MASTER THESIS

Self-managing employees' Emotional Intelligence to engage in Innovative Work Behavior

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Summary

English

I have always found it difficult to process the end of a path, often due to the uncertainty of the beginning that comes immediately after. However, I have learned that the best thing to do, is to be grateful of what has been, so that you can value what is to come. There is always a before and after.
And if I look back, I can only be grateful

To my family, for all the constant and essential support;
To all UT and UA professors, especially dr. Anna for the advices and for having wisely guided me during the writing of the thesis;
To my friends with whom I shared every day of this experience abroad, between fun, study, arguments and countless blurred but unforgettable memories;
To my friends who, despite the distance, made sure that I was never alone;
To people who, despite the distance, in times of difficulty have sought support in me, and I have found it in them.

In these last months and in those to come, let us preserve our humanity.

Italian

Ho sempre trovato difficile elaborare la fine di un percorso, spesso a causa dell'incertezza dell'inizio che viene subito dopo. Tuttavia, ho imparato che la cosa migliore da fare è essere grati per quello che c'è stato, per valorizzare quello che verrà. C'è sempre un prima e dopo.
E se mi guardo indietro, non posso che essere grato

Alla mia famiglia, per tutto il supporto, indispensabile e costante;
A tutti i professori di UT e UA, specialmente alla dr. Anna per i consigli e per avermi guidato sapientemente durante la stesura della tesi;
Ai miei amici con cui ho condiviso ogni giorno di questa esperienza all'estero, tra divertimento, studio, litigi e innumerevoli ricordi sfocati ma indimenticabili;
Ai miei amici i quali, nonostante la lontananza, hanno fatto in modo che non fossi mai solo;
Alle persone che, nonostante la lontananza, nei momenti di difficoltà hanno cercato supporto in me, ed io l'ho trovato in loro.

In questi ultimi mesi e in quelli che verranno, conserviamo la nostra umanità.

"I want a red silk ball
To spread my wires across the world,
we'll stay together"

(Leonardo Ferrari, *Red silk*, 2019)

Abstract

We know that the Emotional Intelligence (EI) of leaders and supervisors can have a great impact on employees' innovative work behavior (IWB). Furthermore, some employees thanks to their own EI can engage in IWB. However, we don't know how employees without a leader or supervisor (i.e. self-managing employees) use their EI to engage in the different phases of the IWB (i.e. Idea Generation, Idea Promotion and Idea Realization). Consequently, the purpose of this paper is to understand how this happens and the theoretical reasons for this. Furthermore, the way in which the self-management skills of these employees intervenes in the relationship between EI and IWB will be analyzed. Using a mixed approach, in a high-tech consultancy company (TMC), we analyzed 78 questionnaires of their self-managing employees, and interviewed 5 employees, also self-managing. We found that self-managing employees use their EI personal competencies to engage in Idea Generation and Promotion phases. To make up for the lack of a leader, their self-leadership appears to play the role of mediator in this relationship. Furthermore, we found that they use their EI social competencies in all three phases of the IWB, in different ways depending on their interlocutor (i.e. customers, managers or colleagues). Finally, a positive relationship was found between the self-managing employees' EI and the empowerment of the team they are part of. The results provide practical information for HRM practictioners who aim to build innovative behavior in a self-managed context, leveraging the soft skills of the employees' emotional sphere.

Introduction

In recent years, organizations' continuous search for innovation has made it possible to combine aspects of parallel disciplines and to develop new ways of organizing work among employees, in order to find better solutions that could guarantee competitive advantage.

The theme of innovation has been of great importance and object of study, especially in the globalized world which requires a rapid adaptation by companies. Therefore, innovation is a fundamental aspect for the survival of organizations, as it allows to respond quickly and effectively to the opportunities offered by the market. In sight of this, it is essential that the attention of studies and research focus on innovation at individual level and group dynamics that lead employees to engage innovative behaviors in the workplace. This is because those who develop, adopt and implement new ideas and products are the people themselves (West & Farr, 1989). Yuan and Woodman (2010, p. 324) refer to this type of behavior as employee Innovative Work Behavior (IWB) defining it as "the development, adoption and implementation of new ideas for products, technologies and work methods by employees". IWB, as highlighted by Agarwal (2014), must be incentivized by organizations, which have developed (new) organizational designs and human resources management practices to achieve this goal.

Among these, it has been noted that self-managing employees are able to complete their own tasks as well as team tasks, and increase performance levels, both individual and group (Millikin, Hom, Manz, 2010). They are characterized by the absence of a manager or a person supervising their work and by feedback and rewards mechanisms distributed based on their own performance. Moreover, self-managing work systems are often associated with high performance

work systems (Osterman, 1994). As Muthusamy et al. (2005) state, self-managing work systems could improve the innovative behaviors of employees as it is guaranteed to them greater autonomy, communications are more intense and their commitment towards the organization is greater. In these contexts, autonomous teams composed by self-managing employees are not uncommon, and the relationships between team members play a significant role. In fact, they must carry out their tasks collaboratively so as not to negatively affect the performance of the group itself. Consequently, the social dynamics that come to light, if managed consciously and effectively, can have a positive effect on the effectiveness of the whole group (Muthusamy et al., 2005).

An important facilitator of these social dynamics is Emotional Intelligence (EI), which is defined as the ability of an individual to perceive and manage his own and other people emotions (Salovey & Mayer, 1990). According to Harminder et al. (2011), employees who are aware of their emotions would be able to manage themselves so as not to negatively affect their own effectiveness, as well as that of the team. Moreover, those who are aware of the emotions of others would be able to play an essential role in the motivation of colleagues and the team itself.

Beyond to the importance of EI for performance, some studies have reported that EI plays a significant role towards IWB. Specifically, it has been shown that managers with a high level of EI have a higher level of IWB (Dincer et al., 2011; Shojaei et al., 2014) and are able to stimulate an IWB also in their employees (Akgün et al., 2007; Castro et al., 2012). However, there is little evidence of how employees themselves with a high level of EI manage to engage in IWB (only exceptions are Dincer and Orhan, 2012; Al-Omari, 2017). Nevertheless, the samples examined in these researches are not related to self-managing and are not characterized by the absence of a manager or supervisor. The non-presence of this figure and how this affects the use of EI by employees to engage in IWB is therefore to be investigated. Moreover, from the existing literature, there does not seem to be any explanations on how employees use EI to be innovative. Specifically, it is not highlighted which phases of the IWB (i.e. Idea Generation, Idea Promotion and Idea Realization) identified by Scott and Bruce (1994) are most influenced by EI and by its sub-dimensions, as highlighted by Goleman (1998) (i.e. personal competencies and social competencies).

As a result, therefore, the research question in this paper and to which we will try to answer is:

In which way do self-managing employees use their emotional intelligence to engage in innovative work behavior?

In order to answer the research question, an exploratory case study will be conducted, further investigating the dynamics related to self-management. The study of this phenomenon leads to a better understanding which dimensions of the EI are mostly used by self-managing employees to engage in IWB and bring several contributions from a theoretical point of view. First of all, by confirming the presence of a positive relationship between the EI of self-managing employees and their IWB, the existence of this correlation is confirmed even outside the contexts in which it has already been studied, enriching the pool of empirical evidence on the subject. Moreover,

knowledge about the interactions that take place within self-managing employees would be expanded, thus allowing to understand which the best ways are to manage relationships between team members. This could bring benefits in terms of performance on the job, goal achievement and job commitment (Bass, 1997; Goleman, 1998; Wong et al., 2002; Mayer and Caruso, 2002). Understanding how self-managing employees use their EI competencies to engage in the different phases of IWB could pave the way for a better understanding of the conditions in which this relationship occurs and finally, studying this phenomenon also in other sectors where self-managing work systems are used, could reveal hidden dynamics not yet highlighted.

Several practical implications could emerge from this study. Being no managerial line within organizations that oversee self-managing employees, organizations and HR managers should find ways to improve the EI level of their employees. This would serve to compensate for the EI role of leaders towards employees. For example, the EI of a new team member could be evaluated during the recruitment process, using the candidate's resume, previous work experience or interviews that allow to evaluate this aspect. Moreover, training to develop the EI of the group members and the EI of the whole group could be taken into consideration, as understanding how members' emotions affect the team's work and relationships both inside and outside the team, can improve the ability to face challenges and having an IWB (Druskat & Wolff, 2001).

In the next section a literature review will be carried out to define the variables in detail and highlight the theoretical reference criteria that will be used to analyze the data. Subsequently, the methodology used for the collection and analysis of data will be presented followed by the results and the discussion.

Theoretical framework

Innovative Work Behavior

Innovative Work Behavior (IWB) has been defined as "the development, adoption and implementation of new ideas for products, technologies and work methods by employees" (Yuan & Woodman, 2010, p. 324). From this definition it is immediately clear that IWB is not a linear process, consequently it is good to clarify which are the dimensions that best define IWB. Taking into account the definitions of creativity and innovation, it is possible to state that they are often seen as synonyms, but their meaning is substantially different. In fact, creativity is related to the generation of new and useful ideas (Mumford & Gustafson, 1988), while innovation also encompasses the production of generated ideas as well as their implementation (Kanter, 1988; Van de Ven, 1986). From this it can be understood how IWB has to do with a wider vision than creativity, and which gathers several phases within it. In fact, most studies define IWB as a multidimensional process in which the generation of ideas must follow the concretization of these ideas into tangible innovations (Devloo, Anseel, De Beuckelaer & Salanova, 2015). The main phases that are highlighted by the research and summarized by Bos-Nehles, Bondarouk and Nijenhuis (2017), are essentially three:

- Idea generation: an idea is generated when you try to improve products or solve problems, recombining the already existing variables together with the information and concepts you have (De Jong & Den Hartog, 2010).
- Idea promotion: the generated idea needs to be adapted in existing systems, as it is necessary to overcome the various resistances of the business (Bos-Nehles et al., 2017).
- Idea realization: in this phase the new product or service must be created and implemented, in such a way that it can become fully operational in the organization's routines (De Jong & Den Hartog, 2010)

Emotional Intelligence

Emotional Intelligence (EI) is defined as set of individual capabilities that allow to "perceive accurately, appraise, and express emotion; access and / or generate feelings when they facilitate thought; understand emotion and emotional knowledge; regulate emotions to promote emotional and intellectual growth'' (Mayer and Salovey, 1997, p.10). Emotions are mental and physiological states associated with psychological variations, with internal or external stimuli, natural or learned (Zorzi and Girotto, 2004). In other words, the EI is the ability of an individual to perceive and manage his own and other people's emotions, whether they are positive or negative, and can be conceptualized as follows (Salovey and Mayer, 1990):

- Personal competencies
    - Self-emotion appraisal: the ability to be aware of own emotions, strengths, weaknesses, drives, values and goals and recognize their impact on others.
    - Regulation of emotion: controlling or redirecting own emotions and based on different context.
- Social competencies
    - Others' emotion appraisal: considering other people's emotions
    - Use of emotion: manage the emotions that exist in relationships with others.

This set of emotional competencies cannot be defined as innate talents, as they are skills on which an individual can work and consequently develop. Despite this, there are individuals who manage to develop these skills in a more complex and in-depth way than others (Boyatzis, Goleman & Rhee, 2000). In other words, it is a set of cognitive skills which allows to perceive and manage information based on emotions (Ashkanasy & Daus, 2005). Several studies have demonstrated the influence of this construct in the workplace. In fact, individuals with a high level of EI have a better performance on the job, as well as better leadership skills than others, thanks to the ability to obtain information through the recognition of emotions and the possibility of using the latter to achieve corporate goals (Goleman, 1998). Furthermore, many studies have shown how the presence of a leader with these specific skills is able to achieve company objectives through the

creation of a context that positively influences the workplace and at the same time manages to strengthen the commitment of employees (Bass, 1997; Wong et al., 2002; Avolio et al., 2005).

Emotional Intelligence and Innovative Work Behavior

Existing literature has focused more on the manager's EI outcomes on IWB than employees' EI outcomes. For example, Akgün et al., (2007) found that the leaders' EI significantly and positively influences the employee's IWB, specifically self-emotions appraisal and other's emotions appraisal together with regulation of emotions and use of emotions, can help employees in the development and implementation phases of ideas. This, as managers would be able to foster the emotional capabilities of employees, who in turn would be able to embody these emotional capabilities into the products during these phases. Castro et al., (2012) found that leaders' EI is positively associated with creativity (i.e. a sub-dimension of IWB), specifically the dimensions of self-motivation and self-regulation. Moreover, they found that this link is direct, so there's no mediating effect of the work climate as they thought. Another part of the literature focuses on how managers with high EI levels have high IWB levels. For example, Shojaei et al. (2014), showed a positive and significant relationship between EI and IWB of managers. Moreover, they found that the regulation of emotions had the highest effect on the managers' IWB followed by use of emotions, self-emotions appraisal and other's emotions appraisal. The same results were obtained from Dincer et al. (2011), who studied managers as strategic decision makers need EI and IWB together to help them in making effective decisions. Their results show a positive and reciprocal relationship between EI and IWB, in fact when the level of EI increases, the level of IWB also increases and vice versa.

The empirical evidence linking the effectiveness of employee EI on their own IWB can be only found in the studies by Al-Omari (2017) and Dincer et al. (2011). The first found that engineers with high level of EI have high IWB. Specifically, there is a positive effect on IWB caused by self-emotions appraisal, use of emotions and other's emotions appraisal. The second found that employees able to recognize both their emotions and others' emotions can develop new ideas and apply them better than those who are unable to recognize them. From a theoretical point of view, the need for employees to have high levels of EI to engage in IWB has been explained by several researches. According to Cooper (1997) in fact, the ability to manage emotions not only affects the effectiveness of employees in the workplace but also allows to increase trust, loyalty, and commitment of the individuals. Wong and Law (2002), found that better employee relationships deriving from high EI levels would lead to better information exchange, which would result in the possibility of generating original ideas to deal with different issues. Moreover, employees with high EI would have a greater ability to remain concentrated having a stable emotionality (Abubakr et al., 2007). According to Ivcevic et al. (2007) finally, employees with high levels of EI would have the ability to be positive, influencing their colleagues in the same way. This attitude would improve their mental and thinking flexibility, which in turn refine their IWB.

Although seems to be a connection between the EI of employees and their IWB, what still remains unclear is specifically which emotional capabilities (i.e. personal and social) influence the different phases of the IWB (i.e. Idea Generation, Idea Promotion and Idea Realization). For example, both studies by Al-Omari (2017) and Dincer et al. (2012) investigate the effects of the sub-dimensions of

EI on the IWB, not analyzing the individual phases of the latter more accurately. This is an aspect that needs more understanding, since as mentioned before, IWB is not a linear process. Therefore, it is good to differentiate any independent effects on the IWB phases, in order to be able to analyze any causes and consequences.

Self-management

Self-management is defined by Manz and Sims (1980, p.362) as "a process whereby a person is faced with immediate response alternatives involving different consequences and the person chooses an apparent low-probability response". They highlight the behavioral characteristics of self-management such as personal goals, self-instruction, self-goal setting and plans for behavior patterns. Moreover, they also label self-management as a substitute for leadership. The ability of an individual's to manage himself is measured through self-leadership, which is defined as "a broader view of self-influence that includes the kind of self- management strategies addressed in the literature as well as additional strategies for managing the natural motivational value of the task (intrinsic motivation) and the patterns in one's thinking" Manz (1992, p. 1124).

Specifically, three types of strategies that individuals use for this purpose were highlighted. Behavior-focused strategies are used to complete important and sometimes unpleasant tasks, such as self-goal setting, tracking of activities or self-reinforcement (Neck & Houghton, 2006). The natural reward strategies are used to motivate oneself, finding or incorporating rewards in the achievement of steps of one's own work (Manz, 1986). And finally, thought self-leadership, that is, the use of self-talk and imaginary visualization of the execution of tasks to model one's own thoughts, in order to counter negative thinking (Houghton, Neck, & Manz, 2003). Other research assumes that these strategies are also used to control one’s own emotions to reduce worries and positively affect motivational control (Kanfer and Heggestad 1997, in Millikin, Hom, & Manz, 2010).

Self-leadership has long been discussed and studied in the context of self-management, as self-managing employees use this type of strategies to achieve individual and collective effectiveness (Millikin, Hom, & Manz, 2010), and are able to complete both individual and team tasks (Houghton, Neck, & Manz, 2003; Manz & Sims, 1987, 2001). Furthermore, individuals capable of directing their behavior in contexts with high levels of autonomy are able to build intrinsic motivation and mentally cope with negative emotions, improving both personal team performance (Millikin et al., 2010). Emotional intelligence is positively correlated to self-leadership, as individuals with higher EI scores use more behavior-focused, natural rewards, and constructive thought in self-leadership (Baker, 2018). Moreover, Carmeli et al. (2006) found that employees' self-leadership skills are positively associated with both self and supervisor ratings of innovative behaviors. Muthusamy et al. (2005) proposed that employees' self-leadership in self-managing employees is positively related to their innovative behaviors, but this has not been proofed yet. This, as self-management would improve the innovative behaviors of employees, as autonomy, intense communications and greater commitment are guaranteed.

Self-managing employees with a high level of EI then, would show strong self-leadership and would consequently have less difficulty to engage in attitudes that favor the dynamics described above, thus improving their IWB and that of their colleagues.

Team empowerment

According to Kanter (1995), employees feel empowered when they have access to information, resources, support, feedback and opportunities to improve their work skills, in order to achieve organizational tasks. Manz, (1992) state that work systems characterized by autonomy, self-leadership and delegation of responsibility, are able to promote constructive attitudes and behaviors among employees, leading to their empowerment. Udod, Hammond-Collins and Jenkins (2020) found that leaders' EI has a positive impact on employees' empowerment, as the latter feel empowered thanks to the support and autonomy promoted by leaders. According to them, career and personal development opportunities offered are a further factor that has a positive influence.

However, since EI at the individual level has implications at the collective level as previously showed, the perception that employees have of the influence of their EI on team empowerment will be explored. Moreover, the presence of a leader in studies linking EI to empowerment also pushes us to explore the relationships with this variable, to analyze what are the effects of the absence of this figure.

Team empowerment is defined as "increased task motivation that is due to team members' collective, positive assessments of their organizational tasks" (Kirkman & Rosen, 2000, p.176).

Teams are empowered when there is a common feeling that the team is effective (i.e. potency), when members care about their tasks (i.e. meaningfulness), when employees have decision-making autonomy (i.e. autonomy) and when the team believes to be able to contribute significantly to the organization (i.e. impact) (Kirkman & Rosen, 1997).

According to (Kirkman & Rosen, 2000), team empowerment reflects the motivation of a team at a certain time and is an individual assessment of employees both of their individual and group tasks, as well as autonomy and access to resources. Figure 1 shows the exploratory research model based on the connections highlighted in the theoretical framework. Being set up as an explorative case study, and not consequently formulating hypotheses, this model is proposed as a concept map to facilitate the visualization of the research design.

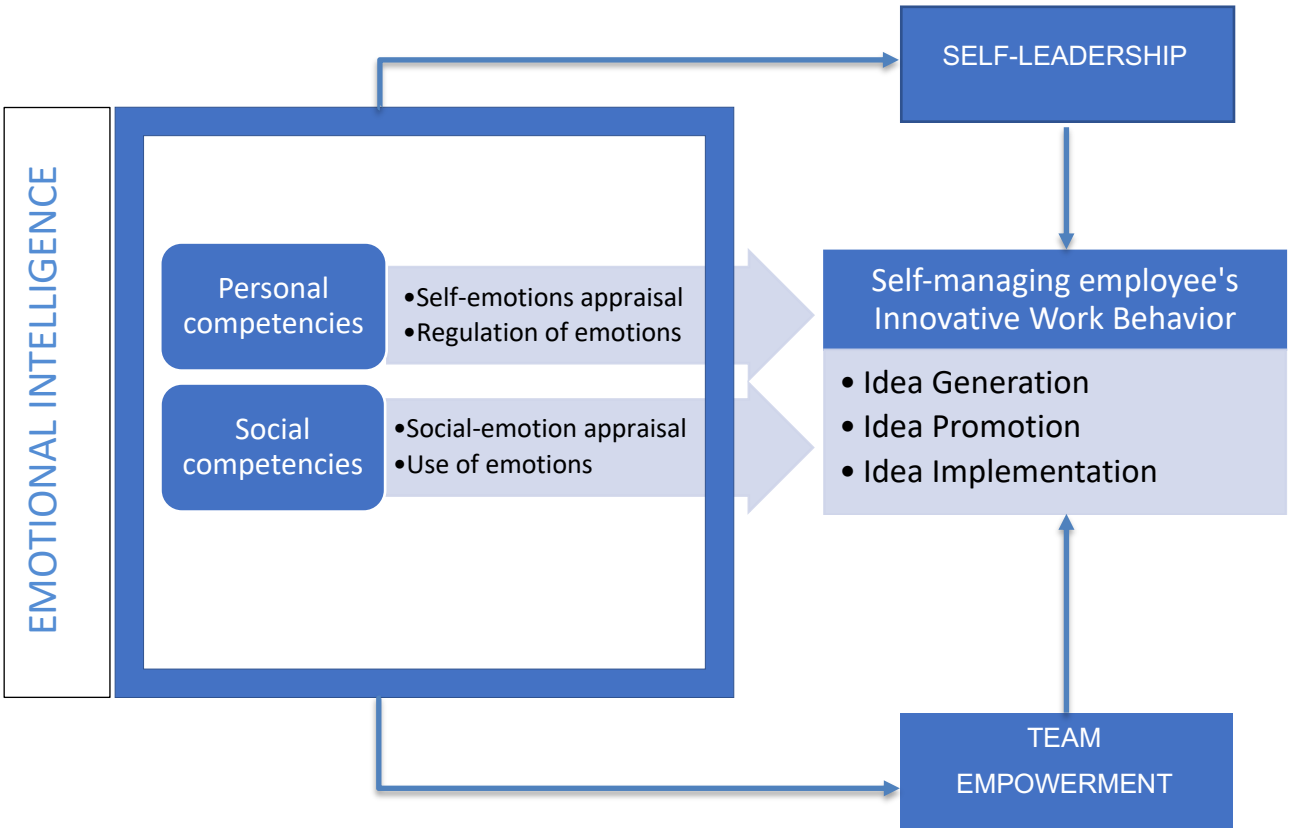

Figure 1: *Explorative research model*

Methodology

In order to understand the way in which self-managing employees use their Emotional Intelligence to engage in Innovative Work Behavior, an exploratory case study has been conducted in an organization whose employees have a very high degree of autonomy, both working individually and working in a team. This organization is TMC, an international high-tech consulting company, with offices in the Netherlands, Belgium, France, Spain, Italy, Sweden and North America. The employees of this company have a high degree of education being all engineers. They are defined by the company itself as "Employeneurs", by the union of the words "employee" and "entrepreneur". In fact, they have the opportunity to behave as independent professionals, with the security of being hired by a company. They also have the opportunity to work individually and in 19 teams that are called "cells", focused on niche high-tech skills. At the basis of this very horizontal organizational structure there are also financial benefits (i.e. a guaranteed basic salary, individual result-based bonus, benefit shop and a transparent financial model), training on soft skills with a coach on a periodic basis, and a budget for training on hard skills. Moreover, employees at the time of hiring fill out a questionnaire aimed at understanding their level of intelligence on different levels, including emotional level, on the basis of which receive adequate training.

In this study, a mixed parallel method was used for data collection, as it is argued that emphasize the strengths of both quantitative and qualitative approaches (Östlund, Ulrika, Kidd, Wengström, Rowa-Dewar, 2010). The mixed parallel approach involves the collection and analysis of

quantitative and qualitative data separately, comparing and integrating the findings at the time of interpretation (Onwuegbuzie & Teddlie, 2003; in Östlund et al., 2010). This last phase involves the triangulation of what is known at theoretical level, with the qualitative and quantitative results at the empirical level. These can be complementary, divergent or convergent (Erzberger & Kelle, 2003; in Östlund et al., 2010).

In the following sections, the methodology of the quantitative approach and the qualitative approach are presented in order.

Quantitative approach

The goal of the quantitative approach was to understand which dimensions of emotional intelligence (i.e. personal competencies and social competencies) are used by self-managing employees to engage in the different phases of innovative work behavior (i.e. Idea Generation, Idea Promotion, Idea Realization). Furthermore, the way in which a self-managing employee and being part of a self-managed team affects the relationship between EI and IWB has been investigated. To do this, using Qualtrics, a survey consisting of 46 questions was submitted to TMC engineers through their managers via email. The questionnaire has been translated from English into 4 different languages to facilitate its compilation, and back translated. The English items were translated into Italian by the author of this thesis, into Dutch by a native speaker, and into Spanish and French by a language student. The questionnaire was distributed to 3574 employees via email by TMC managers. A total of 87 questionnaires were returned, from which 9 were rejected as incomplete, for a total of 78 valid questionnaires. The response rate was calculated based on the definition given by the American Association for Public Opinion Research (2015), that is RR1 = number of responses received divided by the total number of the sample to which the questionnaire was sent (including partial responses). The RR1 was then 2,43%. The data obtained were analyzed by multiple regression analysis using SPSS 25.

Measures

To measure the variables considered in the study, we made use of existing and validated measurement scales. These are presented below and can be viewed as a whole in the Appendix section. Moreover, to test the reliability of the survey, Cronbach's Alphas (α) were calculated for the variables, as well as for the sub-variables in the study. The details and results of the reliability analysis are as follows:

Innovative Work Behavior: the items of the IWB from the questionnaire (Appendix A) applied in the study by Janssen (2010) were used, based on the distinction of the IWB phases by Scott and Bruce (1994). In total it was composed of 9 items, of which 3 items for the Idea Generation, 3 items for the Idea Promotion and 3 items for the Idea Realization. The response format used was a 7-point Likert frequency scale, ranging from 'never' (1) to 'always' (7). Cronbach's Alpha (α) measured was 0.785 for IWB, 0.755 for the Idea Generation, 0.552 for the Idea Promotion and 0.569 for the Idea Realization. These last two Cronbach alpha values are below the threshold of 0.7. However, Hinton, Brownlow, McMurray and Cozens (2004), highlight that according to the number of items, the Cronbach's Alpha (α) values changes. Specifically, the higher their number, the higher the alpha value. Conversely, if the number of items is reduced, it will be easier to find low alpha values. Hinton et al. (2004) therefore, indicate as acceptable values up to 0.5 for scales

with less than 5 items. In this case the number of items is 3 and the Cronbach's Alpha (α) value is> 0.5 for all items, making reliability acceptable.

Emotional Intelligence: the items (Appendix B) used were the ones created by Law, Wong and Song (2004), based on the definition by Salovey and Mayer (1990). It consisted of 16 questions, of which 8 for personal competencies 8 for social competencies. The response format was a 7-point scale ranging from 'strongly disagree' (1) to 'strongly agree' (7). Cronbach's Alpha (α) measured was 0.898 for the emotional intelligence, 0.849 for personal competencies, 0.835 social competencies.

Self-leadership: The self-leadership abbreviated questionnaire (Appendix C) composed of 9 items conceived by Houghton et al. (2012), was used. The three sub-dimensions (i.e. behavior strategies, natural reward strategies, thought self-leadership) have been combined, considering them as a single construct (Manz, 1992). The response format used was a 7-point Likert frequency scale, ranging from 'never' (1) to 'always' (7). Cronbach's Alpha (α) measured was 0.760.

Team Empowerment: The shortened version of Kirkman and Rosen's (1999) team empowerment questionnaire (appendix D) devised and validated by Kirkman et al. (2004), consisting of 12 items was used. The four dimensions (i.e. potency, meaningfulness, autonomy and impact) have been combined, considering them as a single construct (Kirkman and Rosen's, 1999). The response format was a 7-point scale ranging from 'strongly disagree' (1) to 'strongly agree' (7). Cronbach's Alpha (α) measured was 0.928.

Qualitative approach

Data collection

The data collection included semi-structured in-depth interviews with the purpose of understanding in which way self-managing employees use their Emotional Intelligence to engage in Innovative Work Behavior. To facilitate association with the respondents and enhance the validity of in-depth inquiry (Crouch & McKenzie, 2006), the company was asked for the opportunity to interview between 10 and 15 employees. The employees were identified by TMC managers, following the criterion for which were chosen those engineers with a seniority greater than two years and at least one project completed. However only 5 employees agreed to participate to the interviews. Two were from Spain, and the interviews were carried out in English. The other three were from Italy, and the interviews were carried out in Italian. The interviews were conducted through different videoconference software, to avoid displacements due to the Covid-19 health crisis. Through these platforms, the interviews (lasting between 30 and 45 minutes) were recorded with the consent of the interviewees. The transcripts were subsequently anonymized and sent to respondents to validate them. Respondents were adequately informed of the content of the research both by email and at the time of the interview. The interviews were structured with a set of pre-established questions, however, the possibility of appropriately following any paths opened by the individual interviews have been left open. In addition, examples and explanations have been asked as probing techniques. Moreover, general information was retrieved from the company's website and subsequently deepened thanks to various contacts with a manager.

Data analysis

The collected data analysis was carried out using ATLAS.ti, and the Directed Content Analysis as highlighted by Hsieh and Shannon (2005), was used. According to these authors, this methodology can be used when an already observed phenomenon or already existing theories need further descriptions, as in the case of this study. The codes were determinate based on the categories and subcategories of the theoretical framework used. Specifically, the codes for the IWB and its phases, as well as the EI and its sub-dimensions, self-leadership and team empowerment, are presented in the following section. The interviews were read, and the aforementioned codes were applied. Subsequently, unencoded data has been analyzed again to understand if it could fall into a new category or a subcategoryThis strategy, as highlighted by the authors themselves, brings with its limitations. Indeed, the use of a predetermined code scheme can bias the researcher in finding evidence that supports theory and reduces objectivity. Furthermore, relying too much on theory could distract the researcher from the contextual aspects of the phenomenon. However, Hsieh and Shannon (2005), suggest an audit review to obtain results without biases and increase trustworthiness. Hence, in this study, the analysis of the data has been examined and reviewed by the thesis supervisor. Moreover, the description of the operationalization of the variables and the collection of the codes used (appendixes E and F) have been provided.

Operationalization of the variables

The Innovative Work Behavior (IWB), as defined previously, will be operationalized based on the three phases in which it is composed, and they are defined and coded as follows:

- Idea Generation (**Iwb_G**): employees try to solve problems or improve products or processes, recombining the already existing variables together with the information and concepts he has (De Jong & Den Hartog, 2010).
- Idea Promotion (**Iwb_P**): the employee expresses his ideas to his colleagues seeking approval and receiving feedbacks, seeking to overcome the various resistances of the business (Bos-Nehles et al., 2017).
- Idea Realization (**Iwb_R**): the employee applies his idea by creating a prototype or a model, proposing it to colleagues and evaluating its outcomes, in such a way that it can become fully operational in the organization's routines (De Jong & Den Hartog, 2010)

The Emotional Intelligence (EI), as defined previously, will be operationalized based on the five dimensions identified, and coded as follows:

- Personal competencies
    - Self-emotions appraisal (**ei_self_ea**): the employee recognizes his own emotions, strengths, weaknesses, drives, values and goals and recognize their impact on others.
    - Regulation of emotions (**ei_reg_em**): the employee controls or redirects his own emotions based on different context.
- Social competencies

- Other's emotion appraisal (**ei_oth_ea**): the employee manages the emotions that exist in relationships with others.
- Use of emotions (**ei_use_em**): the employee is able to recognize and take into account the emotions of his colleagues.

Self-leadership, as defined previously, will be operationalized and coded as follows:

- Self-leadership (**self_ldr**): the employee uses behavior-focused strategies, natural reward strategies and thought self-leadership to complete tasks.

Team empowerment, as defined previously, will be operationalized and coded as follows:

- Team Empowerment (**team_emp**): the employee recognizes that his team members care about their tasks, they members have decision-making autonomy and they believe the team is able to contribute significantly to the organization.

The interviews have been analyzed to understand in which way self-managing employees use their EI sub-dimensions to engage in the generation, promotion and realization phases of ideas. Furthermore, insights deriving from unencoded data have been used to enrich the findings and the related theoretical and practical implications.

Results

Quantitative approach results

In the Table 1 the descriptive statistics concerning the studied variables are presented, while in Table 2 it is possible to find the Pearson correlation matrix.

	Minimum	Maximum	Mean	Std. Deviation
Innovative Work Behavior	2,67	6,11	4,45	0,82
Idea Generation	2,33	7,00	4,61	0,99
Idea Promotion	1,00	6,33	4,41	1,04
Idea Realization	2,00	6,00	4,35	1,04
Emotional Intelligence	2,59	6,59	5,19	0,85
Personal competencies	2,50	6,75	5,20	0,97
Social competencies	1,88	6,63	5,21	0,98
Self-leadership	2,22	6,67	4,63	0,94
Team Empowerment	1,42	6,75	5,39	1,02

Table 1: *Descriptive statistics*

	Innovative Work Behavior	Idea Generation	Idea Promotion	Idea Realization	Emotional Intelligence	Personal competencies	Social competencies	Self-leadership	Team Empowerment
Innovative Work Behavior	1								
Idea Generation	,714**	1							
Idea Promotion	,849**	,377**	1						
Idea Realization	,844**	,363**	,655**	1					
Emotional Intelligence	,305**	,227*	,226*	,282*	1				
Personal competencies	0,157	0,188	0,057	0,136	,882**	1			
Social competencies	,316**	0,172	,278*	,309**	,897**	,331**	1		
Self-leadership	,566**	,437**	,469**	,457**	,432**	,276*	,403**	1	
Team Empowerment	0,114	0,105	0,047	0,124	,554**	,513**	,483**	0,208	1

Table 2: *Pearson correlation matrix.*
*** Correlation is significant at the 0.01 level.*
** Correlation is significant at the 0.05 level.*

The aggregate dimensions of the EI and the IWB, in addition to their sub-dimensions, were included in the correlation analysis. The situation that immediately catches the eye is that the three phases of the IWB are correlated with their own aggregate dimension, IWB. Same thing happens between the sub-dimensions of the EI and their aggregate dimension. If two factors have a correlation greater than a 0.850 threshold, they could measure the same thing, leading to multiple-correlation problems. However, in cases where this value exceeds, no multicollinearity has been detected.

Subsequently three multiple linear regressions were run to predict the three phases of the IWB from the sub-dimensions of the EI. The results are shown in the next tables, where the symbols "**" and "*" represent statistical significance at the 1% and 5% level, respectively.

Independent variable	Dependent variable		
	Idea Generation	**Idea Promotion**	**Idea Realization**
Personal competencies	0,133	-0,166	-0,073
Social competencies	0,093	0,376**	0,352*

Table 3: *Multiple Linear Regression - Dependent variables: Idea Generation, Idea Promotion, Idea Realization*

As can be seen from Table 3, none of the sub-dimensions of the EI statistically significantly predict the Idea Generation phase.
Idea Promotion phase is predicted in a statistically significant way by social competencies ($p < 0.01$), and it has a positive beta ($b = 0,376$). Personal competencies do not statistically predict the Idea Promotion phase.
In the same way, Idea Realization is not statistically significantly predicted by the personal competencies. However, social competencies positively predict Idea Realization ($b = 0,352$) in a statistically significant way.

To understand what the role Self-leadership of self-managing employees was, a set of multiple regressions were run. What emerged is that the of Self-leadership of the employees seems to mediate the relationship between Emotional Intelligence and Innovative Work Behavior.

	Dependent variable
Independent variable	**Innovative Work Behavior**
Emotional Intelligence	0,305**

Table 4: *Multiple Linear Regression - Dependent variable: Innovative Work Behavior*

Table 4 shows the linear regression run using Emotional Intelligence by aggregating all its sub-dimensions into a single independent variable, and the Innovative Work Behavior as a dependent variable, also aggregating its sub-dimension in this case. What emerges is a statistically significant second-order relationship ($p = < 0.01$), with a positive Beta of 0,305.

	Dependent variable
Independent variable	**Innovative Work Behavior**
Emotional Intelligence	0,075
Self-leadership	0,534**

Table 5: *Multiple Linear Regression - Dependent variable: Innovative Work Behavior*

However, when adding Self-leadership as an independent variable within the model, the values change in a way that suggests its role as a mediator. In fact, the independent variable Emotional Intelligence becomes statistically non-significant ($p > 0.05$), and the Beta is significantly reduced. On the contrary, the Self-leadership variable is added in the model in a statistically significant way ($p < 0.01$), with a Beta equal to 0,534.

	Dependent variable
Independent variable	**Team Empowerment**
Emotional Intelligence	0,554**

Table 6: *Multiple Linear Regression - Dependent variable: Team Empowerment*

The last multiple regression run, has Team Empowerment as dependent variable and Emotional Intelligence as independent variable. The results shown in the table highlight that the EI significantly predicts Team Empowerment ($p < 0.01$) with Beta equal to 0,554.

To summarize, the results show that between EI sub-dimensions, personal competencies has no significant influence on the three different IWB phase. At the same time, social competencies dimension has a positive influence on Idea Promotion and Idea Realization phases. No other significant relationship was found by the sub-dimensions of the EI on the different phases of the IWB. Furthermore, considering the aggregate dimensions of the EI and the IWB, a positive and significant effect of the former towards the latter was found. In this relationship, self-leadership seems to act as a mediator. Finally, it was found that the EI positively predicts Team Empowerment, and at the same time no other significant relationship was found between the latter scale and the others considered.

Qualitative approach results

Innovative Work Behavior and Emotional Intelligence

Idea Generations and Emotional Intelligence

The use of EI by self-managing employees in the different phases of the innovative work behavior has many facets. There does not always seem to be a unique approach, especially with regards to Idea Generation. That is, self-emotion appraisal or regulation of emotions does not come into play. Rather, the will to identify customers' needs trying to identify with them, and then generate ideas that can satisfy them, can be traced back to social competencies.

> *"First of all, I try to understand how much I know about the problem I'm facing because maybe it's something completely new. At the level of ideas, it depends on context and on how much it can be taken from the topic. So, an idea can arise, for example, when there is a problem to solve and I try to understand if it can be approached in another way." (SME1)*

> *"Whenever I'm working or seeing other people, I try to identify needs of the people, whenever I see some need I try to think - if I were totally independent, because the reality is that sometimes we are restricted in things we can do - 'how will I do it?'" (SME3)*

The ability of employees to put themselves in the shoes of those in front of them, however, is a characteristic that could somehow be traced back to empathy. The identification of customer needs takes place both through standardized and formal procedures, and through discussions with the people directly concerned. While for the first form, technical skills are sufficient, for the second, soft skills may be needed, and they are then attributable to the others emotion appraisal and to the underpinning of the motivations that push customers to request a specific type of product. Self-managing employees therefore would not use the competences of EI directly to engage in IWB, but would seem to do it indirectly, through the understatement of customer needs. A behavior that could be traced back to the social competencies.

Idea Promotion and Emotional Intelligence

A preponderant presence of the sub-dimensions of emotional intelligence comes into play at the moment of Idea Promotion. In this case self-managing employees seem to use both personal and social competencies to promote innovative ideas. Employees are aware that their emotions play a fundamental role when presenting ideas and know how to recognize them (i.e. Self-emotion appraisal). They're also able to manage their negative emotions that can influence the successful promotion of their ideas (i.e. Regulation of emotion). Moreover, they try to understand the emotions of the actors with whom they relate, also trying to manage them in order to be more innovative and successful (i.e. Others' emotion appraisal and Use of emotion).

> *"But it doesn't just depend on me [...]. When I try to share these things with colleagues, there is a need to understand who to do it with, how to approach it and what to say / what not to say, because there are ten years in a certain way and does not want to change and it can happen that you cannot make things move." (SME5)*

"I always focus a lot on the people and how they will react on the things we are proposing and so on, and this is something we have to do every day." (SME3)

"In the first years that I worked, the first component that prevailed was certainly a bit of anxiety, because you always want to make a good impression and the fact that you pass your idea is personal victory. [...] But I think it's also a positive emotion in the sense that it pushes you to do things well, to ask questions, to question what you have done and then understand if you have done it well and see if you can do it better. It is certainly very important for understand what my boss or my contact person or interlocutor wants and then calibrate the presentation in those terms." (SME4)

It is interesting to note that the success of the promotion of their ideas is a motivating factor in maintaining a high and constant level of innovation. Employees are also aware that it is necessary to consider other actors who influence the promotion of ideas, taking into consideration how to approach them, what is important to them and how they will react to the proposals. This denotes a considerable use of social competencies in the emotional sphere.

Idea Realization and Emotional Intelligence

As far as Idea Realization is concerned, it doesn't seem that an employee's emotions affect the way his idea is implemented. However, from the following quote there appears to be a mechanism whereby the influence of colleagues in the workplace causes the employee to question himself and how he implemented his idea. The idea was not initially implemented effectively within the project, as his colleagues were unaware of certain conditions. By managing to recognize his colleagues' mood and using it as feedback, he managed to understand where the problem was, opening the way to a successful implementation. Furthermore, thanks to this episode, a collaborative mechanism has been triggered to make the workflow manageable.

"I designed it completely and was responsible for that part […]. Obviously, I designed it based on the needs of the customer who asked us, and at some point, discontent in the team were born because this database was starting to be too complex. So, when you hear your colleagues indirectly telling you these things you feel sorry, but as I said, for me these are emotions that serve as feedback, as a guide. […] so, I had to understand absolutely if it was actually true or if they were overestimating the complexity. […] I understood that they considered it complex because they did not know that it had to respond to equally complex needs from the customer's point of view. So, second step was explaining to them the customer's needs […]. Then […] I tried to understand with them if starting from the customer's needs and what had been done so far, it was possible to do something better […]." (SME4)

As can be seen, the employee's ability to recognize the negative emotions of his colleagues allows him to use them as feedback, questioning his work. Subsequently, the social competences come into play which allow the idea to be implemented more efficiently than before.

Self-management and Team empowerment

The interviews revealed a predominant role of the dimensions identified by Self-leadership when employees are asked if they use some sort of strategy to be productive and innovative. The

tracking of the progress of the activities and the a priori division of the same, to better organize the work activities, are a constantly present element. Less frequently but with a greater emphasis on outcomes there are self-talk mechanisms, goal setting and self-motivation.

"Another thing is about challenging myself, I want to make the things done - even if I don't know much about a process or technology - I repeat myself that I can do it, that I'm smart enough or capable enough for achieving something: I'm a really competitive person within myself." (SME3)

"I try to have a lineup, writing what I have in mind or a macro-topic and I say, 'I have to do that'[...] I bought myself a block notes, on which I write what I did during the workday." (SME1)

"I have always used from the university a sort of mechanism to monitor the progress of the activities, which can be applied to the study as well as to a project. I can apply it both to activities that have a fixed deadline and to activities that do not have one. The first thing I do is to understand how long it takes. At this point, I break down my activities into micro-activities and I try to understand if I have all the tools to complete the micro-activities." (SME4)

However, these strategies do not seem to be ends in themselves, and do not seem to be used exclusively to be productive or innovative. Rather, they often seem to be used to manage emotions in the workplace, and in turn to be influenced by the emotions themselves.

Q: "How do you feel when you can't respect your schedule and finish in time?"
A: "I don't feel good obviously; I feel anger with myself most of the times because I know that I could have done better. Sometimes I wasted so much time and it gets the end of the day - I say to myself that I was overconfident - so I feel upset with myself, but it depends if I have to do an effort and work a little bit more at night - because it's mandatory for the next day; if it's not I will forgive myself and say 'Ok, let's try again tomorrow and let's try to organize better'. I don't have to be so hard on myself." (SME3)

"Then there are the moments when the activity is blocked or slowed down because you don't have a certain knowledge, both in the environment and in terms of tools. For example, I need a technology that would make me do this in a short time, but I don't know it, so I have to study. At that point enters for me a sort of emotional component that makes me anxious. I am not talking about panic or anxiety, but a kind of feeling that pushes me to fill in the shortest time." (SME4)

These strategies seem to be necessary for self-managing employees since, while on the one hand it is true that the high degree of autonomy brings with it many advantages, on the other hand it also needs an additional effort not to fall into procrastination.

"Autonomy it does have merits, because however it goes you are the one who dictates the times. Paradoxically the negative side is just that: you are the one who dictates the times, so you don't have a comparison for you progress." (SME1)

Typical self-leadership strategies aimed at regulating emotions such as self-talking was also found with regard to team dynamics attributable to IWB phases.

"I think that anyone who has ever presented something even to a small group of people gets nervous or anxious, but one of the things I say to myself is that" it's going to be fine, we are ready we have prepared everything, relax, be confident about what you are going to say.'" (SME3)

However, the major component in which the sub-dimensions of EI are used, are in the internal dynamics of the teams, and more generally in the relationships between colleagues. In interpersonal working relationships, understanding the mood of a colleague may be essential.

"There was this colleague working on this project and I tried to put a piece out of his normal hours. I made the changes and then the next day he found these and obviously I wrote him what I had done. This thing probably it made him a little agitated because he was already in a project he didn't know, and my changes to things he didn't know made him even more agitated. Then I realized that basically although this required a little effort at an organizational level, trying to carve out that half hour with him in close contact solved most of the problems." (SME4)

The ability to recognize the emotions of others makes it possible to regulate and reorganize one's work activities. Using this strategy, it is possible to both optimize interpersonal relationships with colleagues, and to be able to work effectively and productively. The ability to recognize one's own emotions and the emotions of others leads employees to have greater awareness of the type of work environment in which they are immersed, responding to this with positive inputs into the environment itself, with advantages for the whole team.

"As we're given the opportunity to collaborate and to co-operate with the rest of the team, we feel very useful, which is very good. We are asked about how we think that something can be improved and then we feel as part of the team so emotions would be like something friendly, like a friendly environment […]" (SME2)

"Luckily, I'm really happy with my colleagues and I think that the team and the working environment is really important to keep people motivated to go to work, to work with one another. When I think about having a meeting with someone I don' t think it's annoying but it's fun, we are going to make jokes in the middle, we are going to work happy, so this is another thing that keeps me motivated in doing my work, and I hope I motivate other people as well." (SME3)

"The best think of that is that people feel responsible for what they are doing, of their achievements and failures, and also that something is rewarded for we did it as a team I take it important to specify who did it." (SME3)

The sense of belonging plays a fundamental role in teams dynamics, and the positivity that is created within them is both a motivating factor for employees and a factor for employees

themselves in motivating each other. The collaborative atmosphere created within the teams between colleagues gives a sense of usefulness in the employee, who is motivated to reciprocate with a greater commitment in the activities.

Results integration

From a first look at the results of the two different approaches it is possible to state that have a complementary trend, and the results of the qualitative approach, in addition to completing the quantitative ones, enrich them with information and explanations. In the following sections, the results of the two approaches will be integrated and divided according to the three phases of the IWB, in order to appreciate the causes and effects of the variables considered. A final section will be dedicated to team empowerment, as no direct links with the IWB phases have been found from this construct.

Idea Generation

The quantitative results show that there is no statistically significant relationship between self-managing employees EI competencies and the Idea Generation phase. However, the qualitative results suggest differently.

In fact, self-leadership strategies (i.e. tracking and division of activities, goal setting), are used by self-managing employees, to generate innovative ideas. This is done in order to better manage their work and not fall into procrastination due to the high level of autonomy, avoiding leading them to frustration, stress and anxiety. The use of these strategies seems to occur because employees are aware these negative emotions caused by procrastination and try to manage them (i.e. self-emotion appraisal and regulation of emotions), so as not to negatively affect the generation of ideas and their work in general. This mechanism highlights the possible mediator role of self-leadership between EI and IWB, as shown in the quantitative results.

Moreover, it seems that self-managing employees use social competencies in order to facilitate the generation of ideas. In fact, they try to identify with customers' needs, so that they can design solutions that satisfy them. This ability can be traced back to empathy, or rather to others' emotion appraisal. Self-managing employees therefore would not use the competences of EI directly to engage in IWB, but would seem to do it indirectly, through the understatement of customer needs. This would also explain the absence of a direct relationship between EI competencies and the Idea Generation phase in the quantitative results.

Idea Promotion

In the quantitative results it is possible to note that no relationship was found between EI's personal competencies and the Idea Promotion phase. However, the qualitative results highlight the use of components attributable to EI's personal competencies. In fact, self-managing employees are aware of the fact that their emotions influence promotion of ideas (i.e. Self-emotion appraisal). In fact, they are able to realize that they are nervous or anxious when promoting their work. Additionally, they use self-leadership strategies in the form of self-talk to help themselves and successfully manage these emotions that arise when presenting ideas. This mechanism, as in the case of Idea Generation, can be traced back to the possible mediator role of self-leadership between EI and IWB, as shown in the quantitative results.

Conversely, a significant relationship was found between social competencies and the promotion of ideas. This aspect can also be noted thanks to the qualitative approach, as employees are aware that the promotion of their ideas is also influenced by other organizational actors. Self-managing employees think about the best way to approach them, what is important to them and how they will react to the proposals. This denotes a considerable use of Others' emotion appraisal and Use of emotion.

Idea Realization

From the quantitative results it can be seen that there is no significant relationship between the EI's personal competencies and the Idea Realization phase. In this case, also from the qualitative analysis, no clues were found that suggest the use of specific self-leadership strategies when realizing ideas. In general, however, it could be said that these strategies are dependent on the emotions of the self-managing employees themselves, as shown previously. In fact, many of these strategies are born in response - and to avoid negative emotions of frustration, anxiety and stress, resulting from failure and low productivity in work activities. In response, the outcome they receive is greater satisfaction and positive emotions resulting from greater productivity.

On the contrary, there is a significant and positive relationship between social competencies and the realization of ideas. How this happens can also be explained in this case by the results of the qualitative approach. Self-managing employees, in fact, are aware of the emotions their colleagues feel when working on the same project (Others' emotion appraisal). If negative emotions arise among colleagues, self-managing employees use them as feedback, investigate what is wrong and resolve the conflict, allowing the idea to be implemented more efficiently than before (Use of emotion).

Team empowerment

Finally, from the analysis of the quantitative data, no relationship emerged between team empowerment and IWB, both considering the three phases aggregated, and separated. Likewise, no relationship was found between self-leadership and team empowerment. However, a correlation between EI and team empowerment was noted from Table 2. Given the exploratory approach of this research and given that the team empowerment showed no relationship with the dependent variables considered, it was treated as a dependent variable. It was found that EI significantly predicts Team Empowerment. In fact, thanks to the qualitative analysis, it was observed that EI capabilities are used by self-managing employees both in interpersonal relationships between colleagues, both by resolving conflicts and by perceiving the feelings of discomfort that could adversely affect productivity. Moreover, in the relationships that arise within the teams, self-managing employees use their EI trying to understand what the motivating factors are for their colleagues, improving the quality of the internal relationships and consequently the commitment of the team members.

Discussion

The purpose of this study was to understand how self-managing employees use their emotional intelligence to engage in Innovative Work Behavior. Specifically, it was studied which EI competencies use to engage in the three different phases of IWB (i.e. Idea Generation, Idea

Promotion and Idea Realization). To do this, a mixed approach was used in an exploratory case study, using both a quantitative and qualitative data collection and analysis methodology. In this section the results will be interpreted in order to answer the research question.

Theoretical implications

The findings show that self-managing employees use personal competencies to engage in the Idea Generation and Idea Promotion phases, and social competencies are used to engage in all three phases of the IWB. This is in line with the studies by Al-Omari, (2017) and Dincer et al., (2011), who, as previously mentioned, found a positive relationship between some sub-dimensions of EI (self-emotion appraisal, other's emotion appraisal and use of emotions) and the IWB as an aggregate dimension.

Personal competencies

Self-managing employees use personal competencies directly on themselves, with the intervention of self-leadership strategies, suggesting an alignment with what was proposed by Muthusamy et al. (2005), who said that self-managing employees' self-leadership in self-managing employees is positively related to their innovative behaviors. This is also in line with the findings by Baker, (2018) who found a correlation between the level of EI and self-leadership in leaders. However, in this case, this happens for two reasons. First, in the Idea Generation phase, to avoid falling into procrastination due to the high level of autonomy, as employees realize that it can lead to negative emotions, compromising their work. Second, when self-managing employees recognize their negative emotions when they have to present an idea, they use self-leadership strategies to regulate these negative emotions and turn them into positive ones. Hence, it is possible to say that the absence of a leader or a supervisor forces self-managing employee to do something more than the simple use of personal competencies. In fact, since there is no figure who provides them deadlines, who sets goals and schedules to respect, or who encourages them, self-managing employees have to do it themselves. This is done through self-goal setting, tracking and division of activities in the Ides Generation phase, and self-talk in the Idea Promotion phase. This might seem to recall what Abubakr et al., (2007) found, that employees with high EI would have a greater ability to remain concentrated having a stable emotionality (Abubakr et al., 2007). Through the self-leadership strategies, self-managing employees are able to stabilize and regulate their negative emotions, previously recognized. In general, as seen previously, self-management brings with it a multitude of positive aspects, both in the form of productivity, and as in this case in the form of innovative behavior. However, it is necessary to keep in mind that they have to put an extra effort in order not to run into vicious circles caused by procrastination, due to the absence of a leader. For example, as found by Castro et al., (2012), leaders' EI is positively associated with employee's creativity in the Idea Generation phase, regulating their emotions. In the case of self-management, employees use self-leadership strategies also to do that.

Social competencies

Self-managing employees use their social competencies based on the different actors they have to relate to, and the modalities are different according to the phase of the IWB. They are used a) during the Idea Generation with customers, b) during the Idea Promotion with both colleagues and managers and c) during the Idea Realization with colleagues.

a) In this case, social competencies are used to better understand customers' requests and satisfy them in the best possible way. At first glance, this mechanism does not seem to involve third party emotions, however, the literature shows that in the design of a product, the customer needs and his emotions are an essential input for his satisfaction (Khalid & Helander, 2006). This type of approach is also underlined by Mayer and Caruso (2002), who state that the use of EI skills allows us to grasp the feelings of customers, and to model various ideas based on the needs of the customer, always keeping in mind eye the emotional component of the latter. Consequently, it would seem that in order to satisfy client needs, self-managing employees use their social competencies to understand what the client's needs are, identifying themselves in their shoes and then generating ideas capable of performing the necessary function. In fact, the empathic abilities of the employees allow them to better identify the needs of the customers. More specifically, they try to understand what are the reasons that push customers to make certain requests, identifying themselves with the latter and wondering how they would like the work to be done and delivered.
b) In the case of managers and colleagues, in the Idea Promotion phase, self-managing employees try to understand what they expect from them and shape their behavior based on this. Self-managing employees need to focus on the person to whom they present their ideas, as this allows them to calibrate the proposal based on the type of interlocutor they have. This type of approach is the basis of the use of EI's social competencies. In fact, as Mayer and Caruso (2002) underline, the ability to integrate logic and emotions allows to encourage the adoption of certain ideas or proposals, with minimal deviations on the part of the interlocutor. This is because thanks to the use of emotion, they would be able to be sure that a person is in the right mindset when certain proposals are made.
c) In the case of colleagues, during the Idea Realization phase, self-managing employees perceive the reactions and mood their colleagues have when working on a project, using them as indirect feedback, and then clarify any misunderstandings to improve the starting idea. This recalls the mechanism also used in the Idea Promotion phase, however, in this case there is an adaptation of one's idea on the basis of feedback obtained thanks to EI social competencies. Regarding the aspect related to colleagues, the positive relationship between EI and team empowerment found must also be taken into consideration. In fact, this could mean that meaning that personal competencies and social competencies guarantee self-managing employees a greater commitment to the team they belong to, increasing the collective assessments of their tasks (Kirkman & Rosen, 2000). Moreover, according to Ivcevic et al. (2007), the positive attitude of employees with a high level of EI, would influence their colleagues in the same way, improving their mental and thinking flexibility, which in turn refine their IWB. Indeed, teams whose members have a high level of EI are able to be more creative and to resolve internal conflicts in a simpler way (Urch Druskat & Wolff, 2004; Jordan & Troth, 2004; Harminder et al., 2011).
In conclusion, it is natural to ask which EI competencies are most important for a self-managing employee to engage in IWB. However, it would be superficial to give a unique and absolute answer for every area in which organizations use a work design based on self-management. At the same time, however, if we consider that the characteristic that distinguishes self-managing employees from any employee, namely the fact of not having a manager or a person supervising their work,

the answer comes spontaneously. In fact, it has been shown that this type of figure is able to stimulate the IWB of employees through its EI (Dincer et al., 2011; Shojaei et al., 2014; Akgün et al., 2007; Castro et al., 2012). Since this figure is not present in self-management contexts, it is natural to wonder how the EI of self-managing employees helps them to engage in IWB. Thanks to this study, it would seem that they are able to make up for this lack thanks to their personal competencies, and to the way in which self-leadership takes over the process of recognizing and managing their own emotions. This does not want to diminish the role that social competencies play. The latter in fact, are able to play a fundamental role in engaging in IWB, however they require natural interaction with third parties by definition. Rather, we want to underline that personal competencies are those that seem to come into play with the most determination considering the absence of a manager or supervisor. In Figure 2 it is possible to observe a conceptual map of the use of EI to engage in IWB, to visualize it schematically at best.

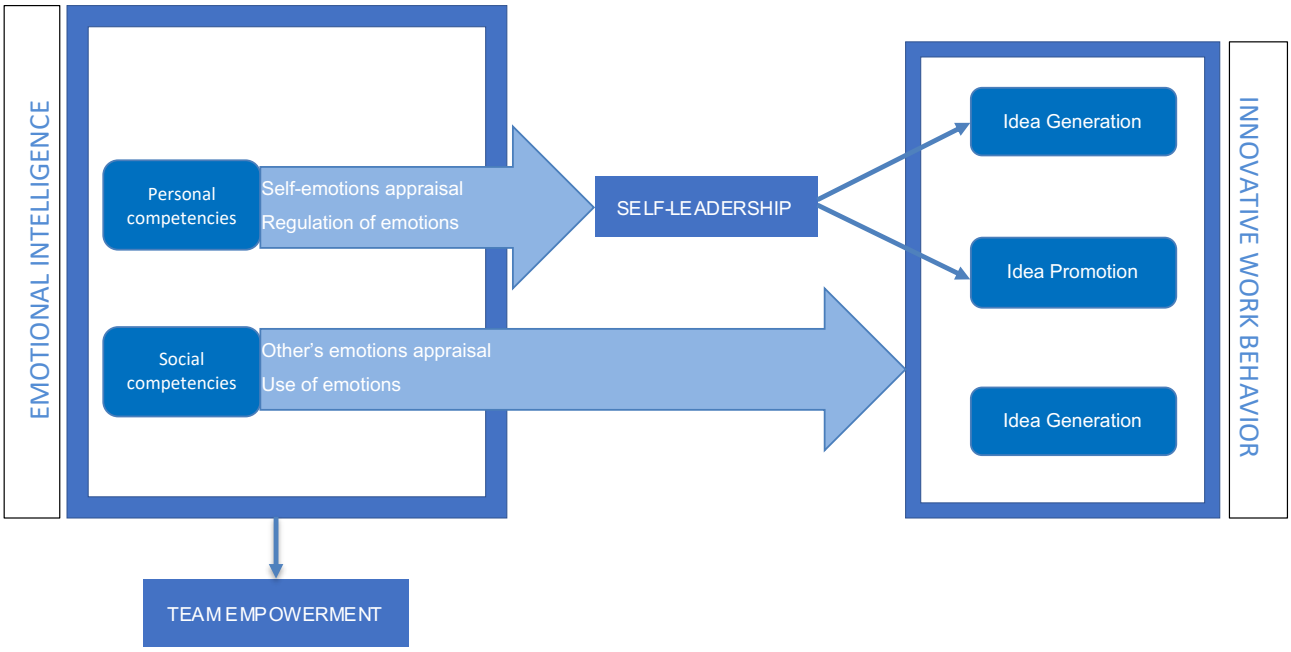

Figure 2: *Map of the use of Emotional Intelligence to engage in Innovative Work Behavior*

Practical implications

From a practical point of view, the implications that derive from this study could lead to a higher level in the personal, professional and innovative growth of self-managing employees. In fact, the a priori assessment of Emotional Intelligence, in combination with other levels of employee quotients at the time of hiring, provides a solid basis on which to build a path of development of soft skills through personal coaching that can have positive implications both from one point in view of the performance and innovative abilities of the worker, both on his professional growth and on his empowerment. However, the results of this study suggest that the role of employees' self-leadership should be considered more significantly. Organizations that invest in employees' soft and hard skills development and empowerment, should consider using training programs that

introduce the development and practice of self-leadership strategies. By implementing this aspect, self-managing employees can have an increase in their innovative attitudes, as well as further benefits in terms of self-confidence and performance (Gist, 1989; Prussia, Anderson & Manz, 1998). Furthermore, having seen that these types of strategies are used in response - and to avoid negative emotions, improving self-leadership skills would also improve the way in which these emotions are managed, positively affecting all aspects related to Emotional Intelligence, such as performance on the job, leadership skills, information gathering, goal achievement, commitment and positive influence of the workplace (Bass, 1997; Goleman, 1998; Wong et al., 2002; Mayer and Caruso, 2002; Avolio et al., 2005). In addition to this, consideration should be given to the possibility of implementing programs for the construction and enhancement of Team Emotional Intelligence (Urch Druskat & Wolff, 2004), without neglecting and not leaving alone the development of individual Emotional Intelligence. For example, groups with a high level of EI are able to be more creative, to be more effective and to resolve internal conflicts in a simpler way (Urch Druskat & Wolff, 2004; Jordan & Troth, 2004; Harminder et al., 2011).

Future Research and Limitations

This study brings with it some limitations. First of all, demographic control variables were not included in the questionnaires used to collect quantitative data. This was requested by the company to protect the privacy of its employees. The inclusion of this type of data is necessary to provide information that can help make the sample representative of a larger population and the lack of this can lead to sampling bias that cause the exclusion of some members of the population (Connelly, 2013). Moreover, a very low response rate (RR1) was calculated, equal to 2.43%. However, Smith (2009), did not found any proof of response bias in surveys with low response rate. Then, this should not compromise the quality of the survey. Furthermore, the number of interviewees for the collection of qualitative data is low, as Crouch and McKenzie, (2006) suggest interviewing between 10 and 15 people to enhance the validity of in-depth inquiry. This was unfortunately caused by a low employee participation rate in the interview, as out of 20 employees contacted by management, only 5 provided their availability. The information collected from the interviews still gives way to make a comparison with the data of the qualitative approach, however a greater number of interviews would certainly have provided a better validity of the results. Future studies could investigate this lack to provide a more solid empirical basis. In fact, from the qualitative approach, the use of EI skills plays a more significant role in the IWB of the employees, through indirect mechanisms that require interaction with third parties. Therefore, given the limited numbers of interviews of this study, it is clear that there is a need for a qualitative approach in this research field that could lead to a better understanding of the way in which self-managing employees use their skills of EI to engage in IWB. This is because the individual self-assessed questionnaires only partially explain behaviors of this type, although their validity is not questioned. Furthermore, with regard to the aspect of qualitative data collection, the interviews were carried out during the global pandemic caused by Covid-19, making the use of platforms necessary. It is well known that the use of these means of communication, although essential for maintaining social distancing, can lead to fatigue and a decrease in attention

(Fossilien & West Duffy, 2020). Therefore, the interviews were agreed with the employees after working hours with flexibility in terms of timing, respondents were asked to ask for a break if they needed it, and interviews did not last longer than 45 minutes.

Future studies could analyze this phenomenon in different contexts, starting from the level of innovation already present in the environment. The company taken into consideration for the case study in fact operates in high-tech consultancy, and the level of innovation capacity is high. In contexts in which the innovation level is different could lead to different results. Moreover, an in-depth analysis of demographic variables could be included in order to provide a greater spectrum of information and to discern more specifically the various existing differences.

Finally, HR practices such as personal coaching are used in the company selected for the case study to develop and improve employee soft skills. Future studies could consider the possibility of analyzing the phenomenon in contexts where this is not present, with the possibility of making a comparison in order to verify the effectiveness of these HR practices.

Although no relationship has been found between team empowerment and IWB or one of its phases, future studies may consider this aspect in order to better understand how the EI of team members empower the team and help its members to engage in IWB.

Conclusion

The use of a mixed approach for data collection and analysis has allowed us to answer the research question "*In which way do self-managing employees use their emotional intelligence to engage in innovative work behavior*?". It has been observed that they use EI's personal competencies to generate better ideas and to promote them successfully. Self-managing employees are aware of the negative emotions they experience, or may experience, and manage them in a way that transforms them into positive outcomes. To make this happen they use self-leadership strategies. This is done through self-goal setting, tracking and division of activities in the Ides Generation phase, and self-talk in the Idea Promotion phase. Moreover, thanks to this mechanism, they would also be able to make up for the lack of a leader or supervisor.

Self-managing employees use their EI social competencies in all three phases of the IWB, in different ways depending on their interlocutor. In the Idea Generation with customers, in the Idea Promotion with both colleagues and managers and in Idea Realization with colleagues. In the first case, social competencies are used to better understand customers' requests and satisfy them in the best possible way. In the second case are used to understand what managers and colleagues expect from them and shape their behavior based on this. In the third case, they perceive the reactions and mood their colleagues have when working on a project, using them as indirect feedback, and then clarify any misunderstandings to improve the starting idea. Finally, it seems that individual personal competencies and social competencies play a role in team empowerment, granting self-managing employees a greater commitment to the team they belong to, increasing the collective assessments of their tasks. From the literature we know that this could positively influence their colleagues, improving their mental and thinking flexibility, and in turn refining their IWB.

References

Abubakr, M. S. and F. N. Al-Shaikh (2007). "Emotional intelligence at work: Links to conflict and innovation." Employee Relations 29(2): 208-220.

Agarwal, U.A. (2014). Linking justice, trust, and innovative work behavior to work engagement, Personnel Review, Vol. 43 No. 1, pp. 41-73.

Akgün, AE, H Keskin, JC Byrne and S Aren (2007) Emotional and learning capability and their impact on product innovativeness and firm performance. Technovation 27, 501–513. Crossref, ISI, Google Scholar

Altındağ, E., & Kösedağı, Y. (2015). The relationship between emotional intelligence of managers, innovative corporate culture and employee performance. Procedia-Social and Behavioral Sciences, 210, 270-282.

American Association for Public Opinion Research (2015), Standard Definitions: Final Dispositions of Case Codes and Outcome Rates for Surveys

Ashkanasy, N.M. & Daus, C.S. (2005) Rumors of the Death of Emotional Intelligence in Organizational Behavior are Vastly Exaggerated. Journal of Organizational Behavior, 26, 441–52.

Avolio, B.J. & Gardner, W.L. (2005) Authentic Leadership Development: Getting to the Root of Positive Forms of Leadership. The Leadership Quarterly, 16, 315–38.

Baker, Cassandra. (2018). A Study of Emotional Intelligence and Self Leadership. SAM Advanced Management Journal. 82. 18-28.

Barry, D. (1991) Managing the bossless team: lessons in distributed leadership, Organizational Dynamics, 20, pp. 31± 47.

Bass, B.M. (1997) Does the Transactional- Transformational Leadership Paradigm Transcend Organizational and National Boundaries? American Psychologist, 52, 130–9.

Bos-Nehles, Anna & Bondarouk, Tanya & Nijenhuis, Koen (2017) Innovative work behaviour in knowledge-intensive public sector organizations: the case of supervisors in the Netherlands fire services, The International Journal of Human Resource Management, 28:2, 379-398.

Boyatzis, R., Goleman, D., & Rhee, K. (2000). Clustering competence in emotional intelligence: insights from the emotional competence inventory (ECI). In R. Bar-On & J.D.A. Parker (eds.): Handbook of emotional intelligence (pp. 343–362). San Francisco: Jossey-Bass.

Bradley L. Kirkman, Benson Rosen, Paul E. Tesluk and Cristina B. Gibson (2004). The Impact of Team Empowerment on Virtual Team Performance: The Moderating Role of Face-to-Face Interaction. The Academy of Management Journal, Vol. 47, No. 2, pp. 175 192.

Castro, F., Gomes, J.F., & Sousa, F.C. (2012). Do Intelligent Leaders Make a Difference? The Effect of a Leader's Emotional Intelligence on Followers' Creativity

Collins, M.A. & Amabile, T.M. 1999. Motivation and creativity. In R.J. Sternber (Ed.), Handbook of Creativity (pp. 297-312). New York: Cambridge University Press.

Connelly, Lynne M. "Demographic data in research studies." MedSurg Nursing, vol. 22, no. 4, July-Aug. 2013, p. 269+. Gale Academic OneFile, Accessed 29 July 2020.

Cooper, R. K. (1997). "Applying emotional intelligence in the workplace." Training & Development 51(12): 31-38.

Crouch, M., & McKenzie, H. (2006). The logic of small samples in interview-based qualitative research. Social Science Information, 45(4), 18. doi: 10.1177/0539018406069584

Devloo, T., Anseel, F., De Beuckelaer, A., & Salanova, M. (2015). Keep the fire burning: reciprocal gains of basic need satisfaction, intrinsic motivation and innovative work behaviour. European Journal of Work and Organizational Psychology, 24, 491–504.

Dincer, H., G. Gencer, N. Orhan and K. Sahinbas (2011). "The significance of emotional intelligence on the innovative work behavior of managers as strategic decision-makers." Procedia - Social and Behavioral Sciences 24: 909-919.

Drigas, Athanasios & Papoutsi, Chara. (2019). Emotional Intelligence as an Important Asset for HR in Organizations: Leaders and Employees. International Journal of Advanced Corporate Learning (iJAC). 12. 58-66. 10.3991/ijac.v12i1.9637.

Druskat, V. U.; & Wolff, S. B. (2001), Building emotional intelligence of groups. Harvard Business Review, 79 (3): 81-90.

Dunphy, D. & Bryant, B. (1996). Teams: Panaceas or prescriptions for improved performance? Human Relations, 49(5), 677-699.

Gist, M. E. (1989). The influence of training method on self-efficacy and idea generation among managers. Personnel Psychology, 42(4), 787–805. https://doi.org/10.1111/j.1744-6570.1989.tb00675.x

Goleman, D. (1998). Working with Emotional Intelligence. Bantum Books. New York, NY.

Goleman, D., Boyatzis, R., & McKee, A. (2002). Primal leadership: Realizing the power of emotional intelligence.

Harminder, Dr & Gujral, Harminder & Ahuja, Jaya. (2011). Impact of Emotional Intelligence on Teamwork – a comparative study of self-managed and cross functional teams. Zenith International Journal of Multidisciplinary Research Vol.1 Issue 6, October 2011, ISSN 2231 5780. 1.

Hinton P. R., Brownlow C., McMurray I., Cozens B., (2004). SPSS explained. Routledge.

Houghton, J., Neck, C., & Manz, C. (2003). Self-leadership and superleadership. In C. Pearce, & J. Conger (Eds.), Shared leadership (pp. 123−140). Thousand Oaks, CA: Sage.

Houghton, Jeffery & Dawley, David & DiLiello, Trudy. (2012). The Abbreviated Self-Leadership Questionnaire (ASLQ): A More Concise Measure of Self-Leadership. International Journal of Leadership Studies. 7. 216-232.

Hsieh, Hsiu-Fang & Shannon, Sarah. (2005). Three Approaches to Qualitative Content Analysis. Qualitative health research. 15. 1277-88. 10.1177/1049732305276687.

Ivcevic, Z., M. A. Brackett and J. D. Mayer (2007). "Emotional intelligence and emotional creativity." Journal of Personality 75(2): 199-236.

Jong, Jeroen & Den Hartog, Deanne. (2010). Measuring Innovative Work Behavior. Creativity and Innovation Management. 19. 10.1111/j.1467-8691.2010.00547.x.

Kanter, R. (1995). Men and women of the corporation (2nd ed.). Basic Books.

Kanter, R. 1988. When a thousand flowers bloom: Structural, collective, and social conditions for innovation in organizations. In B. M. Staw & L. L. Cummings (Eds.), Research in organizational behavior, vol 10: 169-211. Greenwich, CT: JAI Press

Kanter, R. M. (1988). When a thousand flowers bloom. Research in Organizational Behavior, 10, 169-211.

Khalid, H. M., & Helander, M. G. (2006). Customer Emotional Needs in Product Design. Concurrent Engineering, 14(3), 197–206. https://doi.org/10.1177/1063293X06068387.

Kirkman, B. L., & Rosen, B. 2000. Powering up teams. Organizational Dynamics, 28(3): 48-66.

Law, Kenneth & Wong, Chi-Sum. (2004). The Construct and Criterion Related Validity of Emotional Intelligence and Its Potential Utility for Management Studies. The Journal of applied psychology. 89. 483-96. 10.1037/0021-9010.89.3.483.

Liz Fosslien and Mollie West Duffy, (April 29, 2020). How to Combat Zoom Fatigue. Harvard Business Review. https://hbr.org/2020/04/how-to-combat-zoom-fatigue

Maarten Renkema, Maike Janssen, (2017) "HRM and innovative work behavior: a systematic literature review", Personnel Review, Vol. 46 Issue: 7, pp.1228-1253.

Manz, C. (1992). Mastering self-leadership: Empowering yourself for personal excellence. Englewood Cliffs.

Manz, C. (1992). Self-Leadership... The Heart of Empowerment. The Journal for Quality and Participatio; Cincinnati Vol. 15, 4, (Jul/Aug 1992): 80.

Manz, C., & Sims, H. (1987). Leading workers to lead themselves: The external leadership of self-managing work teams. Administrative Science Quarterly, 32, 106−128.

Manz, C., & Sims, H. (2001). The new superleadership. San Francisco, CA: Berrett-Koehler Publishers.

Mayer, J. D., & Caruso, D. (2002). The effective leader: Understanding and applying emotional intelligence. Ivey Business Journal, 67(2), 1-5.

Millikin P. John, Peter W. Hom, Charles C. Manz, (2010). Self-management competencies in self-managing teams: Their impact on multi-team system productivity, The Leadership Quarterly, Volume 21, Issue 5, Pages 687-702, ISSN 1048-9843, https://doi.org/10.1016/j.leaqua.2010.07.001.

Mohammad Al-Omari, (2017). Engineers Innovative Work Behavior: The Role of Emotional Intelligence. European Journal of Business and Management www.iiste.org ISSN 2222-1905 (Paper) ISSN 2222-2839 (Online) Vol.9, No.21, 2017

Mumford, M., & Gustafson, S. 1988. Creativity syndrome: Integration, application, and innovation. Psychological Bulletin, 103: 27-43.

Muthusamy, Senthil & Wheeler, Jane & Simmons, Bret. (2005). Self-managing work teams: Enhancing organizational innovativeness. Organization Development Journal. 23. 53-66.

Osterman, P. (1994). How common is workplace transformation and who adopts it? Industrial & Labor Relations Review, 47, 173-188.

Östlund, Ulrika & Kidd, Lisa & Wengström, Yvonne & Rowa-Dewar, Neneh. (2010). Combining qualitative and quantitative research within mixed method research designs: A

methodological review. International journal of nursing studies. 48. 10.1016/j.ijnurstu.2010.10.005.

Peter J. Jordan & Ashlea C. Troth (2004) Managing Emotions During Team Problem Solving: Emotional Intelligence and Conflict Resolution, Human Performance, 17:2, 195-218, DOI: 10.1207/s15327043hup1702_4

Salovey, P. & Mayer, J.D. (1990) Emotional Intelligence. Imagination, Cognition and Personality, 9, 185–211.

Scott, S.G. and Bruce, R.A. (1994), "Determinants of innovative behavior: a path model of individual innovation in the workplace", Academy of Management Journal, Vol. 37 No. 3, pp. 580-607.

Shojaei, Mohammad & Siuki, Mohadeseh. (2014). A study of relationship between emotional intelligence and innovative work behavior of managers. Management Science Letters. 4. 1449-1454. 10.5267/j.msl.2014.6.021

Smith, H.L. (2009). Double sample to minimize bias due to non-response in a mail survey. Philadelphia, Pa: Population Studies Center, University of Pennsylvania, PSC working paper series, No. 09-05.

Taggar, S. (2002). Individual creativity and group ability to utilize individual creative resources: A multilevel model. Academy of Management Journal, 45(2), 315-331.

Udod, Sonia A., Hammond-Collins, Karon and Jenkins, Megan, (2020), Dynamics of Emotional Intelligence and Empowerment: The Perspectives of Middle Managers, SAGE Open, 10, issue 2.

Urch Druskat, Vanessa and Wolff Steven B., (2020). Building the Emotional Intelligence of Groups. Harvard Business Review, r0103e, 80-90-

Van de Ven, A. 1986. Central problems in the management of innovation. Management science, 32: 590-607.

Wong, C. & Law, K.S. (2002) The Effects of Leader and Follower Emotional Intelligence on Performance and Attitude: An Exploratory Study. Leadership Quarterly, 13, 243–74.

Yang, Olivia (1996) Shared leadership in self-managed teams: A competing values approach, Total Quality Management, 7:5, 521-534.

Yuan, F., & Woodman, R. W. (2010). Innovative behavior in the workplace: The role of performance and image outcome expectations. Academy of Management Journal, 53, 323–342.

Zorzi, M., V., Girotto (2004). Fundamentals of general psychology. Il Mulino, Bologna

Appendix A - Innovative Work Behavior questionnaire

1. Creating new ideas for difficult issues
2. Searching out new working methods, techniques, or instruments
3. Generating original solutions for problems
4. Mobilizing support for innovative ideas
5. Acquiring approval for innovative ideas
6. Making important organizational members enthusiastic for innovative ideas
7. Transforming innovative ideas into useful applications
8. Introducing innovative ideas into the work environment in a systematic way
9. Evaluating the utility of innovative ideas

Appendix B - Emotional Intelligence questionnaire

1. I have a good sense of why I feel certain feelings most of the time.
2. I have a good understanding of my own emotions.
3. I really understand what I feel.
4. I always know whether I am happy or not.
5. I always know my friends' emotions from their behaviour.
6. I am a good observer of others' emotions.
7. I am sensitive to the feelings and emotions of others.
8. I have a good understanding of the emotions of people around me.
9. I always set goals for myself and then try my best to achieve them.
10. I always tell myself I am a competent person.
11. I am a self-motivating person
12. I would always encourage myself to try my best.
13. I am able to control my temper so that I can handle difficulties rationally.
14. I am quite capable of controlling my own emotions.
15. I can always calm down quickly when I am very angry
16. I have good control of my emotions.

Appendix C - Self-leadership questionnaire

1. I establish specific goals for my own performance
2. I make a point to keep track of how well I'm doing at work
3. I work toward specific goals I have set for myself
4. I visualize myself successfully performing a task before I do it
5. Sometimes I picture in my mind a successful performance before I actually do a task
6. When I have successfully completed a task, I often reward myself with something I like
7. Sometimes I talk to myself (out loud or in my head) to work through difficult situations
8. I try to mentally evaluate the accuracy of my own beliefs about situations I am having problems with
9. I think about my own beliefs and assumptions whenever I encounter a difficult situation

Appendix D - Team empowerment questionnaire

1. My team has confidence in itself
2. My team can get a lot done when it works hard
3. My team believes that it can be very productive
4. My team believes that its projects are significant
5. My team feels that its tasks are worthwhile
6. My team feels that its work is meaningful
7. My team can select different ways to do the team's work
8. My team determines as a team how things are done in the team
9. My team makes its own choices without being told by management
10. My team has a positive impact on this company's customers
11. My team performs tasks that matter to this company
12. My team makes a difference in this organization

Appendix E – Codebook Innovative Work Behavior

Categories	Codes	Definition	Example
Idea Generation	**Iwb_G**	The employee tries to solve problems or improve products or processes, recombining the already existing variables together with the information and concepts he has (De Jong & Den Hartog, 2010).	*"First of all, I try to understand how much I know about the problem I'm facing because it can happen for example that maybe it's something completely new. At the level of ideas, it depends on context and more or less on how much it can be taken from the topic. So, an idea can arise, for example, when there is a problem to solve and try to understand if it can be approached in another way." (SME1)*
Idea Promotion	**Iwb_P**	The employee expresses his ideas to his colleagues seeking approval and receiving feedbacks, seeking to overcome the various resistances of the business (Bos-Nehles et al., 2017).	*"When I try to share these things with colleagues, there is a need to understand who to do it with, how to approach it and what to say / what not to say, because there are ten years in a certain way and does not want to change and it can happen that you cannot make things move." (SME5)*
Idea Realization	**Iwb_R**	The employee applies his idea by creating a prototype or a model, proposing it to colleagues and evaluating its outcomes, in such a way that it can become fully operational in the organization's routines (De Jong & Den Hartog, 2010).	*"I designed it completely and was responsible for that part. This database was a part connected to many other systems that other colleagues worked on. Obviously, I had designed based on the needs of the customer who asked us, and at some point, discontent in the team were born because this database was starting to be too complex. […] So, what I tried to figure out is why they thought it was complex. Once I understood this, I understood that they considered it complex because they did not know that it had to respond to equally complex needs from the customer's point of view." (SM4)*

Appendix F – Codebook Emotional Intelligence

Personal Competencies

Categories	Codes	Definition	Example
Self-emotions appraisal	**ei_self_emap**	The employee recognizes his own emotions, strengths, weaknesses, drives, values and goals and recognize their impact on others.	*"I get mad in silent because I have a bad temper and I know it, but because of it I don't want to show it in the workplace." (SME3)* *"I'm not someone who thinks about what went wrong: I think about how and why to avoid it in the future, but then I don't think about it anymore. I always look at something for what I can do, not what I can't do." (SME5)*
Regulation of emotions	**ei_reg_em**	The employee controls or redirects his own emotions based on different context.	*"I try to talk to them not in an anger way, I try not to get mad at people never because it's not going to work most of the times" (SME3)* *"At that point enters for me a sort of emotional component that makes me anxious. I am not talking about panic or anxiety, but a kind of feeling that pushes me to fill in the shortest time." (SME4)*

Social Competencies

Categories	Codes	Definition	Example
Other's emotions appraisal	**ei_oth_emap**	The employee manages the emotions that exist in relationships with others.	*"I always try to separate the work relationship and the personal relationship: when we have coffee break it's forbidden to talk about work and we talk about anything else, to know each other and gain confidence. On the other hand, when we are working, we are working." (SME3)*
Use of emotions	**ei_use_em**	The employee is able to recognize and take into account the emotions of his colleagues.	*"When I try to share these things with colleagues, there is a need to understand who to do it with, how to approach it and what to say / what not to say" (SME5)*

Self-leadership

Categories	Codes	Definition	Example
Self-leadership	**self_ldr**	The employee uses behavior-focused strategies, natural reward strategies and thought self-leadership to complete tasks.	*"I try to have a lineup, writing what I have in mind or a macro-topic and I say, 'I have to do that'[...] I bought myself a block notes, on which I write what I did during the workday." (SME1)* *"I have always used from the university a sort of mechanism to monitor the progress of the activities, which can be applied to the study as well as to a project. I can apply it both to activities that have a fixed deadline and to activities that do not have one. The first thing I do is to understand how long it takes. At this point, I break down my activities into micro-activities and I try to understand if I have all the tools to complete the micro-activities." (SME4)*

Team empowerment

Categories	Codes	Definition	Example
Team empowerment	**team_emp**	The employee recognizes that his team members care about their tasks, they members have decision-making autonomy and they believe the team is able to contribute significantly to the organization.	*"As we're given the opportunity to collaborate and to co-operate with the rest of the team, we feel very useful, which is very good. We are asked about how we think that something can be improved and then we feel as part of the team so emotions would be like something friendly, like a friendly environment […]" (SME2)* *"The best think of that is that people feel responsible for what they are doing, of their achievements and failures, and also that something is rewarded for we did it as a team I take it important to specify who did it." (SME3)*