research. Instead, we want to focus on innovation, in particular the implementation stage as it is mentioned before. Again, we want to point out that we focus on the implementation of process innovations, and neither the preceding creativity stage nor innovation in general. Against this background, we decided to pay particular attention to the team level of analysis. This assumes appropriate when considering the necessary
social interactions of the implementation stage in general. Moreover, especially the implementation of process innovations as a specific form of innovation provides similar team level characteristics. Consequently, an individual or organizational level of analysis are not the main emphasis of our work.

A major delimitation of our work is that we do not collect empirical data. This is mainly caused by the research issue at hand and the limited period of time we have for our thesis. As our objective is to synthesize the issue-relevant concepts within a model, conceptual research rather than empirical research needs to be employed first. A subsequent and necessary step would certainly be the empirical testing of the built hypothetical-deductive model. However, this lies – owing to the given timeframe and our emphasis on the model-building – out of the scope of our thesis.

1.6 Thesis Outline

In order to provide the reader an impression of both the structure and the content of our thesis we now present an outline of our study. This master thesis is segmented into seven chapters that are structured as follows.

The first chapter provides the background within which our work is set. Furthermore, it discusses the problems that lead to the research issues, heading to our research question and sub-questions. We introduce the reader to the thesis’s purpose, its added value and its limitations.

Within the second chapter, we elaborate on the methodological approach we use to address the research issue and the derived research questions. As the aim of the thesis is to answer these questions by a synthesis of yet separately investigated concepts, we present the conceptual research approach, introduce how conceptual models can be built from theoretical data, and outline how our research has been conducted to make our research credible to the reader.

We then turn to the relevant concepts within our research. The subsequent chapter, therefore, elaborates on the concept of innovation as it sets the broader framework of the thesis. In particular, because of a theoretical ambiguity around this topic in scientific research, we devote ample space to clarify it. Consequently, from innovation as a two-stage process, we narrow our focus down on the innovation implementation within teams, thus reaching the focus of our research issue at hand. We elaborate on innovation implementation, outlining processes, obstacles, and antecedents that aid or inhibit implementation. We then spotlight that contextual factors play an important role in relation to innovation implementation. In particular, we point
out that the shared perceptions of these team processes and contextual factors are often seen as part of the climate, thus making this concept play an important role in innovation implementation. Consequently, we focus on the concept of team climate for innovation. In particular, we introduce West’s conceptualization, which presents four climate dimensions that facilitate innovation (Anderson & West, 1998; West & Farr, 1989; West, 1990).

Throughout the fourth chapter, we then approach the role of emotions in influencing the climate. Therefore, we open a loop-process illustrating the interplay between these two concepts (Figure 1). Starting from the definition that climate is made of the team members’ shared perceptions we then elaborate on the processes through which emotions shape human perceptions. Supported by figure 2, we then close the loop, explaining how emotions influence the climate. In particular, in figure 2 we illustrate the multi-level perspective to emotions (Ashkanasy, 2003) and its combination with the emotional contagion process (Tee, 2015).

Addressing the topic of emotions against the background of innovation implementation leads us to consider the potential role that an appropriate and conscious emotional management plays in relation to this theme. Therefore, chapter five portrays the important role of the team leader’s emotional intelligence and introduces abilities and competencies that may be supportive to the given context of implementation.

The elaboration on the concepts of innovation implementation, team climate, emotions, and emotional intelligence of team leaders then enables us to present in chapter six our conceptual model (figure 3), which relates the distinct concepts with each other. It provides an understanding of how leader’s emotional intelligence may influence innovation implementation. Here we logically derive hypotheses and propositions for the relationships between these concepts.

Within the closing chapter seven, we answer our research questions with the help of our conceptual model. We assess limitations of our research and point out implications for scholars and practitioners. Eventually, we reflect upon the work from an overarching perspective to conclude this thesis.
2 Our Methodological Approach

2.1 Conceptual Research

As it comes to the methodological approach of our thesis, we considered which methodology and research methods should be employed for addressing our research issue. We recognized that, to our knowledge, current theories on innovation do not describe nor explain the entanglement of emotions throughout the implementation of innovations with particular regard to the influence of leader’s emotional intelligence on the team climate. Though, the concepts of emotional intelligence, innovation, climate, and emotions have previously been studied in scientific research. Thus, we aim to identify existing knowledge about these distinct concepts and synthesize them to find logical interrelationships. Hereby we consider it as a reasonable first step to employ conceptual research rather than empirical research methods with the goal of deducing logical relationships between the concepts. We are aware that the shortage of theories that explain our research issue could be a reason to carry out qualitative, empirical research to explore the issue and its conditions of occurrence in real-world situations. However, we consider conceptual research as at least equally appropriate to employ as the concepts have been under considerable, yet separate, investigation in academic research. Thus, we use theoretical knowledge and existing empirical findings regarding the distinct concepts as a resource for the current study in order to examine the relationships of the concepts from a theoretical lens.

2.2 Building a Conceptual Model

As a result of our research endeavor, we pursue to present a logical, integrating conceptual model which contains the aforementioned concepts and suggests potential relationships between them. In this way, the conceptual model should describe and give first explanations about what the relationship between leader’s emotional intelligence and a team climate for innovation is. In particular, we address it against the background of innovation implementation within teams. Furthermore, with regard to our sub-questions, the development of a conceptual model pursues to integrate the concept of emotions within the interplay of leader’s emotional intelligence and the team climate for innovation, with particular respect to team emotions. This system of relationships between concepts depicts our view of how and why the concepts are related and enables us to present a deeper understanding of the issue at hand (Jaccard & Jacoby, 2010).
Although our goal is not to build a theory, further studies may lead to a theory based on our conceptualization. Thus, theory-building principles should be employed to ensure a solid foundation for our work and future research. The purpose of theory-building research is to build an integrated body of knowledge by explaining common questions as who, what, where, when, how and why phenomena occur (Wacker, 1998). A theory is a system of interrelated concepts and propositions “intended to explain and predict a phenomenon or behavior of interest, within certain boundary conditions and assumptions” (Bhattacherjee, 2012, p. 14). In contrast to theory as a comprehensive system of interrelated concepts, a concept by itself is understood as a mental image of a phenomenon and is constituted by ideas and observations of the characteristics of the phenomenon (Saunders et al., 2015). The synthesis of concepts within a conceptual model represents how the concepts may be connected and can, as a result, provide the basement for subsequent theory-building. Thus, concepts are the building blocks of theories that capture the “what” within a theory, propositions capture the “how”, logic explains the “why” and boundary conditions/assumptions represent the “when and where” (Bhattacherjee, 2012).

Concerning our conceptual research endeavor, these theory principles, therefore, entail the specification of our understanding of related concepts and thereby answer the common questions of the who and what in relation to the research issue. Furthermore, conceptual research needs to follow the questions about how and why the concepts are related by explaining the relationships among the concepts which are constituted by propositions and hypotheses. In our case, we describe and explain how and why these concepts are related to each other. This latter relationship/model building step is particularly important as it establishes the logical connections between the concepts and, by stating these explicitly, ensures internal consistency of the model. Throughout this model building stage, academic literature is used for logical deductive reasoning to draw conclusions, especially regarding the theoretical system of relationships between concepts. Even though deductive reasoning is used to establish relationships between concepts (Patton, 2002), our inquiry process for relevant concepts “is akin to an inductive process whereby small individual pieces (in this case, concepts) are joined together to tell a bigger map of possible relationships” (Imenda, 2014, p.189). It is not a deductive process since the concepts have not been derived from a specific theory; instead, they are drawn from different sources. The subsequent process of gathering empirical data for identifying and explaining patterns and themes in a real-world context – in order to test, develop or modify the conceptual model – would be an abductive approach (Saunders et al., 2015). Thus, at the heart of our work lays the interplay among induction, the derivation of relevant
concepts, and deduction aiming for the relationship between the concepts via hypotheses and propositions (Patton, 2002).

Subsequent to the creation of a conceptual model through deductive logical reasoning for inter-conceptual relationships between emotional intelligence, innovation climate, emotions, and innovation implementation, we suggest propositions and a number of specific hypotheses. This represents the transition from a theoretical plane to an empirical level. However, an empirical inquiry is out of the scope of our thesis. Yet, the investigation of the proposed patterns of the conceptualization in a real-world context through quantitative and/or qualitative empirical research is needed to test the validity and utility of the proposed model. For this reason, our conceptual research results in an informing, integrating conceptual model that can be taken as a point of departure for further empirical studies.

Nevertheless, we are aware of the potential errors of conceptual stretching which appear when established concepts are inappropriately applied to new contexts but do not fit (Brady, 2010). Therefore, we carefully investigate the pertinent literature and argue how and why the concepts we apply are relevant and suitable to our research issue.

2.3  The Inquiry Process of pertinent Literature

One of the challenges arising from our conceptual research approach is to use the right literature to build an explicit, transparent and accessible conceptual model. Through this model, our aim is not only to provide clearer understanding to the reader but also to create a solid conceptual base useful for further studies. If the process of literature inquiry and the logic used to build the model is not transparent, it would be difficult to compare or integrate the current study with the pertinent research. Furthermore, if the inquiry process of why and how we collect and use certain literature rather than other is not clear; or the reasons that lead us to investigate certain concepts more than others are not transparent, it would be difficult to evaluate the internal and external validity of the resulting conceptual model. Thus, it is essential to pay particular attention to the sources’ credibility, validity and fit to our issue. The literature inquiry process needs to guarantee the same quality criteria as our research results want to fulfill. Therefore, it is of critical importance to choose the right literature and make our decisions transparent to the reader of the thesis.

Identifying the relevant Literature

The point of departure of our thesis is a personal interest in organizational innovation and emotions in general. Driven by this inherent interest, our first strategy was to gain a first
overview of the concept of innovation and thus find out how emotions are related to this topic. Within this phase of our inquiry process, we read articles within the field of organizational behavior and organizational psychology regarding innovation. A conventional approach to collect and identify the relevant literature is to use computer searches on databases of scientific journals, articles, and books (Jaccard & Jacoby, 2010). We, therefore, used the “OneSearch” search engine provided by the library of the Linnaeus University. In addition, we used Google Scholar whose search engine provides information about how often and by whom papers, and articles have been cited. This additional information helped us to estimate the relevance of the articles and to find the most recognized literature. Also, for ensuring a solid foundation for our study by using high-quality and reliable papers, we favored peer-reviewed articles and checked the ranking score of the publishing journals via “scimagojr.com” which estimates the journals’ scientific productivity and impact.

To get a first overview of our topic of interest via the computer search engines, we used a set of keywords as: “Organizational Innovation”; “Organizational Innovation” AND “Emotion*”; “Innovation” AND “Emotion*”. We then searched for recent reviews and meta-analyses to arrive at the current state of research. Of particular interest regarding the concept of innovation appeared, for example, the work of Crossan & Apaydin (2010), Hülsheger, Anderson and Salgado (2009) and van Knippenberg (2017). We then discovered, through a critical examination of the literature, that emotion and affect within the concept of innovation have mostly been studied in relation to creativity (e.g., Amabile et al., 2005) but less investigated within the implementation stage, which on the contrary constitutes an underdeveloped area within the academic literature. This led us to further investigation within this direction. Furthermore, the present working climate has been found to be important for innovation in general as well as implementation in particular (e.g., Stollberger, West & Sacramento, in Press). Thereon we used more specific keywords as “climate for innovation”; “Emotion* in organizations”; or “innovation implementation” AND “emotion*”.

By collecting relevant literature with these keywords, as well as considering the cited articles within selected papers and looking for articles which cited the relevant articles, we received a more specific knowledge base for our research issue at hand. Our next step was to read the abstracts of the relevant articles and if we estimated them as valid and suitable, to read the whole article and collect the relevant theoretical and empirical findings. Eventually, we identified literature about innovation in general (e.g., Crossan & Apaydin, 2010), innovation implementation (e.g., Klein, Conn & Sorra, 2001), climate for innovation (e.g., Anderson & West, 1998; West, 1990, 2000; West & Farr 1990), emotions and emotional contagion (i.e.,
Ashkanasy, 2003; Tee 2015) and emotional intelligence (i.e., Mayer & Salovey, 1997; and the work of Goleman, 1995, 1998; as well as Goleman, Boyatzis & McKee, 2002).

Ensuring Validity and Credibility of our Research

As we want to ensure validity of our research endeavor and present high credibility to the reader of our thesis, we want to outline what reasons led us to include the mentioned literature in our thesis. During the inquiry process, we therefore critically estimated the reviewed literature regarding their validity, fit with our research issue and relevance within the research field. Especially the team level of analysis was a criterion which the selected literature needed to address to be suitable for our research. However, as innovation sets the broader framework of our thesis, this literature does not necessarily need to address the team level of analysis.

We identified, in particular, Scott and Bruce (1994), Amabile et al. (1996), Hülsheger, Anderson and Salgado (2009) and Crossan and Apaydin (2010) as credible and impactful authors within the field of innovation. Though, they have different angles on the concept: while Scott and Bruce (1994), and Amabile et al. (1996) approach innovation from a psychological and individual level of analysis, Hülsheger, Anderson and Salgado (2009) address the concept from a team level perspective within the field of organizational psychology. On the other hand, Crossan and Apaydin (2010) approach innovation from a multi-level perspective in the field of management studies. Their comprehensive review of organizational innovation links leadership, innovation as a process and innovation outcomes. We decided to give particular attention to the latter review as it fulfills our quality criteria as a reliable, valid source and can introduce the broader framework of innovation.

To select and evaluate literature about innovation implementation and climate we assumed the same criteria. In particular, the work of Klein and colleagues (Klein, Conn & Sorra, 2001; Klein & Knight, 2005; Klein & Sorra, 1996) and Choi and colleagues (2009, 2011) regarding implementation; and the work of West and colleagues (e.g., Anderson & West, 1998; West, 2000; West & Farr 1990) regarding climate appeared to be reliable to apply and suitable for our research issue. Regarding the working climate, we faced a comprehensive body of literature which stresses the importance of climate for innovation (e.g., Amabile et al., 1996; Ekvall, 1996; Klein & Sorra, 1996; Scott & Bruce, 1994; West & Anderson, 1996). We eventually decided to employ West’s approach to climate as it fits with the team level perspective of our research issue, is highly recognized and is still valid within the contemporary research of innovation.
Regarding the literature about emotions we employed Schwarz and colleagues’ work on the interrelationship between emotions and perceptions (Clore, Schwarz, & Conway, 1994; Schwarz & Clore, 1996; Schwarz 2000); Ashkanasy’s (2003) multi-level perspective to emotions; and Tee’s (2015) study on the emotional contagion as it suits our team level and climate perspective by addressing the social dimension of emotions. For the literature about emotional intelligence we mostly employed Goleman (1995; Goleman, Boyatzis & McKee, 2002) as he is highly recognized for his work, the findings are still discussed in today’s research and his mixed-model to emotional intelligence is more suitable to the socio-interactive characteristics of our research issue than an ability-based model (e.g., Mayer & Salovey, 1997). As a consequence of a critical evaluation of the validity and relevance of the literature, as well as a consideration of its fit to our purposes we set a foundation for a valid conceptual model.
3 Understanding Innovation

It has been argued that innovation is crucial for organizations’ capability to gain competitive advantage in the contemporary complex and dynamic markets (Dess & Picken, 2000). Thus, innovation has become a fundamental driving force in organizations for ensuring performance, success and long-term viability (Greenhalgh et al., 2004; Mone, McKinley & Barker, 1998). It is therefore not surprising that the interest in insights about innovation has exponentially increased over the past three decades (Anderson, Potočnik & Zhou, 2014). In the following parts of this chapter we want to introduce the concept of innovation as it serves as a theoretical frame of reference for our conceptual research. As a point of departure, we start from a broader explanation of innovation, after which we narrow the scope down towards the implementation of process innovations and the relative role of the team climate.

3.1 The Concept of Innovation

Even though researchers agree upon the importance of innovation for organizations, the usage of the term is still mostly loose. In a sense, innovation has been vaguely used, and multiple meanings have been ascribed to it. The lack of conceptual clarity resulted from an investigation of various disciplines and frameworks employing a wide range of methodologies and an inconsistent operationalization. Hence, innovation has often been used as a substitute for creativity, knowledge, or change (Crossan & Apaydin, 2010). Therefore, it is necessary to provide understanding and clarity about the concept of innovation as it sets the broader framework of our research.

We distinguish innovation from creativity even though these terms are frequently used interchangeably. Although they are strongly related to each other, a distinction needs to be outlined to prevent any confusion and misunderstandings. A widespread understanding of innovation encompasses it as a process involving two stages: an idea generation stage, which is rather related to creativity as a novelty producing process, and a subsequent implementation phase that follows the previous stage (e.g. De Dreu & West, 2001; Hülshéger, Anderson & Salgado, 2009).

Creativity is widely defined as the production or generation of both, novel and useful ideas (e.g., Amabile et al., 1996; Scott & Bruce, 1994). Creative ideas can involve working procedures, services, products or processes and are unique in relation to other ideas or practices within the working team or organization. As a result, they can potentially create value in the short or long run (George, 2007).
Innovation implementation within the innovation process is understood as “the process of gaining targeted employees’ appropriate and committed use of an innovation” (Klein & Sorra, 1996, p. 1055). Thus, within this understanding, creativity is a necessary but not sufficient part of innovation, and innovation includes the development of those creative ideas beyond its initial stage (Amabile et al., 1996). The progress of these stages is not neatly linear, rather innovation occurs in a dynamic, non-linear fashion (Bledow et al., 2009; West, 2002) where it can be difficult to differentiate the phases from each other (Cheng & Van de Ven, 1996).

Others suggest that these terms should be understood distinctly, meaning that creativity is viewed as the production of novel ideas, processes, products or procedures, whereas the term innovation describes an outcome as it comprises the successful implementation of those (e.g., Amabile et al., 1996). This outcome does not occur without preceding processes as idea development, initiation, and adoption decision. For further clarity, we want to take a third, more comprehensive definition into consideration.

Following the broader definition of Crossan and Apaydin (2010), who are highly respected for their comprehensive review of the concept of innovation, innovation is the:

> [...] production or adoption, assimilation, and exploitation of a value-added novelty in economic and social spheres; renewal and enlargement of products, services, and markets; development of new methods of production; and establishment of new management systems. It is both a process and an outcome (Crossan & Apaydin, p. 1155).

This definition highlights the possibility that innovation can not only be internally conceived but also adopted from external sources. Furthermore, it underlines that innovation includes - but is more than - a creative process. It shows that a part of the innovation process is the application (exploitation) of beneficial (value-adding) ideas that are new to the adopting/implementing unit. They underline that innovation is both a process and an outcome. However, innovation is meant in a relative way as opposed to an absolute one: an innovation process can be considered as new to the individual, team or company while it is already common practice in other spheres.

For considering innovation as a process, it can be outlined that it involves the introduction and successful implementation of ideas, products, procedures or processes new to and intentionally beneficial to the unit of reference. The role of creativity is an essential part of the initial idea development and initiation stage. Thus, it is a necessary, yet not sufficient, part of the innovation process. Although the view of innovation as a process is under-developed in the literature (Crossan & Apaydin, 2010), certain characteristics of innovation as a process can be identified.
The innovation process can be driven by internal stimulating factors as available knowledge, skills or resources as well as by external drivers as market opportunities or imposed regulations (Crossan & Apaydin, 2010). Sources for innovations are internal inventions (idea generation) or adoption of external innovations, which were generated elsewhere. Of particular interest for our research endeavor is the level of analysis: innovation is often analyzed on the individual, group or firm level (Ibid.).

The focus of pertinent literature is often on understanding innovation as an outcome. However, the distinction between innovation as an outcome and innovation as a process is sometimes blurred since an introduced new working process is indeed an outcome. In contrast, the transition from the idea generation to successful implementation and committed use of this working process describes the innovation process. For instance, the introduction and implementation of the Kanban system for improving manufacturing efficiency is primarily an innovation which changes or replaces the former production supply process. The transition from the previous supply system procedure to implementing the Kanban system depicts the innovation process. The outcome of this innovation process is then a changed production supply system (a new process), which is then understood as innovation as an outcome. For further conceptual clarity, innovation as an outcome should be explained in some more detail. It is characterized by different manifestations of the dimensions: form, magnitude, referent, and type (Crossan & Apaydin, 2010). The referent dimension specifies to whom the innovation is new (individual, team, firm, market, industry) while the magnitude dimension (incremental vs. radical) describes the degree of novelty or newness of an innovation outcome to the referent (Gopalakrishnan & Damanpour, 1997). Incremental innovation describes continuous improvement initiatives or variation of current practices while radical innovation (also termed as revolutionary or disruptive) induces fundamental changes in the working practices and routines (Damanpour, 1991). The form of innovation outcomes differentiates through product or service innovation, process innovation, and business model innovation. For example, process innovation can be described as “the introduction of new production methods, new management approaches, and new technology that can be used to improve production and management processes” (Wang & Ahmed, 2004, p. 305). While the introduction of novel products in the market is an example for product/service innovation, the business model innovation is a shift in the company’s approach to create, sell or deliver value to the customer base (Wang & Ahmed, 2004). The type dimension specifies innovations to whether they are technical or administrative (Gopalakrishnan & Damanpour, 1997). Technical innovations refer to new products, processes, technologies or services that are used to produce or are closely related to the core product of a
company. On the other hand, administrative innovations refer to an indirect relation to the primary work activity. They render managerial aspects as organizational structure, administration processes or human resource management (Crossan & Apaydin, 2010).

Now, as the broader framework of innovation is introduced, we want to elaborate further on concepts relevant for addressing our research issue, and thereby carving out a path towards a conceptual model.

3.2 Innovation Implementation within Teams

As aforementioned, innovation has been studied within various disciplines under different levels of analysis. For example, most studies of innovation processes in psychology refer to the individual level (e.g., Zhou & George, 2003), while economists investigate innovation at the industry level, and management and organization scholars relate to the firm level (Gopalakrishnan & Damanpour, 1997). In addition to these, the team level of analysis has shown increasing interest. The generation and implementation of ideas, products or processes in organizations is usually not an activity of a single individual. Instead, it is initiated and further driven through the joint actions of a group of individuals; therefore, working teams are of particular interest. In regard to the different stages of innovation, we primarily investigate the implementation of the creative novel ideas, processes or products within teams. It is essential to shed light on this side of the innovation process since many innovations fail not because of strategical inadequacy, rather because they are not effectively implemented (Klein & Sorra, 1996). Implementation effectiveness is mostly relevant to the innovation process because it constitutes a crucial element for achieving innovation effectiveness, or in other words, the intended benefits of the innovation. Therefore, we investigate influencing factors and underlying processes regarding innovation implementation on the team level since, as Choi and Chang (2009) argued, the team members’ collective engagement in the implementation process is more crucial than an individual’s committed use. This socio-interactive nuance makes it feasible and necessary to study this collective phenomenon on a team level.

Given the perspective of a team level of analysis, we want to outline our understanding of a team providing an overview of the factors that influence innovation implementation within teams. For our research we employ the definition of Cohen and Bailey (1997) who define a team as “a collection of individuals who are interdependent in their tasks, who share responsibility for outcomes, who see themselves and who are seen by others as an intact social entity embedded in one or more larger social systems and who manage their relationships across organizational boundaries” (p. 241). Thus, we consider groups of individuals who work
together and interact on a regular basis as a team. An essential characteristic of teams is that the individuals are assigned to or identify themselves as a part of the team, as well as that their day-to-day tasks are partly interdependent toward a joint goal.

Of particular interest for our study are collective processes that influence innovation implementation effectiveness, which can be defined as the “overall level of assimilation of an innovation into the unit’s work processes” (Choi & Chang, 2009, p. 245). In particular, we study the implementation of process innovations, which are – as aforementioned – a specific form of innovation outcomes exemplified by new production methods, management approaches or new technologies to improve production, service, or management processes (Baer & Frese, 2003). We shed particular light on this form of innovation because changing processes usually requires active collaborative participation of multiple organizational members and is generally characterized by a higher degree of social interaction within a group. Through this social dimension, we derive a higher likelihood of involvement of the emotional aspects. This appears suitable to our aim of investigating the entanglement of emotions throughout the implementation stage of innovation and the leader’s influence thereon.

We acknowledge that individuals committed, and consistent use of an innovation is an essential antecedent for implementation success. However, the generation of novel and beneficial ideas or creativity is rather an intraindividual cognitive process, albeit fostered by social team processes (Amabile, 1988), and can thereby be carried out independently. In contrast, the implementation of process innovations needs to be understood as a team level concept since implementation, especially of this form of innovations, is a social-political process which usually necessitates social interaction and consensus (Van de Ven, 1986). Thus, an individual level of analysis of implementation effectiveness of process innovations would not be appropriate.

In conclusion, implementation of process innovations within teams becomes particularly relevant to elaborate, as the inevitable social interactions throughout the implementation process can serve as a source for emotional entanglement. Furthermore, implementation is of great interest as organizational analysts’ state that organizations fail to achieve the intended benefits of adopted innovations, not because of innovation ineffectiveness, rather because of failure in implementing innovations (Klein & Sorra, 1996). Against this background, it is essential to further elaborate on innovation implementation and outline processes, obstacles, and antecedents that aid or inhibit successful and effective implementation. While presenting
these, we want to maintain consistent direction towards our research question and highlight, therefore, the entanglement of emotions.

**Processes, obstacles and antecedents of innovation implementation**

Innovation implementation as a sub-process of the innovation process is usually a successive stage of an adoption decision, which is merely the decision to use an innovation (Wolfe, 1994). As mentioned before, innovation implementation is the transition to a consistent, skillful and committed use of the innovation as a routine (Klein & Sorra, 1996). Whether the decision to adopt a process innovation has been made by a superior or by team members themselves, it is important in either case to pay attention to the employees’ collective willingness to accept and to continue to use the innovation. In relation to this, it has been largely recognized that team leader’s emotions and behaviors have a major influence on the attitudes and behaviors of their followers (Goleman, 1998). Given this, leaders may need to pay attention to their behaviors and expressed emotions since they can shape the followers' attitudes and intentions regarding the implementation of an innovation. The willingness to accept and to continue to use an innovation may also involve the need for overcoming restraining concerns about the innovation’s necessity or benefits, arising conflicts, and emerging resistance to change the current working procedures (Farr & Ford, 1990; West & Sacramento, 2012). Hence, when implementing process innovations, potentially occurring concerns and resistant behaviors can evoke strong negative emotions like anger, anxiety or frustration which may detrimentally affect the employees’ attitude towards the implementation.

Further on, the transition to a consistent and committed use of the innovation is a process of transforming the current working behaviors into desired future states, which is usually accompanied and influenced by positive and negative emotions (Anderson, De Dreu, & Nijstad, 2004; George & Zhou, 2002). The process of implementation may be emotionally shaped when people experience resource gains and losses (Huy, 2002), perceive uncertainty (French, 2001), encounter unfair treatment (Barclay, Skarlicki & Pugh, 2005) or change processes are too frequent, too quick, or too slow (Smollan, Sayers & Matheny, 2010). Following emotional reactions can range from “fear to envy, from rivalry to anger, from enthusiasm to cynicism, or from energetic enjoyment to apathy” (French, 2001, p. 480). Against this background, the potential occurrence of emotions underlines the effect of emotional variables on the team processes in the implementation stage.

More insights about further antecedents, obstacles, and influencing factors are presented by the pertinent work on innovation implementation by Klein and colleagues (Klein, Conn & Sorra,
Especially six antecedents for effective innovation implementation have been carved out: (1) implementation policies and practices, (2) climate for implementation, (3) management support, (4) financial resources, (5) learning orientation, and (6) managerial patience (Klein & Knight, 2005).

Their findings have also shown that team processes are primarily relevant for implementation effectiveness and that emotions may affect them. They highlighted that attempts to implement an innovation too early, for example before employees have sufficient skills to work with a new administration software or when this software is in an immature development stage, can cause emotional reactions like anger or frustration, which in turn could reduce the implementation effectiveness. Higher complexity of software would necessitate new knowledge and skills, and the training of which may be stressful, time-consuming and tedious. Additionally, if employees are instructed to implement an innovation based on a non-participative adoption-decision of the upper echelons, resistance is more likely to occur and hinder successful implementation (West, 2003). What is of critical importance, and a disturbing obstacle during the implementation of process innovations, are changes in roles, routines, and norms. Teams often face uncertainties and conflicting forces when they implement innovations and thereby changing the status quo of their current working habits. Since organizations are to a large degree dependent on norms, routines and control system to achieve efficient operations, they are a stabilizing force (Klein & Knight, 2005). Hence, teams face tension induced by forces that promote maintenance of the status quo and process innovation characteristics that necessitate a change in their current practices.

Against the background of these obstacles, the first antecedent of ‘implementation policies and practices’ emphasize that employees need to be armed with the appropriate skills, and that incentives for innovation use are provided (Klein & Knight, 2005). Supervisors need to praise innovation use and apply pervasive communication skills to convey beneficial reasons for innovation implementation. Furthermore, they need to provide sufficient time to experience and try out the innovation while potential obstacles, which make the innovation use difficult, need to be removed (Ibid.). The second antecedent ‘climate for implementation’ is defined as the “targeted employees’ shared summary perceptions of the extent to which their use of a specific innovation is rewarded, supported, and expected within the organization” (Klein & Sorra, 1996, p. 1060). It represents the perceived realization and enactment of the first antecedent, resulting in a perceived importance of innovation implementation.
The following antecedents point out that management support and involvement are important factors for innovation implementation by shaping the practices and policies, and thereby influencing the perceptions of their employees about the priority and relevance of the innovation. Not only the verbal encouragement, persuasive reasoning, and promotion for implementation use are here important, but also the availability of time and financial resources for training, as well as support and openness for trying out the innovation, can be assigned to the leader’s range of responsibility and constitute antecedents for successful implementation. Drawing on implementation literature, it has been outlined that managers’ commitment is a strong predictor of innovation implementation (Holahan et al., 2004; Klein, Conn & Sorra, 2001). By serving as role models, their active involvement and engagement foster innovation use of others’ (Baer & Frese, 2003; Scott, 2014). This may reduce perceived uncertainty and resistance reaction and increase a positive attitude towards the innovation among the team members. Furthermore, if leaders personally use the introduced innovation, support their use actively, and monitor the progress, team members may perceive greater usefulness and ease of use of the innovation, thus enhancing a positive attitude towards implementation (Choi et al., 2011). Practical support, partly obtained by providing financial resources for training, promotes employees’ understanding of and attitude towards implementation by providing information, knowledge and enabling the development of needed skills (Choi & Chang, 2009). Hence, innovation implementation is legitimized through given meaningfulness and emphasized necessity. Furthermore, a learning orientation is suggested to enhance innovation implementation within the team by encouraging employees’ skill development and experimentation as well as risk-taking. This orientation is characterized by a psychologically safe environment that promotes the expression of ideas and opinions without being threatened by penalties and possible errors (Baer & Frese, 2003).

In conclusion, the presented relevant processes, obstacles, and antecedents for innovation implementation show that employees’ perception of contextual factors as policies, practices, and procedures shape their attitudes towards and intentions to implement an innovation. It has also been presented that contextual factors influencing implementation may also be affected by, but also lead to positive and/or negative emotions. Therefore, emotional reactions may mediate the effects of policies, practices, and procedures on employees’ collective willingness to accept and to continue to use an innovation and thereby implementation effectiveness (Choi et al., 2011). Thus, in alignment with Choi and Chang’s (2009) suggestion that contextual factors shape employees’ beliefs and reactions concerning implementation, we acknowledge the important effect of collective perception of those contextual variables and team processes at the
team level. When teams strive for innovation implementation, contextual factors related to innovation shape team members’ cognition and behavior by providing meaning and an understanding of the situation, offering guiding norms and creating deeper values (Choi & Chang, 2009). Hence, the contextual factors and team process variables induce a collective perception of the extent to which the implementation of process innovations is expected, supported, and valued within teams (Klein & Sorra, 1996; Choi et al., 2011). This shared perception of team process variables and contextual factors has widely been recognized as parts of an institutional environment (Scott, 2014), organizational climate (Reichers & Schneider, 1990), or respectively team climate for innovation (Anderson & West, 1998). Since sharedness is a necessary element of climate, it is more likely that team members, rather than all organization members, share the same perceptions of their work environment. At the overarching level of organization, it may be less likely that sharedness exist, particularly when organizations are large, subdivided into divisions, and their structure is multilayered (Anderson & West, 1998). In contrast, the team level serves some characteristics that are necessary for sharedness: as our definition of a team already suggests, team members are in frequent interaction, their tasks are partly interdependent, they share a common goal and identify themselves with the team. If these characteristics are present, teams are likely to develop collective views, shared norms and perceptions and, hence, constitute an appropriate focus of consideration (George, 1990). As team climate has been identified as a critical factor for innovation implementation, we now shed some more light on the facets of this concept.

3.3 The Concept of Team Climate

Based on the increasing relevance of innovation for organizations’ performance, success, and long-term survival (Greenhalgh et al., 2004; Mone, McKinley & Barker, 1998), many scholars have stressed the importance of working climate (e.g. Amabile et al., 1996; Ekvall, 1996; Klein & Sorra, 1996; Scott & Bruce, 1994; West & Anderson, 1996). Their studies underline that a supportive climate for innovation is a necessary element for achieving innovation. Schneider’s (1990) broader definition of climate serves as a foundation of the following elaboration on team climate. He defines climate as employees’ “perception of the events, practices, and procedures and the kinds of behavior that are rewarded, supported, and expected in a setting” (p. 384). In this sense, the concept of team climate may be distinguished from organizational culture, which constitutes deeply embedded and more stable values, underlying assumptions, traditions and rituals, which are rather subconscious and profoundly anchored (Denison, 1996). On the other hand, we comprehend team climate as team members’ shared perceptions of organizational
policies, practices, and procedures which manifest as the surface of culture (Anderson & West, 1998; Momeni, 2009). Noting that employees’ perceptions of their work environment rather than evaluations are meant, also sharedness constitutes a significant and necessary aspect of climate. Rather than on individual, idiosyncratic views, climate draws on collective and shared perceptions of employees (Schneider, 1990). In addition, Nyström (1990) stated that climate characteristics are shaped by emotions, standpoints and behavioral intentions which together, form the working behavior. However, a conceptualization of generic climate dimension without any strategic focus may not be useful for describing organizational spheres (Schneider, 1990). Following this suggestion, researchers have departed to develop more specific taxonomies of climates with a strategic outcome, such as climate for creativity (Hunter, Bedell & Mumford, 2007), initiative and psychological safety (Baer & Frese, 2003), or innovation (West, 1990). Hence, from the point of view of innovation implementation, the present perceptions of team climate characteristics indicate to team members how important innovation implementation is, how it may be obtained, and which types of behaviors, attitudes, and feelings are common, expected or supported (Klein & Sorra, 1996; Choi et al., 2011). Climate models are relevant to innovation implementation since they model how team members perceive the workplace and occurring events and create meaning out of it, thus guiding their attitudes and the subsequent behaviors towards innovation implementation (Schneider & Bowen, 1995). Overall, team climate can be seen as a behavioral manifestation of the organizational culture on the team level and operates as a lever for innovation implementation (Ekvall, 1996).

**Team climate against the background of innovation implementation**

Next, we want to elaborate on the concept of team climate with particular attention to the widely accepted and meta-analytically backed up team climate model for innovation proposed by West and colleagues (Anderson & West, 1998; West & Farr, 1989; West, 1990). It indicates different climate characteristics that appear relevant for innovation on a team level of analysis. During our literature review, we recognized that research practice about climate factors (including the selected taxonomy) does not only focus on innovation implementation. Rather than just implementation, the underlying comprehension of innovation often includes creativity, since it is, as aforementioned, a necessary part of the innovation process. This complicated our aspiration to identify climate characteristics which particularly affect innovation implementation. However, as research has shown that certain climate dimensions are relevant for innovation (even though creativity might be partially addressed), we can not neglect the concept. Quite the contrary appears consequential: it appears necessary to examine the concept more against the background of innovation implementation. Given this perspective, the weight
and mechanisms of factors that affect idea generation and innovation implementation may vary, as some factors may be relevant for creativity, but not for implementation (Axtell et al., 2000). Thus, it necessitates to elaborate on the concept of team climate and specify the impact on idea implementation. Regarding this, first attempts have been made to investigate the different demands and the consequently corresponding climate factors throughout the innovation process stages (Stollberger, West & Sacramento, in Press; Thayer, Petruzelli & McClurg, in Press). However, drawn on the innovation literature, the implementation stage is still less investigated (Kim & Chung, 2017). At this point, we want to outline that the antecedent mentioned above “climate for innovation implementation” proposed by Klein and colleagues (Klein & Sorra, 1996; Klein & Knight, 2005) can not be considered as a climate taxonomy. In accordance with our comprehension of the concept of climate, it merely describes the perceived importance of innovation implementation. Thus, we consider it as necessary and appropriate to discuss and elaborate on a climate conceptualization, which depicts the concept more in-depth and enables us thereby to achieve a deeper understanding of the concept and its impact on the implementation of process innovations.

3.4 West’s Team Climate for Innovation

West and colleagues’ climate model for innovation (Anderson & West, 1998; West & Farr, 1989; West, 1990) has proofed its relevance for promoting innovation within teams, including both, creativity and the transition to successful implementation, through empirical evidence (e.g., Somech & Drach-Zahavy, 2013) and meta-analytical application (Hülsheger, Anderson & Salgado, 2009). Moreover, van Knippenberg (2017) provided a recent review of the empirical team innovation literature in which he outlined that innovation results when the team climate emphasizes shared commitment and support for innovation, as well as member participation, which conceptualization is highly coherent with the team climate for innovation by West (1990). Additionally, to this suggested relevance, Somech and Drach-Zahavy’s (2013) findings show empirical evidence for a reasonable and useful utilization of this climate model to implementation, as they proved a moderating effect of innovation climate throughout the innovation process, from idea generation to successful innovation implementation. They suggest that team creativity would only be translated to implementation under high levels of climate for innovation. What is of particular value is that, to our knowledge, West and colleagues’ climate for innovation is the only concept that investigates climate characteristics for innovation on a team level (Anderson & West, 1998; West, 1990; West, 2002; West & Sacramento, 2012), though it has not been conceptualized for implementation in particular.
Nevertheless, it has been shown to predict team innovation and team performance in various cultures and industries (e.g., Agrell & Gustafson, 1994).

This model of team climate for innovation consists of four dimensions that affect team innovation. These are team vision, participative safety, task orientation, and support for innovation. We now explain these dimensions in more detail. Furthermore, for addressing our research questions, we shed light on the entanglement of emotions within the model. Following Pirola-Merlo and colleagues’ (2002) assertion that the “four factors […] have strong affective components” (p. 565), we outline potential causes and the involvement of emotions throughout the implementation of process innovations in regard to the climate dimensions.

### 3.4.1 Team Vision

In the context of team innovation, vision has been referred to “an idea of valued outcome which represents a higher order goal and motivating force at work” (West, 1990, p. 310). This description implies a value component of the goals: higher order objectives are perceived as worth striving for. Regarding process innovations, a higher order goal might lead to achieve potential organizational benefits as increased performance and efficiency (from an organizational perspective) or from an individual perspective, to enhance employees job satisfaction by facilitating the completion of work tasks. This value and motivation dimension is inherently emotionally laden (Pirola-Merlo et al., 2002) as the perceived value of objectives is related to the individual’s feelings about their working responsibilities. West (1990) declares further that team vision is assessed in relation to the clarity of team objectives, is a visionary nature that gives meaning to team’s work and motivates toward innovation use, needs to be attainable, and should be negotiated and widely shared among the team members. Against the background of implementation, these characteristics need to be ensured. The potential benefits of the process innovation need to be envisioned, expected and supported to foster commitment and acceptance to implementation. Accordingly, the “clarity of and commitment to objectives” (West & Anderson, 1996, p. 682) has been outlined as a fostering element of this dimension. Consequently, in accordance with goal-setting theory (Locke & Latham, 1990), team members may be more likely to behave focused and directed towards the goal of implementation rather than when the objective of innovation implementation is not clearly focused, not attainable, not perceived as a valued outcome or the team members are not committed to this aspiration. As implementation of process innovations is accompanied by uncertainties as it changes the status quo, routines and the current practices (West, 2002), a high vision might be facilitative to implementation. Employees may perceive it as less difficult to see the necessary steps for
implementing and understand its necessity and usefulness. Consequently, the arisen uncertainties are perceived as less threatening. Furthermore, high vision and a strong goal-commitment aid the innovation implementation since team members are encouraged to maintain persistence in the face of resistant and concerning behaviors and disagreement of others.

3.4.2 Participative Safety

The second dimension of the team climate for innovation named participative safety is constituted by two elements: participation in decision making and intragroup safety. As a consequence of the former, when team members are participating in the decision-making processes, innovation is facilitated. When they share information with each other and listen to other’s suggestions, they feel able to, and are willing to speak up their opinion; team members are more prone to contribute and feel committed to the innovation process (West & Anderson, 1996). The latter, intragroup safety, refers to a non-threatening social environment, or psychological atmosphere (Edmondson, 1999), which is characterized by mutual support and trust, as well as a lack of concern regarding negative judgments (Anderson & West, 1998; West, 1990). Leaders need to accept and encourage active participation of team members within the decision-making process of innovation adoption and make sure that individuals can take initiative, present their suggestions and opinions in a non-judgmental environment as it has been found to facilitate implementation (Burke et al., 2006). The perception of this type of socio-emotional cohesive environment to feelings of safety and a lack of fear of ostracism or penalties and is thus strongly affected by emotional components (Pirola-Merlo et al., 2002; West, 1990). However, as Edmondson (1999) emphasizes, safety “is meant to suggest a realistic, learning-oriented attitude about effort, error, and change – not to imply a careless sense of permissiveness, nor an unrelentingly positive affect. Safety is not the same as comfort; in contrast, it is predicted to facilitate risk” (p.14). Thus, in relation to implementation, higher participation and safety are associated with less resistance to implementing a process innovation since team members feel that they are encouraged to take risks, can share their opinion, and influence the change of working procedures induced by the implementation of the process innovations (West, 2002). Hence, they may be more likely to invest in, and become committed to, the adoption decision and consequently to the following implementation process. In contrast, if the climate is low of participative safety, team members may feel helpless and may not act accordingly when obstacles throughout the implementation process occur since they may fear penalties for errors and are less committed to invest (Baer & Frese, 2003). Against this
background, empirical evidence has found out that a climate characterized by psychological safety moderates the transition from innovation adoption towards successful implementation of process innovations (Ibid.).

As suggested by West & Sacramento (2012), the notions of participation and intragroup safety may not only relate to decision-making, but they are also referring to team interaction and can include concepts of group affective tone and conflict acceptance. Given the framework of interaction, Hülsheger, Anderson and Salgado (2009) proposed that within-group interaction aids implementation by increased communication in the implementation phase. By providing backup behavior, supportive feedback, and mutual monitoring, implementation effectiveness of innovations can be increased. They also expand the notion of interaction to external communication out of the boundaries of the team but within the company, which is assumed to be essential for implementation since garnered external support for the new process would ensure effective implementation (Reiter-Palmon, Wigert & de Vreede, 2012).

The concept of group affective tone is particularly related to an emotional entanglement within the innovation process since it refers to the team members’ consistent emotional reactions (George, 1996). Thus, it is assumed that when team members collectively feel positive, they are more likely to develop a shared positive attitude towards the innovation and its implementation, thus being more willing to implement it.

Regarding the concept of conflict acceptance, it has been outlined that task conflicts are inherently related to process innovation implementation since they change the current working practices within the team, and therefore resistance may occur (Bledow et al., 2009). They refer to “disagreements among team members about the content of the tasks being performed, including differences in viewpoints, ideas, and opinions” (Jehn, 1995, p. 258). It is argued that these conflicts are conducive to innovation since they foster information exchange, re-evaluation of the status quo, and sharing of opposing ideas (West, 2002). Thus, accepting conflicts is essential, but promoting a constructive and open atmosphere for discussion without being threatened to express opinions and suggestions is necessary to enhance innovation implementation (West & Sacramento, 2012). Those conflicts are rather opportunities to fulfill the needs and expectations of all participants in the team, than a risk that just one particular individual benefits from it. However, relationship conflicts as a result of interpersonal disagreements are assumed to be detrimental to innovation since they can cause negative emotional reactions like fear, anger, and frustration. Those social-emotional conflicts may
distract members from implementation and furthermore, impede effective interaction and communication within teams (Hülsheger, Anderson & Salgado, 2009; Jehn, 1995).

### 3.4.3 Task Orientation

The third dimension has a strong connotation of innovation outcomes. Within teams, the factor of task orientation describes “a shared concern with excellence of quality of task performance in relation to shared vision or outcomes” (West, 1990, p. 313). Also described as climate for excellence, the present team atmosphere is driven by an expectation and endeavor for high standards for work and regular mutual evaluation and monitoring, constructive feedback and critical appraisal of performance and innovation promoting behavior (Hülsheger, Anderson & Salgado, 2009). By keeping ambitious standards for teams’ performance, employees are more likely to maintain persistence in the face of obstacles and resistance during the implementation process in order to achieve the potential benefits of the process innovation (Eisenbeiss, van Knippenberg & Boerner, 2008). In addition, teams with high task orientation value individual and team accountability, accept systems to control and evaluate their performance, have a focus on outcomes, give each other advice, and reflect upon current working practices within a constructive controversy (Tjosvold, 1982). The teams’ commitment to excellence of their work facilitates the adoption and implementation of process innovation that are designed to improve the working procedures and practices. In a similar vein, reflexivity can be understood as an element of a constructive controversy within the team. It constitutes “the extent to which team members collectively reflect upon team’s objectives, strategies, and processes” (West, 1996, p. 559) and is assumed to be facilitative to team’s innovation implementation (Stollberger, West & Sacramento, in Press). When teams collectively reflect upon goals, strategies, and processes of innovation implementation, it is more likely that deliberate, more detailed implementation plans result, and thus the effective implementation of the introduced process innovation is more likely to happen (Gollwitzer, 1996). It is aiding the implementation process since team members interactively negotiate about the implementation practices and thereby a reflective climate can reshape the team members’ attitudes toward the innovation (West, 2002). As a result, team members may feel more involved and prone to implement the innovation since the implementation is only successful if many of the team members are participating (Stollberger, West & Sacramento, in Press). In addition to this, through this continual review of goals and practices of the innovation, employees may perceive the innovation implementation as a regular element of their tasks, see the potential benefits and understand the value of the innovation which legitimizes its implementation (Choi et al., 2011).
It can be seen that in a working environment that strives for high task orientation, team members tend to constructively reflect and challenge each other’s contributions to the innovation and set high standards for work performance.

3.4.4 Support for Innovation

Finally, the last dimension of West’s climate for innovation (1990), which is support for innovation refers to an “expectation, approval and practical support of attempts to introduce new and improved ways of doing things in the work environment” (p. 38). It relates to practical and enacted support for innovation attempts by rewarding them rather than punishing (Amabile, 1988). The perception of these practices may shape team members attitudes and behaviors towards innovation (West & Sacramento, 2012). Empirical evidence has also shown that this dimension is the strongest predictor of innovation within teams (Anderson & West, 1998). In addition, the significant relevance of this dimension has also been proven by Hülsheger, Anderson and Salgado’s comprehensive meta-analysis (2009) which revealed a strong positive correlation between support for innovation and innovation. Since innovation implementation is highly dependent on support from key stakeholders (e.g., leaders and upper echelon), whether they make necessary resources for implementation available, it is suggested that this dimension is particularly important during the implementation of innovations (Stollberger, West & Sacramento, in Press). Furthermore, a climate which encourages innovation attempts is constituted by articulated and enacted norms which convey openness towards change and may shape team members’ attitude in such a sense that they are more willing to spend time, interact and cooperate, as well as share their resources with others. These behaviors are considered to facilitate the implementation of innovations (Eisenbeiss, van Knippenberg & Boerner, 2008). Within this dimension, the role of the team leaders is of particular importance: when they support the process innovation, personally use it, supervise the implementation progress, their team members can understand the value of the innovation and feel more prone to implement it for their working procedures as well (Agars, Kaufman & Locke, 2008; Sharma & Yetton, 2003).

3.5 A Look Back and Forward

To synthesize the concept of team climate for innovation and the literature on innovation implementation, we want to outline that, to our understanding, the team climate for innovation (e.g., Anderson & West, 1998) constitutes a comprehensive concept since it also includes the antecedents for innovation implementation proposed by Klein and colleagues (Klein & Sorra, 1996; Klein & Knight, 2005). We comprehend that the antecedents as (1) implementation
policies and practices which result in the employees’ given meaning to implement innovations ((2) climate for implementation) are similar to the extent of task orientation within the team. In addition, (3) management support, (4) financial resources, and (6) managerial patience is closely related to the support for innovation as well as the vision dimension. Lastly, the (5) learning orientation, which is partly characterized by a psychologically safe social environment that supports employees’ skills development, experimentation, and risk-taking, is mostly embedded in the climate for innovation, particularly in the participative safety dimension.

In conclusion, West’s team climate for innovation claims that the benefits of innovations are more likely to be achieved if the climate reflects the following characteristics. Firstly, team vision and objectives are clearly defined, attainable, highly valued and team members are committed to these characteristics which we elaborated under the climate dimension of Team Vision. Secondly, the team’s atmosphere is characterized by encouraged participation and a non-threatening social environment in which mutual support and trust are enacted, and a sense of psychological safety is prevalent. These climate characteristics are related to the dimension of Participative Safety. Thirdly, team members have high expectations for work performance and reflect upon team’s objectives, strategies, and processes in a constructive controversy. These climate characteristics for excellence and reflexivity relate to the third dimension of the team climate for innovation: Task Orientation. Lastly, the fourth dimension of Support for Innovation relates to the extent to which attempts to introduce innovations within the current working environment are expected, approved and supported and has been evinced as the strongest predictor for innovation within teams (Anderson & West, 1998; West, 1990).

Throughout the previous sub-chapters, we presented the concept of innovation. In accordance with our research issue, we elaborated on the implementation stage with particular attention to the team perspective. We then outlined the relevance of the concept of climate for innovation implementation and presented initial cues, how emotions can be entangled within the climate dimensions of West’s climate conceptualization. As climate and emotions assume central concepts within our research, it necessitates to bring more clarity about the relationship between them.
4 The Interplay between Climate and Emotions

We have concluded the last chapter by providing a deep understanding of the concept of team climate. In particular, we addressed it against the background of innovation implementation, analyzing the influencing factors that are essential for a climate that fosters innovation and introduced the relationship between the team climate and implementation of process innovations.

Throughout this chapter, we now provide a deeper understanding of the process through which emotions influence the team climate. With the illustration of a loop (figure 1), we now describe and explain how the interplay between emotions and climate takes place. Therefore, the constructed figure can be helpful during the following elaboration of this interrelationship. We thus begin recalling the main insights regarding the concept of climate. In particular, in the first half of the loop we explain the mental human processes through which emotions shape the perceptions of which the climate is made of. We then continue providing a deeper understanding of the concept of emotions. We thus adopt the multi-level perspective to emotions of Ashkanasy (2003), which provides a structured comprehension of emotions dividing them into five levels: within-person, between-persons, interpersonal interaction, group & teams and organizational level. In particular, with use of this model we explain the second half of the loop where we focus on the mechanisms through which emotions from an individual level end up influencing the climate. We, therefore, explain the emotional contagion process (Tee, 2015), thus providing an understanding of how emotions from an individual level raise to a team level. Furthermore, we conclude the analysis of the model showing the role of the team shared emotions in influencing the shared perceptions of which the climate is made of. Explaining this process, we display the primary role of the leader, thus carving out the path to the next relevant concept for our research issue: the concept of emotional intelligence.
Explaining the Loop: From Climate to Emotions

As argued before, team climate has been a topic of central interest in the past years and is still studied nowadays. Given this popularity, many authors contributed to its theoretical background, providing different perspectives on the topic. As a result, many definitions have been given. Consistently with the aim of this thesis, we have adopted the shared perception approach, which defines climate as the “shared perceptions of organizational, policies, practices and procedures” (Reichers & Schneider 1990, p. 22). These shared perceptions are used as a base for interpreting situations and operate as a source of influence in driving behaviors (Moran and Volkwein, 1992). As the concept of climate has already been discussed in the previous chapter, it will not be further discussed in the present one. However, in order to reveal the interplay with emotions, two characteristics in the stated definition of climate are of central interest: sharedness and perceptions.

The former has already been discussed in the previous chapter. As a short recap, Anderson & West (1998) argue that in order to ensure sharedness, individuals have to interact on a frequent basis, there has to be a common goal which drives them toward a collective action, and lastly, they have to develop shared understandings and expected behaviors in order to deal with the present task interdependence. In other words, sharedness will only evolve where persons frequently interact and thereby co-construct perceptions.

We now elaborate on the perception aspect of climate which interrelation constitutes the first arrow in figure 1 (linking climate and perceptions). By establishing this relationship, it can then be linked with emotions. In order to have a common understanding of this mental process, a
A valuable definition of perception defines them as the organization, identification, and interpretation of sensory information to represent and understand the environment (Schacter, Gilbert & Wegner, 2011). As we have depicted in figure 1, these shared perceptions constitute the present climate. They find even greater relevance when considering their power to drive individuals’ behaviors in specific directions. Complications related to the unpredictability of these behaviors come into play when it is recognized that these perceptions—which consequently drive human behaviors—are affected by both cognitive and emotional processes. Although the direction of influence between cognitive and emotional processes has not been clearly identified yet (Choi et al., 2011), it has been widely recognized that moods and emotions can strongly influence cognitive processes (Clore, Schwarz, & Conway, 1994; Forgas, 1995; Schwarz & Clore, 1996; Schwarz 2000). Thus, we conclude that behaviors are both emotionally and cognitively driven.

As Brosch et al. (2013) argued, cognitive processing not only evoke emotional responses but are also influenced by the emotional responses raised from the adaptation to the environment. In accordance with this idea, many psychological experiments have proven how emotions change human perceptions, attention, and memories, and are often considered as the driving force behind the motivation to act. This happens because they shape both the cognitive evaluation of costs and benefits, as well as how people process information (Isen & Labroo, 2003; Lyubomirsky, Sousa, Dickerhoof, 2006). Consistent with this view, emotions play a critical role in how we perceive the world, organize the memory and make relevant decision (Brosch et al., 2013). That said, the relation between emotions and perceptions has been pointed out, laying the foundation for a deeper understanding of the concept of emotions and its relation to climate.

4.2 Understanding the Concept of Emotions

Emotions have been defined in several ways in the literature, starting from reactions to events (Frijda, 1993; Lazarus, 1991), to feeling in a particular way and mood states (George & Brief, 1992), to neurophysiological components (Ashkanasy, 2003) and to physiological changes (Briner & Kiefer, 2005). In sum, a common base is that emotions are seen as intense reactions to an event, person or entity, so having a specific cause and/or referent (Forgas, 1995). Emotions rise at a specific time, have limited and usually short duration and are usually characterized by high intensity (Gooty et al., 2010). Emotions differ from moods, which are generally seen as a diffuse affective state without a specific cause. They activate in an individual’s cognitive background, without a particular reason, with lower intensity but with longer duration (Briner
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& Kiefer, 2005; Fisher, 2000). Even though slight differences have been recognized, studies concerning their nature and relationships are still progressing, leading to the interchangeable use of these terms by some authors (Ashkanasy, 2003). Furthermore, given their close relationship, they are often summed up with the term ‘affect.’ As a result, a wide pool of literature labels the concepts of moods and emotions under ‘affect’. However, addressing this issue is out of the focus of this thesis. That said, in our research, the three concepts are used in accordance with the stated definitions. Our focus will mainly be on emotions, with a secondary interest – given their close relationships – on moods and affects at large. Nevertheless, being aware of the differences between the two concepts allows a better understanding of the topic, as well as awareness of paying particular attention when these two topics come into play.

4.3 How Emotions influence Perceptions

We now want to describe the second arrow of figure 1 and thereby describing the relationship between perceptions and emotions. A valuable understanding of how emotions influence perceptions is presented by Schwarz and Clore (2007) in the ‘feelings-as-information-approach’. The authors argue that, in case of moods and emotions, people may use their affective responses as a source of information in forming an evaluative judgment (Schwarz & Clore, 1983; Wyer & Carlston, 1979). It has been found that emotions can influence perceptions (and consequently behaviors) in different ways.

A first, strong, way is through memories. This is linked to humans’ disposition of recalling information from memory congruent with the emotions someone is feeling in a specific moment (Bower, 1981; Isen et al., 1978). As Baron (2008) states, emotions can be strengthened by either previous experiences or external events. Applying this to the innovation background of this thesis, an interesting result is that negative past experiences may have negative effects on the adoption of innovations (Antioco & Kleijnen, 2010).

Another, not less significant way of influencing perceptions is through the usage of their apparent affective response to a target. As Schwarz (2000) describes this process, individuals are asking themselves: ‘How do I feel about this?’ This is of particular interest since it opens a significant bias: the influence of the pre-existing feelings. That means that individuals’ pre-existing feelings can alter their emotional reactions to specific situations. Even though it is difficult to separate the influence of pre-existing feelings on emotional reactions, several studies have noticed that individuals in positive moods are more likely to overestimate the probability
of positive outcomes and underestimating the probability of negative ones, whereas the other way around holds for individuals in negative moods (Johnson & Tversky, 1983; Nygren et al., 1996). The effects of this bias influence employees’ likelihood in following others as well: individuals in a happy mood are more likely to imitate others’ behaviors, while the ones in a sad mood systematically tend to analyze every single next move. Additionally, similar consequences take place on the information processing strategy. On the one hand, individuals in a happy mood will adopt a top-down processing strategy, with high reliance on pre-existing knowledge and limited attention to the details of the specific case. On the other hand, individuals in a sad mood will more likely choose a bottom-up strategy adopting a systematic approach, where more reliance is given to the specific details rather than the pre-existing knowledge (Schwarz & Clore, 1996). For the sake of completeness, it has to be pointed out that not only emotions influence behaviors, but also the outcomes of the behaviors affect the individual’s feelings (Schwarz & Clore, 2007).

In conclusion, presenting the human processes through which emotions influence perceptions, we have explained the first half of figure 1. In particular, we have started arguing that climate (members’ shared perceptions) influences team member behaviors and that emotions play a crucial role in this perspective. We showed that this happens not only because team climate is partially made of emotions (Nyström, 1990), but also because of the considerable emotional composition in human perceptions. Specifically, emotions bias the individual and team’s perception of the working environment, which – following the definition of climate – constitutes the building blocks of the team climate. Given this background, we derive that emotions indirectly influence the climate which, as argued in the previous chapter, constitutes a critical success factor for innovation implementation.

Given this perspective, we continue this chapter by providing further clarification of the third arrow of figure 1. Thus, we analyze the process through which emotions and moods are spread from an individual level throughout the company, becoming greatly influential for the perception and interpretation of the working environment (fourth arrow). Perceptions that, as a reminder, when shared constitute the team climate (fifth arrow).

4.4 A Multi-Level Perspective to Emotions

As highlighted, the research issue of this thesis involves individual’s as well as team’s interactions. Since the approach to emotions of Fischer, Shaver and Carnochan (1990) allows to highlight the social dimension of the concept of emotions, we will now introduce it. They define emotions as a “direct, innate, functional, biosocial action and expression system” (p. 84).
The authors state that these emotions find direct manifestation in scripts. Specifically, it means that when individuals express emotions, they do it by adopting predetermined behavioral responses, called 'scripts'. Given the existence of these scripts, a relevant aspect of our perspective is that they are built and developed through life experiences, and influenced by social learning (Fischer, Shaver & Carnochan, 1990).

This shows that, even though emotions and moods are often considered as an individual issue, they relate to higher levels of analysis as well. Emotions and moods affect, and are built among, team members and influence organizational life (Ashkanasy, 2003). This is related to the occurrence of emotions as a social phenomenon (Antonacopoulou & Gabriel, 2001), which means that emotions are collectively constructed between work team members (Choi et al., 2011). That said, emotions are not only biological responses, they are also influenced and can be learned through socio-cultural factors (de Leersnyder, Boiger & Mesquita, 2013). As team members continue to interact, create shared understandings, and establish collective expected behaviors, the team develops a group mood (Adams & Anantatmula, 2010). The process through which group members tend to experience similar emotions is called 'emotional contagion'. Emotional contagion is defined by Hatfield, Cacioppo, and Rapson (1994) as the “tendency to automatically mimic and synchronize facial expressions, vocalizations, postures and movements with those of another person and, consequently, to converge emotionally” (p. 5). These processes have both a bottom-up and top-down dimension (Barsade & Gibson, 1998). The former refers to micro-level dynamics, focusing on within and between-person factors, while the latter concentrates on a meso- and macro-level perspective, analyzing group and organizational perspectives. Emotional contagion assumes then critical importance since it creates the link between the individual and group emotions that, once shared among team members, can influence the shared perceptions of the working atmosphere and thus, the team climate.

To address and understand these issues, we now adopt the multi-level model to emotions of Ashkanasy (2003). The reason for the adoption of this specific perspective lies in its specific composition. In particular, Ashkanasy classified emotions into five levels: within a person, between persons, interpersonal interactions, groups & teams, and organizational level. Approaching emotions through this multi-level perspective constitutes a precious and valuable tool for understanding the roots of emotions with both an individual and a relational perspective. Specifically, it allows us to study emotions in detail at each level of analysis, from the individual to the organizational one. Being able to analyze emotions on various levels, in particular at the
meso/macro levels, permits to highlight the social-constructed nature of this concept, thus creating convergence with the team level of analysis we have adopted.

In addition to this perspective, we adopt the work of Tee (2015). He analyzes the emotional contagion process across multiple organizational levels and applies it to the multi-level model to emotions of Ashkanasy (2003). The reason for the adoption of this combination, illustrated in figure 2, lies in the fact that it allows us to analyze how emotions, from the individual to the organizational level, are spread throughout the organization by the emotional contagion process. Therefore, if on the one hand the multi-level perspective of Ashkanasy (2003) allows us to understand emotions from the individual to the organizational dimension, on the other hand its combination with the emotional contagion process permits to understand the processes through which these emotions are transmitted between the levels. In conclusion of this chapter we will then have highlighted the central role of the leader in the emotional contagion process, and thereby laid the foundation for the next chapter.

**Figure 2:** Joint Representation of the Multi-Level Perspective to Emotions and the Emotional Contagion Process (adapted from Ashkanasy, 2003; Tee, 2015).

### 4.4.1 Emotions at Level 1: Within-Person

We start the analysis of the spread of emotions from an individual level perspective, as emotions - although socially constructed - have individual roots. This step of the analysis is illustrated in figure 2 at the tip of the inverted pyramid. This level aims to highlight the individual dimension through the analysis of temporal variations in within-person emotions and presenting when and how emotions evolve.
A first way for understanding when and how emotions evolve is through the Affective Events Theory (AET) (Weiss & Cropanzano, 1996). This theory states that emotional states are the result of discrete work events, which constitute everyday issues in organizations. It stated that events generate emotional reactions, which in turn influence behaviors and attitudes. As a result, individuals’ behaviors and performances are not only determined by attitudes and personality but also by the - notably unsteady - way they feel at work (Fisher, 2000; Weiss, Nicholas & Daus, 1999). Regarding this, Fisher (2000) pointed out that the way individuals feel is less related to the emotional intensity provoked by events, rather it is more an accumulation of emotions evoked by those affective events. That said, the main contribution of AET is showing how events cause emotions, and thereupon how those emotions influence employees’ behaviors.

Another source of emotional within-person variability are moods (Oatley & Jenkins, 1992). Similar to the already explained “feelings-as-information approach” by Schwarz and Clore (2007), Forgas (1995) studied how moods influence cognitive judgments. He created the Affect Infusion Model (AIM), showing that moods directly influence the decision making by the creation of judgments, which will be consistent with the decision-maker’s prevailing mood. Furthermore, the model shows how moods influence the cognitive strategies and the effects of mood states on memory. The effects of positive and negative moods on both memory and strategies (decision making in the AIM model) have already been argued: consequently, to avoid overlapping literature, for further implications we send back to the “feelings-as-information” approach by Schwarz and Clore (2007).

Moving to the right side of figure 2, thus analyzing the emotional contagion process in this level of analyses, two mechanisms can be spotlighted: mimicry and synchrony, and emotional experience and feedback. Mimicry and synchrony occur through the mere observation of an individuals’ facial or bodily expressions, which results in a convergence of emotional states (Lishner, Cooter, & Zald, 2008). On the contrary, emotional experience and feedbacks refer to a more complex mechanism needed to facilitate understanding of another’s situation through a more rational and conscious perspective-taking.

In conclusion, the two mechanisms are complementary. While the former (implicit mechanism) is automatically driven, the latter (explicit process) is conscious and deliberatively driven. Assuming a leadership perspective, these two processes set respectively the neurological basis for the automatic sharing and the neurological basis for the purposeful transfer of affects between leaders and team members (Tee, 2015).
4.4.2 Emotions at Level 2: Between-Persons

The second level of analysis, illustrated by the second plane of the upside-down pyramid, focuses on the individual differences that influence the frequency, intensity, and duration of the positive and negative emotions and moods. Ashkanasy (2003) states that two aspects essentially characterize the differences in the organizational behaviors: trait affect and emotional intelligence.

Trait affect represents the personal, stable tendency to evaluate events in a positive or negative way (Gooty et al., 2010), or in other words, the tendency to be in a long-term positive or negative affective state (Ashkanasy, 2003). Furthermore, through the study of the negative trait affect, the involvement of emotion is highlighted. Hence, negative trait affect mediates the relation between stress factors and stress symptoms (Brief et al., 1988; Schaubroeck, Ganster & Fox, 1992) as well as facilitates the perceptions of injustice in the organization (Barsky & Kaplan, 2007).

The concept of emotional intelligence has widely been discussed in the literature. Goleman (1995) describes it as “the capacity for recognizing our own feelings and those of others, for motivating ourselves, for managing emotions well in ourselves and in our relationships” (Goleman, 1995, pp. 268-269). Although being a controversial topic, it is widely recognized that individuals differ in the way they process information. As it constitutes a key concept of our study, further elaboration on this concept is presented at a later stage of this thesis with specific focus on leaders (chapter 5).

Shifting the focus on the emotional contagion, the individual differences not only influence the way someone perceives emotions and moods, but also the way these feelings are transmitted. As these individual differences mediate the level of receptivity of positive and negative affects, members also differ on the levels of susceptibility to others’ affect (Tee, Ashkanasy & Paulsen, 2013). These individual differences relate to dimensions such as empathy, personality, and personal traits. As a result, the between-persons differences influence the efficacy of implicit emotional contagion processes (Tee, 2015).

Referring to explicit emotional contagion processes, more attention is paid to the individual capacity to express and influence others with emotions. Individual differences that successively influence the between-person processes include gender, extraversion, agreeableness, and expressivity (Tee, 2015). These differences – in particularly from a leader’s perspective – have to be taken into consideration to successfully influence followers and to establish the most appropriate leadership style.
4.4.3 Emotions at Level 3: Interpersonal Interactions

The third level represents the link between the micro-level approach and the meso-/macro one. With micro-levels we refer to levels 1 and 2, which have an individual focus, while with meso-/macro-levels we refer to levels 4 and 5, respectively characterized by group and organizational level of analysis. So, level 3 (the third plane of the pyramid in figure 2) involves the display, perception, and communication of the emotions in dyads (Ashkanasy, 2003), establishing the concept of emotion as a relational phenomenon. Given this perspective, emotions are transferred from an individual to others through communication since, as widely recognized in the literature, individuals communicate not only cognitive content but also the emotional one. Many of the emotions are nearly impossible to control and lead to automatic body responses. Considering everyday life, many visible unconscious emotional expressions can be seen: the watery eyes, turn pale with fear or turning red with embarrassment. These examples are helpful to point out the diverse ways emotions can be communicated: vocal intonation, body and gestures, skin color changes and – in particular – facial expressions.

Some concerns arise when the expression of some particular emotions is not seen as appropriate. As a consequence, individuals try to hide inner feelings and limit emotional reactions. In organizational life, this phenomenon has been named 'emotional labor'. As Hochschild (1983) defines it, emotional labor means the management of one’s own emotions in the service of the job. It represents a prominent issue in the emotional perspective not only in relation to the emotional expression and communication but also because it constitutes an affective event in the AET model. Emotional labor is thus a contributor to individual emotions, and thereby influences behaviors and attitudes as explained in level 1.

Because of the relational nature of this level, the first insights about how the emotional contagion works have already been provided. Through the conscious and unconscious communication of emotions, individuals inevitably end up influencing others’ affect state. This potential power is even bigger when taking the leadership perspective. Therefore, through contagion processes leaders can influence team members’ mood, with influences on individual/group level mood and team performances (Sy, Côté & Saavedra, 2005; Volmer, 2012). It takes place through a two stages process: individual moods are firstly triggered by leaders and then transferred to - and propagated among - team members at a group level (Sy & Choi, 2013).

Furthermore, emotional labor is a key issue for leaders as well. Additionally to their emotional regulation, leaders also have to manage their emotional expression to followers as part of their
leadership role (Ashkanasy & Humphrey, 2011). This is even more important considering that regulated displays of affect from leaders considerably influence team members’ perceptions of their authenticity and trust (Gardner, Fischer & Hunt, 2009), with direct effects on credibility and leadership effectiveness (Tee, 2015).

### 4.4.4 Emotions at Level 4: Groups & Teams

Continuing to broaden the perspective, as we started from the individual level, moving then to the between-persons’ and then to the interpersonal interactions’ one, we are now approaching the group and team level – the fourth plane of the inverted pyramid in figure 2. In accordance with the previous definition, we see teams as “a collection of individuals who are interdependent in their tasks, who share responsibility for outcomes, who see themselves and who are seen by others as an intact social entity embedded in one or more larger social systems and who manage their relationships across organizational boundaries” (Cohen & Bailey 1997, p. 241). This level of emotions is particularly interesting for us as emotions have now reached the same level of analysis as other relevant concepts in regard to innovation within teams. Especially, as process innovations require social interactions, and the concept of climate is constituted by socially shared perceptions, they hence correspond to the team level of analysis.

Within the team, the display of emotions can contribute to the establishment of group cohesion (Zurcher, 1982). In addition to that, emotions can assume an essential role in group formation and maintenance (Lawler, 1992). In this perspective, the more we adopt a broader level of analysis, the more the focus is on the role of the leader. Indeed, there is no doubt that the role of leadership is about communicating, expressing and managing emotions in groups (Graen & Uhl-Bien, 1995). These ideas find direct application in the Leader-Member Exchange (LMX) theory, a highly recognized theory emphasizing the importance of high-quality relationships between leaders and followers. LMX suggests that leaders develop dyadic exchange relationships with each of their team members, which differ in the quality. Higher quality exchange leads to better job assignments, responsibilities, decisions, opportunities, and access to resources and performance (Deluga, 1998). Ashkanasy (2003) argues that this ‘quality’ mostly refers to emotional judgments, which are mainly based on leaders’ displayed emotions (Newcombe & Ashkanasy, 2002). That said, being able to effectively manage their emotions assumes critical importance, which leads us closer to the concept of emotional intelligence. Given the prevalent framework of the thesis, this supports the need to achieve a deeper understanding of the effects of the leader’s emotional intelligence, which will be addressed in the subsequent chapter 5.
Moving to the right sight of figure 2, the emotional contagion processes in the fourth plane refer to a transfer of emotions between multiple individuals, resulting in the creation of group-emotions (Smith, Seger & Mackie, 2007) or group affective tone (George, 1990). The specific dynamics studied in the previous steps describe how this phenomenon takes place. At this level, we focus more on the outcomes of having positive group-emotions. The higher positive group emotions, the greater the group identity and the solidarity between group members (Páez et al., 2007, cited in Tee, 2015, p. 661) as well as the higher the climate of empowerment and collective actions (Thomas, McGarty & Mavor, 2009).

As previously seen, team climate is made of shared perceptions, which influence members’ behaviors. Furthermore, we argued that the shared perceptions of which climate is made of, are biased by emotions. We have then shown that although emotions have individual roots, from the individual dimension, they spread throughout the team and contribute to the team level ones. Applying the study of Smith, Seger, and Mackie (2007) we now argue that the emotions that influence shared perceptions and drive behaviors are not only the individual ones but also the socially shared at team level. After having analyzed in the previous steps how emotional contagion works from an individual to a team dimension, we have now pointed out its influence on the team-emotions (Smith, Seger & Mackie, 2007) or group affective tone (George, 1990), starting to highlight the practical implications for the team climate.

4.4.5 Emotions at Level 5: Organizational Level

On the fifth, broadest plane of the pyramid, Ashkanasy (2003) takes the organizational perspective. He focuses on emotions in relation to two specific dimensions: climate and culture. The former has already been discussed and defined as “shared perceptions of organizational, policies, practices and procedures” (Reichers & Schneider 1990, p. 22) which are used as a base for interpreting situations and operate as a source of influence in driving behaviors (Moran & Volkwein, 1992). On the other hand, the latter is a more stable and objective concept, rooted in belief, values, and embedded assumption (Ashkanasy, Wilderom & Peterson, 2000; Ott, 1989; Schein, 1985). Therefore, while culture is a more stable and deeply rooted concept, climate assumes a more proximal relation to emotions since, as we have argued throughout the whole chapter (see also figure 1), it is constituted by perceptions and thus influenced by emotions. For this reason, we do not further elaborate on the concept of culture.

However, the relation between climate and culture is still discussed, some authors use these terms interchangeably, while others see the climate as the employees’ perception of the culture and a manifestation of it (Allen, 2003). Even though discussing this controversy lies outside the
purpose of this study, we recognize the difference between the two concepts. As stated already in chapter 3.3, climate consists of shared perceptions, which therefore require sharedness. Thus, in order to reach sharedness, high and continuous interactions are necessary. For this reason, we argued that climate is present on a team level rather than on the organizational one. In support of this idea, Ashkanasy and Nicholson (2003) studied two Australian restaurant chains, finding out that, while culture varied between the organizations, climate varied across the singular restaurants.

Therefore, once considering the concept of climate belonging to the fourth level and the concept of culture out of the scope of our thesis, we do not further explain emotions at level 5. However, regardless the discussion regarding the level to which climate belongs, we still support Ashkanasy’s (2003) multi-level perspective to emotions and how it eventually affects the prevalent climate.

That said, in order to obtain a deep understanding of how emotions affect climate, the previous steps have to be taken into consideration since it encompasses interactions between all the former levels. Behaviors are driven by the accumulation of affective events, which raise emotions (level 1). Adding a layer of complexity, individual differences then change the way people experience and deal with emotions (level 2), which implies different emotional expression both from team members and from leaders (need to display them appropriately) (level 3). As a result of the leader’s and team members’ emotional display and their exchanges, by the process of emotional contagion, shared team-emotions are created (level 4), constituting the foundation for the entanglement of emotions within the climate (level 5 according to Ashkanasy’s approach, albeit level 4 in our perspective). In particular, as noted before, the higher the level, the more central is the role of the leader. Therefore, the leader’s ability to manage emotions assumes crucial importance, which consequently leads us to investigate further and clarify the role of the team leader’s emotional intelligence in chapter five.

4.5 Closing the Loop: From Emotions to Climate

As stated at the beginning of the chapter, the loop (figure 1) aims to depict the interplay between climate, perceptions (first arrow), and emotions. We started arguing how – taking a climate perspective – emotions come into play and how they influence perceptions. Explaining this relation, we have argued for the second arrow in figure 1, which links the concept of perceptions with the ones of emotions and moods. Once conceptualized this and described the first half of the model, our focus was then to start “closing the loop”, studying the topics from the other way around: from emotions to climate. Approaching emotions through the multi-level perspective
of Ashkanasy (2003) has provided an in-depth comprehension of their roots and how they become relevant on a team level. Furthermore, synthesizing the various levels with the process of emotional contagion allowed us to understand the actual procedure through which emotions are spread throughout the organization.

Summing up, emotions are evoked at an individual level. Team members then interact dyadically and collectively, and thus the different individuals’ emotional states get together. As argued throughout this chapter, these dynamics then create an overall shared group emotional tone. In relation to figure 1, this process describes the third arrow, thus providing an understanding of the link from emotions to team shared emotions. Consequently, according to the processes analyzed while describing the five (respectively four) levels of emotions together with the emotional contagion process, the resulting group shared emotional tone (team level emotions in figure 1), in turn, influences the perceptions of all singular team members (fourth arrow). These team members’ perceptions explain the relationship to climate since, when they are shared, they constitute the climate. Thus, the loop of the interplay between the concepts of climate and emotions is closed.

In conclusion, the main idea is that teams have a shared affective component which starts with the individual emotions and develops through processes of emotional contagion, entrainment, modeling, and manipulation of affect (Kelly & Barsade, 2001). From our perspective, these dynamics assume crucial importance, since they set the basis for understanding how leaders, by the emotional management, can influence the individual emotional states of their team members, which in turn contribute to the creation of the team’s emotional state. Given the characteristics of perceptions as influenced and partly based on emotions, leaders indirectly influence the team climate as well as team members’ behaviors through the multi-step process.

As a result of these processes, a clear tendency showing the centrality of leaders in these dynamics can be noticed. This idea is congruent with what we started to point out during the last paragraphs: 'the broader the level of analysis, the higher the centrality of the leader'. Consequently, the quality of leaders’ emotional relations and interactions assume critical importance. This leads us to shed light on the influence of leader’s emotional intelligence against the present background.
5 Portraying the Influence of Leader’s Emotional Intelligence

We concluded the previous chapters pointing out the crucial role of leaders throughout the innovation process. Regarding innovation, it has been stated that leaders’ behaviors and actions strongly shape team members’ attitudes towards implementation. In addition, we stated that leaders have a high impact on the prevalent climate for innovation through, for instance, the support for innovation dimension, providing valued objectives, or encouraging team members for implementation attempts. It has also been stated that implementation can lead to evolving emotions among team members and that their perceptions are affected by emotions. Throughout the joined elaboration on the multi-level perspective to emotions and the emotional contagion process, we could outline that leaders have a strong influence on team members’ emotions and subsequently on their perceptions of the prevalent climate.

This makes the concept of emotional intelligence relevant to study as it can function as a lever for leaders to influence climate and subsequently innovation implementation. In particular, emotionally intelligent leaders contribute to the development of a team climate that pushes the employees to perform at the best of their ability (Goleman, Boyatzis & McKee, 2002). This happens because, when leaders have an active role in the climate development, the obtained climate maintains consonance with the team leader’s personality (Dickson et al., 2001). This becomes relevant as leaders’ EI is reflected in their behaviors, which have considerable influence on team members’ perceptions and attitudes which - in turn - create the team climate (Momeni, 2009). This is noticeably relevant, since behaviors, together with the leadership style significantly shape employees’ perception of the climate (Momeni, 2009). Thus, the higher the leader’s EI, the better the climate (Momeni, 2009). Consistently with this perspective, “climate for innovation is a direct result of top managers’ personal and positional characteristics” (Damanpour & Schneider, 2006, p. 220). As a consequence, since emotions, moods, affect states and behaviors are closely related to each other, the management of emotions constitutes a critical issue not only in effective leadership (Goleman, 1998) but also in leading team members throughout the implementation stage.

Addressing this idea against the background of innovation, Zhou and George (2003) claimed that leader’s EI influences affective and cognitive processes associated with idea implementation and problem recognition. This, together with the fact that innovation implementation involves several cues of emotions, lays the foundation for further elaboration of the concept of leader’s emotional intelligence and its repercussions for innovation implementation.
These reasons give rise for further consideration of the concept of emotional intelligence as it can strongly affect the relationships between climate, team members’ emotions, and innovation implementation. Thus, we now present the concept in some more detail to set a solid foundation for a subsequent synthesis with the concepts of innovation implementation, team climate, and emotions.

5.1 The Concept of Emotional Intelligence

Emotions and organizational work-environment are two inseparable concepts (Ashforth & Humphrey, 1995). Team members emotions shape attitudes and behaviors, thus impacting on the team and organizational performances (Avey, Wernsing & Luthans, 2008). This points out that not all organizational dynamics are objective, rational and potentially controlled by cognitive intelligence. Darling and Walker (2001) have concluded that “social intelligence or emotional intelligence may be just as important as intelligence quotient (IQ) for being successful in today’s business environment. In some cases, these different concepts of intelligence may be more important than IQ” (p. 235). This shows the reasons why in the recent years increasing studies focused on other kinds of intelligence, moving away from the more traditional bits of intelligence, thus opening to capacities more emotionally related. The most discussed are emotion regulation, empathy, and in particular emotional intelligence. Emotion regulation involves peoples’ conscious and unconscious (Bargh & Williams, 2007) attempts to influence which emotions they display in comparison to those they feel (Gross, 1998). Empathy includes understanding and experiencing feelings of other people (Salovey & Mayer, 1990). It assumes crucial importance within organizations, since “an understanding of emotion, both our own and those of other people, plays an important part in organizational life” (Brown & Brooks, 2002, p. 327). Empathic individuals are aware of the fact that how other people feel may influence their affective state (Vignemont & Singer, 2006), which makes empathy move closer to the concept of emotional intelligence. Moreover, empathy is also seen as one competency of emotional intelligence (Goleman, 1995). While regarding empathy there is a fair degree of consensus, the same can not be said for the concept of emotional intelligence (Gooty et al., 2010). Hence, how to conceptualize and measure the emotion-based capacities of emotional intelligence still leads to disagreement and discussions. However, we want to present two highly recognized models which conceptualize the characteristics of emotional intelligence as an ability-based model (Mayer & Salovey, 1997) and as a mixed model (Goleman, 1995).
Ability-Based Model

Mayer and Salovey (1997) proposed their model to emotional intelligence which involves four abilities that contribute to emotional intelligence: perception, facilitation, understanding, and management.

- *Emotional Perception* can be described as the ability to be aware of the emotions of oneself and others, and to express them appropriately in relation to the specific social setting.

- *Facilitating Cognition* refers to the ability to generate and use emotions in order to assist cognitive processes.

- *Emotional Understanding* involves the ability to understand which emotions oneself is feeling and being aware of their causes and consequences. Hence, the individual is able to label them, and can thus better cope with the evoked emotions.

- *Emotional Management* involves the ability to maintain and alter the emotions in the self and others, being then able to enhance/reduce positive/negative emotions as needed.

In conclusion, Mayer, Salovey & Caruso (2004) define emotional intelligence as “the capacity to reason about emotions, and of emotions to enhance thinking. It includes the abilities to accurately perceive emotions, to access and generate emotions so as to assist thought, to understand emotions and emotional knowledge, and to reflectively regulate emotions so as to promote emotional and intellectual growth” (p. 197).

Mixed Model

A second highly recognized model is the mixed model originally proposed by Goleman (1995, 1998). He described a mix of 25 competencies, divided into five categories where both emotional competencies and the product of these competencies were involved. Following this approach, emotional intelligence can then be explained as the combination of personal competencies (self-awareness, self-regulation, and motivation) and social competencies (empathy and social skills). In the next years, Boyatzis, Goleman and Rhee (2000) redefined the model, reducing the competencies from 25 to 20 and adopting four categories instead of five. Goleman’s comprehension of emotional intelligence embraces then *personal* (Self-Awareness and Self-Management) and *social* (Social Awareness and Relationship Management) competencies:
Self-Awareness: it is described as the awareness of one’s own emotions and of their impact (Goleman, 1998). It includes competencies that allow the individual to recognize feelings, thoughts, personal strengths and weaknesses. These are:

- **emotional self-awareness**: this competence is described as the ability to recognize own’s emotions and their effects on the self and others (Goleman, Boyatzis & McKee, 2002), thus knowing what and why oneself is feeling;

- **accurate self-assessment**: is the ability to recognize one’s own strengths and weaknesses. This leads to an awareness of one’s abilities, limitations, and where one needs to improve;

- **self-confidence**: is defined as the beliefs in the one’s own capabilities to achieve a specific goal, accomplish a task and succeeding in them through the selection of an effective approach to that task (Goleman, 1998).

Self-Management: it involves the ability to control one’s own emotions and impulses (Goleman, Boyatzis & McKee, 2002). For example, being able to regulate stress from negative emotions and control emotional impulsivity related to positive emotions (Goleman, Boyatzis & McKee, 2002). It includes competencies such as:

- **emotional self-control**: Goleman (1998) describes it as the ability to control own emotions, both positive and negative ones;

- **transparency**: is closely related to the concept of integrity: it is about acting consistent with what one claims. Involves the communication of ideas, intensions, and feelings in an open and honest manner regardless the situation;

- **adaptability**: is described as the ability to be effective in changing situations and with different persons or groups;

- **achievement orientation**: this competence is about more than just achieving goals. It is about achieving them through personal effort while respecting a certain challenging level of excellence;

- **initiative**: involves the ability to identify critical situations and to take action to address them;

- **optimism**: is described as the ability to achieve goals regardless unfavorable events and setbacks (Goleman, Boyatzis & McKee, 2002).
Social Awareness: it determines how relationships are handled. Goleman, Boyatzis, and McKee (2002) describe it as the ability to recognize and react to others’ emotions. It includes the following competences:

- **empathy**: is described as the ability to be aware of others’ emotions, concerns and needs through the interpretation of verbal and non-verbal cues (Goleman, 1998);
- **organizational awareness**: is about the ability to understand power relationships in organizations, such as individuals with influence and real decision-makers (Goleman, Boyatzis & McKee, 2002);
- **service orientation**: can be described as the desire to help or serve others in order to reach their individual potential and fulfill their needs.

Relationship Management: it is described as the ability to motivate and enhance others’ development and personal growth (Goleman, Boyatzis & McKee, 2002) through the influence of their emotions. It includes the following social competencies:

- **developing others**: the ability to recognize others’ needs and helping them to meet them;
- **team work and collaboration**: is described as the ability to collaboratively work with others and to contribute positively to team group dynamics;
- **conflict management**: describes the ability to manage difficult situations, conflicts, and tensions with diplomacy and tact;
- **inspirational leadership**: this competence is about the ability of articulating and arousing enthusiasm for a specific shared vision, to step forward, to lead by example and guiding others to mutual accountability and individual performances;
- **change catalyst**: describes the competence to initiate and manage change effectively;
- **influence**: is the ability to persuade and convince others in order to gain support in specific events, tasks or actions.

In conclusion, Goleman (1995) defines emotional intelligence as “the capacity for recognizing our own feelings and those of others, for motivating ourselves, for managing emotions well in ourselves and in our relationships” (pp. 268-269).

### 5.2 Our Perspective on Emotional Intelligence within the Context

The consideration of two highly recognized models of emotional intelligence provides us an appropriate overview of this concept. Furthermore, it allows us to understand which of the two
models better fits with the aim of our thesis. A key element in this evaluation process is the consistency with the level of analysis we adopted throughout the whole thesis: the team level. As discussed, we showed that emotions are influential on the team level through their effects on the climate that, as argued before, we comprehend as a team level phenomenon. Because of this team level perspective, the mixed model to emotional intelligence by Goleman is the one that appears appropriate. The reasons lie in the characteristics that distinguish it from Salovey and Mayer’s ability-model: the focus on both personal and social dimensions. While the perspective of the ability-model is merely at the intraindividual level, the mixed model opens to both competencies of the self (personal dimension) and competencies in relation to others (social dimension). Given this context, from now on we adopt to Goleman’s mixed model.

The adoption of this model allows us to highlight the influence of leader’s emotional intelligence against the background of innovation implementation. In particular, given the balance between personal abilities and social skills we are able to show the influence of leader’s emotional intelligence not only at their individual level (personal dimension), but also in relation to team dynamics (social dimension). Consequently, the combination of these two perspectives, allows us to deeply explain the influences of leader’s emotional intelligence on team dynamics, thus being in alignment with the team level of analysis of our thesis and therefore providing valuable insights in relation to our context.

In conclusion, throughout this chapter, we introduced the concept of emotional intelligence to the previous context. As emotional intelligence assumes greater importance, we portrayed the relevant abilities, skills, and competencies. Thus, we have laid a solid foundation for the subsequent integration with the concepts of innovation implementation, team climate, and emotions. We now continue by presenting a conceptual model that, by synthesizing the presented concepts, provides an understanding of the effects of leader’s emotional intelligence on innovation implementation.
6 The Heart of our Research: An integrated Conceptual Model

6.1 Introducing the Conceptual Model

Throughout the last three chapters of this thesis, we have brought clarification to the concepts of innovation, with particular attention to innovation implementation. Herein, we pointed out the crucial role of the team climate (chapter 3) and its interplay with emotions, thus highlighting the central role of the leader in the emotional contagion process (chapter 4). We then subsequently concluded the elaboration on the relevant concepts by underscoring the potential influence of emotionally intelligent leaders on team members’ emotions and the team climate (chapter 5), laying the foundation for linking these concepts against the background of innovation implementation within a logical conceptual system. Thus, our intention is now to synthesize these concepts and depict their relationships to each other in a logical, integrated conceptual model. These relationships are next explained and subsequently lead to derived hypotheses and propositions. We propose hypotheses for those relationships that are more likely to be measured and observable in a quantitative research and have a predictive character. For relationships which have an explanatory character and are less likely to be investigated in a quantitative research, we suggest propositions. The latter assume to be appropriate for a qualitative research and are therefore formulated with a wider scope. Figure 3 illustrates the model which we now describe and explain in greater detail.

![Figure 3: Integrated Conceptual Model of Innovation Implementation.](image-url)
First of all, we want to point out that the model is composed of two implicit sides: the upper one (solid lines and arrows) and the lower one (dotted lines and arrows). The first side is drawn – and has to be read – in a horizontal direction. Here, leader’s emotional intelligence is linked with team climate for innovation that, in turn, is linked with innovation implementation. This horizontal perspective depicts the relationships between these three different concepts and assumes predictive characteristics. The model can not be considered fully logical without explaining “how” and “why” these predictive relationships take place. Therefore, the bottom side of the model assumes an explanatory character. This side is drawn in a vertical direction (dotted lines and arrows) and shows how and why the emotionally intelligent leaders, through the emotional contagion process, can influence the team climate for innovation. Furthermore, we adopted the pyramid shape proposed by Ashkanasy (2003) to highlight the multi-level perspective to emotions (chapter 4). By keeping this shape, we want to let the reader pay particular attention to the emotional contagion process, which paves the way through which emotions, evoking from an individual issue, are spread throughout the team. As already argued, these emotions then contribute to the group shared emotions, which in turn influence the shared perceptions of which the climate is made of.

Thus, even though the model contains two implicit sides (horizontal and vertical), these two parts need to be understood interdependently, as their mechanisms work simultaneously. The effects of leader’s emotional intelligence take place on the team climate for innovation (first solid arrow), but the processes through which this influence happens can be explained by approaching emotions as a pyramidal multi-level concept, where the emotional contagion process carries emotions from an individual dimension to a group one (dotted lines). Thereupon the concept of climate for innovation is linked with innovation implementation (second solid arrow).

The overall, overarching message of the model is that team leader’s emotional intelligence influences innovation implementation. Therefore, we propose our main hypothesis:

\( H_1: \text{Leaders with higher levels of emotional intelligence have a positive influence on innovation implementation within teams.} \)

To address and respond to this main hypothesis, it is now necessary to investigate how and why this influence takes place. We, therefore, elaborate on the relationships between the single concepts and thereupon logically derive sub-hypotheses and sub-propositions throughout the following sub-chapters.
6.2 The Interplay between Leader’s EI and Climate for Innovation

We want to point out that we take the four climate dimensions proposed by West (1990) as a point of departure to present the conceptual interrelation to leader’s emotional intelligence. This grants a consistent orientation with the focus of the thesis on innovation implementation against the background of the critical importance of the team climate. In particular, we take each one of the four climate factors at a time, showing the effects (solid arrow) that leader’s emotional intelligence may have on each factor. As the climate dimensions are already described in chapter 3, we decide to forego a repetitive summary of these at this stage. Instead, we directly link the abilities and competencies of emotionally intelligent leaders with the characteristics of the climate dimensions. In order to ensure readability of the model and reduce its complexity, we have decided to not connect the concept of leader’s emotional intelligence – or even each EI dimension – with each single climate dimension. Instead, the first horizontal arrow between leader’s EI and climate for innovation involves the first four sub-hypotheses which we now derive.

6.2.1 Team Vision

Higher levels of emotional intelligence may be beneficial for characteristics claimed by this dimension. Competencies related to the social awareness dimension of emotional intelligence may help leaders to sense team members’ despair or helplessness in the face of uncertainties and ambiguities that may result from a vaguely defined vision or overwhelming implementation objectives. In particular, higher levels of empathy may help leaders to feel emotions, concerns, and needs of the team members, and thereon take action to eliminate uncertainties. By doing this, team members may be more certain about the reasons for innovation implementation and not threatened by overly, non-achievable implementation goals. In this perspective, the social competencies belonging to the self-management dimension may help. For instance, because of the emotional contagion process, together with the role model position of leaders, the emotional self-control dimension assumes central importance. Being able to control their own emotions, leaders may be enabled to consciously, indirectly shape the team members’ emotions, and thereby influence their attitude to the innovation and behavioral intentions towards implementation. Therefore, leaders are required to have higher levels of self-awareness, which enable them to recognize their own emotions and be aware of their effects on themselves and others.

Furthermore, their efficacy may not only be emotionally related, but leaders may also recognize their main strengths and weaknesses (accurate self-assessment) and use them to successfully
drive team members. In relation to the leaders’ ability to drive other team members, it has to be pointed out that innovation implementation can entail a vision and following objectives, which involve significant changes in current working practices and procedures. Against this background, leaders can occupy the role of change catalysts who, the higher their emotional intelligence is, the more they are able to initiate and manage change. This may be seen as a consequence of the inspirational leadership competence of emotional intelligence, which allows leaders to better articulate and arouse enthusiasm for a specific shared vision. As a result, emotionally intelligent leaders may have a higher ability to influence others’ perception of the team vision. Through this competence, leaders may more effectively persuade and convince team members, thus gaining support for specific tasks, actions, and the team vision in a more effective way.

Furthermore, the relationship management dimension may be relevant not only because it relates to the leader’s ability to persuade and inspire their team members for facing changes, but also because it includes the ability to perceive their needs. Leaders, by helping them to meet those needs, then contribute to individuals’ personal development. Therefore, it may eventually happen that, in order to gain support for the team vision, emotionally intelligent team leaders need to convey that the implementation of process innovations not only leads to organizational benefits, but also that team members may benefit from its successful implementation. By sensing their needs and addressing them, emotionally intelligent leaders might be more effective in articulating the usefulness of the innovations. Team members may thus understand that they would individually benefit from the implementation and may, therefore, adopt a more positive attitude towards it.

Given this argumentation, we propose our first sub-hypothesis:

\[ H_{1a}: \text{Leaders with higher levels of emotional intelligence have a positive influence on the Team Vision dimension of the Team Climate for Innovation.} \]

### 6.2.2 Participative Safety

The emotional intelligence of the team leaders may also be related to the second dimension, labeled ‘Participative Safety’. As aforementioned, leaders have to ensure the perception of a psychologically safe environment. Therefore, the social skill dimensions (social awareness and relationship management) might be relevant. Leaders with higher emotional intelligence, in particular regarding these dimensions, might facilitate the perception of a safe environment through their empathic abilities to sense other’s emotions. This ability helps them to accurately interpret verbal and non-verbal cues about the team members’ perceptions and feelings of
We argue that, when team members perceive a non-threatening and supportive atmosphere, they are more prone to express themselves and thereby express their needs and personal goals. Regarding this, leaders’ service orientation as a competence of the social awareness dimension may be supportive. Leaders with higher levels of emotional intelligence, and especially higher service orientation, have the desire to enhance others’ development and personal growth. To meet this desire, leaders’ efforts to create this safe environment may be driven by the initiative competence, which enables them to identify critical situations and take actions to address them, thus ensuring the non-threatening atmosphere.

In addition to a safe environment, it is assumed that accepted and encouraged participation of team members in the decision-making process is beneficial for the acceptance of process innovations and their implementation. A non-threatening and risk-friendly climate encourages the team members to speak up, intervene, share ideas, communicate, or – generally speaking – to participate actively in the team’s decisions and dynamics. To generate a positive perception of these participation factors among the team members, leaders’ relationship management abilities may become relevant and consequently aid the implementation of process innovations within a team. When team members are encouraged to take part in the decision-making processes regarding the innovation implementation practices and strategies, they may have a more positive attitude and intentions to implement the innovation. However, higher participation and collaboration may also lead to higher personal conflict potential since opposing opinions and suggestions may occur. These personal conflicts are considered detrimental to implementation since they drain energy and may lead to distractive and destructive emotions like anger, frustration or envy. The needed collaboration and interaction, as well as the safe psychological environment, would be inhibited by those emotions and thus, emotionally intelligent leaders need to interfere with relationship management skills in order to ensure effective implementation. Leaders with high levels of emotional intelligence have then higher abilities to identify critical situations and manage conflict positively. Conflict management includes the ability to manage difficult situations, conflicts, and tensions with diplomacy and tact, which requires high degrees of empathy and emotional self-control. Therefore, to positively manage conflicts, leaders need to perceive other’s emotions and concerns and thereupon addressing them by appropriate use of their own emotions.

For creating a participative safety climate, leaders need to ensure that a mutual support atmosphere, rather than punishment and non-constructive feedback, is present during the implementation stage. Therefore, competencies of the social dimension of EI may also be supportive to establish trust among team members. Trust is important since the implementation
of process innovations is a socio-interactive act that is not achievable through an individual’s committed use of the innovation. Rather it needs the collective, consistent use of the innovation. In this sense, trust is important because team members’ individual contribution to the implementation and its likelihood to result in effective implementation is dependent on the contributions of others.

Against the background of the mentioned group affective tone, we assume that, if constituted as positive, team members are also more likely to develop a positive attitude towards the process innovation in general, and successively they are more willing to implement it. Regarding this, the EI dimensions of self-awareness and self-management, as well as the social dimensions, are relevant. The first two are essential since leaders assume a role model position in the team. The emotions they display and the behaviors they show are transmitted and spread to the team members. Furthermore, through the emotional contagion process, the leaders’ attitude towards innovation is spread from the individual level to the team one, thus contributing to the group shared emotions. For this reason, team leaders need to be aware of and pay particular attention to the emotions they express (emotional self-control) towards the innovation and its implementation. For example, if the leader is tired and annoyed of the implementation process and expresses this, through the process of emotional contagion the team members tend to generate similar emotions, which are detrimental to effective implementation. For this reason, consistency between words and behaviors, may influence the group affective tone and thus the team members’ attitude in relation to the innovation implementation. Last but not least, higher levels of the social dimensions are needed too, in case team members show emotions like anger or fear regarding the innovation. When leaders sense these emotions, thanks to the social competencies, they are able to interfere, react and regulate them to ensure that they do not spread and jeopardize the implementation process.

These arguments lead us to derive our second sub-hypothesis:

\[ H_{1b}: \text{Leaders with higher levels of emotional intelligence have a positive influence on the Participative Safety dimension of the Team Climate for Innovation.} \]

### 6.2.3 Task Orientation

Given the perspective of this climate dimension, emotional intelligence may help leaders to sense when team members lose patience or become frustrated because they cannot fulfill high expectations. Thus, emotionally intelligent leaders may better recognize critical team member situations through higher levels of empathy. Being aware that emotions are transferred between individuals, and that this is even more important from a leader’s perspective, emotionally
intelligent leaders need to regulate their emotions and behaviors carefully. Understanding team members’ emotions, concerns, and needs together with the ability to control emotions and behaviors, allows leaders to shape singular team members’ emotional responses to high work performance expectations. That said, leaders may then help team members to deal with those expectations, adjusting them in relation to the individuals’ characteristics and emotional sensibility. Shaping the expectations induced by the climate perceptions, providing emotional support and behaving as role models, leaders relieve team members’ feelings and worries, thus influencing their perceptions and attitude towards innovation implementation.

Also involved within the climate dimension of the task orientation, is a constructive controversy and mutual evaluation of performance, as well as the presence of a reflective climate about strategies, processes, and objectives. These, together, reshape the attitude of team members about the innovation, making them feel more committed and eventually more likely to implement it. The main issue is that, as mentioned regarding the participative safety dimension, the constructive controversy may lead to similar conflict potential. To benefit from controversy and not falling victim to detrimental personal conflicts, emotional intelligence dimensions are determinant issues. In this perspective, of particular relevance is the ability to collaboratively work with others and positively contribute to team group dynamics. Because of leaders’ role model characteristics, team members may then behave consistently with the behaviors of their leaders, thus spreading the positive effects of their emotional intelligence. Furthermore, when critical situations come into play, emotionally intelligent leaders may be enabled to identify them, and with help of the conflict management competence, handle them positively.

Closely related to the concept of constructive controversy is team reflexivity, which is also influential for the perception of this climate dimension. Reflections about work methods and team performance, feedback and cooperation, and mutual monitoring (Tjosvold, 1982) are important steps in order to obtain higher task orientation. Not only the way feedbacks are managed is crucial (the considerations we made for constructive controversy are valid here as well), but also their content strongly influences the degree of perceived task orientation and thus the attitude towards innovations. Similar to the implications for the team vision dimension, the reflection about objectives, goals, and strategies among team members may lead to distraction from the innovation if they are perceived as non-beneficial to their own work. As innovation implementation is more likely to be successful if team members are participating (Stollberger, West & Sacramento, in Press), team members’ active involvement through collective reflection is fundamental. Through the continual reflection and discussion about goals, practices, and perceptions of the innovation, employees may gain confidence in it,
potentially ending up in perceiving it as a natural element of their task. Team members may thus understand the potential benefits and value of the innovation, legitimizing its implementation. Leaders then need to sense this evaluation, actively participate in the controversy, and re-shape this appraisal of the innovation by the use of their social dimension competences. In addition, particularly important in this perspective is the ability of emotionally intelligent leaders to influence and involve others in order convey the beneficial value of the innovation to the team members. While doing so, leaders may help them to meet their needs, motivating and enhancing other’s development and personal growth.

This reasoning leads to propose our third sub-hypothesis:

\[ H_{1c}: \text{Leaders with higher levels of emotional intelligence have a positive influence on the Task Orientation dimension of the Team Climate for Innovation.} \]

### 6.2.4 Support for Innovation

Given the characteristics of the fourth climate dimension, the leaders assume even more critical importance. In particular, their attitude towards innovation and implementation may strongly shape the team members’ one. When leaders support the process innovation, personally use it, and supervise the implementation progress, the team members may perceive greater value of the innovation and feel more prone to implement it (Agars, Kaufman & Locke, 2008; Sharma & Yetton, 2003). In this perspective, the self-management competencies of emotionally intelligent leaders may significantly help. Their ability to be effective in changing situations may strongly contribute to heighten the perceived value of the innovation among the team members. Furthermore, leaders with higher levels of emotional intelligence are more likely to support innovations and act as inspiring role models as they have the desire to act transparent and consistent with what they claim. They would consequently act in accordance with their communicated ideas and intentions towards the innovation and thus support implementation among team members.

For conveying support for innovation and the relevance of the innovation for the team, leaders need not only the self-management competencies but also the self and social awareness ones. Therefore, they may need higher levels of these dimensions: they may thus sense team members’ emotions regarding the implementation attempts and consequently be enabled to express supportive emotions and regulate detrimental emotions. Furthermore, if leaders fail to express positive emotions about team members implementation attempts, the team members may become frustrated and adopt a dismissive attitude towards the innovation. Since it is crucially important that team members sense practical and enacted support for their
implementation endeavors, the emotional reactions to those attempts need to be positive and supportive as well.

Support for innovation implies to ensure that team members have a positive attitude toward the innovation and that they attribute high importance to it. For enhancing the perceived importance of implementation among the team members, team leaders might again need to have higher abilities of the social dimensions of emotional intelligence. When leaders empathize a lack of perceived support of implementation, which may be expressed by emotions as malaise, antipathy, or frustration during implementation processes, the social competencies might enable them to interfere and provide adequate support. Thus, they are able to equilibrate team members’ negative emotions and thereby re-shape the perception of practical and enacted support for innovation.

In general, higher levels of emotional intelligence enable leaders to become aware of and understand team members’ dissatisfaction with the current implementation practices and processes. Furthermore, by enacting helpful support, they may regulate and channel this dissatisfaction back to positive feelings and attitude towards the innovation and its implementation.

The given arguments enable us to derive our fourth sub-hypothesis:

\[ H_{1d}: \text{Leaders with higher levels of emotional intelligence have a positive influence on the Support for Innovation dimension of the Team Climate for Innovation.} \]

6.3 The Emotional Contagion Process

Throughout the previous four sub-chapters, we presented the potential influence of leader’s emotional intelligence on each of the four dimensions of the climate for innovation. Consequently, we stated the first four sub-hypotheses, which – referring to the model – are represented by the first horizontal arrow that links leader’s emotional intelligence with the climate for innovation.

The relationships that we have just presented describe the potential effects of leader’s emotional intelligence on each dimension of the climate for innovation (first solid arrow). However, it also has to be pointed out that it does not explain the process through which they take place. Therefore, the bottom side of the model needs to be taken into consideration (dotted lines and arrows). It explains the mechanisms and procedures through which the relationships in the upper side of the model (solid lines and first arrow) occur. The first vertical dotted arrow links the concept of leader’s emotional intelligence to the concept of emotions which is illustrated by
the inverted pyramid. With this upside-down pyramid, we want to underline and represent the process through which emotions, from an individual issue, become a group level matter. The starting point is the tip of the pyramid, which represents the narrowest level of analysis of emotions: the within person’s one. Then, each plane within the pyramid becomes wider, illustrating the social dimension of emotions and their spread among individuals. Thus, the second block represents the between-persons’ level, followed by the interpersonal one and the team one. For linking the concepts within the model, we paid particular attention to the level of analysis. Both, innovation implementation – especially of process innovations – and the concept of climate (as argued before) can be considered as team level concepts. Thus, we adapted the pyramid by not considering the fifth plane, as it explains emotions on an organizational level. Therefore, we conclude this representation with the team and group level. By adopting the multi-level perspective to emotions by Ashkanasy (2003), we can highlight the influence that emotions have on climate and show its emotional component.

As can be seen in the model, there is not a direct arrow linking the pyramid and climate. Rather we added an oval-shaped box representing the emotional contagion process. As clarified in chapter 4, emotional contagion constitutes the process through which the aforementioned spread of emotions takes place, thus allowing them to successively influence the climate. To underscore the working mechanisms of the emotional contagion process, we have placed colored arrows between the planes of the pyramid. Starting from the tip of the pyramid, the arrows pass then through all its levels, ending up with an arrow pointing to the climate for innovation, representing and highlighting the influence that emotions have on the concept of climate.

Throughout the previous chapters, we have outlined how and why leaders, through their behaviors, the way they communicate (verbally and non-verbally), and the emotions they display, influence team members’ emotions. This can be seen as a consequence of the assumed role model of leaders, which is influential throughout the whole multi-level process of emotional contagion. Thus, leaders may influence group level emotions in two different ways. The first way is a direct influence, which takes place when leaders behave, communicate, and display emotions to a group of team members (broader level of the pyramid). The second way of influence is an indirect one, which takes place through the emotional contagion process: when team leaders behave, communicate and display emotions to an individual (narrower levels of the pyramid), these cues are then perceived, assimilated and transmitted among the team members. Then, as a result of this emotional contagion process, these emotions, even though
originated within an individual, contribute to the creation of team emotions (thus indirectly reaching the higher/broader levels of the pyramid).

This reasoning lays the foundation for understanding the potential benefits that emotionally intelligent leaders have in creating a climate for innovation that fosters innovation implementation. In particular, leaders with higher levels of emotional intelligence not only can manage own’s and team members’ emotions, but can also control and regulate their behaviors, their verbal and non-verbal communication, and the display of their emotions.

Starting from the tip of the pyramid, the within-person level shows how team members' behaviors are shaped by the individual personality, their attitudes, the way they feel at work and their feelings. Thus, as the Affect Infusion Model (AIM) and the ‘Affect as Information Approach’ suggest, the team members’ decisions and behaviors may be consistent with the decision-makers’ moods. This, together with the leader’s power to influence team members’ emotions, allow emotionally intelligent leaders to drive individuals’ behaviors. Particularly, with higher levels of empathy, they can better empathize with others’ emotions, concerns, and needs, being thus aware of the emotional issues that need to be addressed and thus behave appropriately. In this perspective, emotional self-awareness and control are critical competencies, since being conscious of and able to control own’s emotions allows leaders to shape the emotional contagion processes at this level. In particular, even though mimicry and synchrony may be difficult to control, emotional experience and feedback may highly benefit from leaders’ emotional intelligence.

Moving to the next level of the pyramid, the between-person plane points out that individual differences influence the way individuals perceive and deal with emotions. In particular, trait affect and different degrees of team members’ emotional intelligence influence the frequency, duration and intensity that team members experience moods and emotions. Assuming a leader’s perspective, leaders need to be aware of this phenomenon and act appropriately. In this aim, higher levels of emotional intelligence allow them to recognize these differences. In particular, as for the previous level, due to higher levels of empathy, leaders can interpret verbal and non-verbal cues, which help them to recognize individual differences among team members. Applying these considerations to this level of the emotional contagion process, as they are aware of the different susceptibility to emotions, emotionally intelligent leaders may express emotions appropriately. As a consequence, controlling their emotions, behaviors, and communication, leaders then act considering those individual differences, thus enhancing their influential effectiveness.
Moving another level up, emotions start to be approached from a social perspective. Indeed, the interpersonal interaction level engages the emotional exchange both from leaders to team members and consequently between team members. This level aims to highlight that emotions and moods are communicated and transmitted. Since leaders are seen as role models, the emotions they convey have vast effects. Thus, higher levels of emotional intelligence help leaders to carefully manage their emotional display. That said, the emotional self-control assumes central importance. This allows emotionally intelligent leaders to succeed in the emotional labor, which constitutes a building block in the emotional contagion process of this level. The high importance we just pointed out is explained by the mechanism that emotions are transferred from the leader to individuals and then disseminated among the team members at a group level. Emotionally intelligent leaders may thus better deal with their emotional labor, better handle the dichotomy between felt and displayed emotions, and therefore positively manage the team members’ emotional state in favor of the innovation implementation.

What just said finds direct repercussions for the next level of the pyramid: the group and team one. The emotions and moods that leaders display are the foundation on which team members base their emotional judgment of the leader (Newcombe & Ashkanasy, 2002). As argued in chapter 4, emotional judgments are a central issue, since they constitute the element on which team members value the quality of the relationship with their leader. In accordance with the Leader-Member Exchange (LMX) theory, higher quality relationships between the leader and team members lead to better job assignments, higher inclination to take responsibility, and positively influence the decision making (Deluga, 1998). Against the background of innovation implementation, these effects on team members’ behaviors may shape their attitude and reaction toward the team innovation, thus determining innovation implementation effectiveness. Consequently, given their higher ability to behave, communicate, and display the proper emotions, emotionally intelligent leaders may reach higher levels of innovation implementation effectiveness. Furthermore, the emotional contagion process at this level then carries the team members’ emotional reactions to leader’s behaviors, communication, and display of emotions through the whole team. Once emotions assume a group level, they become active contributors to the team shared emotions or group affective tone. As a further and concluding step, the team shared emotions and group affective tone influence the team members’ shared perceptions.
Given this reasoning, we derive our first sub-proposition, depicted in the model by the first dotted arrow that links leader’s EI to the pyramid of emotions:

\[ P_1: \text{Team leader’s emotional intelligence influences individuals’ and shared emotions among team members and consequently influences team members’ perceptions.} \]

Thus, following the employed comprehension of the concept of climate, we argue that team members’ perceptions influence the team climate.

That said, we suggest our second sub-proposition, illustrated in the model by the second dotted arrow that links the pyramid of emotions, the emotional contagion and the climate for innovation:

\[ P_2: \text{Team leader’s emotional intelligence influences team members’ perceptions and consequently the team climate for innovation} \]

### 6.4 From Climate for Innovation to Innovation Implementation

At this stage of explanation of the model, we have provided an understanding of the effects that leader’s emotional intelligence has on each singular climate dimension for innovation (upper side of the conceptual model). In addition to that, we have also shown the process through which these effects take place (bottom side). As a result, we have stated the main hypothesis (overall message of the model) and four sub-hypotheses (horizontal, solid arrow between leader’s EI and climate for innovation) proposing that higher levels of leader’s emotional intelligence positively influence each dimension of the climate for innovation. Regarding the bottom side, we suggested two sub-propositions which propose a conjectural relationship between team leader’s emotional intelligence, emotions and team climate for innovation (vertical, dotted arrows). We now explain the relationship between the concept of climate for innovation and innovation implementation. Therefore, this part aims to describe and explain the last horizontal solid arrow that links these two concepts.

Throughout chapter 3 we have underscored the role of team climate in relation to innovation implementation. Analyzing a vast pool of innovation-related literature we have pointed out that the prevalent climate is as an important concept when striving for innovation within teams. Of particular importance is that the characteristics of team climate provide cues to team members about how important innovation is, how its implementation has to be obtained and which types of behaviors, attitudes, and feelings are common, expected or supported (Klein & Sorra, 1996; Choi et al., 2011). As a result, team climate influences the way team members perceive their
workplace and the occurring events, thus guiding their perceptions, attitudes, and behaviors towards innovation implementation (Schneider & Bowen, 1995).

In accordance with the pool of literature that we have presented in chapter 3, innovation is generally enhanced when the team climate entails certain characteristics. These characteristics are structured through the four dimensions of Team Vision, Participative Safety, Task Orientation and Support for Innovation. We now want to outline how these single climate factors may be related and contribute to innovation implementation in particular.

In relation to the team vision dimension, team vision and objectives have to be clearly defined, attainable and highly valued among the team members (West, 1990). When team vision meets these characteristics, team members are able to envision the potential benefits of the innovation. Formulating implementation as an explicit higher-order objective, which additionally is possible to attain, may function as facilitative for implementation. Therefore, when team members can understand innovation usefulness and necessity, they may be more prone to be committed to it and are thus more inclined to implement the innovation.

It has also been stated that participation within decision-making processes of innovation adoption (Burke et al., 2006), as well as a prevalent psychologically safe atmosphere (Baer & Frese, 2003), are associated with less resistance to implement an innovation within a team (West, 2002). When team members can present their suggestions and opinions in an atmosphere that is characterized by psychological safety, they may be more committed to the innovation and take the initiative to implement it.

Moreover, high expectations about work performance (West, 1990), a constructive controversy about current working practices and performance (Tjosvold, 1982), as well as reflexivity (West, 1996) are outlined for the enhancement of innovation within teams. In regard to implementation, when team members have high standards for performance, they may be more likely to maintain persistent actions towards implementation in case obstacles and resistance during the implementation process occur (Eisenbeiss, van Knippenberg & Boerner, 2008). Collective reflection and discussing upon team’s objectives, strategies and processes in regard to innovation is assumed to be facilitative to implementation (Stollberger, West & Sacramento, in Press) as more deliberate implementation plans and a positive attitude towards the innovation may result. As consequence of these dynamics, effective implementation may be initiated.

Last but not least, the extent to which attempts to introduce innovations within the current working environment are expected, approved and supported has been evinced as the strongest predictor for innovation within teams (Anderson & West, 1998; West, 1990). In regard to
implementation, it can be argued that when leaders provide practical support for innovation—by dispensing necessary resources for implementation (e.g., time), personally use the innovation, and rewarding implementation attempts—they may shape team members’ attitude towards the innovation. This takes place through conveying openness towards changing working practices and procedures. Team members then develop a positive attitude, are more willing to invest time for implementing the innovation, feel encouraged to take action towards implementation, and understand its value.

In conclusion, these characteristics are constituted through the four climate dimensions (Team Vision, Participative Safety, Task Orientation, Support for Innovation) within the team climate model for innovation proposed by West and colleagues (Anderson & West, 1998; West & Farr, 1989; West, 1990). Moreover, we argued that each team climate dimension not only influences innovation in general but also indicates the different climate characteristics that appear relevant for the stage of implementation within teams.

Given these arguments, we propose our fifth and final sub-hypothesis, depicted in the model by the second solid arrow that links the climate for innovation with innovation implementation:

\[ H_{1e}: \text{A team climate for innovation, in particular higher levels of Team Vision, Participative Safety, Task Orientation, and Support for Innovation, has a positive influence on innovation implementation within teams.} \]

Now, as we have explained each drawn relationship between the concepts, we can come back to the overall message and the main hypothesis (H₁) of the model. This overall message is that leaders with higher emotional intelligence have a positive influence on innovation implementation. How and why this influence takes place has been explained through the reasoning for each sub-hypothesis and sub-proposition. We argued that leader’s EI influences individuals’ and teams’ emotions, which in turn shape perceptions and thereby influences the climate. Furthermore, we explained what effects higher levels of emotional intelligence may have on the team climate, and, eventually, we argued that climate can influence implementation of process innovations within teams.
7 Final Considerations

7.1 Responding to the Research Questions

We now want to come back to our initial research issues and research questions, making use of our conceptual model. It synthesizes the four relevant concepts discussed in the theoretical elaboration: innovation implementation, team climate, emotions and leader’s emotional intelligence. Through this model we shed light on the emotional component related to the innovation implementation, providing an understanding of the entanglement of emotions throughout the implementation stage of innovations, the role of the team climate, and the leader’s influence thereon. The overall message of the model, expressed through the main hypothesis (H₁), is that leaders with higher emotional intelligence have a positive influence on innovation implementation. How this relationship takes place is explained by the reasoning for the stated sub-hypotheses and sub-propositions throughout chapter 6. In sum, these derived relationships help to respond to our main research question, which was:

*What is the relationship between leader’s emotional intelligence and team climate for innovation against the background of innovation implementation within teams?*

This relationship can be explained by a joint consideration of our two sub-questions. Therefore, we begin with responding to our first sub-question, which was:

*How does the interplay between leader’s emotional intelligence, individual and team shared emotions influence the climate for innovation?*

For the aspiration to respond in a clear way, it is beneficial to divide this question into two parts and address them separately. Therefore, our focus now is on explaining the interplay between leader’s emotional intelligence, individual and team shared emotions. We answer this specific part of the question by using the first sub-proposition (P₁).

Thus, we claim that the team leader’s emotional intelligence influences individuals’ and shared emotions among team members by addressing and regulating one’s own and other’s emotions that are then spread by the emotional contagion process. Consequently, as emotions shape individuals’ perceptions, team members’ perceptions are influenced.

In order to answer to the second part of the first sub-question, so providing an understanding of how the interplay between the leader’s emotional intelligence, individual and team shared emotions influences the climate for innovation, we take the second sub-proposition (P₂) into consideration. As we just described, the team leader’s emotional intelligence influences
individuals’ and shared emotions among team members, thus influencing team members’ perceptions and ergo, as shared perceptions constitute the perceived climate, shaping the team climate for innovation.

Consequently, when combined together, these two parts answer to the first sub-question, thus explaining the influence that leader’s emotional intelligence has on the climate for innovation. If on the one hand, the propositions mentioned above explain the processes through which the leader’s emotional intelligence influences the climate for innovation, on the other hand, they do not describe the effects. For addressing this missing part, the sub-hypotheses (H₁a-e) can be taken into consideration. Thus, as a consequence of the positive influence that leader’s emotional intelligence has on each climate dimension (H₁a-d), we assert that leader’s emotional intelligence positively influences the climate for innovation. Therefore, the relationship between the leader’s emotional intelligence and the team climate for innovation has been stated, thus explaining the first part of the main research question (“What is the relationship between leader’s emotional intelligence and team climate for innovation [...]”).

Once addressed the first half of the main research question we can now focus on the second one (“[...] against the background of innovation implementation within teams?”). We answer this second part by responding to the second sub-question. This second sub-question, as a reminder, was:

*How does the climate for innovation influence the implementation of innovations?*

Thus, in order to explain how the climate for innovation influences the implementation of innovations, we gain the necessary insights from the reasoning for the fifth sub-hypothesis (H₁e). In particular, we argued that higher levels of each climate dimension (*Team Vision, Participative Safety, Task Orientation, and Support for Innovation*) are relevant for innovation in a broader sense, but also for innovation implementation within teams. Therefore, we propose that the climate for innovation positively contributes to innovation implementation.

Merging now both answers to the sub-questions together, we are able to answer the main research question. By the first sub-question, we addressed the relationship between leader’s emotional intelligence and team climate for innovation. With the second sub-question, we then addressed it against the background of innovation implementation within teams. Therefore, we propose that the leader’s emotional intelligence positively influences the climate for innovation, which in turn positively contributes to innovation implementation.

In conclusion, the model as a whole provides the explanation of the relationship between leader’s emotional intelligence and team climate for innovation against the background of
innovation implementation within teams we wanted to elucidate. As we stated, team leaders with higher levels of emotional intelligence positively influence individuals’ and shared emotions among team members and thereby their perceptions. These perceptions then contribute to constitute the perceived climate. That said, with the first and second sub-proposition we explained how the interplay between leader’s emotional intelligence, individual and team shared emotions influences the climate for innovation. The effects of these relationships are then explained by the reasoning for the first four sub-hypotheses that, taken together, show that leader’s emotional intelligence positively influences the climate for innovation. Consequently, as the fifth sub-hypothesis makes clear, the climate for innovation positively impacts the innovation implementation.

We, therefore, conclude our response to the main research question and two sub-questions, by drawing attention to the impact that leader’s emotional intelligence has on innovation implementation. Thus, in accordance with our main hypothesis (H₁), we point out that leaders with higher levels of emotional intelligence have a positive influence on innovation implementation within teams.

### 7.2 Research Limitations

The given research issue, together with the dearth of theories that address it, led us to carry out a conceptual research design with the aim of building a conceptual model. As a result, we did not gather any empirical data, rather we collected and critically reviewed existing knowledge regarding the relevant concepts. We presented the integrated model that links the concepts by deduced interrelationships. Even though we included pre-existing empirical findings within our elaboration on the concepts, our conceptual model, the proposed hypotheses, and propositions remain theoretically. Thus, the scope of our findings is limited to a theoretical plane and need to be validated in real-world situations.

Furthermore, logical deduction of hypotheses and propositions may be vulnerable to fallacies. If the premises on which we based our hypotheses and propositions are already false, then also our conclusions would be invalid. We tried to prevent this by utmost care and conscience during a critical selection and evaluation of the pertinent literature as well as a careful synthesis of the concepts. However, we can not exclude that, due to the limited time frame that we had, we missed out parts of the literature that would be necessary to have complete premises. Moreover, as there was a lack of theory addressing specifically our research issue, we linked distinct concepts with each other. In this process, we also identified an under-developed stage of research regarding innovation implementation. Although this serves reasonable grounds for
investigation, at the same time, it impeded our research as it was more difficult to identify useful and valid findings about our issue within the current research about innovation.

We are aware that our conceptual model addresses the team level of analysis regarding innovation implementation with particular attention to process innovations. Thus, the scope of our research is mostly limited to this level, even though the individual level is partly involved as the team level is often an aggregation of individual characteristics (e.g., team emotions). Due to the team level of analysis, we have not considered a comprehensive review of innovation including an organizational or individual level of analysis. Although we partly addressed both, the main focus was on team level influencing factors. However, influential factors for implementation from other levels of analysis could also have repercussions on team level factors (e.g., organization size as org. level, or age as individual level).

7.3 Theoretical Implications

As one limitation of our research is that the resulted conceptual model is created non-empirically, the model needs to be validated in real-world contexts. This is particularly necessary to verify if the conceptual model has been built without the error of conceptual stretching. Further empirical research would need to validate the proposed relationships in a mixed-method research design, employing quantitative as well as qualitative research strategies. Therefore, our suggested main hypothesis and the corresponding sub-hypotheses and sub-propositions can serve as a point of departure.

For further development of the model, also theoretical research can be helpful by conducting a comprehensive and systematical literature review. This may discover additional relevant concepts that could have moderating or mediating effects on the proposed relationships. Also, the overall relationship between emotional intelligence and implementation could be further investigated regarding moderating, mediating or predicting effects. Furthermore, since we focused on innovation literature mostly within the fields of organizational behavior, psychology, and managerial research, further studies could advance the model by an interdisciplinary research approach with the aim to integrate findings from potentially related research fields as organizational change and entrepreneurship.

Throughout our research endeavor, we consciously followed theory-building principles to ensure a solid foundation for our conceptual model. This gives now the possibility to further studies to employ our conceptual model, to synthesize it with current theories, or to build a new theory based on our conceptualization. As our model addresses the team level of analysis,
further studies can, therefore, synthesize our findings with theories on the same or other levels of analysis. Furthermore, future studies can integrate both influencing factors from other levels of analysis (e.g., organizational size, or personality traits) and how these can influence the suggested interrelationships. Hence, understanding of the concept of innovation on a team level can be advanced, and in case of synthesis with other levels of analysis, a multi-level perspective to the concept can be developed.

7.4 Practical Implications

We have shown that major implications are drawn for scholars as our research results are based on and remain on a theoretical plane. However, if our theoretical assumptions occur in practice as well, implications for practitioners can be drawn too.

Team leaders need to become aware of the impact they have on team members’ emotions and their perceptions of the working climate. When innovations are supposed to be implemented, leaders need to pay particular attention to the entangled emotions of their team members. While establishing a certain climate which fosters higher team vision, participative safety, task orientation, and support for innovation, destructive emotions and critical situations can evolve. Therefore, higher levels of emotional intelligence may help leaders to react appropriately by making use of their emotional management and social skills. Thus, team leaders need to become aware of which behaviors are critically influencing team members’ emotions, develop social skills and increase their abilities to manage their own and others’ emotions.

7.5 Conclusion

As we have arrived at the very end of our thesis, we now want to take a step back and reflect upon it. Consistently with the aim of our research, during the whole thesis, we have maintained a particular focus on the innovation background, specifically outlining the entanglement of emotions in the innovation implementation stage. Furthermore, the same perspective is reflected in the integrated conceptual model we presented, where emotions constitute the red thread between the concepts.

Although emotions constitute an omnipresent phenomenon in organizational life that influences individuals’ perceptions, drives their behaviors, and defines their attitude towards the implementation of innovations, leaders do not take sufficient account for this issue. Organizations often assume innovation implementation as a goal that, once supported by the appropriate antecedents and a scheduled process, can most likely be reached. However, as a consequence of the changes in the current working procedures that innovation implementation
often involves, positive and/or negative emotions usually accompany and influence this phase (Farr & Ford, 1990; West & Sacramento, 2012). Furthermore, as we explained, the emotions involved in the implementation phase may significantly vary, as they can range from “fear to envy, from rivalry to anger, from enthusiasm to cynicism, or from energetic enjoyment to apathy” (French, 2001, p. 480). Therefore, as a consequence of the broad emotional reactions and the different personal characteristics of individuals, trying to anticipate and address them through fixed and/or pre-determined solutions does not work. Therefore, as a result of this high emotional entanglement, focusing on mere antecedents or structural factors in order to implement innovation may be insufficient for its success.

Through this thesis, we aim to shed light on this issue. We have thus shown that when organizations strive to successfully implement innovations, another dimension, which can not be planned in advance and it is not in direct control of the organizations, come into play. Furthermore, the main insight we provide in order to address the issue mentioned above, is depicting the positive influence that emotionally intelligent leaders have on innovation implementation within teams. The emotional involvement and repercussions, together with the awareness of the potential influence of emotionally intelligent leaders, may then contribute to address the issue concerning why the implementation of innovations prevent teams and organizations to achieve potential benefits of innovations (Klein & Sorra, 1996).

Our contribution, focusing on the emotional entanglement in the innovation implementation phase and the influence of the leader’s emotional intelligence thereupon, may then be considered in parallel with the – already more developed – literature addressing these issues in the idea generation phase. The integration of these two streams of literature may thus provide a deeper understanding of the emotional entanglement and the influence of leader’s emotional intelligence in the two phases innovation process. Applying them in combination with each other is an essential step in order to create the needed knowledge for driving organizations to successfully manage innovation.

Nowadays, organizational innovation is more imperative than ever. Organizations are required to employ innovation to survive in the changing and turbulent environments. This becomes even more prevalent against the background of the fourth industrial revolution, as it leads to changes of economy, society, and industries. Consequently, if on one hand new scientific discoveries and disruptive technological advances open to new business opportunities, on the other hand, they threaten organizations that are not able to adapt to these shifts.
As organizations need to innovate in order to survive, being able to completely benefit from their innovations becomes a crucial issue. Therefore, when organizations strive for innovation, ensuring merely structural antecedents that foster it may be not enough. Organizations, and leaders in particular, need to address another essential issue:

‘The Emotional Side of Innovation’.
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