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EFFECTS OF MANAGERIAL EMOTIONAL INTELLIGENCE ON THE ORGANIZATIONAL COMMITMENT OF SUBORDINATES

Doctoral Thesis

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ANNOTATION

In many industries, a war for talent can be noticed, and not only hiring but retaining and facilitating employees becomes increasingly critical for the success of businesses. It is evident that employees entering organizations today have different views and expectations than prior generations. Most jobs are complex, interconnected and knowledge-based, requiring, therefore, employees to be committed and engaged in their work and their company. As jobs now demand greater psychological resources and soft skills in every role, employees also expect a greater amount of guidance and support from their leaders, and when they can't find this support from their superiors, they look for it elsewhere to remain competitive and fulfilled. Today, organizations and their management are faced with the problem of a diminishing organizational commitment of employees and need to handle the negative implications of this development like the cost of employee turnovers, a lack of employees' motivation, low productivity and a resistance to change, while employees are asking for development opportunities, meaningful work, and leadership they can trust. Research shows that increasing the organizational commitment of employees is a promising way to retain talent and it has been identified as one critical success factor for organizations to cope with constant change that seems to be unavoidable in today's business environment. Consequently, the question organizations need to answer must be how to increase employees' commitment toward the organization. Along with many other factors, this could potentially influence employees' general professional dedication. Previous studies have shown that managers and their leadership style have a significant effect on organizational commitment. However, it must be clarified which managerial competencies and social skills are favoring the organizational commitment of subordinates and should be further developed.

The aim of this thesis is, therefore, to analyze the influence that managerial emotional intelligence has on employees' organizational commitment. The relatively new theory of emotional intelligence, as a set of managerial competences, can potentially explain factors that could affect subordinates' organizational commitment and their view of the organization. The concept of emotional intelligence has shown promising results when investigating what distinguishes average from outstanding managers, but its importance is still neglected in most leadership development programs. This is tragic since leadership development initiatives, a multi-billion dollar industry, way to often fail to deliver the intended outcome. This research indicates that emotional intelligence training for managers needs to be further expanded in current leadership development initiatives not only because of the influence it can have on individual success but also due to the positive effect it can have on subordinates. The presented research introduces and discusses state of the art tools to measure emotional intelligence, and by evaluating the importance of managerial emotional intelligence as a leadership competency, it also suggests ways to increase the effectiveness of leadership development initiatives.

Keywords: Emotional Intelligence, Organizational Commitment, Leadership Development

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LIST OF ABBREVIATIONS

EI   Emotional Intelligence

ESCI   Emotional and Social Commitment Inventory

EQ-I   Emotional Quotient Inventory

GENOS   GENOS International emotional intelligence questionnaire

OC   Organizational Commitment

OCS   Organizational Commitment Survey

MSCEIT   Mayer-Salovey-Caruso Emotional Intelligence Test

HRM   Human Resource Management

AC   Affective Organizational Commitment

NC   Normative Organizational Commitment

CC   Continuance Organizational Commitment

WLEIS   Wong and Law Emotional Intelligence Scale

SSEIT   Schutte Self Report Emotional Intelligence Test

TEIQUE   Trait Emotional Intelligence Questionnaire

INTRODUCTION

Actuality of the topic

In recent years, increased flexibility of the workforce is being noticed by businesses around the world. Especially younger generations do not see the need to stay with their company for the rest of their lives, resulting in employees that are less committed to their organizations (Aziz et al., 2018, D'Amato and Herzfeldt, 2008). The Gallup Institute in Germany has been undertaking an international study over the last decade, evaluating the commitment and engagement of employees. When analyzing the results, it is possible to see that only 15% of German and only 11% of Austrian employees are highly committed to their work and their organization. The estimation of losses for Germany due to this lack of employee commitment is estimated at over 22 billion euro per year (Nink, 2014). Over the past two decades, also other studies have shown the positive effect of organizational commitment on performance, motivation and job involvement, leading to lower turnover rates and less unethical behavior. (e.g. Mathieu & Zajac 1990; Meyer et al., 2002; Cullinan et al., 2008; Wright & Bonett, 2002; Memari et al., 2013; Jaramillo et al., 2005). Researchers found that employees with high levels of organizational commitment are also less likely to engage in ethically questionable behaviors, have lower withdrawal cognition and turnover intentions and are more likely to increase their leadership attributes without an organizational initiative. The question that arises is what factors lead to an organizational environment where employees have a high commitment to their company and therefore want to stay with the organization. It is every manager`s task to increase his employees' performance and to reduce transaction costs that result from talented employees leaving the company. Although managers agree on the importance of organizational commitment, it has been shown that strategies to increase employees commitment in organizations are not very common and that managers are more likely to rely on fad and personal experience (Morrow, 2011).

This thesis is addressing the organizational problem of low employees' commitment by investigating the role of managerial emotional intelligence on subordinates' organizational commitment. In doing so, this research is also aiming to give insight into the question of whether leadership development programs should increase their focus on developing managers' emotional intelligence capabilities.

Although a relatively new field of research, emotional intelligence has been argued to have a significant effect on the success of managers and leaders. Studies show that employees perception of their supervisors' emotional intelligence may have important workplace implications and that it can have a significant impact on both, general job satisfaction and group task satisfaction of the individuals (Whiteoak and Manning, 2012). On the other side, opinions among scholars exist, arguing that the relationship with a supervisor is more a hygiene than a motivational factor (Herzberg, 2003). The focus of previous research has been laid on the influence of managers emotional intelligence on their performance whereas only a few articles have been published targeting the relation between managers emotional intelligence and the influence it has on the employees they are responsible for. Petrides (2011) sums up the general vacuum in current literature regarding emotional intelligence, stating that "more than any other topic, that of the links between trait emotional intelligence and organizational performance requires more research, which should be predicted on theoretically driven hypotheses and comprehensive measures of the construct" (p. 667). Research has shown that emotional intelligence is one of the main factors that can influence the success of leaders in today's organizations (e.g., Goleman, 1998; Zeidner et al., 2009). It is stated that intelligence is of course highly relevant, but emotional intelligence makes the difference when comparing managers and leaders to their peers. Of course, general intelligence (IQ) is an essential factor for leadership success, but there is growing evidence that it becomes less important in certain situational contexts (Antonakis, Ashkanasy, and Dasborough, 2009). An important finding is that emotional intelligence competencies can be developed and that training programs can increase participants' emotional skills. Although organizations are targeting the development of leadership capabilities through leadership development programs, the importance of emotional intelligence in leadership development programs is often neglected or does not get the necessary attention. In general, little has been done to understand the characteristics that are associated with how individuals engage in developing their leadership skills (Boyce, Zaccaro, & Wisecarver, 2010). The problem that despite great efforts, many leadership development programs fail, still exists. Nafukho, Muyia, Farnia, Kacirek, & Lynham (2016) argue that, even though emotional intelligence training interventions are gaining increasing popularity, the empirical data on emotional intelligence development are limited in number and represent contradictory evidence.

Day *et al.* (2014) state that the intrapersonal and the interpersonal processes are central to the leadership development over time, and Boyce, Zaccaro, & Wisecarver (2010) note that organizational actions can only facilitate or reduce the probability that participants engage in self-development activities. To increase the benefit of leadership development initiatives for participants, and for organizations to retrieve their investments in these programs, it is necessary to better understand the emotional and cognitive reactions following feedback (Besieux, 2017, Brett and Atwater, 2001). With the use of a 360-degree feedback tool and a follow-up feedback regarding managers emotional intelligence, it was aimed to not only increase the understanding on how managerial emotional intelligence is influencing subordinates organizational commitment, but also on how feedback and insight about managers' emotional intelligence capabilities is affecting the reaction and likelihood to take personal development actions.

Research object

- Managers in privately owned manufacturing companies.

Research subject

- Impact of managers emotional intelligence competencies on the level of organizational commitment of their subordinates.
- Influence of 360-degree feedback on the possibility to develop emotional intelligence competencies in leadership development programs.

Aim

The aim of this dissertations is to investigate the influence of managerial emotional intelligence on subordinates organizational commitment and thereby helping organizations to decide whether their leadership development initiatives need to focus on the development of their managers' emotional intelligence capabilities.

Tasks

The following major tasks have to be fulfilled to reach the research aim:

1. Conduct extensive research of the existing literature on emotional intelligence, organizational commitment as well as leadership and leadership development.

2. Evaluate and choose state of the art instruments to develop a causal model to analyze the impact of managers' emotional intelligence on subordinates' organizational commitment.

3. Create the emotional intelligence/organizational commitment model and introduce the model to the management of an Austrian multi-site company.

4. Test the postulated causal model of managers' emotional intelligence and subordinate's organizational commitment empirically.

5. Evaluate the differences of managers' self- and other-rating regarding their emotional intelligence and create personalized feedback for every participating manager about their emotional intelligence competencies.

6. Create and pre-test a follow-up questionnaire for every participating manager after providing the personalized feedback.

7. Validate the quantitative data on how managers perceive emotional intelligence to be an influencing variable regarding the organizational commitment of their subordinates.

8. Analyze and interpret the empirically gathered data through statistical procedures to answer the research questions.

9. Develop conclusions and suggestions for further studies in the research fields of emotional intelligence, organizational commitment, and leadership development.

Research questions

- Does managers' emotional intelligence influence the organizational commitment of their direct subordinates?

- Is there a difference between managers self and other ratings of emotional intelligence when measured through a 360-degree feedback instrument?

- Do some competencies of the construct of emotional intelligence have a significantly higher impact on organizational commitment than others?

- How useful and accurate do managers see emotional intelligence development initiatives?

- Is emotional intelligence learnable and if so what conditions are favorable for the process?

- Does emotional intelligence training for managers need to be further expanded in current leadership development programs due to the positive impacts increased managerial emotional intelligence can have for organizations?
- What role plays feedback in leadership development initiatives on the outcome of the program?

Based on the derived research questions the main hypothesis is formulated as:

Managers emotional intelligence competencies have a positive effect on the organizational commitment of their subordinates

The main hypothesis is operationalized through the following four **theses for defense**:

(1) The use of a 360-degree feedback model to evaluate managerial emotional intelligence will disclose differences between managers self- and other rating.

(2) Certain competencies regarding managers' emotional intelligence, have a significant impact on the organizational commitment of their subordinates.

(3) Perceived accuracy and usefulness in feedback also leads to an increased likelihood to take personal development actions.

(4) Overrating or underrating oneself in 360-degree feedback will influence the extent to which participants are engaging in development actions on their own.

Novelty

Following aspects subsume the novelty of this dissertation:

(1) A new model has been created to investigate the effect of managerial emotional intelligence on the organizational commitment of subordinates in Austria

(2) The research provides prior not available information on what competencies, out of the construct of emotional intelligence, are most influential on subordinates' organizational commitment.

(3) The introduction of a feedback loop to analyze participants' perception of feedback accuracy and usefulness as well as the influence those factors have on the likelihood to

take personal development actions, is an innovative approach to increase the effectiveness of leadership development programs.

(4) The thesis is the first work that analyzes whether self- and other- rating differences in 360-degree feedbacks influence participants' engagement in self-development actions.

Used methods and sources

For the first part of this quantitative study, two reliable survey instruments have been obtained from the publishers. The Emotional and Social Commitment Inventory (ESCI) (Boyatzis, 2007), was used to measure managers emotional intelligence competencies through 360-degree feedback of self and other ratings. On the other hand, the Organizational Commitment Scale (OCS) developed by Meyer & Allen (1997) was used to measure the level of organizational commitment of employees. The ESCI-Test, which provided data for the self- and other-rating of managers' emotional intelligence, was administered through an online tool provided by the HayGroup. This enabled the author to follow the whole process of data collection online and in real time. In the second wave of data collection a survey, evaluating the level of organizational commitment, was performed and participants were personally approached electronically via e-mail. To link managers' emotional intelligence and employees' organizational commitment, the human resource department provided data that connected the two groups, showing the direct manager of each subordinate.

In the third wave of data collection, each participating manager received individualized feedback about their emotional intelligence competencies, and the divergence between the self and others view on their competencies. This feedback was followed up by a post-test survey, asking managers how valuable they see the feedback for their development. Furthermore, it was asked whether managers found the feedback to be accurate, what possible reactions the feedback would imply and how likely they were to take development actions. The data was collected throughout four-month, starting from May 2015 until September 2015.

From a theoretical point of view, this thesis utilizes different sources regarding the topics of emotional intelligence, organizational commitment, leadership theories, and leadership development. During the literature research, a wide variety of theoretical models and concepts of different authors have been investigated and studied. Regarding emotional intelligence the theories of Daniel Goleman, Richard Boyatzis, John Mayer and Peter Salovey have been highly

influential. Main authors in the field of organizational commitment whose concepts are essential for this thesis are Natalie Allen and John Meyer as well as Lyman Porter. The theories of Bernard Bass and James Burns build a solid foundation for the study of leadership, while John Kotter and Abraham Zaleznik are critical to understand the differences between management and leadership. The research of Leanne Atwater and Francis Yammarino on leadership development are also crucial for this dissertation since their theories have been first to explain rating differences between self- and other ratings in leadership development programs. Literature, both in English and German language has been utilized, starting from as early as 1929 up to state of the art scientific work. Books as well as articles, statistical data and scientific papers available online, were used throughout this scientific work.

Limitations

It must be noted that this study has some limitations. First, the generalizability of the results is limited because the sample contains managers and employees from a company in the manufacturing industry and is therefore limited to this industry. Second, research has been executed in multiple departments geographically dispersed in Austria but since emotional intelligence can vary in different countries and cultures, the results can only be seen valid for Austria and could differ from finding in other countries or industries. It is undoubted that more factors (e.g., organizational culture, job opportunities, etc.) than solely managers' emotional intelligence can influence subordinates' organizational commitment. Arguably also the extent to which a manager collaborates with his subordinates and how often they interact will increase or decrease the importance of managers' emotional capabilities to influence employees' commitment to the organization.

Approbation of results of research

Several steps during the development of the dissertation were presented and discussed within the scientific community. The author has presented the advance of the ongoing research in national and international conferences and publications in the years 2016, 2017 and 2018 including other opinions for a well-rounded view on the topic.

a) **Conferences**

- "Influence of managers' emotional intelligence on subordinates' organizational commitment – A theoretical approach". 74th conference "Impact of globalization to national economies and business". University of Latvia, Riga, Latvia, January 28th, 2016.

- "Measuring managers' emotional intelligence and the influence it has on subordinates' organizational commitment". International Academy of Business and Economics, University of Florence, School of Economics and Management, University of Pisa, Department of Economics and Management, Florence and Pisa, Italy, June 16th – 18th, 2016.

- "Investigating the state of research on emotional intelligence as a predictor of organizational commitment". International Academic Conference on Management, Economics and Marketing. Czech Institute of Academic Education z.s. and Czech Technical University Prague. Budapest, Hungary, July 8th – 9th, 2016.

- "The Influence of feedback on the probability to take personal development actions following leadership development programs" International Masaryk Conference for PhD students and young researchers. Hradec Kràlové, The Czech Republic, December 12th – 14th, 2016.

- "The role of emotional intelligence training in leadership development programs" PEFnet 2018: 22nd European Scientific Conference of Doctoral Students. Campus of Mendel University, Brno, Czech Republic, November 29th, 2018.

- "The impact of feedback following organizational leadership development initiatives" International Conference on Business, Management and Economics, Berlin, Germany, December 21st – 23rd, 2018.

b) **Publications**

- Urban, M., (2016). "Investigating the state of research on emotional intelligence as a predictor of organizational commitment" Proceedings of IAC-MEM 2016 in Budapest, Czech Institute of Academic Education z.s. and Czech Technical University Prague ISBN:9788090623125. Available via: https://books.google.at/books?isbn=8090623123

- Urban, M., (2016). "Measuring managers' emotional intelligence and the influence it has on subordinates' organizational commitment", *International Journal of Strategic Management*, 16 (2), 7-16. doi: 10.18374/IJSM-16-2.1

- Urban, M., (2016). "Difference between self- and other-rating and the influence on the probability to take personal development actions", AD ALTA: *Journal of Interdisciplinary Research*, 6 (2), 120-124. ISSN 2464-6733 (Online).

- Urban, M., (2018). "The impact of feedback following organizational leadership development initiatives" Proceedings of International Conference on business, management and economics, ISBN: 9786098239102, pp. 98-108.

- Urban, M., (2019). "Employees engagement in self development actions following leadership development programs" *Journal Humanities and Social Sciences Latvia,* 27 (2), 82-100. ISSN 1022-4483.

Content of the dissertation

The first chapter of the thesis introduces the reader to the theoretical foundation of the various concepts of emotional intelligence, organizational commitment, and leadership development. In this section, the necessary terminology is explained, and the concepts of emotional intelligence and organizational commitment are brought together. For each of the theories, the current state of research, as well as critics and discrepancies, are presented and discussed. The different measurement methods of the introduced concepts are critically evaluated, and it is shown how decreasing organizational commitment can negatively influence individuals and organizations and what factors there might be to stop this trend. Emotional intelligence as a possible factor to influence organizational commitment will be analyzed, and possibilities to increase organizational commitment within the workforce are discussed. The role of emotional intelligence as a leadership competence is presented, and the link to modern management theory is established.

Following the theoretical review of the literature, in the second chapter previous studies related to the influence of emotional intelligence on organizational commitment are explored. From the research performed it becomes clear that there is a need for studies that provide an insight on how managerial emotional intelligence and subordinates organizational commitment correlate. In addition to this analysis, the second chapter provides an overview on the state of

research on how individuals react on 360-degree feedbacks and how the different type of feedback is influencing their reactions and actions, following leadership development initiatives. Especially research, focusing on the question of whether feedback on rating differences between self- and other rating influences participants of leadership development programs, is examined.

In the third chapter, the developed model to answer the research questions and hypotheses is presented and the research design, as well as utilized methodologies, are introduced. The data collection instruments are explained in detail also focusing on the explanation of the dependent and independent variables of the model. In this chapter, the population, the sample and the data collection process are described.

In the fourth chapter, the population and the way the data has been analyzed are discussed. The empirical data is presented and analyzed. Following the statistical investigation, the research questions are answered accordingly. Finally, in the last section of this doctoral thesis, the main conclusions and suggestions for practitioners and researchers are presented.

Main results

It is stated by the author and suggested by recent academic literature that competencies of emotional intelligence are an essential factor for managers to predict not only their success but also play a vital role in the leader-follower relationship. The findings of the performed study and the data analysis throughout this dissertation indicate that some components of managerial emotional intelligence are indeed influencing employees' commitment to their organization. Three competencies, Achievement Orientation, Emotional Self Control, and Empathy have shown to correlate with employees' total organizational commitment significantly. The finding was supported by a performed multivariate regression analysis showing statistical significance for the influence of managers' empathy on subordinates' organizational commitment. Qualitative data collected from participating managers, utilizing a follow-up questionnaire gave additional support for the main hypothesis of this dissertation. Seventy percent of managers agreed with the statement that managers' emotional intelligence is influencing their subordinates' organizational commitment. These findings suggest that the two constructs, emotional intelligence, and organizational commitment are to be seen correlative, meaning that

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investing in the development of managers' emotional intelligence can also increase the organizational commitment of employees. Data gathered in this study suggests that the focus should lie especially on increasing managers' empathy, as one competence of emotional intelligence, when aiming to increase employees' organizational commitment. Also, two factors, the age of employees and employees' time with the company, have both shown a positive correlation with organizational commitment suggesting that organizations have to focus especially on younger employees and how they perceive the organization if they sought to increase overall organizational commitment.

As proposed, it was possible to show that there are significant differences between the self- and other ratings of managers' emotional intelligence, supporting the argument of many scholars stating that solely self-rating in leadership development programs is not enough. The results of this research indicate that the feedback process is crucial within leadership development activities that aim to increase emotional intelligence competencies. The empirical data of this thesis suggests that managers are more likely to engage in development actions on their own when they perceive feedback as useful. This indicates the importance to explain development activities in detail to participants, especially on how they can profit from the program. A difference between self and other rating has been shown, but the data does not support the statement that feedback differences influence the perceived usefulness or likelihood to take personal development actions.

This research adds knowledge and currently not available insight about the collaboration between Austrian managers and their subordinates. These findings are significant because they support the existing research regarding the importance of managers' emotional intelligence when being in charge of subordinates. It emphasizes the need to develop emotional intelligence competencies especially suggesting that managers have to be empathic towards employees when they want to increase their commitment towards the organization. The importance of feedback in leadership development programs is unquestioned. This research shows that participants in leader development initiatives, focusing on emotional intelligence and utilizing a 360-degree rating tool, find the feedback to be accurate and useful. Finally, the available data suggest that there is no correlation between managers that overrate, are in agreement or underrate themselves compared to other raters and the engagement of those managers in personal development actions.

Acknowledgment

1 THEORETICAL REVIEW OF EMOTIONAL INTELLIGENCE, ORGANIZATIONAL COMMITMENT, AND LEADERSHIP DEVELOPMENT

The concept of organizational commitment as well as influencing factors have been studied during the last two decades, but it seems that acquiring, motivating and keeping talent in today's corporate environment is currently more challenging than ever before. The fight for talent is ongoing, and the costs of employees leaving the company are high. It has been shown in numerous studies that low organizational commitment is leading to low employee performance, higher turnover and lower potential to innovate. In reverse, keeping and retaining a motivated and highly productive workforce is a crucial managerial task. This first chapter builds the theoretical foundation of this thesis by exploring existing literature and studies already performed in the areas of organizational commitment, emotional intelligence, and leadership development. Different thoughts of leading researchers on how to measure and define emotional intelligence and organizational commitment are compared and discussed, and it will be described how the concepts historically evolved and how they are distinguished in today's literature. In that regard, also the current research on how a high level of emotional intelligence is influencing organizational outcomes and if emotional intelligence is a significant factor for individual success is investigated.

1.1 The history and development of organizational commitment theory

Over the last four decades' organizational commitment of employees and its effects on organizations have been studied extensively. One reason for the high interest in organizational commitment is that this concept examines the strengths and quality of relationships between employees and organizations. It is the improvement of these relationships between organizations and employees that have been the aim of many studies that have been carried out.

Becker (1960) first defined commitment by using what is known as the side-bet theory. He argued that commitment is resulting mainly because of the avoidance of costs that would be expected when changing the employment. In other words, employees are committed because

they have hidden or somewhat hidden investments, "side-bets," they have made by remaining in a given organization (Cohen, 2007).

Later, Porter et al. (1974) originally defined the term organizational commitment as "the strength of an individual's identification with and involvement in a particular organization" and argued that such commitment could be characterized by three factors. First, a strong belief in and acceptance of the organization's goals and values, second the willingness to exert considerable effort on behalf of the organization and third, a definite desire to maintain organizational membership (p 604).

Analyzing the existing theories on organizational commitment Mowday et al. (1979) concluded that certain trends were evident and that current definitions focused either on commitment-related behaviors or commitment in terms of an attitude. Commitment related behaviors "represent sunk costs in the organization where individuals forgo alternative courses of action and choose to link themselves to the organization. Commitment in terms of an attitude "represents a state in which an individual identifies with a particular organization and its goals and wishes to maintain membership in order to facilitate these goals" (p. 225). The distinction of organizational commitment in attitudinal and behavioral commitment has been state of the art until early 1990 where the increasing body of research made it difficult to interpret the results. Researchers, therefore, concluded that organizational commitment would have to be a multidimensional construct (Allen & Meyer, 1996; Cullinan et al., 2008).

Meyer & Allen (1991) argued that commitment must have at least three separate components with different implications for on-the-job behavior. In the definition of commitment, they identified those three distinct themes as commitment as an affective attachment to the organization *(affective commitment)*, commitment as a perceived cost associated with leaving the organization *(continuance commitment)* and commitment as an obligation to remain in the organization *(normative commitment)*.

Meyer and Allen stated that the nature of the psychological state of each form of commitment is quite different. Therefore "employees with a strong affective commitment remain with the organization because they want to, those with a strong continuance commitment remain because they need to, and those with a strong normative commitment remain because they feel they ought to do so". (Meyer et al., 1993, p.539). To achieve a better understanding of how

employees, behave in an organizational environment, all three components must, therefore, be considered.

1.1.1 Antecedents of affective, normative and continuance organizational commitment

It is the three-component model of organizational commitment developed by Meyer and Allen (1997) that dominates the ongoing research on commitment. According to the model, employees experience organizational commitment as three simultaneous mindsets encompassing affective, normative, and continuance commitment towards an organization (Jaros, 2007).

Affective Commitment is referring to employees emotional attachment, identification, and involvement in the organization (Meyer and Allen, 1991). It is due to this loyalty that one is fully willing to accept the company's goals and values as his/her own. Individuals feel an attachment and belonging to an organization. (Mahdi, Mohd and Almsafir, 2014). Meyer et al. (2002) found that the type of work and the work experience employees made, correlate strongest with affective commitment. The structure of the organization and the personal characteristics have been shown to have further influence on affective commitment. Furthermore, the leadership style as well as the satisfaction with the internal communication influence affective commitment to a large extent. Job satisfaction has been found to be another antecedent of affective organizational commitment. Chordiya, Sabharwal, & Goodman (2017), in a cross-national study, could show this being valid for US and Indian public managers alike, stating that if employees are satisfied with their jobs, they are more likely to be affectively (i.e., emotionally) committed to their organization.

Continuance Commitment, on the other hand, reflects commitment based on the perceived costs, both economic and social, of leaving the organization. It refers to an employee's perception of whether the costs of leaving an organization are higher than the costs of staying. Examples of benefits that can be lost due to leaving the company include lost company pensions, promotions based on tenure, loss of values, future opportunities, or lost efforts if skills or systems are not transferable (Mahdi, Mohd, and Almsafir, 2014). Meyer and Allen (1991) developed a scale that they asserted was more appropriate than existing instruments for the measurement of commitment as conceptualized by Becker (1960) in his "side bet" theory, which can be seen as the foundation of continuance commitment (Meyer *et al.*, 2002).

Normative commitment as a dimension of organizational commitment is mainly based on the work of Wiener (1982) and Wiener and Vardi (1980). It is argued that normative commitment results out of a moral obligation to act in a way that is coherent with the goals and interest of the organization. Therefore, members of an organization stay with the organization, not because of personal advantages but because they think it is the right thing to do. According to Wiener (1982) commitment evolves due to cultural and familiar socialization that can develop before, or organizational socialization that develops after, an employee is entering the organization. It can also develop when an organization provides the employee with reward in advance or incurs in costs during the employment like paying for training associated with the job (Meyer and Allen, 1991).

As demonstrated, the factors influencing organizational commitment are diverse in nature. The level to which employees are committed to their organization, in other words, behave in their corporate life and how their relationship with their jobs are, is affected by many variables.

In a study Abdullah and Ramay (2012) investigated the influence of work environment, job security, pay satisfaction and participation in decision making on organizational commitment in the banking sector. They found that job security had the highest influence on organizational commitment, implying that if members of the organization see their job to be secure, they are more committed to the company. Additionally, they found that the commitment to the organization increased with the age and tenure of employees. That participation (i.e. the extent to which employees can participate in shaping the organization), procedural fairness (e.g., transparent decision making, consistent rules over time), and a socio-moral atmosphere (e.g., open communication with problems, appropriate distribution of responsibilities) affect employees' commitment was shown in a different study of 30 German organizations. The highest effects could be demonstrated for procedural fairness and socio-moral atmosphere to affective commitment, and procedural fairness to normative commitment (Schmid, 2009).

One other variable that could influence organizational commitment can be found in the interaction of managers and supervisors with their subordinates. Results in this regard are not so clear, and therefore, further research is needed. A positive influence of managers leadership behavior on the organizational commitment of their employees has been shown with the indication that leadership behavior has a strong significant relationship with organizational commitment and that the increase of supportive and directive leadership behavior also leads to

a higher organizational commitment of employees (Mahdi et al., 2014). Similar results have supported this argument, stating that desirable leadership behavior is positively related to subordinates' organizational commitment and that organizational commitment contributes to company performance, even when analyzed in conjunction with significant contextual variables (Steyrer, Schiffinger, and Lang, 2008). In contrast, other studies conclude that there is only limited support for leadership behavior being a predictor of followers affective organizational commitment (Morrow, 2011). The different findings regarding the influence of leadership behavior on their subordinates' organizational commitment make further research necessary. It might be that even employees that have been highly committed to their organization lose their commitment due to negative relations with his or her superior. The question for further research is now to what extent the superior might influence their subordinates' commitment to the organization.

1.1.2 Measures of organizational commitment

The concept of organizational commitment has developed over an era of five decades, and different measures for the evaluation of organizational commitment have been developed. The two most commonly used are the Organizational Commitment Questionnaire - OCQ (Mowday, Steers and Porter, 1979) and the Organizational Commitment Scale – OCS (Allen and Meyer, 1996). The concept of the OCQ identified 15 items that appeared to tab the three aspects of the definition of commitment. For the instrument development, organizational commitment was defined as the relative strength of an individual's identification with and involvement in a particular organization (Mowday, Steers and Porter, 1979).

The second predominant measure of organizational commitment, called the three component model of organizational commitment (Meyer & Allen, 1991), has been widely accepted to be the most reliable concept when analyzing organizational commitment. (e.g. Schmid, 2009; van Dick, 2004). Meyer & Allen (1991) integrated different, at that time predominant approaches to organizational commitment into a comprehensive model. The authors view the three previous explained commitments (AC, NC, CC) as forms of commitment that don't exclude one from the other but are rather components of commitment that can be experienced simultaneously in varying forms. This means that individuals can feel obliged as well as needing to stay

committed to an organization without wanting to do so. Others for example neither see the need nor the obligation to stay at an organization but have a strong desire for continuously being part of the organization.

Critics of Organizational Commitment

It is possibly true that higher levels of organizational commitment have more positive effects than negative. But it is important to notice that organizational commitment could also bare adverse effects on the organization. High levels of organizational commitment may lead to greater stress and may have negative consequences like career stagnation, family strains and reduced self-development for individuals. For organizations, high levels of employees' organizational commitment could lead to less innovation, creativity, and adaptation. Therefore attention needs also to be directed towards identifying at what point increased commitment leads to detrimental effects (Mathieu and Zajac, 1990). It is also the case that organizational commitment can have negative effects on the self-esteem of individuals if they are working in industries and companies with low prestige, like nuclear power plants, pharmaceutical companies or nowadays also the group of teachers. Members of these organizations or groups are often exposed by the public and have to justify themselves in front of their families and other people they have relations with. (van Dick, 2004). They have the inner conflict of a high commitment to their organization that others cannot understand. A critique of the concept of organizational commitment can be found in the argument that especially in early commitment theory the notion was that the organization is right and that employees are not upholding the same views were not committed. But this does not take into account that there may be opposing views that could be considered in the decision making, meaning that employees that appear uncommitted could be committed to other values and priorities that they see as more important to the organization or more aligned to their personal perspectives (Swailes, 2002). In today's volatile economic conditions it should also be critically asked whether the organizational commitment of employees is still relevant. Corporations on the one side are nowadays very rarely able to promise life-long occupation and the workforce on the other hand is more willing and even want to change many organizations and careers. It can be seen that employees seek more emotionally satisfying lives, regardless of organizational boundaries. These developments impact almost every organization, regardless of their size or industry. Even though it may be true that a life-long occupation is a thing of the past, the competitive advantage of a committed

workforce for organizations is well documented and therefore will also play a significant role in future human resource strategies.

1.2 History and theoretical foundation for the development of emotional intelligence concepts and current state of research

Not until recently the concept of emotional intelligence has been studied in management science. One of the reasons is that it is much more challenging to measure humans in interactions compared to measuring cognitive abilities like solving a math problem.

Thorndike (1920) first introduced his concept of "social intelligence". He distinguished between three different kinds of intelligence: *Abstract intelligence* - the ability to understand and manage ideas, *mechanical intelligence* - the ability to understand and manage concrete objects and *social intelligence* - the ability to understand and manage people. He described social intelligence as "the ability to understand and manage men and women, boys and girls – to act wisely in human relations" (p. 228).

In the following years, many attempts to measure social intelligence have been made. Thorndike & Stein (1937) tried to review those attempts and concluded that social intelligence could be distinguished between different areas. The attitude towards society, the level of social knowledge and the degree of social adjustment. But they also pointed out that social intelligence is complex and very difficult to measure and that many approaches provide limited value in determining "the ability to react satisfactorily to other individuals" (Khatoon, 2013; Bradberry & Su, 2006; Thorndike & Stein, 1937).

In 1983 Howard Gardner contributed to the research on intelligence and argued that humans not only possess a single intelligence but a set of relatively autonomous intelligence (Gardner, 1983). He differentiated between seven different forms of intelligence, namely linguistic, logical, spatial, bodily-kinesthetic, musical, interpersonal and intrapersonal intelligence. He added an eighth intelligence, the naturalistic intelligence, to his list of intelligence in his later work (Davis *et al.*, 2011). Gardner argues that our traditional view of intelligence, being primal linguistic and logical intelligence, is too narrow.

For this dissertation, the closest aspects of Gardner's theory towards social intelligence must be analyzed in further detail. Gardner refers to them as personal intelligence: *the interpersonal*

intelligence directed toward other persons, and the *intrapersonal intelligence* directed toward oneself. In his definition, interpersonal intelligence is the ability to understand other people, what motivates them, how they work, how to work practically with them. Intrapersonal intelligence is the ability turned inward, in other words, a practical working model of oneself and the ability to use that model effectively in light of your desires, needs, wishes, fears, and skills. He states that intrapersonal intelligence includes knowledge of our other intelligences and that it is therefore essential to study this aspect (Gardner, 2011).

Based on the theories mentioned above, Mayer and Salovey conducted research attempting to answer the question of why some individuals are better at reading emotions than others. At the outset of their work, they exchanged the term social intelligence with emotional intelligence with the argument that emotional intelligence would combine a group of skills that were more distinct from both verbal-propositional and spatial-performance intelligence than social intelligence had been (Mayer & Salovey, 1997). The original idea was "that some individuals possess the ability to reason about and use emotions to enhance thought more effectively than others" (Mayer, Salovey, & Caruso, 2008, p 503). It was in the year 1990 that they first introduced their concept of emotional intelligence and brought its attention to the research community (Bradberry and Su, 2006).

Emotional intelligence has therefore been present in academic literature as a term for a relatively long time. But the concept has been receiving much attention in the greater public only in recent years (Petrides, 2011). Goleman's (1995) widely read book on emotional intelligence and his following article in *Time* magazine in which he argued that emotional intelligence is a way larger predictor of success than IQ made the public aware of the concept. Figure 1.1 shows the increasing interest in the scientific community regarding the theory of emotional intelligence. From 1993 to 2016 a total of 2,666 articles have been published in the Web of Science database, showing that especially after 2007 the interest in the topic increased significantly.
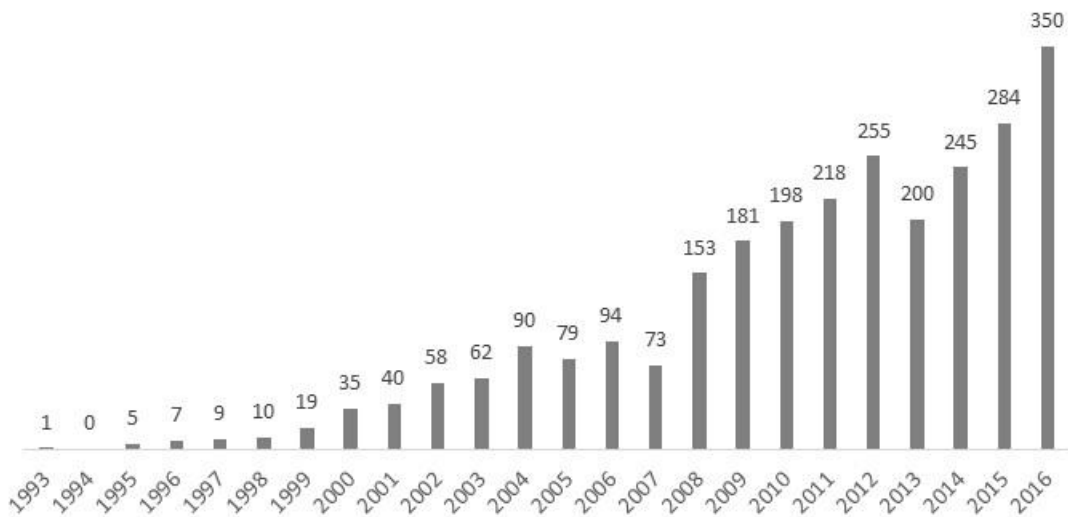
Figure 1.1.: Frequency count of articles containing "emotional intelligence" in the title from 1993 to 2016 in the Web of Science Database

Source: Web of Science database, Graph compiled by the author

Ever since the science of emotional intelligence has got more attention, many different attempts how to measure the new construct have been developed (Schutte et al., 1998; J. D. Mayer, Caruso, & Salovey, 1999). Petrides (2011) points out that the test construction did not consider the fundamental psychometric distinction between "different measures of typical and maximum performance" and therefore some measures were "based on self-report (e.g. Schutte et al., 1998) whereas others attempted to develop items that can be responded to correctly or incorrectly (e.g., Mayer et al., 1999).

During the following years, scholars noted that various measures had been developed and that a classification of the different constructs based on the underlying theory of emotional intelligence was needed. This lead to slightly different classifications in the literature. Basically, some researchers cluster measurement of Emotional Intelligence in ability and trait constructs of emotional intelligence (Petrides, 2011), whereas others distinguish between ability and mixed models of emotional intelligence (Mayer et al., 2008; Joseph & Newman, 2010) and other scholars cluster the different emotional intelligence concepts in ability, mixed and trait models (Zeidner, Matthews and Robers, 2009). Yet others distinguish between ability and skill-based assessments of emotional intelligence (Bradberry and Su, 2006).

Mayer et al. (2008) state that the existing concepts measuring trait emotional intelligence are not coherent and "personality traits are amassed, mixed in with a few socioemotional abilities, and the model is called one of EI or trait EI" (p. 505). Therefore they divide ability models of EI from mixed models of emotional intelligence that define emotional intelligence more broadly as a package of personal qualities including both, ability and personality traits that facilitate expression of emotional intelligence (Zeidner, Roberts and Matthews, 2008).

Another common view is that the differentiation between trait emotional intelligence and ability emotional intelligence is "predicated mainly on the method used to measure the construct and not on the elements (facets) that the various models are hypothesized to encompass" (Siegling, Saklofske, & Petriedes, 2015, p. 382). The difficulty is that different psychologists have different visions of what a science of emotional intelligence should look like and it may be that different research teams are investigating different personal qualities.

Siegling et al., (2015) criticize the distinction between mixed and ability models by arguing that this differentiation pays no tribute to one crucial aspect, the method of measurement. They argue that the differentiation between trait emotional intelligence and ability emotional intelligence is predicated mainly on the method used to measure the construct and not on the elements that the various models are hypothesized to encompass. It is therefore unrelated to the distinction between 'mixed' and 'ability' models as proposed by Mayer et al., (2008), which is based on whether a theoretical model 'mixes' cognitive abilities and personality traits.

A close examination of most recent literature makes clear that there is still no consensus in on how to cluster the different concepts of emotional intelligence. What scholars do agree on is the separation between ability and other models (usually subsumed under trait and mixed models) of emotional intelligence (e.g., Freudenthaler & Neubauer, 2005; Zeidner et al., 2009).

Recent studies support the perception that ability and trait emotional intelligence measure different aspects and that their correlation is invariably low (Brannick et al., 2009; Petrides, 2011). The synthesis of those two approaches has yet not been established, and it is therefore perhaps the best "to adopt one approach over another according to a cogent set of arguments" (Zeidner, Roberts, & Matthews, 2008, p. 74). It is, therefore, necessary for any scientific endeavor to distinguish between these different streams of research. Throughout this dissertation, both concepts are explained and analyzed. It is mainly through the way how the various forms of emotional intelligence are measured that make a distinction necessary. It is

important to point out that for this dissertation, the theoretical concept of trait emotional intelligence is favored over ability emotional intelligence.

1.2.1 Ability models of emotional intelligence

Mayer and Salovey (1997) define emotional intelligence as "the ability to perceive accurately, appraise, and express emotion; the ability to access and/or generate feelings when they facilitate thought; the ability to understand emotion and emotional knowledge; and the ability to regulate emotions to promote emotional and intellectual growth" (p. 10). In recent years they further expanded their definition so that according to Mayer et al. (2004) emotional intelligence is "…the capacity to reason about emotions, and of emotions to enhance thinking. It includes the abilities to accurately perceive emotions, to access and generate emotions so as to assist thought, to understand emotions and emotional knowledge, and to reflectively regulate emotions so as to promote emotional and intellectual growth" (p. 197).

The ability emotional intelligence is seen as a set of cognitive abilities, namely emotion perception, emotion facilitation, understanding emotions and emotion management (Mayer & Salovey, 1997). This approach emphasizes abilities reasoning about emotions. Figure 1.2 shows the different dimensions that are defining emotional intelligence according to Mayer and Salovey. Initially introducing the idea only distinguishing between three dimensions, they have expanded their view to a four dimension model (Mayer & Salovey, 1997).
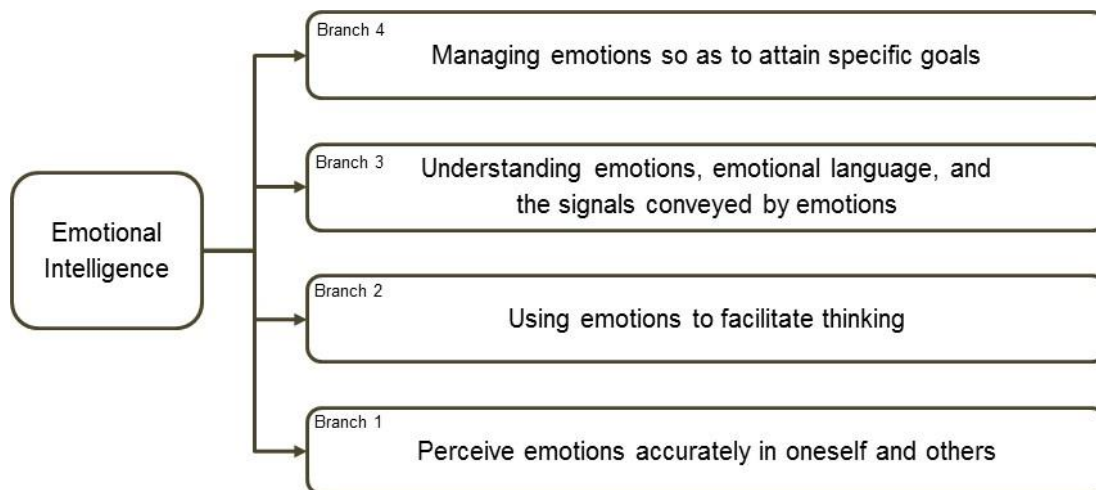
Figure 1.2.: Dimensions defining emotional intelligence –
The four-branch model of emotional intelligence

Source: Mayer et al., (2008). *Emotional intelligence: new ability or eclectic traits?* p. 507

At the core of their concept is the belief that emotions convey a unique set of signals which they call emotional information and that emotional intelligence is conceived on operating on emotional information (Mayer et al., 2004). Their four-branch model of emotional intelligence is arranged in a hierarchy where emotional abilities follow a path from lower to higher and more complex psychological functions. In each branch, there is a developmental progression of skills from the more basic to the more sophisticated one. The order of the four branches, from perception to managing emotions, represents the degree to which the ability is integrated within the overall personality of the person (Mayer et al., 2004).

The *perception of emotions* (Branch 1) involves the capacity to recognize emotion on others' facial and postural expressions and includes nonverbal perception and expression of emotion in the face and the voice.

The capacity of *emotions to facilitate thinking* (Branch 2) involves assimilating basic emotional experiences into mental life. This construct includes the weighing of emotions against one another, against other sensations and thoughts, and the allowance of emotions to direct attention (Zeidner, Matthews and Robers, 2009).

The *understanding of emotion* (Branch 3), reflects the capacity to analyze emotions, appreciate their probable trends over time, and understand their outcomes. One example could be a person's ability to understand that anger arises when injustice is done to oneself or close ones.

The *emotion management* (Branch 4) is seen as the highest level in the hierarchy of emotional intelligence. It necessarily involves the rest of personality, meaning that emotions are managed in the context of the individual's goals, self-knowledge, and social awareness (Mayer et al., 2004).

When building their construct of emotional intelligence Mayer & Salovey (1997) line out that it was important to distinguish emotional intelligence from traits (e.g., extroversion, shyness) and talents (e.g., skill at sports) especially because many developed intelligence concepts "seemed more like valued traits or talents than legitimate intelligences" (p. 8). The authors argue that emotional intelligence might be considered an actual intelligence because there might be actual abilities (like knowing what another person is feeling) that involve considerable thinking and could, therefore, be considered an intelligence. The ability model introduced by Mayer et al. is relatively narrow in scope, and much of what Goleman (1995) describes as

emotional intelligence is not relevant to their conception (Zeidner, Matthews and Robers, 2009).

Abilities are usually measured through objective, maximum performance tests much like IQ tests. The participant is usually confronted with the task of solving "right" or "wrong" questions. Critics of the ability emotional intelligence argue that the operationalization is difficult and that the core of the problem is the inability to create tasks that can be objectively scored. How to confront an angry and aggressive coworker may depend very much on the situation and the individual involved. Maximum performance tests that are usually used to measure ability emotional intelligence are therefore problematic due to their subjectivity of emotional experience (Petrides, 2011). For example, much of the intrapersonal component of the ability emotional intelligence (i.e., facets concerning people's internal emotional states) is not amenable to objective scoring because the information for such scoring is only available to the test taker. To overcome this problem, ability emotional intelligence tests have employed alternative scoring procedures that attempt to create correcting options among the various alternatives. This has been used in the past when addressing similar issues in the operationalization of social intelligence, but without marked success (Zeidner, Matthews and Robers, 2009).

There are also other approaches based on the ability definition of emotional intelligence from Mayer & Salovey (1997). (Warwick, Nettelbeck, & Ward (2010) propose a new measurement method, the AEIM, with alternative perception and management items but questions for using and understanding emotions that were similar to the MSCEIT.

MacCann & Roberts (2008) developed and validated two measures of ability emotional intelligence – The STEU (Situational Test of Emotional Understanding) and the Situational Test of Emotion Management (STEM) which are more specific evaluations of ability emotional intelligence measuring particular areas of the four branch model introduced by Mayer et al., (1997).

Siegling et al. (2015) state that a range of concerns has been highlighted in the literature, touching on conceptual, psychometric, and empirical limitations regarding ability models of emotional intelligence. Core issues involve logical and conceptual inconsistencies, unstable factor structures, and weak predictive validities. Joseph & Newman (2010) argue that emotional intelligence measures derived from the term of ability emotional intelligence are more

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theoretically grounded but lack non-generalizable criterion validity and show substantial sex- and race-based subgroup difference where mixed models of emotional intelligence show robust empirical evidence of criterion validity and smaller sex- and race-based subgroup differences but lack some theoretical value.

1.2.2 Mixed and trait models of emotional intelligence

When summarizing the different approaches researcher have been taken, three conflicting ways of understanding emotional intelligence can be differentiated. Zeidner et al. (2009) propose to distinguish between ability, mixed and trait models of emotional intelligence whereas many other scholars differentiate between ability and trait emotional intelligence (e.g., Tett, Fox, & Wang, 2005; Petrides, 2011; Siegling et al., 2015)

In the conception of *mixed models of emotional intelligence* both abilities and qualities such as personality and motivational traits are incorporated (Zeidner, Matthews and Robers, 2009). One of the most famous scholars in this segment of mixed emotional intelligence models is Daniel Goleman. It was Goleman that brought emotional intelligence to a broader public interest. He showed that emotional intelligence is a crucial factor for managers and that managers who have a critical mass of emotional intelligence outperform their peer group by 20 percent (Goleman, 1998). His framework operates under the assumption that it can be used to develop the effectiveness of individuals in the workplace and in leadership positions (Bradberry and Su, 2006).

Since the first introduction of the model developed by Goleman, the domains have been simplified. The original five domains have been reduced to four domains defining emotional intelligence. The domains defined by Goleman and Boyatzis are self-awareness, self-management, social awareness, and relationship management. These domains contain competencies that are shown in Table 1.1. Goleman et al. (2004) point out that in their model "the EI competencies are not innate talents, but learned abilities, each of which has a unique contribution to making leaders more resonant, and therefore more effective" (p. 38).

Table 1.1.: Emotional intelligence domains and associated competencies

	Self-Awareness	Self-Management
Personal Competences (Capabilities determining how we manage ourselves)	►Emotional self-awareness: Reading one's emotions and recognizing their impact; using "gut sense" to guide decisions ►Accurate self-assessment: Knowing one's strengths and limits ►Self-confidence: A sound sense of one's self-worth and capabilities	►Emotional self control: Keeping disruptive emotions and impulses under control ►Transparency: Displaying honesty and integrity; trustworthiness ►Adaptability: Flexibility in adapting to changing situations or overcoming obstacles ►Achievement: The drive to improve performance to meet inner standards of excellence ►Initiative: Readiness to act and seize opportunities ►Optimism: Seeing the upside in events
	Social Awareness	**Relationship Management**
Social Competence (Capabilities determining how we manage relationships)	►Empathy: sensing others' emotions, understanding their perspective and taking active interest in their concerns ►Organizational awareness: Reading the currents, decision networks, and politics at the organizational level ►Service: Recognizing and meeting follower, client, or customer needs	►Inspirational leadership: Guiding and motivating with a compelling vision ►Influence: Wielding a range of tactics for persuasion ►Developing others: Bolstering others' abilities through feedback and guidance ►Change catalyst: Initiating, managing, and leading in a new direction ►Conflict management: Resolving disagreements ►Building bonds: Cultivating and maintaining a web of relationships ►Teamwork and collaboration: Cooperation and team building

Source: Goleman et al. (2004). *Primal Leadership*, p. 68.

Another prominent researcher in the field of emotional intelligence and representative of the trait emotional intelligence theory is Reuben Bar-On who sees people that are socially and emotionally intelligent as individuals that "are able to understand and express themselves, to understand and relate well to others, and to successfully cope with the demands of daily life" (Bar-On et al., 2007, p.2). This definition is based on the perception that the most important influence of emotional and social intelligence is the ability to be aware of ones' emotions and oneself in general. He states that emotional intelligent people understand their strengths and

weaknesses and can express feelings non-destructively. Furthermore, they are aware of the feelings and needs of others and can establish and maintain cooperative, constructive and mutually satisfying relationships. Ultimately they effectively manage personal, social and environmental change by realistically and flexibly coping with the immediate situation and solving problems of an interpersonal nature (Bar-On et al., 2007).

As explained before, the stream of research on emotional intelligence as a personality theory includes many different models that are generally defined as trait models of emotional intelligence. In that manner *trait emotional intelligence* is defined as a set of non-cognitive traits, competencies and motivational variables that are linked to interpersonal success (Schlegel, Grandjean and Scherer, 2013). Measures of trait emotional intelligence include the "Schutte Self Report Emotional Intelligence Test - SSEIT" (Schutte *et al.*, 1998), the "Trait Emotional Intelligence Questionnaire –TEIQue" (Petrides, 2009) or the "Multidimensional Emotional Intelligence Assessment (Tett, Fox and Wang, 2005).

In recent literature, the trait model of emotional intelligence is seen as a general model which also subsumes the emotional intelligence model of Goleman and Boyatzis. The conceptualization of emotional intelligence as a personality trait can therefore clearly be distinguished from ability emotional intelligence which refers to EI as an actual ability of individuals that can be measured by scientific tests similar to intelligence tests.

1.2.3   Measures and evaluation of emotional intelligence

As mentioned above, the categorization in ability, mixed and trait models of emotional intelligence can be found in the current literature (Zeidner, Matthews and Robers, 2009). Siegling et al. (2015) state that it is the measurement method that is at the heart of the distinction and that the "differentiation between trait emotional intelligence and ability emotional intelligence is predicated mainly on the method used to measure the construct and not on the elements (facets) that the various models are hypothesized to encompass" (p. 382).

Currently, there are three approaches available for assessing emotional intelligence, ability measures, self-report measures and 360-Degree measures (Fernández-Berrocal and Extremera, 2006). Siegling et al. (2015) argue that in the field of emotional intelligence as well as in the field of social intelligence some researchers developed a self-report test (as in personality

questionnaires) where others developed maximum performance tests (as in IQ Tests). Both approaches are concerned with the measurement of individual differences relative to how much or to what extent an individual exhibits emotional intelligence aptitude or traits.

Ability emotional intelligence is usually evaluated by maximum performance ability test whereas mixed, or trait models of emotional intelligence are generally measured by self-reports or 360-degree ratings including self- and other-rating.

Studies have shown that there is little correlation between measures of ability emotional intelligence and trait emotional intelligence and therefore support the distinction between those two constructs (e.g., Joseph & Newman, 2010). Brannick et al. (2009) also compared ability and trait measures of emotional intelligence within a group of medical students. They used the MSCEIT (an ability emotional intelligence test) and the WLEIS (a trait emotional intelligence test) and were able to show only low correlations (overall correlation of 0.18) between those two different measures of trait emotional intelligence and ability emotional intelligence and thereby supporting the explicit distinction between them.

According to the *Encyclopedia of Applied Psychology* (as cited in Bar-On, Maree, & Elias, 2007) the most commonly used EI-Instruments are:

a) the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT)
b) the Emotional Quotient Inventory (EQ-i)
c) the Emotional Competence Inventory (ECI)

The MSCEIT defines the construct as the ability to perceive, understand, manage and use emotions to facilitate thinking, measured by an ability-based measure, The Goleman model which views this construct as a wide array of competencies and skills that drive managerial performance, measured by multi-rater assessments and the Bar-On model which describes a cross-section of interrelated emotional and social competencies, skills and facilitators that impact intelligent behavior, measured by self-report within a potentially expandable multi-model approach including interview and multi-rater assessment (Bar-On, 2006).

For El to count as a scientifically meaningful individual difference construct, people must differ reliably across its major dimensions meaning that if a person takes the same test on two separate occasions, the results should not differ. This is called test-retest reliability (Matthews, Roberts and Zeidner, 2004). Following the predominant measures for measuring emotional intelligence,

the MSCEIT, the EQ-i, and the ECI with the predecessor ESCI will be introduced and limitations, as well as their reliability, will be discussed.

The Mayer-Salovey-Caruso Emotional Intelligence Test - (MSCEIT)

The sole measure currently popular in use on the ability emotional intelligence side is the MSCEIT. It measures all four facets of Mayer and Salovey's (1997) EI model. These four facets are perceiving emotions, using emotions to facilitate thought, understanding emotions, and managing emotions. Mayer et al. (2008) state that individual differences exist in each of these four processes and that such differences can be measured. "Each ability area of this four-branch model of emotional intelligence "can be operationalized formally as a set of to-be-solved problems, and test takers' responses can be checked against a criterion of correctness" (p. 507). The degree of accuracy in the MSCEIT-Scoring is determined by comparing the answers with answers provided by either a group of emotions experts (i.e., emotion researchers) or a normative sample of general population.

Matthews et al. (2004) state that the convergence between expert and consensus scoring increased with the introduction of the MSCEIT and that these findings have significantly advanced in reliability but that it is premature to conclude that it meets traditional criteria for an intelligence test (p. 186). Also, other authors argue that the MSCEIT, primarily measured by consensus methods, has yielded promising results concerning convergent validity with fluent and verbal ability and discriminant validity from personality (Warwick, Nettelbeck and Ward, 2010). According to Mayer et al. (2008) two powerful theoretical reasons why only such a clearly focused, ability-based approach can best measure emotional intelligence exist. First, intelligence most generally are defined as mental abilities, and measuring mental abilities involves asking test takers relevant questions and then evaluating their answers against a criterion of correctness. And second, validity evidence is partly based on response processes and requiring test takers to meet a criterion of correctness provides an excellent fit to the emotional intelligence concept. (p.508).

As mentioned above, the MSCEIT produces four branch scores that correspond to the Perceiving, Using, Understanding, and Managing aspects of the model. Mayer et al. (2004) explicitly note that when employing the MSCEIT the focus should lie on the Total, Area, and

Branch level. Task level scores should be interpreted with caution due to their low reliability. Based on a sample of 5,000 North American respondents the MSCEIT' s overall reliability is r = .91 or .93 (depending on whether expert or general consensus scoring is employed), with area reliabilities of r = .86 to .90, and branch scores representing the four-branch model of r = .76 to .91 which leads to the conclusion that the construct is internally consistent (J. Mayer et al., 2004; Siegling et al., 2015).

The Emotional Quotient Inventory - (EQ-i)

The Bar-On model of Emotional Intelligence is operationalized by the EQ-i (Bar-On, 2006). It has been noted that the EQ-i should be viewed as a Trait-EI measure (Petrides and Furnham, 2001). In short "the EQ-I is a self-report measure of emotionally and socially intelligent behavior that provides an estimate of emotional-social intelligence" (Bar-On, 2006; p. 15). It contains 133 items in the form of short sentences and employs a 5-point response scale. It takes approximately 40 minutes to complete and render a total EQ score and scores on five composite scales – namely interpersonal, intrapersonal, social responsibility, stress management, adaptability and general mood which is illustrated in Table 1.2.

Bar-On (2006) argues that his model has been developed over 17 years following six major steps. These steps are (1) the identification and logical clustering of various emotional and social competencies based on the experience of Bar-Ons as a clinical psychologist and the review of the literature; (2) the clear definition of individual key clusters of competencies; (3) the generation of approximately 1.000 initial items based on his experience; (4) the determination of 15 primary scales and 133 items in the published version of the instrument; (5) the initial norming of the final version and (6) norming the instrument continuous across various cultures.

Table 1.2.: Overview of the Bar-On model of emotional intelligence, the related EQ-i scales and what those scales assess

EQ-i Scales		The EI competency assessed by each scale:
Intrapersonal	Self-regard	To accurately perceive, understand and accept oneself
	Emotional Self-awareness	To be aware of and understand one's emotions and feelings
	Assertiveness	To effectively and constructively express one's feelings
	Independence	To be self-reliant and free of emotional dependency on others
	Self-actualization	To strive to achieve personal goals and actualize one's potential
Interpersonal	Empathy	To be aware of and understand how others feel
	Social Responsibility	To identify with one's social group and cooperate with others
	Interpersonal Relationship	To establish mutually satisfying relationships and relate well with others
Stress Management	Stress Tolerance	To effectively and constructively manage emotions
	Impulse Control	To effectively and constructively control emotions
Adaptability	Reality Testing	To objectively validate one's feelings and thinking with external reality
	Flexibility	To adapt and adjust one's feelings and thinking to new situations
	Problem-solving	To effectively solve problems of a personal and interpersonal nature
General Mood	Optimism	To be positive and look at the brighter side of life
	Happiness	To feel content with oneself, others and life in general

Source: Bar-On et al. (2007). *Educating People to be Emotionally Intelligent*, p. 4.

The reliability of the Bar-On model has been tested in several studies since its introduction in 1997 and could show that the EQ-i is consistently stable and reliable. The overall consistency coefficient of the EQ-i is .97 based on a North American normative sample (n = 3,831). This internal consistency was reexamined for 51,632 adults showing nearly identical results with a slight increase of .025 in consistency coefficients (Bar-On, 2006). Similar findings around the world have been reported regarding the reliability of the EQ-i (e.g., Ekermans, Saklofske, Austin, & Stough, 2011)

The Emotional Competence Inventory – (ECI)

The ECI is a 360-degree measurement tool designed to assess the emotional competencies of individuals and organizations. The tool is based on emotional competencies identified by Dr. Daniel Goleman in *Working with Emotional Intelligence* (1998), on competencies from Hay/McBer's *Generic Competency Dictionary* (1996) and Dr. Richard Boyatzis's Self-Assessment Questionnaire-SAQ (Boyatzis et al., 1995).

The authors argued that certain adaptations were needed since the first development of the ECI and it, therefore, had to be reworked into the next version, the ECI-2.0. It measures 18 competencies organized into four clusters: Self-Awareness, Self-Management, Social-Awareness and Relationship Management.

It is important to mention that the ECI is intended to be used in a 360-degree mode since self-ratings alone vary significantly from other-ratings and do not provide valid and reliable measures of emotional intelligence for research purpose. The authors suggest a minimum of 4 to 5 raters for the accurate assessment of a person's emotional intelligence, preferably with different perspectives of the person (Wolff, 2005).

Boyatzis (2007) notes that many studies support the internal validity of the construct but also that in some other studies the competency scales do not appear valid as separate scales, and the clusters do not differentiate themselves from each other. Therefore, the decision was made to seek a higher psychometric standard and to re-conceptualize the ECI applying factor analysis and making sure that every item identified specific behaviors and was understandable and concise. This led to a new instrument – the Emotional and Social Competency Inventory (ESCI).

The Emotional and Social Competence Inventory – (ESCI)

The ESCI-Test (Boyatzis, 2007) is based on the ECI 2.0 which has been further developed by Daniel Goleman, Richard Boyatzis, and the Hay Group to increase the validity and reliability of its predecessors. The underlying model of the ESCI is based on further research which made it necessary to re-cluster competencies and adapt the model based on the consistency of behavior. In the Boyatzis and Goleman model, Emotional Intelligence and Social Intelligence each have two dimensions. Emotional intelligence includes self-awareness and self-

management, and SI includes social awareness and relationship management (Boyatzis, Gaskin, & Wei, 2015). The primary outcome of the re-conceptualization was that there are now 12 instead of previously 18 competencies to measure social and emotional intelligence dimensions.

Table 1.3 illustrates the basic assumption of the ESCI and the competency clusters that lay the foundation of the research instrument. The model is characterized by four domains: self-awareness, self-management, social-awareness, and relationship management.

Table 1.3.: Emotional and Social Inventory Competencies

Self-Awareness Cluster	Self-Management Cluster
» *Emotional self-awareness:* Recognizing one's emotions and their effects	» *Emotional self control:* Keeping disruptive emotions and impulses in check » *Adaptability:* Flexibility in handling change » *Achievement Orientation:* Striving to improve or meeting a standard of excellence » *Positive Outlook:* Persistence in pursuing goals despite obstacles and setbacks
Social Awareness Cluster	Relationship Management Cluster
» *Empathy:* Sensing others' feelings and perspectives, and taking an active interest in their concerns » *Organizational awareness:* Reading a group's emotional currents and power relationships	» *Coach and Mentor:* Sensing other's development needs and bolstering their abilities » *Inspirational Leadership:* Inspiring and guiding individuals and groups » *Influence:* Wielding effective tactics for persuasion » *Conflict Management:* Negotiating and resolving disagreements » *Teamwork:* Working with others toward shared goals. Creating group synergy in pursuing collective goals.

Source: Table compiled by the author based on Boyatzis, (2007) The Creation of the Emotional and Social Competency Inventory (ESCI)

Self-Awareness is the first cluster of emotional intelligence and is defined by the competence of emotional self-awareness which is the "ability to process emotional information quickly and accurately, to recognize one's own emotions as they happen, and to immediately understand their effects on oneself and on others" (McKee, Boyatzis and Johnston, 2008). Since knowing oneself is the basis to develop other competencies, emotional self-awareness can be seen as the foundation of emotional intelligence. Individuals with a high level of self-awareness are having

a deep understanding of their emotions, strengths and weaknesses, needs and drives. They are neither unrealistically hopeful nor overly critical. People with high competence in self-awareness recognize how their feelings affect them, other people, and their job performance (Goleman, 2011).

The *Self-Management Cluster* includes the capabilities of emotional self-control, adaptability, achievement orientation, and a positive outlook. It is evident that impulses drive our emotions and that we cannot do anything about it. But individuals with a high level of self-control find ways to control emotional impulses and moods and can channel them in useful ways. Leaders that have high levels of self-control can stay calm and clear-headed even under high-stress situations or a crisis (Goleman et al., 2004).

The Social-Awareness Cluster in the introduced model comprises empathy and organizational awareness. Goleman et al. (2004) state that of all dimensions of emotional intelligence, empathy is the most easily recognized. He states that it doesn't mean to adopt other people's emotions as one's own to please everybody which would make any action impossible. Rather, along with other factors, an empathic leader thoughtfully considers employees' feelings when making intelligent decisions. The increasing use of teams, the rapid pace of globalization, and the growing need to retain talent make empathy particularly important as a leadership capability in today's business environment.

The final component in the model is defined as the Relationship Management Cluster including inspiration, influence, teamwork and collaboration, change catalyst, conflict management and the development of others. Relationship Management or Social Skill poses a more complex picture because the effectiveness of our relationship skills hinges on our ability to attune ourselves to or influence the emotions of another person. That ability, in turn, builds on other domains of emotional intelligence, particularly self-management and social awareness. If we cannot control our emotional outbursts or impulses and lack empathy, there is less chance we will be effective in our relationships (Goleman, 2001).

Scholars state that Daniel Goldman's framework operates under the assumption that it can be used to develop the effectiveness of individuals in the workplace and in leadership positions (Bradberry and Su, 2006). Goleman has defined emotional intelligence by exclusion, meaning that "EI represents all those qualities that are not IQ" (Matthews et al., 2004, p.180). Goleman et al. (2004) point out that in their model "the EI competencies are not innate talents, but learned

abilities, each of which has a unique contribution to making leaders more resonant, and therefore more effective" (p. 38).

Boyatzis, Gaskin, & Wei (2015) argue that one possible explanation that emotional intelligence and social intelligence competencies show a very strong relationship with life outcomes and job performances is that "they were originally derived inductively by comparing effective and ineffective people in various occupations in a wide variety of organizations in many countries" (p. 248).

What can be stated at this point is that the different forms of evaluating emotional intelligence have also influenced the way scholars differentiate between the different conceptualizations of emotional intelligence. Where ability emotional intelligence is measured by maximum performance tests, much like traditional intelligence tests, models of trait emotional intelligence rely on self-ratings or 360-degree feedback to get more accurate feedback regarding their personality traits.

1.3 Historic and contemporary theories of leadership and leadership development

Leadership theory is one of the most studied subjects of social science where historically researchers have been trying to find the one best leadership style. Currently, research is supporting the theory that there is no single best leadership style but rather a combination of different styles applied appropriately is leading to success (Palestini, 2009). To understand the evolution of leadership theories the starting point for this research will be in the period of World War II. In the 1930s and 1940s *trait theory* of leadership emphasized on characteristics, stating that successful leaders possess certain personality, social and physical traits (like height or physical appearance) that distinguish them from non-leaders. Due to the limited capability of traits to predict successful leadership, the view in the 1950s changed to analyzing the behavior of individuals in organizations. *Behavioral theories* state that the behaviors of effective leaders are different from ineffective leaders and those behaviors can typically be clustered in production-oriented and employee-oriented behavior. Research at the Ohio State University discovered two separate leadership behaviors which were grouped in an initiation (task-oriented) and consideration (people-oriented) structure of leadership. An initiation structure subsumes a leaders' approach to structuring roles for leaders and group members, initiate

actions, schedule work, assign employees to tasks and maintains standards of performance to meet organizational goals. Consideration, on the other hand, refers to the extent to which a leader exhibits concern for the welfare of group members, respects subordinates' ideas, builds mutual trust between leaders and subordinates and considers employees' feelings (Palestini, 2009). Behaviors are seen as stable properties of leaders not taking into account specific work context or situations (Glynn and DeJordy, 2010).

In the 1960s *situational or contingency theories* appeared as a reaction to the limitations of trait and behavioral theory of leadership. These theories acknowledged the fact that leadership varied across situations and tried to specify the circumstances and conditions under which certain leadership behaviors will be more or less successful. Situational theories assume that different situations require different characteristics and that no single optimal psychographic profile of a leader exists. Leaders are seen to have a specific collection of attributes which they can apply depending on the particular employee they lead or situation they find themselves in. (Carasco-Saul, Kim and Kim, 2015).

One of the older situational models is Douglas McGregor's *Theory X and Theory Y* view on management tasks (McGregor, Bennis and Schein, 1966). According to Theory X, managers see people as being lazy, lacking ambition, disliking responsibility, without self-discipline or self-control and resistant to change. Theory Y managers on the other side see individuals as being intrinsically motivated, not generally disliking work, preferring self-control and striving for responsibility. Since Theory X managers have only a limited view on the world, they possess only on leadership style which is an autocratic one. In contrary, Theory Y managers have a full range of leadership styles which they can choose from. McGregor (1966) suggests that managers with a Theory X view of individuals have to change their assumptions and suggests that those changes that are needed have to be supported by leadership development programs.

Many different leadership styles have been defined up to today. To gain a broad overview of the spectrum of leadership styles the Encyclopedia of Leadership (Goethals, Sorenson and Burns, 2004) is offering a potential starting point for further research. The presentation of numerous leadership styles illustrates the number of theories that have been established throughout the last decades. These leadership styles include:

Autocratic Leadership, Charismatic Leadership, Democratic Leadership, Dysfunctional Leadership, E-Leadership, Eupsychian Management, Individualism and Collectivism,

Innovative Leadership, Invisible Leadership, Laissez-Faire Leadership, Leading at a Distance, Narcissistic Leadership, Reconstructive Leadership, Shared Leadership, Socio-Emotional Leadership, Strategic Leadership, Transformational and Transactional Leadership, Tyrannical Leadership

Barling (2014) conducted extensive research, analyzing leadership theories between 1970 and 2012 to get an insight into the relative frequency that a particular leadership theory has been studied in the academic literature. From his findings, he concludes, that transformational leadership is currently the most frequently researched leadership theory and therefore so-called new-genre leadership theories most likely begin with the transformational leadership theory.

Transformational and transactional leadership

It was James McGregor Burns (1978) who in his highly influential work on leadership first distinguished between the two terms of transformational and transactional leadership. Transactional leadership is based on the assumption that the relationship between leader and follower is based on exchanges or implicit bargains (Den Hartog, Van Muijen and Koopman, 1997). To get things done, leaders and followers engage in significant transactions where expectations and targets are set, and recognition and reward are provided when a task is completed (Barling, 2014). To be effective, leaders make and fulfill promises of recognition, pay increases or advancements for well-performing employees and penalize who do not perform well (Bass, 1990). The leader is seen to be responsible for compensating when the job or environment of the follower is failing to provide sufficient motivation, satisfaction or direction (Den Hartog, Van Muijen and Koopman, 1997).

Transactional leadership includes three different behaviors. *Contingent reward* involves behaviors like the setting of goals, the promise of rewards for good performance and the recognition of accomplishments. *Management by exception* behavior can be active or passive. Leaders pursuing active management by exception watch and search for deviations from rules and standards and their response to lapses are immediate and often seen as embarrassing and intimidation by followers. Passive management by exception behavior also emphasizes on employees' errors and mistakes, but the intervention occurs only if the standard is not met and matters become too serious. The third leadership behavior is the *laissez-faire behavior* where leaders abdicate responsibility, fail to provide the needed direction and avoid to make decisions (Bass, 1990; Barling, 2014). In many cases, such a transactional approach to leadership is

expected to lead only to mediocracy (Bass, 1990). Although many of these behaviors are important and necessary, they don't reflect good leadership but rather good management.

The concept of transforming leadership was initially outlined by Burns (1978) as the opposite of transactional leadership. He described transforming leaders as visionary change agents that also morally uplift followers to be leaders themselves and are more concerned with the group interest than with their self-interest (Goethals, Sorenson and Burns, 2004). Bass (1985) build on the work of Burns and further expanded and exchanged the term transforming to transformational leadership while identifying behavioral indicators for each of the two constructs of transactional and transformational leadership. It can be said that "transformational leadership involves inspiring followers to commit to a shared vision and goals for an organization or unit, challenging them to be innovative problem solvers and developing followers' leadership capacity via coaching, mentoring, and provision of both challenge and support" (Bass & Riggio, 2006, p. 4). Four components, often also called the four I's of transformational leadership, have been defined. These components are idealized influence, inspirational motivation, intellectual stimulation and individualized consideration (Barling, 2014).

According to Bass and Riggio (2006), the four components can be described as followed:

- Idealized influence: Transformational leaders behave like role models, making it possible for their followers to admire, respect and trust them. Leaders with high idealized influence are willing to take risks. They can be counted on to do the right thing, demonstrating high standards of ethical and moral conduct

- Inspirational motivation: Transformational leaders are motivating followers by providing meaning and challenge to their tasks. They also foster team spirit, are optimistic and enthusiastic while helping others to develop a vision for the future.

- Intellectual stimulation: Transformational leaders stimulate creativity as well as innovation. This is done by constantly challenging current approaches to the way problems are solved and by encouraging new perspectives on the status quo. Mistakes are not criticized, but rather solutions are demanded by followers.

- Individualized consideration: Transformational leaders focus on coaching and mentoring followers to encourage their personal development. Those leaders provide

learning opportunities and a supportive climate for individual growth. Their coaching and mentoring are tailored to the individual, focusing on followers' needs and desires.

The theory of transformational leadership, especially the individualized consideration of transformational leaders, emphasizes the need for individual recognition when receiving feedback but also recognizes the fact that followers have different aims, needs, and desires. Bass (1990) argues that such leaders occur at all levels of the organization and that transformational leaders can emerge in both, formal and informal roles of leadership.

Different Leadership domains

Graen & Uhl-Bien (1995) acknowledged that traditional leadership theories had been categorized as trait approaches, behavioral approaches, and contingency or situational approaches focusing mainly on the leaders' characteristics and how they make him or her more effective in different situations. They argue that this classification is too narrow because it does not specifically include the focus on other levels (i.e., the follower and leadership relationships) in which leadership operates. Therefore, they propose to expand the classification system beyond the leader to different levels such as the follower and the dyadic relationship between followers and leaders. Table 1.4 illustrates the proposed three domains including the leader, follower and the relationship.

The focus of the leader-domain is the leaders and studies could include measures that focus on leader behaviors and characteristics (e.g., leader traits, leader behaviors, personality variables, leader attitudes, leader perceptions, leader power, and influence, etc.) examining how outcomes are affected by the interaction between leader-focused variables and situational factors. A focus on the follower-based domain is dealing with follower issues, investigating the proper mix of follower characteristics and follower behavior to promote desired outcomes. Similar to the leader-based domain, the focus lies on how traits, behaviors, attitudes, perceptions, expectations, etc. affect the type and effectiveness of certain leadership styles and techniques, but in respect to the follower. Ultimately, a relationship-based perspective would focus on the dyadic relationship between the leader and the follower, trying to identify characteristics of dyadic relationships like trust, respect or mutual obligation and examining how the dyadic relationships are correlated with outcome variables of interest. Each of the introduced three

domains can be analyzed independently but should ultimately be considered in relation to each other to receive a holistic picture.

Table 1.4.: Leadership domains

	Leader-based	Relationship-based	Follower-based
Definition of leadership in this domain	Appropriate behavior of the person in leader role	Trust, respect, and mutual obligation that generates influence between parties	Ability and motivation to manage one's own performance
Behaviors that constitute leadership	Establishing and communicating vision; inspiring, instilling pride	Building strong relationships with followers; mutual learning and accommodation	Empowering, coaching, facilitating, giving up control
Advantages	Leader as rallying point for organization; common understanding of mission and values; can initiate wholesale change	Accommodates differing needs of subordinates; can elicit superior work from different types of people	Makes the most of follower capabilities; frees up leaders for other responsibilities
Disadvantages	Highly dependent on leader; problems if leader changes or is pursuing inappropriate vision	Time-consuming; relies on long-term relationship between specific leaders and members	Highly dependent on follower initiative and ability
Appropriate Situation	Fundamental change; charismatic leader in place; limited diversity among followers	Continuous improvement teamwork; substantial diversity and stability among followers; Network building	Highly capable and task committed fol- lowers
Situations where most effective	Structured tasks; strong leader position power; member acceptance of leader	Situation favorability for leader between two extremes	Unstructured tasks; weak position power; member nonacceptance of leader

Source: Table compiled by the author based on Graen & Uhl-Bien (1995) Relationship-based approach to leadership: Development of leader-member exchange (LMX) theory of leadership over 25 years: Applying a multi-level multi-domain perspective (p. 224)

Relationship-based approach to leadership - Leader-member exchange theory (LMX)

Considering the presented domains of leadership described above, the leader-member exchange theory of leadership can be understood as an operationalization of a relationship-based approach to leadership. At the center of this leadership theory stands the assumption that effective leadership processes occur when leaders and followers can develop mature leadership relationships and therefore gain access to the many benefits these relationships bring (Graen and Uhl-Bien, 1991). The model describes how effective leadership relationships develop between dyadic "partners" in and between organizations (e.g., leaders and followers, team members and teammates, employees and their competence networks, joint venture partners, suppliers' networks, etc.) (Graen and Uhl-Bien, 1995).

The development of the leader-member exchange theory has been described by Graen & Uhl-Bien (1995) as a developmental process of four stages. As a first step, by examining the different relations leaders establish with different followers, Vertical Dyad Linkage (VDL) research documented that leaders indeed develop differentiated relationships with their direct reports (dyads within units). Second, once the relationship validity was recorded, the nature of these differentiated relationships and their organizational implications was investigated applying a Leader-Member Exchange (LMX) approach. This was then followed by the Leadership Making model (Graen & Uhl-Bien, 1991) which recognized the utility of increasing proportions of high-quality relationships in organizations and described a process for accomplishing this through dyadic partnership building. Finally, the focus shifted to the research of how these differentiated dyads can be effectively assembled into larger collectivities.

Since the introduction of leader-member exchange theory, research indicated that leaders could and do establish different relationships with different followers. These different relationships affect a wide variety of outcomes for leaders, followers, and their organizations. Specifically, better-quality leader-follower relationships are characterized by mutual support and respect, loyalty, affection, and often are associated with followers having greater autonomy and freedom to make decisions (Goethals, Sorenson and Burns, 2004). Leader-member exchange is usually characterized as high-quality or low-quality LMX (Gutermann *et al.*, 2017), or in other words favorable and non-favorable LMX (Goethals, Sorenson and Burns, 2004). Leader-follower relationship is characterized as low-quality LMX when the relationship can be described as a form of formally agreed upon economic exchange, or payment for performance, as noted in the employment contract and as high-quality LMX when it implies a social rather than an economic exchange. As such, high-quality leader-member exchange entails feelings of reciprocity, mutual obligations, loyalty, support, trust, and commitment.

Differences between leadership and management

Before 1977 when Abraham Zaleznik published his article about the differences between managers and leaders the traditional view of management focused on organizational structures and processes while managerial development centered mainly on building competence, control, and the appropriate balance of power. He argued that this view precluded the essential

leadership element of inspiration, vision and human passion (Zaleznik, 2004). But it is up to today that many people use the terms leadership and management synonymously. Although management and leadership both involve deciding what needs to be done, creating networks of people to accomplish the agenda and ensuring that the work actually gets done they are nevertheless two distinctive and complementary systems of action. Each of them has its own function and characteristic activities and both are necessary for success in an increasingly complex and volatile environment (Kotter, 2001).

Kotter, (2014) summarizes three mistakes that people commonly do when talking about management and leadership: 1. People use the terms "management" and "leadership" interchangeably. This shows that they don't see the crucial difference between the two and the vital functions that each role plays. 2. People use the term "leadership" to refer to the people at the very top of hierarchies. They then call the people in the layers below them in the organization "management." And then all the rest are workers, specialists, and individual contributors. 3. People often think of "leadership" in terms of personality characteristics, usually as something they call charisma. Since few people have great charisma, this leads logically to the conclusion that few people can provide leadership, which gets us into increasing trouble.

Management

A managerial culture emphasizes rationality and control. Whether his or her energies are directed towards goals, resources, organization structures, or people, a manager is a problem solver. Managerial goals arise out of necessities rather than desires and, therefore are deeply embedded in their organization's history and culture (Zaleznik, 1992). In other words, management is a set of well-known processes, like planning, budgeting, structuring jobs, staffing jobs, measuring performance and problem-solving. It helps you to produce products and services as you have promised, of consistent quality, on budget, day after day, week after week. So we see that management is crucial, but it's not leadership (Kotter, 2014).

Management is about coping with complexity. Its practices and procedures are mainly a response to one of the most significant developments of the twentieth century – the emergence of large organizations. In the absence of good management, enterprises tend to become chaotic in a way that even threatens their very existence. (Kotter, 2001).

Leadership

Leadership, on the other hand, is not about attributes, it's about behavior. And in an ever-faster-moving world, leadership is increasingly needed from more and more people, no matter where they are in a hierarchy. The notion that a few extraordinary people at the top can provide all the leadership needed today is ridiculous, and it's a recipe for failure.

For Kotter, leadership is associated with

- taking an organization into the future

- finding opportunities and successfully exploiting those opportunities

- creating a vision, about people buying in, about empowerment and most of all,

- producing useful change

In contrast to management, leadership is about coping with change. And the reason why this is becoming more and more important is obvious. Nowadays businesses must change more frequent due to faster technological change, greater national and international competition, and the deregulation of markets or the changing demographics of the workforce. Therefore more and more change is necessary to survive and compete effectively in this new environment (Kotter, 2001). Leaders are active instead of reactive, and shape ideas instead of responding to them. Where managers act to limit choices, leaders develop a fresh approach to long-standing problems and open issues to new options (Zaleznik, 1992). While management would rely on setting plans, control mechanisms, and a short-term tracking of targets, leaders will inspire and motivate because they know that achieving a grand vision requires a burst of energy. They drive people by satisfying basic human needs like recognition, achievement, self-esteem, a sense of belonging, a feeling of control of one's life and the ability to live up to one's ideals (Kotter, 2001). For Drucker (2017) leadership isn't about personality or talent. He states that the best leaders exhibit wildly different personalities, attitudes, values, and strengths and further argues that to be an effective executive one does not need to be a leader in the sense that the term is often used. Many executives lack charisma but are still some of the most effective executives in corporate history. Concerning the development and training of managers and leaders, the term *managerial leadership development* and not solely *management training* will be utilized throughout this research to exclude the academic discussion about leaders and managers.

Leadership theory versus leader and leadership development theories

The history of leadership theory with over a century of research is relatively long, whereas the literature on leadership development is rather short (Day *et al.*, 2014). In contrast to leader and leadership development, leadership theory is building the foundation and underlying assumptions of leadership approaches that help them to be most effective. It is a misperception to think that developing individual leaders and effective leadership processes is merely depending on choosing the right leadership theory and training people to apply those theories (Day *et al.*, 2014). One of the critics of leadership studies is that due to a large number of different leadership theories also many forms of leadership development programs have been introduced and marketed but their effectiveness has not been tested adequately (Goethals, Sorenson and Burns, 2004).

It is important to distinguish leadership theory from theories regarding leader (intrapersonal focus) and leadership (interpersonal focus) development. The focus of leader development is put on the development of individual leaders, whereas leadership development is focusing on development processes that primarily involve multiple individuals and the enhancement of leadership capacity. It is therefore argued that leader development is one aspect of the broader process of leadership development (Van Velsor, McCauley and Ruderman, 2010). Leader development can be defined "as the expansion of a persons' capacity to be effective in leadership roles and processes" (Van Velsor et al., 2010, p. 2) It focuses on increasing human capital through the development of individual knowledge, skills, and abilities, assuming that effective leadership occurs through the development of individual leaders. In contrast, leadership development is defined by Van Velsor et al. (2010) as "the expansion of a collective's capacity to produce direction, alignment, and commitment" (p.20). Leadership development focuses on building networked relationships among individuals in an organization. Other authors define leadership development as "every form of growth or stage of development in the life cycle that promotes, encourages, and assists the expansion of knowledge and expertise required to optimize one's leadership potential and performance" (Brungardt, 1997, p.86). For this thesis, the theoretical differences of the terms leadership development and leader development are acknowledged, but the term *leadership development* is used to include both perspectives and approaches. The terminology of leadership and management are still used interchangeably. This thesis does focus on managers' personal traits

and it has to be noticed that the term leadership development is also used when referring to the development of managerial capabilities.

1.4 Summary

In this section the research literature on emotional intelligence, organizational commitment and leadership have been reviewed to understand the controversies and differences of various theoretical constructs, different measurements, and interrelations of those concepts. Research on organizational commitment has been performed extensively during the last four decades, giving insights about the advantages of having a committed workforce. Among others, favoring factors to have a highly-committed workforce are reduced absenteeism, turnover and turnover intentions. Commitment within the workforce shows positive effects on performance and productivity, ethical behavior, attendance, stress, and work-family conflict. Today mainly two measurements are used to evaluate employees' organizational commitment, the Organizational Commitment Questionnaire - OCQ (Mowday, Steers and Porter, 1979) and the Organizational Commitment Scale – OCS (Allen and Meyer, 1996).

Meyer & Allen (1991) identified three distinct themes as commitment. Commitment as an affective attachment to the organization *(affective commitment)*, commitment as a perceived cost associated with leaving the organization *(continuance commitment)* and commitment as an obligation to remain in the organization *(normative commitment)*. Although various antecedents of organizational commitment (e.g., organizational structure, job security, pay satisfaction, work tasks) are indicated in the recent literature, the research on the impact managers and leaders have on their direct subordinates' organizational commitment are scarce. Research on emotional intelligence, a concept that was first introduced in 1990 has been showing promising results, predicting positive effects on individuals' performance. The question of whether it also influences organizational commitment is yet to be answered. With emotional intelligence, current research distinguishes between ability, trait and mixed models of emotional intelligence. Scholars agree that especially the way how to measure emotional intelligence distinguishes the different models from each other. Recent studies seem to agree that instruments measuring emotional intelligence solely through self-ratings are not sufficient due to biased results. 360-degree feedback has been proposed to be more reliable to predict an individual's level of

emotional intelligence, which is why this research was also utilizing a multi-rater tool to assess managers' emotional intelligence. Each of us is born with certain levels of emotional intelligence competencies, but we can strengthen these abilities through persistence, practice, and feedback from colleagues or coaches (Goleman, 1998a). Surprisingly, in comparison to leadership theory, with over a century of research, the leadership development literature is rather short. Therefore, a deeper understanding of factors influencing the success of leadership development initiatives must be found, and their impact has to be evaluated. Considering the resources organizations put in the development of their leaders, and the fact that many leadership development programs fail, clearly indicate the need for further investigation in this research area.

2 ANALYSIS OF EMPIRICAL RESEARCH ON EMOTIONAL INTELLIGENCE, ORGANIZATIONAL COMMITMENT AND LEADERSHIP DEVELOPMENT WITHIN THE ORGANIZATIONAL CONTEXT

Based on the theoretical framework, this chapter represents the analytical part of this dissertation by exploiting and analyzing recent studies and data to develop an understanding for the importance of commitment within nowadays workforce and the role managers' emotional intelligence plays in that regard. It will give a pragmatic view of how managers and leaders are trained, how leadership capabilities in business corporations are developed, what factors favor leadership development initiatives and what role emotional abilities play in this regard.

2.1 Empirical research on the effects of organizational commitment for organizations

The concept of organizational commitment has been linked to personal variables, role states, and aspects of the work environment. It has been used to predict employees' absenteeism, performance, turnover, and other behaviors. Mathieu & Zajac (1990) conducted a meta-analysis of the current literature at that time. In total, they conducted 48 meta-analyses (out of 124 published studies), including 26 variables classified as antecedents, 8 as consequences and 14 as correlates. At that time the most common differentiation in the types of organizational commitment has been one of *attitudinal* and *calculated* commitment. The authors note that those two concepts include measurements of each other and are not fully distinguishable. A positive correlation of organizational commitment with motivation and job involvement and a negative correlation with stress has been found. They concluded that although organizational commitment had a positive effect on performance, it was not a significant one ($\overline{r}_t$= .135; s= .054). In their meta-analysis, they could further show that organizational commitment correlates positively with attendance and negatively with lateness and turnover but had much larger correlations with two turnover-related intentions: the intention to search for job alternatives and the intention to leave one's job.

Over a decade later, Meyer et al. (2002) conducted a second meta analysis, assessing the relations among affective, continuance and normative commitment and the links between the three forms of commitment with the variables identified as their antecedents, correlates and consequences. They focused their analyses on studies using Meyer & Allen`s (1991) Three-Component-Model of Organizational Commitment and their proposed Affective (ACS), Continuance (CCS), and Normative (NCS) Commitment Scales (Meyer et al., 1993), and found that the three forms of OC are related but are still distinguishable from one another. It was possible to show that all three forms of commitment related negatively to withdrawal cognition and turnover where affective commitment had the strongest correlations with organizational-relevant (attendance, performance, and work-family conflict) and employee-relevant (stress and work-family conflict) outcomes.

There are further implications of high levels of organizational commitment. Cullinan et al. (2008) were able to show a significant correlation of organizational commitment and ethical behavior, meaning that individuals with high levels of organizational commitment are less likely to engage in ethically questionable behaviors that harm the organization and benefits themselves. Boyce, Zaccaro & Wisecarver (2010) showed a significant positive correlation between organizational commitment and the self-development of leadership attributes, meaning that individuals with higher levels of organizational commitment also are more likely to seek to increase their leadership attributes without a corporate initiative.

Wright & Bonett, (2002), in a meta-analysis, investigated the relationship between attitudinal organizational commitment and job performance within 27 independent studies with 3,360 employees. The sample size weighted mean of the 27 sample correlations was .14, suggesting a weak positive relationship between organizational commitment and job performance. It was shown that the correlation between organizational commitment and job performance was highly influenced by employee tenure indicating that performance is greatest for new employees and decays exponentially over time. The correlations between organizational commitment and job performance were .437, .161, and .041, with 1, 5, and 10 years of tenure, respectively. Further, they showed that employees' age did not affect the commitment-performance correlation.

The positive correlation between organizational commitment and employees' performance has also been shown in other studies. Memari et al. (2013) investigated the relationship between

those two factors in an Iranian bank and concluded with the result that organizational commitment had a significant positive correlation (.374) with employees' job performance.

Imran, Allil, & Mahmoud (2017) found a significant negative effect of affective, normative and continuance commitment on turnover intentions in the population of teachers. But not only he significant impact of organizational commitment on turnover and turnover intentions, but also the positive effect of all organizational commitment facets (i.e., affective, normative, and continuance commitment) on work performance dimensions, contextual and task performance has been shown before (Zafeiti and Noor, 2017).

Jaramillo et al. (2005) in another meta-analysis, included 51 studies conducted over 25 years across 14 countries of selling and non-selling situations investigating the question if correlations between organizational commitment and performance exist. Findings of their analyses indicate that the relationship between organizational commitment and job performance is positive and stronger for sales employees than for non-sales employees and that stronger correlations between organizational commitment and job performance are found for collectivist compared to individualistic cultures. The relationship between organizational commitment and job performance was .21 for the overall sample, with a 95% confidence interval of .20 to .23. Further analysis additionally revealed that this relationship is stronger for sales employees as compared to non-sales employees.

These findings therefore strongly support the hypothesis that organizational commitment within the group of employees does have positive effects for organizations and that high levels of organizational commitment lead to lower turnover rates, more motivation and higher levels of productivity.

2.2   The role of emotional intelligence capabilities in leadership

It is important to notice that the capabilities of emotional intelligence can play an incremental role in all three leadership domains presented in the first chapter (Table 1.4). Whether the focus of attention lies on the effectiveness of the leader, the follower, or the relationship between leader and follower. Since the early trait theories of leadership, emotional abilities are associated with effective leadership and the idea that leadership involves emotions of followers has been stated ever since. (Antonakis, Ashkanasy and Dasborough, 2009). Especially because

interpersonal actions or the behavior that leads to them cannot be conducted in an emotional vacuum (Kadic-Maglajlic *et al.*, 2016). George (2000), argues that effective leadership includes following five essential elements and that emotional intelligence has an incremental influence on them: 1.) development of a collective sense of goals and objectives and how to go about achieving them; 2.) instilling in others knowledge and appreciation of the importance of work activities and behaviors; 3.) generating and maintaining excitement, enthusiasm, confidence, and optimism in an organization as well as cooperation and trust; 4.) encouraging flexibility in decision making and change; 5.) establishing and maintaining a meaningful identity for an organization. These elements involve emotional aspects, where leaders with higher levels of emotional intelligence may be better at achieving positive outcomes.

When leaders are involved in social interactions, emotional awareness and emotion regulation become important factors that affect the quality of those interactions. Successful leaders need to have a good understanding of their own emotions as well as on the emotions of others being able to regulate their emotions when interacting with others (Pastor, 2014). Antonakis et al. (2009), point out that the further away from relationship type outcomes, such as the relationship between a leader and follower, the less relevant emotions and emotional intelligence become. They also argue that relationship approaches to leadership are inherently emotional and that leader-member exchange relationship quality is enhanced through emotional intelligence of leaders. Leaders and followers IQ is therefore key in cognitive tasks, but emotional intelligence is key in social situations (Antonakis, Ashkanasy and Dasborough, 2009). Havers (2010) investigated how high scores on the emotional and social competence inventory scale (ESCI) influenced the range of leadership styles used by leaders and the organizational climate these leaders created. They concluded that leaders who demonstrate more ESCI strengths also demonstrate a wider range of leadership behaviors. Participants with only three or fewer ESCI strengths were having a much more limited range of leadership styles and therefore tended to rely on a coercive approach – meaning issuing orders and expecting immediate compliance from their team members. When investigating the effect, emotional intelligence had on team climate that encouraged motivation and extra effort, the participants were divided according to their emotional self-awareness scores. An impressive 92 percent of leaders demonstrating high emotional self-awareness created a positive organizational climate where none created a demotivating climate. In contrast 72 percent of leaders showing low levels of emotional self-awareness where creating a negative organizational climate.

Effects of managerial emotional intelligence on job outcomes

Wong & Law (2002) acknowledge the fact that the impact of emotional intelligence on job outcomes will differ, depending on different job categories. It is evident that jobs where employees are required to have extensive interactions with customers (e.g., in sales or customer service) or with coworkers (e.g., project teams) have to rely more on their emotional capabilities than in certain other jobs (e.g., production line workers). This claim is supported by Kadic-Maglajlic, Vida, Obadia, & Plank (2016), who found that emotional intelligence positive correlates with salespeople performance, mediated through different types of selling behavior, namely selling and customer-oriented selling. Also in other studies, the significant positive effect of emotional intelligence on job performance within the group of sales leaders has been shown (Boyatzis, Good and Massa, 2012). Behbahani (2011) was able to show that emotional intelligence influences management capabilities and that specific competencies of emotional intelligence, namely self- awareness, self-regulation, motivation, empathy, and social skills influence employees performance. In a study with senior managers within a global Food and Beverage Corporation, Mcclelland (1998) found that when those managers had a critical mass of emotional intelligence capabilities, their divisions outperformed yearly earnings goals by 20 percent. Interestingly, division leaders without that critical mass underperformed by almost the same amount. This held true in the company's U.S. divisions as in its divisions in Asia and Europe. Carmeli (2003) found significant positive relations between emotional intelligence with positive work attitudes, altruistic behavior and work outcomes, and where able to show the moderating effect of emotional intelligence on work-family conflict on career commitment. The positive influence of emotional intelligence on performance was shown to hold true also among university staff members at the University of Jordan which was demonstrated by Vratskikh, Al-Lozi, & Maqableh (2016). Further, they discovered that emotional intelligence was also positively correlated to job satisfaction among participants. Similar findings regarding the connection between emotional intelligence, job performance, and job satisfaction have been discovered by Sy, Tram, & O'Hara (2006), holding true for both, managers and employees alike. In line with the previously mentioned studies, Dhani, Sehrawat, & Sharma (2016) state that employees with high emotional intelligence are better at teamwork, are more punctual and accurate, and more competent as compared to the ones who score low on emotional intelligence.

2.3 Scientific research on the influence of managers' emotional intelligence competencies on the organizational commitment of subordinates

What makes managers successful has long been a question, and numerous articles and books have tried to provide answers to this question. A possible solution may lie in the relationship between emotional intelligence of managers and the organizational commitment of their subordinates. Although there have been attempts to get further insight, research is still limited, and it is, therefore, necessary to study the connection between emotional intelligence and organizational commitment in more depth. Pastor (2014) supports this argument, stating "that scholars must use better methods to explore the nomological network surrounding emotional intelligence (p. 253). Therefore, studies that can be seen as a foundation underlying the research question have been evaluated by the author and will be presented in the following pages.

Salami (2008) investigated the influence of emotional intelligence on organizational commitment of workers and could show a positive correlation between emotional intelligence (measured with the SSEIT-self rater test) and organizational commitment (measured with the OCQ-Test). It was argued that a possible reason for this finding is that emotionally intelligent workers could display cooperation, creativity and good interpersonal relations. They can also perceive, express and regulate emotions which could affect their attitude toward colleagues, bosses, and jobs and therefore also their commitment to their organization. Bennett (2011) has investigated the connection between emotional intelligence and organizational commitment using the WLEIS test and the OCS-Test to find a relationship between managers' emotional intelligence and followers' organizational commitment. He could show a positive correlation between the two concepts with results indicating a significant positive relationship between total emotional intelligence in managers and total organizational commitment in subordinates. As the author notes, the results are only a first step to understand the emotional intelligence/organizational commitment relationship especially because of the limited sample (23 managers, 90 employees) and to the fact that managers evaluated their level of emotional intelligence competence only via a self-report. The author recommends further studies in this field pointing out that it would be necessary to evaluate managers' emotional intelligence with self and other feedback since the self-perception and the perception of others can vary significantly.

A similar study has been done by Burrs (2006) where the aim was to test if the relationship between managers emotional intelligence competencies as perceived by followers perception influenced the organizational commitment of these followers. She could demonstrate that the self-perception, as well as the followers' perception of leaders' emotional intelligence, has a significant statistical relationship between the emotional intelligence competencies and the commitment of the followers, where especially the relationship between the others rating of leaders' emotional intelligence and organizational commitment was significant. She argues that the concept of commitment in the workplace has changed from a focus on commitment to the organization to a commitment to ones' leader, where leader and follower share a vision and goals. She further states that one possible answer to the numerous fails of change initiatives and the cost arising through the lack of commitment by followers can be overcome with increasing strategic initiatives towards emotionally competent leadership. This seems to be one of the few studies that are considering the importance of others-rating as well as the influence of managers' emotional intelligence on their followers' organizational commitment. Since only 83 followers provided useful data, this dataset can be seen only as a first step in the research of a relationship between managers' emotional intelligence and followers' organizational commitment.

Other studies show the positive effect managers emotional intelligence can have on factors valuable for organizations. In a study using the WLEIS-Test of emotional intelligence, Sy, Tram, & O'Hara (2006) found that a significant positive correlation between managers emotional intelligence and employees job satisfaction exist. A significant correlation of emotional intelligence, organizational commitment, and job satisfaction has also been shown by Seyal & Afzaal (2013) in a study done in Brunei among university staff. An interesting outcome was that out of the construct of emotional intelligence (as measured with the GENOS emotional intelligence questionnaire) only two of seven items, i.e., emotional self-awareness and emotional self-management were related with the job satisfaction.

The same question has been the focus of a study done by Güleryüz et al. (2008) which also investigated the influence of emotional intelligence on organizational commitment and job satisfaction amongst nurses in a Turkish hospital. The results indicated that emotional intelligence was significantly and positively related to job satisfaction and organizational commitment.

Nordin (2012) contributed to the research on the influence of emotional intelligence and leadership behavior on organizational commitment. The findings indicated that emotional intelligence, transactional and transformational leadership behavior were all positively and moderately associated with organizational commitment. Using the ECI-360 a forerunner of the ESCI, Momeni (2009) was investigating the relationship of managers emotional intelligence with the organizational climate. It was argued that management's emotional intelligence influenced 55 percent of the organizational climate. Masrek et al. (2015) investigated the relationship between emotional intelligence and organizational commitment within computer professionals in Malaysia using the ECI-Test as a self-rater of emotional intelligence. It was shown that out of the four competencies, namely self-awareness, self-management, social awareness, and relationship management only the latter two were having a significant relationship with organizational commitment. Self-awareness and self-management were found not to have any influence on organizational commitment.

Therefore, some evidence of the positive correlation between emotional intelligence and organizational commitment can be found in today's literature. But not all studies support the fact that emotional intelligence influences organizational commitment.

In another study, Aghdasi et al. (2011) analyzed the direct and indirect effects of emotional intelligence on occupational stress, job satisfaction, and organizational commitment. The results of the study indicate that emotional intelligence does not have any direct or indirect effects on occupational stress, job satisfaction, and organizational commitment. Another survey by Rathi & Rastogi (2009), where the aim has been to show a connection between emotional intelligence, organizational commitment, and self-efficacy was able to show a positive relationship between emotional intelligence and organizational commitment. However, this relationship was not found to be significant at any of the two significance levels (i. e., .01 and .05). Stewart (2008) investigated the relationship between leaders and supervisors' emotional intelligence with their job satisfaction and organizational commitment in the food service industry using Bar-On's EQ-I measurement of emotional intelligence. Although it was expected that emotional intelligence had a positive influence on organizational commitment and job satisfaction, this could not be supported by the data.

Similar results have been provided by Wong & Law (2002) where a study was performed among leaders and their subordinates using a self-developed 16-item measurement scale.

Emotional intelligence had a significant correlation with job and job satisfaction, but a non-significant correlation with affective organizational commitment and turnover intention. At this point it is important to state that scholars agree on the fact that the further away relationship types are from the relationship between leaders and followers, the less relevant emotions become (Antonakis, Ashkanasy and Dasborough, 2009).

Influence of different cultures and environments on emotional intelligence and organizational commitment

Although a construct with increasing importance, the research on emotional intelligence considering different cultures and countries is limited. Especially research on "Germanic" countries (Austria, Germany, and Switzerland) seems to be very limited when analyzing the current literature. It was Hofstede (2001) that defined different dimensions of culture that are currently widely accepted. These five dimensions include *power distance, uncertainty avoidance, individualism and collectivism, masculinity and femininity, and long- versus short-term orientation*. Hofstede et al. (2010) provided data on these dimensions for various countries including Austria. According to this data, Austria has a low power distance, is individualistic with high levels of masculinity, uncertainty avoidance, and long-term orientation. This is also illustrated in Figure 2.1., where Austria, Germany, and Switzerland are compared regarding their cultural dimensions. Each cultural dimension scale ranges from 0 to 100 indicating low or high levels in that particular dimension.
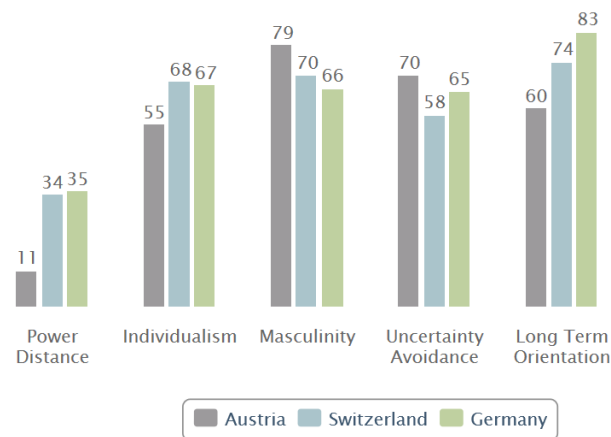

Figure 2.1.: Cultural dimensions of Germanic Countries

Source: The Hofstede Center (2015)

Gunkel, Schlägel, & Engle (2014) tested the influence of culture on emotional intelligence, utilizing a sample consisting of nine countries, covering seven cultural clusters. The results presented show that especially collectivism, uncertainty avoidance, and long-term orientation have a positive effect on emotional intelligence. Applied on the cultural dimensions of Austria this could imply that levels of emotional intelligence are generally higher because of high uncertainty avoidance and long-term orientation but could be negatively influenced by the fact that Austria is characterized by being an individualistic country. Further research is needed to increase the knowledge about emotional intelligence, especially in the context of Germanic cultures like Austria and Germany where empirical data is not yet available.

2.4   The relationship between managers and followers

As explained in the first chapter of this dissertation, the focus of the early work on leadership lay on discovering attributes, behavior, and influence styles of leaders. Followers were considered to be a homogeneous group whom the leader treated uniformly and who, it was assumed, reacted to this treatment similarly. Although the research was able to find traits that were attributed to leaders, it did not support the theory that a leader had to possess certain traits, regardless of the situation, to be successful. Attributes associated with leadership in one situation were not equally important in other situations. The same difficulties arose focusing on leaders' behavior since the early theory did not take into account that leaders act differently with different groups of in different situations. Over time, the initial focus on leaders' behavior and attributes, expanded and took into account that followers and the relationship with their leaders could influence a leaders' behavior. Furthermore, it was discovered that leaders showed different behavior with different groups and individuals. Often capable staff was granted more freedom and autonomy than less capable employees (Goethals, Sorenson and Burns, 2004). Graen & Uhl-Bien (1991) acknowledged the shortcomings of existing theories and extended the view on the dyadic relationships between leaders and followers.

As stated by Avolio, Walumbwa, & Weber (2009), today the focus of research on leadership expanded from single leaders to a broader context, including followers, peers, supervisors, work context, settings, and culture. Leadership is no longer described as a single individual characteristic but instead is depicted in various models as dyadic, shared, relational, strategic,

global, and a complex social dynamic. To guide future research, three domains of leadership were proposed suggesting that the approach to leadership can be understood as a leader-based, relationship-based, and follower-based perspective (Graen and Uhl-Bien, 1995). For the purpose of this dissertation, the focus lies on the relationship-based approach, especially on the interaction between supervisors and followers. Leader-member exchange (LMX) theory, as explained in the first chapter, is one relationship-based approach to leadership with the central principle that leaders develop different exchange relations with their followers, whereas the quality of this relationship is influencing the outcomes (e.g., performance and productivity). In reality, various relationships can be found in organizations. Relationships between supervisors and followers, supervisors and supervisors and followers and followers are diverse in nature and each relationship has to be examined separately. Research on the relationship between supervisors and followers is increasing so that more and more insight is available. Even aspects like the lack of sleep on relationships are investigated. Guarana & Barnes (2017) found that a lack of sleep can have adverse effects on leader-follower relationship development, showing that especially leaders perceived the quality of the dyadic relationship with followers negatively in the case that followers had a lack of sleep.

In general, recent research has moved from examining leader-member exchange in terms of antecedents and consequences to the examination of the quality of the leader and follower relationship as a moderator and/or mediator of performance (Avolio, Walumbwa and Weber, 2009). At this point, it must be noted that not all scholars see a good relationship between supervisors and followers as a motivator to the follower. Herzberg (2003), for example, argues that the relationship with a supervisor is more a hygiene than a motivational factor. The research on dyadic relationships, especially LMX, has been criticized for failing to conceptualize the social context in which leaders and followers are embedded, arguing that theory and research on LMX have focused on the leader-follower relationship without acknowledging that each dyadic relationship occurs within a system of other relationships. Another criticism targets the measurement of LMX especially the development and empirical justification of those measurements (Avolio, Walumbwa and Weber, 2009).

Barbara Kellerman (2007) acknowledges the fact that the focus of modern leadership theory is still on the leader and rarely on the follower, although every leader at least has one follower. Countless courses, books, and articles are written about leaders and good leadership, but hardly

any research is found shining light on followers' behavior, assuming that all followers are amorphous and more or less the same. Kellerman urges leaders to understand their followers better, also recommending a way to cluster followers. Based on the work of Harvard Business School professor Abraham Zaleznik, Carnegie Mellon adjunct professor Robert Kelley, and executive coach Ira Chaleff, Kellerman developed a new typology of followers based on their engagement ranging from "feeling and doing absolutely nothing" to "being passionately committed and deeply involved." Engagement is thereby argued to be the best measurement because it largely determines the relationship between followers and leaders. Followers are categorized as *isolates, bystanders, participants, activists, and diehards*. On the two extremes, isolates are completely detached, they do not care about their leaders and are generally scarcely aware of what happens around them. On the other side, diehards are prepared to go down for the cause being deeply devoted to their leaders, or they may be strongly motivated to oust their leaders by any means necessary.

Leadership research exposes us to certain personality traits like intelligence or integrity that are almost always associated with good leaders, but not much is ever said about what makes a good follower. In general, followers who do something are nearly always preferred to followers who do nothing. Good followers will actively support a leader who is good (effective and ethical) and will actively oppose a leader who is bad (ineffective and unethical). They will invest time and energy in making informed judgments about who their leaders are and what they espouse before taking the appropriate action. Due to these reasons, Kellerman (2007) recommends that academics and practitioners adopt a more expansive view of leadership where leaders and followers are seen as inseparable, indivisible and impossible to conceive one without the other.

2.5   Leadership development programs in organizations

Leadership development is a multi-billion-dollar industry and one of the most expensive activities in corporate training budgets. On a global scale, it is estimated that companies spend annually more than USD 60 billion for leadership development initiatives, USD 14 billion alone in the US market (Gurdjian, Halbeisen and Lane, 2014). Spending on leadership development has been increased significantly in recent years and is predicted to expand further. Also in Austria on average USD 2,000 – 11,000 are spend per participant to improve their leadership competencies (Krims, 2016). Organizations are investing heavily in the development of their

leaders, especially with millennials becoming the biggest group of employees in the business environment. In a global study carried out by PwC (PricewaterhouseCoopers) 1.409 CEOs where asked what aspects of their talent strategy are being changed to have the most significant impact on attracting, retaining and engaging people to remain relevant and competitive. With 72 percent of these CEOs being concerned about the availability of talent, 49 percent said that their primary talent strategy will focus on the development of their leader pipeline (PWC, 2016). Considering these talent strategies and the massive investments of organizations and individuals in leadership development programs, it seems surprising that only limited research on the effectiveness of these programs exists (Ely *et al.*, 2010).

An ongoing discussion in this context is, whether leaders are born or made, in other words, if leadership capabilities can be taught. Today, there seems to be consensus on the fact that although some cognitive abilities and personality traits seem to be innate and remain stable over time, there are many human capabilities that can be developed and trained to enable individuals to perform their tasks in a better way (Van Velsor, McCauley and Ruderman, 2010). Burke and Day (1986) conducted a meta-analysis that is commonly regarded as the principal empirical support for the effectiveness of managerial training and leadership development programs. Their meta-analysis included seventy published and unpublished business over thirty years in different industries and businesses. Those studies involved managerial or supervisory personnel, where more than one training program has been evaluated and included at least one control or comparison group. Burke and Day found that managerial training was moderately effective and provided true mean effect sizes for each of the four criterion-measure categories used. Those where, subjective learning (.34), objective learning (.38), subjective behavior (.49), and objective results (.67). Approximately twenty years later, Collins & Holton (2004) conducted another meta-analysis, integrating eighty-three studies to determine the effectiveness of leadership development initiatives in their enhancement of performance, knowledge, and expertise at an individual, team and organizational level. They concluded that if sufficient front-end analysis is conducted to assure that the right development is offered to the right leaders, organizations should feel comfortable that their leadership development programs will produce significant results and participants can gain substantial improvements in both knowledge and skills.

Unfortunately, although the focus of research during the last century was lying on leadership theory, the development of these capabilities was getting far less attention. Leadership is an emerging interdisciplinary field, but there has been very little research on leadership development programs in general (Avolio, Avey and Quisenberry, 2010). Day et al., (2014, p.64) state that "we need to focus on development as much as leadership to shed light on how this process unfolds". This is particularly important since research findings suggest that not even can managerial leadership development have no effect, but the experience that participants have can become negative. It is therefore essential for providers of leadership development programs to understand that simply identifying and placing individuals in these programs do not ensure that they will become more effective leaders when completing the training (Kirchner and Akdere, 2014). Arnulf, Glasø, Andreassen, & Martinsen (2016) investigated the perception of leadership development program participants toward the outcome of training initiatives with the result that more than half of participants were negatively biased toward the field and experience the activities as negative but harmless, and 44 percent as even negative. As the cause of negative experiences was most frequently attributed to external consultants, operating in an environment characterized by a lack of evaluation. Further, it is argued that the most likely scenario for negative effects seems to occur in companies that invest quite a lot in the development activities themselves but not in their evaluation. In contrary companies, that either invest little and rely on internal resources or spend high sums of money for specific leadership development and therefore also monitor the effects closely achieve the most favorable outcome. Arnulf et al. (2016) argue that leadership development activities are having negative consequences if they directly reduce the person's capacity to perform leadership roles or indirectly reduce organizational performance by wasting resources and undermining the belief in developmental efforts. Based on their research, Kirchner & Akdere (2014) argue that there is a significant probability, that if someone is participating in leadership development programs against their wishes, they will not fully engage in the themes being discussed. Since organizations typically promote these programs based on tenure and position, this oversight appears to be particularly significant; calling for a reconsideration of design and target population in leadership development programs. Lacerenza, Reyes, Marlow, Joseph, & Salas (2017) estimated the effectiveness of leadership training across four criteria (reactions, learning, transfer, and results) performing a meta-analysis to determine which elements are associated with the most effective leadership training interventions. Overall, their research suggested that

leadership development interventions are indeed effective, showing the biggest effect for transfer (i.e. utilizing the abilities that were taught), followed by learning (i.e. acquiring knowledge), results (i.e. achieving organizational objectives including costs, company profits, turnover and absenteeism) and reaction (i.e. trainee attitudes toward training).

Leader self-development

Little systematic research has been reported to advance the understanding of characteristics associated with individuals who initiate self-development activities to grow leadership skills (Boyce, Zaccaro, & Wisecarver, 2010). Self-development leadership programs are a variant of leadership development where training focuses on learning experiences in which the leader takes primary responsibility for their growth in leadership capacities and where the leader essentially decides what knowledge, skills, and abilities they need to improve on and follow by choosing the most appropriate method (Kirchner and Akdere, 2014). Boyce et al. (2010) claim that work, career-growth and mastery orientation of individuals are increasing the probability of leaders self-development due to a higher level of motivation and higher skills at performing instructional and self-regulatory processes, but also that an organizational support tool can moderate the actual performance of leader self-development activities. But there are also indications that specific organizational-level (i.e., human resources practices) and group-level (i.e., supervisor style) constructs can promote leader self-development (Reichard and Johnson, 2011). Collins & Holton (2004) also outline the importance that the right development programs for the right people are offered at the right time.

2.5.1 Emotional intelligence and leadership development

Leadership involves constructive and creative influence, relationships, and emotions, all of which are reciprocal between leaders and their followers. This is why emotional intelligence becomes so crucial to effective leadership (Roy, 2015). Although internationally very well recognized, the emotional intelligence research and the use of the existing measurements in Austria is only limited. Few managers receive feedback about their performance, their personality or their development above a certain career level. Emotional intelligence training interventions are gaining increasing popularity, but only limited data on emotional intelligence development are available and represent contradictory evidence (Nafukho *et al.*, 2016). Leaders

as participants of emotional intelligence training interventions are underrepresented in the literature, given that the sample in most of the previous studies on emotional intelligence development is composed of college students and employees who are barely engaged in leadership responsibilities. Performing a survey among NGO leaders coming from 30 different countries Nafukho et al. (2016) investigated whether total emotional intelligence, measured through Bar-On's EQ-i test, changed through an emotional intelligence training intervention. They examined leaders' emotional intelligence through a pre- and a post-test, one year after the training intervention took place. The results indicate that leaders were able to increase their emotional capabilities (intrapersonal, interpersonal, adaptability, stress management and general mood) and their overall rating of emotional intelligence. In alliance with the findings of Kruml & Yockey (2011), emotional intelligence interventions increased the capabilities of those participants that initially had low or average scores but didn't improve the emotional intelligence level of participants that showed already high scores in the pre-testing.

Lindebaum (2009) investigated and compared the development of emotional intelligence within individuals, first from the vantage point of an organizational endeavor, second through own individual initiative. He argues that there are barriers that impair organizations to develop emotional intelligence of individuals and proposes a conceptual map that shows the process of organizations attempting to develop emotional intelligence. Figure 2.2 illustrates the proposed barriers to organizational endeavors attempting to enhance individuals' emotional intelligence and performance. It is suggested that the development of emotional intelligence in organizations is significantly limited by the (a) interindustry barrier (e.g., influence of male-dominated cultures); (b) intraorganizational barrier (i.e., varying motivational backgrounds of employees); and (c) intrapersonal barrier (e.g., differences in emotion management). The map is a theorized synthesis, intended to suggest impact rather than to predict precision.
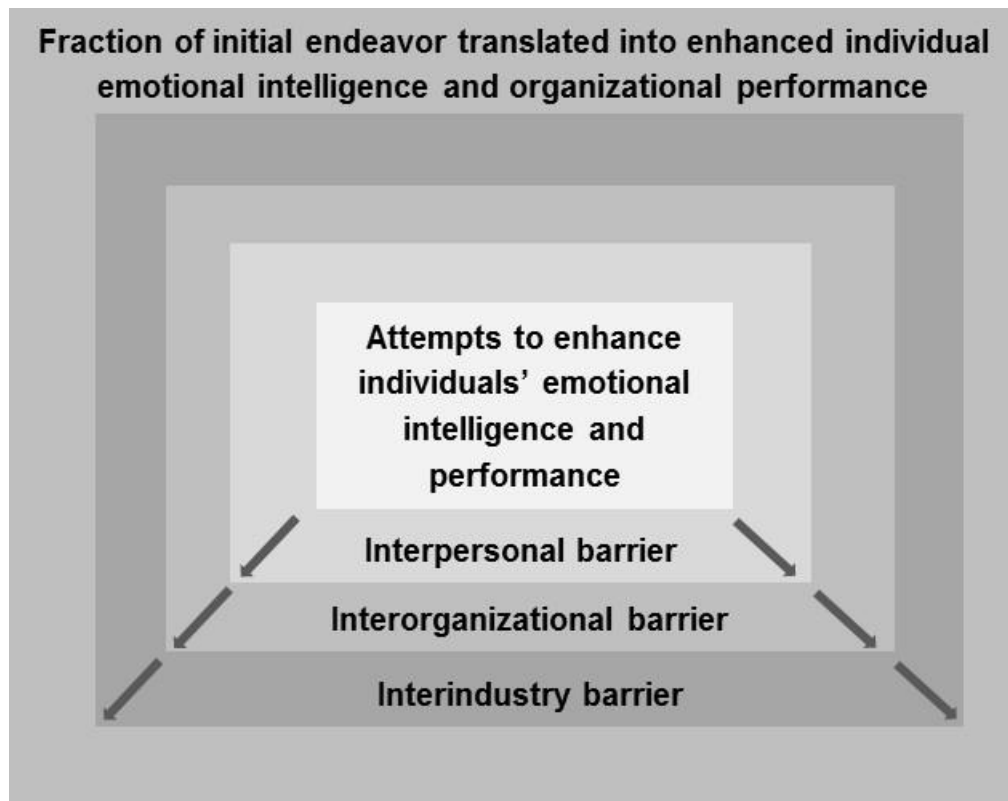
Figure 2.2.: Conceptual map of barriers of organizational endeavors attempting to enhance individuals' emotional intelligence and performance

Source: Figure compiled by author based on Lindebaum (2009) Rhetoric or remedy? A critique on developing emotional intelligence

Due to these barriers, organizational initiatives to develop emotional intelligence are at risk to fail. Instead, a self-initiated modification of attitudes to foster enhanced self-awareness is proposed, meaning that it is more promising to encourage individuals to nurture their emotional intelligence through personal development initiatives than through organizationally induced ones. Muyia & Kacirek (2010) state that future research should examine the impact of emotional intelligence training in leadership with an emotional intelligence measure that is appropriate for leadership development and that such a measure should include 360-degree feedback.

2.5.2 Self- and other-ratings of emotional intelligence

It has been shown in a meta-analysis that self-report measures of emotional intelligence outperform performance-based measures by large margins. (Siegling, Saklofske and Petrides, 2015). As mentioned, performance-based measures are used to evaluate ability emotional intelligence, self-report measures are usually used to evaluate trait emotional intelligence. Many EI-Instruments have been developed only using self-report as their single source of evaluation. This can be critical because self- and other-ratings can vary because individuals tend to rate themselves higher in their competencies. Researchers reported self-ratings to be unreliable, invalid, and inaccurate when they are compared to others-ratings (Fleenor *et al.*, 2010). This fact has been shown in numerous studies concluding that 360-degree feedbacks are a powerful tool when assessing employees' performance or abilities.

Sala (2001) could show a discrepancy between self and other-ratings between leaders using the ECI, a 360-Degree feedback instrument. It was revealed that the higher a leaders' position, the more the leader tended to rate his or her behavior inaccurately. In another study, Burrs (2006) concluded that leaders whose followers rated them lowest tended to rate themselves much more favorably, and leaders whose followers rated their leaders highest tended to rate themselves much more modestly. She could show that followers rating of leaders' emotional intelligence had a much higher statistical significance as the self-rating of leaders.

Church (1997) stated that "there is a general tendency on the part of managers to rate themselves somewhat higher across all behaviors than did their direct reports" (p. 285). Similar results have been reported by Zampetakis & Moustakis (2011) who tested the impact of managers trait emotional intelligence on group job satisfaction. Their research contained data from middle managers and their immediate team members from public service organizations. Analysis indicated that a group's evaluative judgment of a team leader's emotional intelligence is a better predictor of job satisfaction than the team leader's ratings of his or her emotional intelligence. Managers' self-evaluation of their trait emotional intelligence was not significantly related to group job satisfaction whereas the group evaluation of a managers' trait emotional intelligence was correlated positively with the group's job satisfaction.

The findings imply that differences in self and other-rating of emotional intelligence influence the outcome of the research. Due to this reason, the ESCI has been chosen for this research. It

was designed to be used as a 360-degree, multisource rater instrument. Although it is mandatory to use the ESCI assessment as a 360-degree feedback tool including self- and other-ratings, Boyatzis et al. (2015) state that in most research only the "other-ratings" are used. The self-assessment has its primary application in coaching, training, and college courses, along with the "other" assessment.

2.5.3 Self- other-rating differences and the reactions of participants in leadership development initiatives

Not only in the research on emotional intelligence, but in the process of leadership development in general, 360-degree feedback has become almost ubiquitous in organizations of every type and is an important step to facilitate development (Day et al., 2014). As one possible source of feedback, 360-degree ratings allow the participant to formulate comparisons among various rating sources, and provides the participant with a more holistic depiction of his or her areas for improvement because the results are not based on a single-source and therefore may be perceived as more reliable (Lacerenza *et al.*, 2017). Abraham (2004), found that if positive feedback is delivered in an informative manner, emotional honesty, self-confidence, and emotional resilience can promote superior performance. Today a consensus between practitioners and organizational consultants exists that solely self-ratings are not sufficient for a valid evaluation of emotional intelligence capabilities and therefore recommend the use of 360-degree feedbacks as a system to enhance self-knowledge and improve managerial behavior (Yammarino & Atwater, 1997a; Sala, 2001; Wolff, 2005). Yammarino and Atwater (1997) argue that the relative agreement or disagreement between self- and other-rating has a potentially high impact for human resource management. It unveils information about personal characteristics, knowledge, skills, and abilities as well as training needs, performance appraisals or leadership behavior. In the context of emotional intelligence, It is through the use of these multi-rater instruments and the discrepancies between self- and others-rating that one can get more insights into leaders interpersonal world (Brutus et al., 1999). Furthermore, the literature shows that self-perception can contribute to individual and organizational outcomes. Through the use of ratings generated by multi-rater instruments, the degree of agreement between self-perceptions and the perceptions of others can be employed to test this argument (Fleenor et al., 2010). Yammarino & Atwater (1997a), argue that the two main reasons of different outcome

of self- and other-rating are that there is a general lack of feedback especially for individuals in higher ranks and that they, therefore, rely on the perception of themselves, and second that individuals might have a perception disorder or general difficulties to evaluate and compare themselves to others. In the field of emotional intelligence different theoretical developments also implied different methods for measuring these concepts. The question that arises when studying the academic literature is, whether leaders who are receiving feedback from peers, subordinates or their managers that deviates from their self-rating are more likely to see a need to take actions in their development compared to leaders were self- and other-ratings are very much alike. It is essential to understand whether high or low others-ratings influence the reaction of the individual receiving the feedback (e.g., for enterprises that must establish their leadership development programs).

Brett & Atwater (2001) researched how discrepancies in self-other feedbacks were related to reactions and receptivity to development as well as recipients' perceptions of usefulness and accuracy of the feedback. They found that less favorable ratings were related to beliefs that feedback was less accurate which also led to negative reactions. And because over-estimators (leaders rating themselves higher than others) believe that their level of performance is already high, they may ignore developmental feedback and fail to improve their performance (Fleenor *et al.*, 2010). It is agreed that emotional intelligent behavior can be learned by those who are willing to learn and that continuous feedback from subordinates helps leaders to further develop their capabilities (Zakariasen and Zakariasen-Victoroff, 2012). It is the influence of a leaders' reactions to 360-degree feedback, that is determining whether they take actions to improve their performance or not, determining and showing their willingness to learn. For actual learning to occur, an individual must be motivated to learn, and trainee reactions may serve as an indicator of motivation. Participants' reactions reflect the attitudinal component of the effectiveness of leadership development programs and consist of trainee attitudes toward the training. They argue that given the popularity and importance of trainee reactions, it is critical to evaluate whether leadership training elicits positive changes in employee reactions (Lacerenza *et al.*, 2017). Also, other scholars state that the reaction on others' feedback is influencing actions, but that this is a research field that has been neglected and deserves more research attention (Facteau et al., 1998). Brett and Atwater (2001) argue that if organizations want to retrieve their investment in leadership development programs "a better understanding of the emotional and cognitive reactions is needed" (p. 941). Therefore, organizations are confronted with the

question, whether they have to take into account the fact that different outcomes of self- and others-rating affect the way their employees will react on their received feedback and additional intervention and support from the organization will be needed. Since it is the main goal of leadership development initiatives to change leaders' behaviors when performing their day-to-day tasks, it is essential to know what participants will actually do, after they received training and how they will utilize the skills and abilities that have been taught. The question, to what extent the different self- and other-rating groups influence these behavioral changes, arises.

Atwater and Yammarino (1992) introduced the idea to use rating agreement categories to analyze self and others' agreement data. This approach requires computing difference scores between self- and others' ratings and calculating the mean and standard deviation of the difference scores. Individuals are classified based on the extent of their self-others' difference (i.e., the standard deviation from the mean self–others difference). Initially recommending three rating agreement categories Yammarino and Atwater (1997) extended their model to four categories.

Figure 2.3. shows the proposed categorization into (a) Over Estimator (where the self-rating is higher as the others-rating), (b) In-Agreement/Good (with a high self- and others-rating) (c) In-Agreement/Poor (a low self- and others-rating) and (d) Under Estimators (the self-rating is smaller than the others-rating).
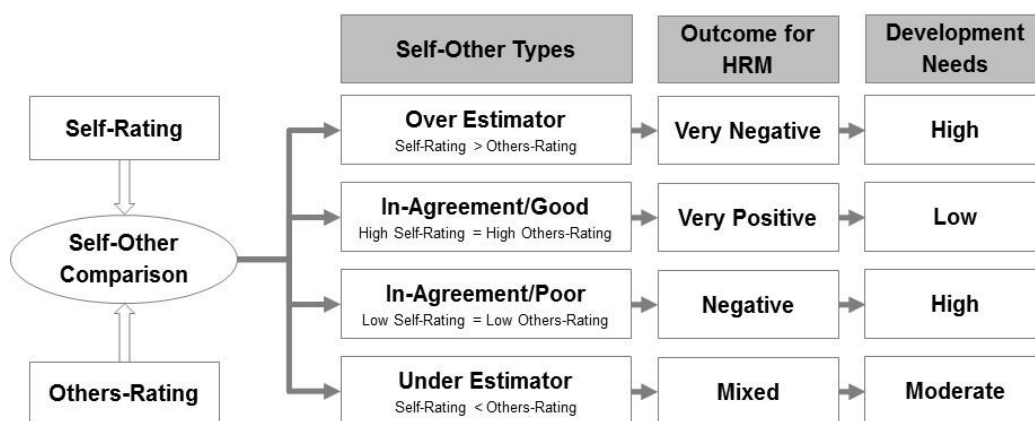

Figure 2.3.: Differences in self- and others-rating

Source: Figure compiled by the author based on Yammarino and Atwater (1997) Do managers see themselves as others see them?

The case for a positive development, after feedback has been given to participants, could be confirmed, leading to the conclusion that emotional intelligence training can be effective (Sala, 1999). But since it is not very resourceful to treat every individual the same, it is crucial for organizations to know what differences in self-others ratings exist between the participants of leadership development programs. Studies support the fact that it is the kind of feedback that seems to influence how individuals receiving feedback will react to the information provided (Facteau, 1998; Brett & Atwater, 2001). In one study, Facteau et al. (1998) investigated factors that influence the perception of leaders when receiving 360-degree (i.e., multilevel) feedback. They found that managers' acceptance of subordinate feedback increased with increased favorableness of the feedback. Managers also tended to value the feedback as more useful, the higher their overall score according to their subordinates' ratings was.

2.6 Summary

Studied intensively over the last three decades and documented in numerous scientific papers, scholars seem to agree on the positive impacts of high organizational commitment for organizations. Lower turnover and absenteeism and higher performance are shown to be two of the most important outcomes of a highly-committed workforce. The antecedents of organizational commitment are diverse in nature. Among other factors, the interpersonal relationships in an organization between coworkers but also between leaders and followers tend to indicate a change in organizational commitment. These findings are aligned with the current research on leadership where it is acknowledged that a solely view on leaders' attributes and behaviors on the one side and researching models that focus on the follower, like empowerment models, is not sufficient. A third component, the relationship between leaders and followers needs to be considered. Although a topic of increasing interest, research on the influence of emotional intelligence on organizational commitment is limited. When examining the current literature, it becomes obvious that research has mainly been done on investigating the relationship of emotional intelligence competencies with organizational commitment on an individual level, showing that, although some results are mixed, a trend is noticeable that confirms the assumption that individuals with higher emotional intelligence are also more committed to their organization. Unfortunately, this does not provide any insights into the question if employees' organizational commitment is influenced by managerial emotional

intelligence. Although some positive correlation has been documented, far too little data is available to make a clear statement. One of the reasons may be that it is difficult to collect data that evaluate managers through self- and other-ratings and to combine these outcomes with organizational commitment levels of employees working for those managers. Adding knowledge to this subject is, therefore, one of the main purposes of this thesis.

Leadership development initiatives, with focus on both, task-oriented and relationship-oriented leadership, have shown significant impact on positive outcomes such as performance, task achievement, and commitment. Nevertheless, not all leadership development initiatives are equally successful. Studies outline the importance of feedback following leadership development initiatives arguing that the reaction towards feedback may vary due to the type and form of feedback given. Furthermore, how recipients of feedback accept it and perceive it as being useful may influence the way how they react on the feedback. Although organizations very often provide support following a leadership development program, it is the attitude of each individual that has been shown to have an even greater influence on the final results. As today, it is not clear what influence the differences in self-and others-feedback regarding emotional intelligence may have on the recipient of the feedback especially in the field of emotional intelligence as a leadership development initiative. Therefore, this dissertation is trying to add knowledge through empirical data on the relevance of feedback in leadership development initiatives utilizing multirater (incorporating self- and others-rating) tools for developing their leaders.

3 RESEARCH DESIGN AND METHODS TO EVALUATE THE INFLUENCE OF EMOTIONAL INTELLIGENCE ON SUBORDINATES ORGANIZATIONAL COMMITMENT AND FEEDBACK ON LEADERSHIP DEVELOPMENT INITIATIVES

Based on the literature review this chapter aims to describe the research design, the population, and sample and the applied research methods in this quantitative study. Sreejesh, Mohapatra, and Anusree (2014) state that the process of research must follow steps, namely (a) identification and definition of the problem or opportunity, (b) planning of the research design, (c) selecting a research method, (d) selecting a sampling procedure, (e) collection of data, (f) evaluating the data and (g) preparing and presenting the research report. This approach was adopted and followed in the developmental process of this thesis.

As stated in the previous chapter, two main problems are addressed in this dissertation. First, the problem of diminishing organizational commitment and the possible effects managers' emotional intelligence can have on their subordinates' commitment. Second, the problem that different feedback results may have a different implication for recipients is addressed. Differences in feedback results can have different effects on how accurate and useful feedback is perceived. This is possibly also influencing the likelihood that recipients of feedback will change their behavior due to the kind of feedback they received.

3.1 Formulation of research questions and derivation of hypotheses

Organizational commitment within the workforce is getting more and more important in nowadays societies. Tasks of leaders become more complex and the time to continually control employees is simply not available anymore. Leaders must find other ways to keep employees productive. Organizational commitment has been studied and positive effects like increased productivity and a lower turnover are well documented in the literature. Although antecedents of organizational commitment have been investigated before, the influence of managers' emotional intelligence on their subordinates' organizational commitment is still a field with very limited data. A reason for this is the fact that the concept of emotional intelligence is still a relatively young research field that has been gaining attention only since the early 1990s.

Therefore, the main research question is focusing on managers' emotional intelligence and the influences it has on their subordinates' organizational commitment.

A second question arose because of the proposition that only 360-degree feedbacks show a complete picture and are therefore recommended to be used in leadership development programs, especially when evaluating emotional intelligence. The increasing use of 360-degree feedback in organizations led to the question, what influence different types of feedback have on the perceived accuracy and usefulness as well as on the likelihood that recipients of feedback take development actions on their own. Becoming a learning organization depends in large parts on initiatives of single individuals within the company. This dissertation is adding knowledge to the questions whether different feedback (positive, neutral or negative) provided to managers is influencing the chance that they will take development actions.

According to the described opportunities and gaps in the current management literature, the research questions have been defined as followed:

- Does managers' emotional intelligence influence the organizational commitment of their direct subordinates?
- Is there a difference between managers self and other ratings of emotional intelligence when measured through a 360-degree feedback instrument?
- Do some competencies of the construct of emotional intelligence have a significantly higher impact on organizational commitment than others?
- How useful and accurate do managers see emotional intelligence development initiatives?
- Is emotional intelligence learnable and if so what conditions are favorable for the process?
- Does emotional intelligence training for managers need to be further expanded in current leadership development programs due to the positive impacts increased managerial emotional intelligence can have for organizations?
- What role plays feedback in leadership development initiatives on the outcome of the program?

Based on the derived research questions the main hypothesis is formulated as:

Managers emotional intelligence competencies have a positive effect on the organizational commitment of their subordinates

The main hypothesis is operationalized through the following four **theses for defense**:

(1) The use of a 360-degree feedback model to evaluate managerial emotional intelligence will disclose differences between mangers self- and other rating;

(2) Certain competencies regarding managers' emotional intelligence have a significant impact on the organizational commitment of their subordinates;

(3) Perceived accuracy and usefulness in feedback also leads to an increased likelihood to take personal development actions;

(4) Overrating or underrating oneself in 360-degree feedback will influence the extent to which participants are engaging in development actions on their own.

3.2 Research design and empirical model to evaluate the impact of emotional intelligence on subordinates' organizational commitment

After conducting the preliminary literature review, it has been decided that quantitative, non-experimental, correlational design will be applied to answer the research question and to test the proposed hypothesis in this thesis. This has been argued to be the best approach for the investigated problem because it enables the researcher to describe and measure the association or relationship between two or more variables or sets of scores using correlational statistics (Creswell, 2014). Also, Weathington, Cunningham, and Pittenger (2012) argue that correlational research is used to study the relationship between two or more variables and that it can be used to make predictions about the dependent variable using the independent variable.

It is the method of "collecting information by asking a set of pre-formulated questions in a predetermined sequence in a structured questionnaire to a sample of individuals drawn so as to be representative of a defined population" that is known as survey research (Sreejesh et al., 2014, p. 58). Two commercially available instruments were applied to test the proposed hypothesis. The two questionnaires used, have been sent via a mail panel survey to the prior defined participants. The ESCI (Boyatzis, 2007), was used to measure managers Emotional

Intelligence competencies through 360-degree feedback of self- and other-ratings. On the other hand, the German version of the Organizational Commitment Scale (OCS), originally developed by Meyer & Allen (1997) and translated into German by Schmidt et al. (1998) was used to measure the level of organizational commitment of employees. The big advantage of surveys data is that "they facilitate quantitative analysis that allows for generalization to an entire population" (Perecman & Curran, 2006, p. 118). Figure 3.1 illustrates the postulated causal model to test the defined main hypothesis and thesis for subhypothesis SH_1; SH_2.
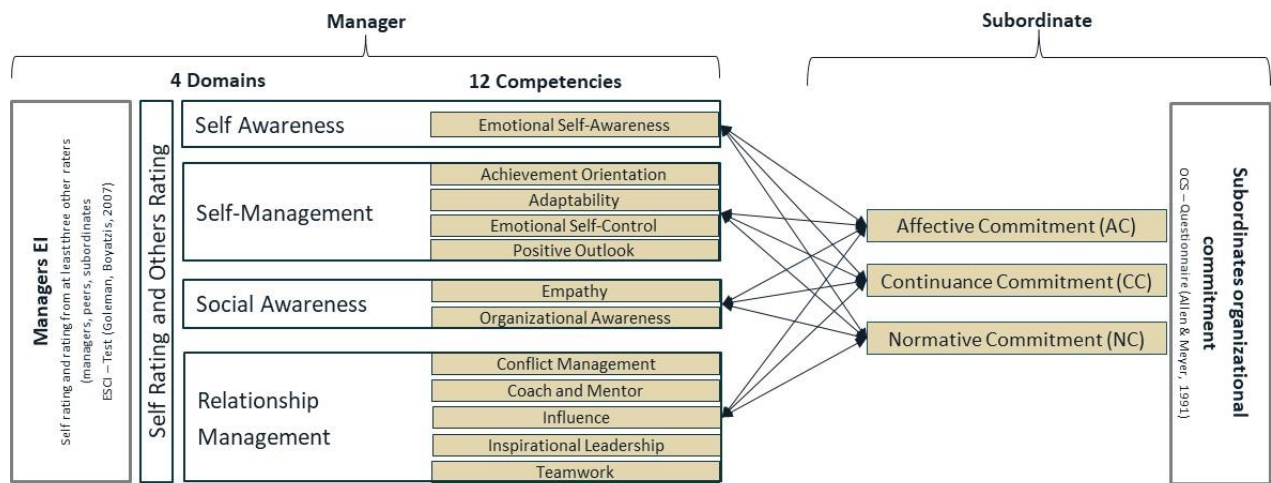
Figure 3.1.: The causal relationship of emotional intelligence domains and organizational commitment

Source: Relations of the variables, created by the author

Independent and dependent variables of the EI/OC model

The 12 competencies measured with the ESCI-Model are subsumed into four domains of Managers Emotional Intelligence namely self-awareness, self-management, social awareness, and relationship management. These emotional intelligence competencies and domains are the independent variables whereas Organizational Commitment of subordinates split by affective (AC), continuance (CC) and normative commitment (NC) are the dependent variables of the proposed model. Both, the independent and dependent variables have been assessed using a survey method. Creswell (2014) describes the survey research as a tool to provide quantitative or numeric opinions of a population by studying a sample of that population thereby using questionnaires or structured interviews for the process of data collection. The intention to use

this instrument was to generalize from the examined sample to the larger population of Austrian managers in the production sector.

Evaluation of the perceived accuracy, usefulness and implied likelihood to take personal development action following the leadership development initiative targeting the development of participants' emotional intelligence

In addition to the EI/OC model, a follow-up study has been performed aiming to get further insight on how participants that receive feedback through 360-degree feedback react on that feedback. With extending the EI/OC model the sub-hypotheses SH_3 and SH_4 will be addressed. The extension of the EI/OC-model which was presented in Figure 3.1. is illustrated in Figure 3.2. The underlying questionnaire was used to get qualitative feedback on the results of the study, correlating emotional intelligence and organizational commitment of subordinates, from the perspective of the involved management.

The purpose of that model extension was to get further information about the differences of self- and other-ratings in the group of participation managers. These ratings of the ESCI are distinguished between three groups, namely (a) Overraters; (b) In-Agreement; and (c) Underraters as recommended by Atwater & Yammarino (1992). "Overraters" rate themselves higher as their other-raters do. Participants that are "In-Agreement" have a similar level of self- and other-ratings. Finally, the group of "Underraters" consists of participants where the self-rating is lower than the others-rating. It was aimed to receive insight on the four components, perceived accuracy of the feedback, perceived usefulness of the feedback, the type of reaction (being positive or negative) and the likelihood of participants to take personal development actions. It was also intended to analyze the relationship between the perceived usefulness and accuracy with the likelihood to undertake personal development steps. After evaluating whether the difference between self- and other-ratings exist, additionally, it was possible to analyze the influence of those differences on the likelihood that managers would take development actions on their own.
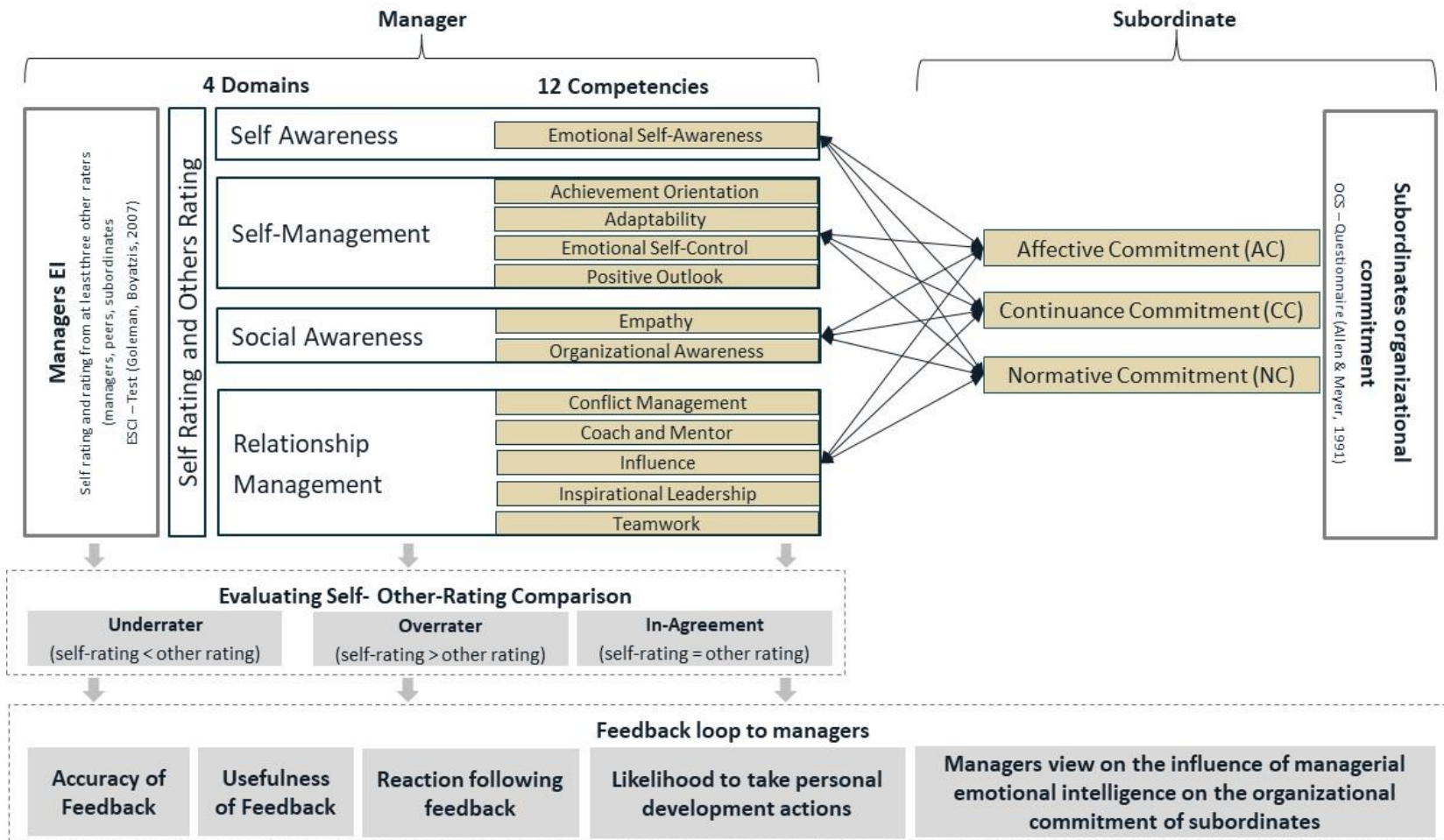
Figure 3.2.: Model extension for the evaluation of self- and other-rating differences, as well as the perceived usefulness, accuracy and likelihood to take personal development actions

Source: Author's construction based on theoretical findings

To analyze the research question and to test the hypotheses a questionnaire has been created which has been delivered to managers that were participating in the original study to evaluate their emotional intelligence. To give them time to reflect on the feedback that they received about their emotional and social competencies the questionnaire was sent a week after they received that feedback.

3.3 Research methods and data collection instruments reliability and validity

The instruments that have been used in this study to measure emotional intelligence competencies of managers and the organizational commitment of subordinates are described and discussed. Furthermore, the created survey to investigate the level to which feedback delivered to managers, influences their reactions and actions will be explained.

3.3.1 Measuring managers' emotional intelligence with the ESCI and organizational commitment with the OCS

The ESCI (Emotional and Social Competency Inventory) assesses 12 competencies which are emotional self-awareness, achievement orientation, adaptability, emotional self-control, positive outlook, empathy, organizational awareness, conflict management, coach and mentor, influence, inspirational leadership, and teamwork. These 12 competencies are subsumed into four distinct areas of abilities. The four domains are self-awareness, self-management, social awareness, and relationship management (Boyatzis, 2007; Goleman et al., 2004)

Following the steps that led to the ESCI will briefly be discussed based on the summary of HayGroups "'Emotional & Social Competency Inventory" report (HayGroup, 2011).

Key steps in the development of the ESCI:

1973   David McClelland's seminal article *testing for competence rather than intelligence* initiates interest into the research of competencies and their application in organizations.

1982   Richard Boyatzis publishes *The competent manager*, an empirical approach to identifying the characteristics which enable managers to be effective in various management jobs.

1985   Hay/McBer's *Generic competency dictionary* is developed by Richard Boyatzis *et al.*

1991   Richard Boyatzis develops a self and external assessment questionnaire for use with MBA and executive students to assess managerial competencies.

1993   Signe and Lyle Spencer develop and document the generic dictionary in their book *Competence at work*.

1998   Daniel Goleman's *Working with emotional intelligence* draws on Boyatzis' work and the Hay/McBer generic dictionary to identify core emotional competencies.

1998   The *Emotional competence inventory* (ECI) is developed by Boyatzis and Goleman, in partnership with Hay Group, measuring 22 competencies.

2002   Ongoing testing, analysis, development and validation results in version 2 of the ECI measuring with a reduced number of competencies (18).

2007   Boyatzis *et al.* re-conceptualize the ECI as a measure of emotional and social intelligence competencies. A review of all competencies and items, along with factor analysis, lead to the *Emotional and social competency inventory* (ESCI) with a reduced number of competencies (12) and a higher psychometric standard.

2009-
2011   Ongoing item review, testing, and analysis of the ESCI.

2010   ESCI norms derived from a data set consisting of 4,014 participants, 42,092 respondents, and 273 organizations.

2011   Version 2 of the ESCI launched with 12 competency scales and 68 items.

Table 3.3 explains the authors' definition of the 12 ESCI competencies and the four subsuming domains that are building the foundation of the model. It is noteworthy that all but self-awareness are multi-item domains.

The ESCI instrument includes a 5-point Likert scale, ranging from 1="never" to 5="consistently" with a 6th option being "don't know". To norm the ESCI, Boyatzis et al. (2015) computed statistical tests with a sample of 5,761 self-assessments and 62,292 other assessments. When comparing the earlier version of the test, called the ECI-2.0, "others assessment" which showed an average alpha of 0.78, the ESCI since 2007 shows 0.87 on the "other assessment". Thus, the ESCI indicates improved scale reliability as well as better factor structure. These findings are also confirmed by other studies, examining the reliability of the ESCI (e.g., Nath, 2013)

Table 3.1.: Leadership competences of social and emotional intelligence

SELF-AWARENESS	**Emotional self-awareness** Leaders high in emotional self-awareness are attuned to their inner signals, recognizing how their feelings affect them and their job performance. They are attuned to their guiding values and can often intuit the best course of action, seeing the big picture in a complex situation. Emotionally self-aware leaders can be candid and authentic, able to speak openly about their emotions or with conviction about their guiding vision
SELF-MANAGEMENT	**Emotional self-control** Leaders with emotional self-control find ways to manage their disturbing emotions and impulses, and even to channel them in useful ways. A hallmark of self-control is the leader who stays calm and clear-headed under high stress or during a crisis—or who remains unflappable even when confronted by a trying situation. **Adaptability** Leaders who are adaptable can juggle multiple demands without losing their focus or energy, and are comfortable with the inevitable ambiguities of organizational life. Such leaders can be flexible in adapting to new challenges, nimble in adjusting to fluid change, and limber in their thinking in the face of new data or realities. **Achievement Orientation** Leaders with strength in achievement have high personal standards that drive them to constantly seek performance improvements—both for themselves and those they lead. They are pragmatic, setting measurable but challenging goals, and are able to calculate risk so that their goals are worthy but attainable. A hallmark of achievement is in continually learning—and teaching—ways to do better. **Positive Outlook** A leader who is optimistic can roll with the punches, seeing an opportunity rather than a threat in a setback. Such leaders see others positively, expecting the best of them. And their "glass half-full" outlook leads them to expect that changes in the future will be for the better.
SOCIAL-AWARENESS	**Empathy** Leaders with empathy are able to attune to a wide range of emotional signals, letting them sense the felt, but unspoken, emotions in a person or group. Such leaders listen attentively and can grasp the other person's perspective. Empathy makes a leader able to get along well with people of diverse backgrounds or from other cultures. **Organizational awareness** A leader with a keen social awareness can be politically astute, able to detect crucial social networks and read key power relationships. Such leaders can understand the political forces at work in an organization, as well as the guiding values and unspoken rules that operate among people there.
RELATIONSHIP MANAGEMENT	**Inspirational Leadership** Leaders who inspire both create resonance and move people with a compelling vision or shared mission. Such leaders embody what they ask of others, and are able to articulate a shared mission in a way that inspires others to follow. They offer a sense of common purpose beyond the day-to-day tasks, making work exciting. **Influence** Indicators of a leader's powers of influence range from finding just the right appeal for a given listener to knowing how to build buy-in from key people and a network of support for an initiative. Leaders adept in influence are persuasive and engaging when they address a group. **Developing others** Leaders who are adept at cultivating people's abilities show a genuine interest in those they are helping along, understanding their goals, strengths, and weaknesses. Such leaders can give timely and constructive feedback and are natural mentors or coaches. **Conflict management** Leaders who manage conflicts best are able to draw out all parties, understand the differing perspectives, and then find a common ideal that everyone can endorse. They surface the conflict, acknowledge the feelings and views of all sides, and then redirect the energy toward a shared ideal. **Teamwork and collaboration** Leaders who are able team players generate an atmosphere of friendly collegiality and are themselves models of respect, helpfulness, and cooperation. They draw others into active, enthusiastic commitment to the collective effort, and build spirit and identity. They spend time forging and cementing close relationships beyond mere work obligations.

Source: Table compiled by the author, based on Goleman et al., (2004); Goleman, (2011) and HayGroup, (2011).

All questions in the ESCI reflect behaviors that managers show in a work-related context. The assessment is considered to be invalid if 25 % or more questions are not answered or the individual provided a response of "don't know". The ESCI-questionnaire contains 68 items and for each of the items, peers, and subordinates of the manager described how frequently he or she typically demonstrated the behavior described in the item. The selected managers received an email with the login code for the assessment. They were asked to nominate at least two peers and two subordinates as their raters. It was also possible to nominate superiors as raters. Once logged in, the managers were filling out their emotional intelligence questionnaire. Through the system, they were also choosing their raters which received an email through the system with the explanation and the request to rate the person demanding feedback. Since the system is multilingual, managers could choose the German version of the ESCI. Researchers suggest that when only two or fewer raters provide data for a group or an individual this small number of raters may be inadequate for reliable feedback (Nowack and Mashihi, 2012). Therefore, only managers that had three or more raters providing feedback were chosen for the study.

Measuring subordinates' organizational commitment with the OCS

The organizational commitment of employees was assessed by the Three-Component Model developed by Meyer and Allen (1991). Their model proposes Affective (ACS), Continuance (CCS), and Normative (NCS) Commitment Scales to be three separate forms of commitment in organizations. The 5-point Likert scale of the OCS (Organizational commitment survey) ranges from 1="strongly disagree" to 5="strongly agree".

Although most of the employees speak English, it was decided to send the questionnaire in German to ensure the comprehension of every question. Therefore, the German translation of Meyer and Allen's organizational commitment scale has been chosen. Schmidt et al. (1998) developed a German questionnaire and tested the reliability of the affective, normative and continuance commitment. With a split-half reliability coefficient (according to Spearman-Brown) of $r = .92$ for AC; $r = .94$ for CC and $r = .91$ for NC and Cronbach's alpha of $\alpha = .76$ for AC and CC, and $\alpha = .79$ for NC a very similar high reliability like the original versions has been shown.

3.3.2 Measuring participants' reaction following a leadership development initiative

Following the first wave of data collection within the group of managers and subordinates feedback was provided to all participating managers to get additional insight on their view on the influence of managerial emotional intelligence on subordinates organizational commitment. In addition it was intended to understand whether managers that receive feedback about their emotional intelligence competencies through 360-degree feedback see the value in this feedback to the extent that they are more likely to engage in developing their leadership capabilities. For actual learning to occur, an individual must be motivated to learn, and trainee reactions may serve as an indicator of motivation (Lacerenza *et al.*, 2017). To investigate, what the managers' approach to the feedback is, a questionnaire has been developed. This questionnaire has been sent to the managers a week after they received their feedback regarding their self- and other-ratings of emotional intelligence. Fleenor et al. (2010) recommends to use simple indices such as comparisons of self-ratings to the mean ratings across rater groups, when giving 360-degree feedback to leaders and that in these situations, an overall index of rating agreement would be a useful indicator of whether an individual has a general tendency, for example, to under- or overestimate his or her performance.

It has been shown, that while there is an overlap between the acceptance and the perceived usefulness of others-feedback, these variables are not entirely redundant and therefore must be treated as separate dependent measures (Facteau *et al.*, 1998). According to Fowler (1995), who defined characteristics for questions in questionnaires, it is important that all participants understand what the questions mean, that the questions are consistently administered and communicated to the respondents and that it is consistently communicated to all respondents what kind of answer is wanted. Further, it is necessary to make sure that all respondents had access to the information needed to answer the question and finally, respondents need to be willing to provide the answer demanded in the question. The developed questionnaire measures four components, (1) accuracy; (2) usefulness; (3) reaction to the feedback provided to the managers and (4) the likelihood to take development actions because of the feedback.

Accuracy measures the level to which managers feel that the received feedback truly reflects their competencies. The aim is to evaluate if recipients of feedback see the feedback as too positive or too negative. Facteau et al. (1998) for example used the term acceptance instead of accuracy to measure the "extent to which leaders believed that the feedback they received was

an accurate representation of their performance" (p. 437). One example of a question measuring this part is: *"I think that the feedback of my raters is very accurate regarding my competencies"*. *Usefulness* as the second component of the model is examining the level to which the managers see the feedback to be useful for their development. Questions like *"Due to the feedback I found areas that I can improve on"* have been defined to measure this area.

The third area, *likelihood to take personal development actions,* is measuring the probability that managers that found development possibilities are taking steps to improve. This section is being evaluated with questions like *"Due to the feedback, I think that I will work on areas where I can improve"*.

The questionnaire uses a 5-point Likert scale that ranges from 1=very inaccurate to 5=very accurate for the components "accuracy", "usefulness" and "likelihood to take personal development actions".

How the managers react after receiving feedback is evaluated through the selection of a predefined mood. Positive (inspired, encouraged, informed, aware, pleased, motivated, enlightened), and negative (angry, judged, confused, examined, criticized, discouraged) emotions have been previously defined by Brett and Atwater (2001) and will be applied in the questionnaire. Scherer (2005) argued that individuals who have to describe their own feelings often have problems to come up with appropriate labels and that difficulties can arise because of different vocabulary. He further states that participants might want to answer with a term or category that is not provided and therefore should take the next best alternative or a residual category like "other" and therefore the accuracy of the data suffers (pp. 712). This is considered and therefore the developed questionnaire will distinguish between positive and negative feelings but will also provide an open category for the participants where they can additionlly describe other feelings. These feelings are then allocated to the rather positive or rather negative category. To ensure the understandability and to test the formulations, the questionnaire has been pre-tested. It has been given to managers in the human resource department and the questions have been discussed afterward. This led to certain changes in the formulation although the general understandability and unambiguity were confirmed.

3.4 Target population, sampling approach, and explanation of the data collection process

The target population for this study is managers and employees in medium and large organizations in the Austrian industry sector The Austrian chamber of commerce defines a medium organization as having up to 249 employees and the large corporation as an organization having more than 250 employees or more than 50 million of turnover. By December 2017 there were 529,693 companies in Austria registered which employ 2,382,000 employees, which is shown in Table 3.2.

Table 3.2.: Austrian enterprises and employees by divisions in 2017

	enterprises		employees	
	number	%-share	number	%-share
Crafts and trades	239,900	45,3	650,994	27,3
Industry	4,210	0,8	428,989	18
Commerce	110,691	20,9	499,041	21
Banks and insurance	801	0,2	99,526	4,2
Transport and logistics	22,535	4,3	207,673	8,7
Tourism and leisure	63,124	11,9	293,208	12,3
Information and consulting	88,432	16,7	202,57	8,5
ALL DIVISIONS	529,693	100	2,382,001	100

Source: Table compiled by the author, based on the Austrian Chamber of Commerce (2017)

Although the companies in the industry division count for only 0.8 percent of all companies in Austria, the sector employs 18 percent of total employees and must, therefore, be acknowledged as substantial for the Austrian economy. To ensure an appropriate sample for the described population an international organization in the manufacturing industry, headquartered in the West of Austria has been selected for this study. To have a representative sample, managers from different branches, geographically dispersed in Austria were asked to participate in the study. After approaching various organizations via mail and phone, it was possible to interest a large Austrian corporation for the study. The organization that has been chosen for the investigation of managers' emotional intelligence and subordinates organizational commitment is one of the biggest privately owned organizations in Austria. Founded more than one hundred years ago, it today is the worldwide market leader in their industry. They are leading in terms of quality, technology, and market share. Today the corporation has production sites as well as sales and after sales offices in over 35 countries. With that background projects in over 89

countries have been realized. Currently, the organization employs more than 2,500 employees worldwide. For this study, all Austrian sites with approximately 1,300 employees have been considered. Following the literature research, a research proposal has been sent to the HayGroup to apply for the use of their 360-degree online tool for testing the emotional intelligence of managers. The access has been granted and the log-in data for setting up the project has been provided to the author. Further, permission to use the organizational commitment survey (OCS) has been requested and granted by the authors. Scholars argue that there is a significant probability, that if someone is participating in leadership development programs against their wishes, they will not fully engage in the themes being discussed (Kirchner and Akdere, 2014). Therefore, together with the organizations' human resource department, all potential participants (managers) for the study received an information up-front and were invited to join the research study. To be able to participate, managers had to be in their current position for a minimum of one year and had to have responsibility for at least three subordinates. To convince managers to participate, it was explained, that every manager would receive personalized feedback regarding their emotional intelligence competencies, especially about the differences between their self-rating and the rating of others.

Figure 3.3 illustrates the data collection process explaining the different steps that have been done involving the participants of the studies, the human resource department of the chosen organization and the study author. As described, the human resource department of the selected organization was sending out an email to 95 managers that were all registered in their companies' internal leadership development program. There the intended study and the concept of emotional intelligence and the 360-degree feedback was explained. The sampling population for the Emotional and Social Competence Inventory (ESCI) included 32 managers (33% of all registered managers) that reported their interest in participating in the study. Managers that stated their interest received a password and a link to login into the survey platform. The participants were asked to fill out their self-rating of emotional intelligence and to name a minimum of two peers and two subordinates to provide feedback to them. Raters received an automatic invitation mail from the managers' account. To increase the feedback rate, managers were advised to inform their raters in advance that a feedback request will be sent to them. In total, the managers nominated 204 raters. The questionnaire was completed by 28 managers (87.5%) and 154 raters (75.5%).
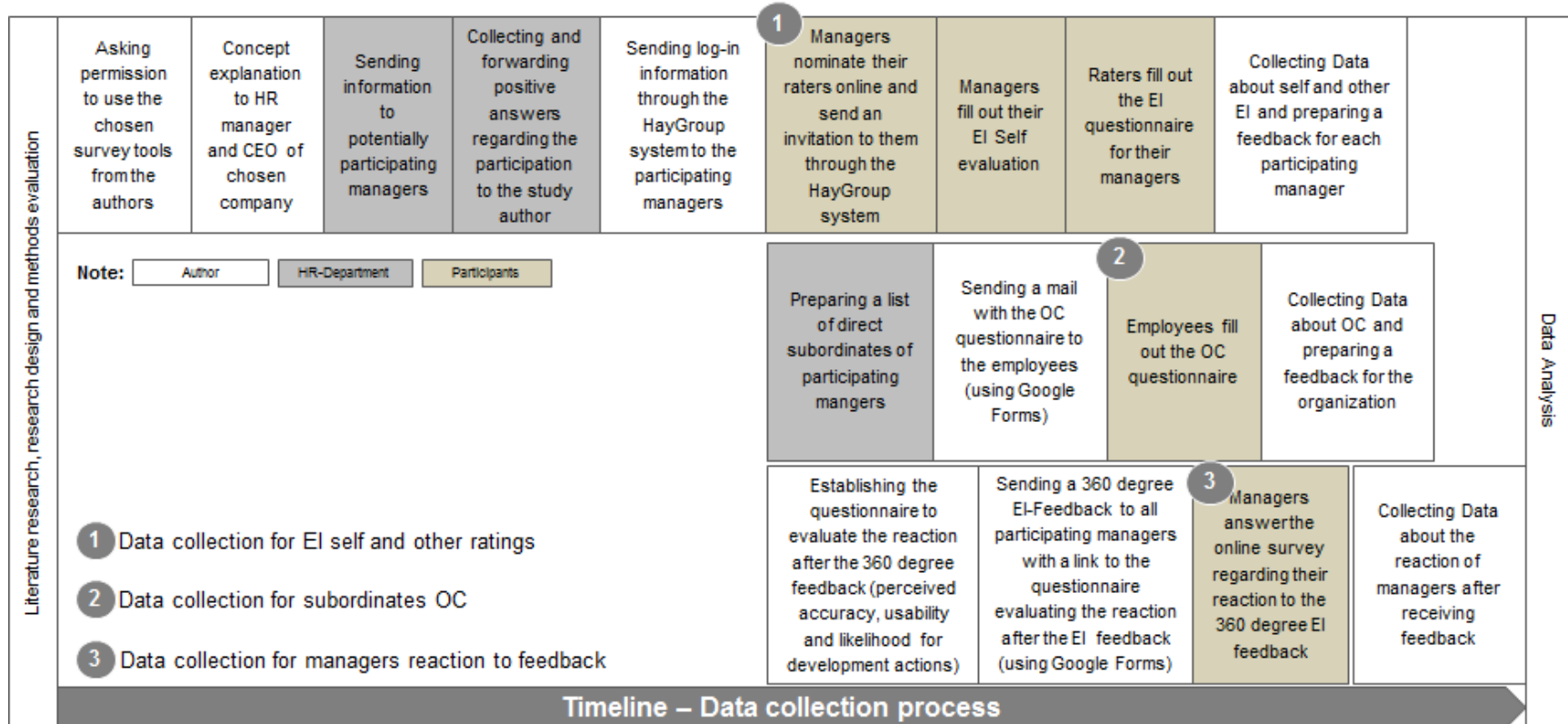
Figure 3.3.: Overview about the data collection procedure

Source: Created by the author

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Following the self- and others-rating of managers' emotional intelligence, the human resource department provided all email addresses for managers' subordinates. A questionnaire was developed based on Meyer and Allens' (1991) organizational commitment scale (OCS), and each subordinate was asked to evaluate their level of organizational commitment. To link the managers with his subordinates, each subordinate group received a separate questionnaire. The OCS questionnaire as a measure for organizational commitment was sent to 277 direct subordinates of managers with valid emotional intelligence feedback. In total 54% (149 employees) completed the OCS questionnaire.

For the third wave of data collection all 28 managers that had valid self- and others rating of their emotional intelligence competencies received personalized feedback regarding their emotional competencies with a clear differentiation between self- and other-rating. Two weeks after the feedback about their emotional intelligence competencies a link to a follow-up questionnaire was sent to those managers via e-mail. A total of 26 managers (93%) responded with valid data providing data about their perception of the feedback and the likelihood that they will take personal development actions. These managers were grouped according to the level of agreement between their self- and other-rating and their reaction, as well as the likelihood to take individual development actions, were analyzed.

4 EMPIRICAL TESTING OF THE EI/OC MODEL AND THE INFLUENCE OF FEEDBACK ON PARTICIPANTS IN LEADERSHIP DEVELOPMENT PROGRAMS

In the following chapter, the research process and the statistical procedures related to the research objectives are explained in detail. It provides the analysis and findings based on the research questions described in Chapter 3 of this thesis. The purpose of this study was to contribute original research in the area of emotional intelligence, organizational commitment, and leadership development. Especially the question, whether managers' emotional intelligence competencies influence the organizational commitment of their subordinates was sought to be answered. Further, the question, if different feedback outcomes (self- versus other-ratings) also predict different perceptions of how accurate and useful the feedback is seen by recipients has been an aim of this study.

Statistical procedures for the "EI/OC" model data analysis

The data for the analysis whether emotional competencies of managers have an influence on the organizational commitment of their subordinates has been collected electronically through mail surveys and has been analyzed with the statistical program SPSS 22.0. The emotional intelligence of managers has been rated by themselves and by peers and subordinates nominated by them. The managers have been prior instructed to nominate a minimum of four peers or subordinates that work closely with them. Following the self- and other-rating, the first results were discussed with the HR manager of the selected organization. To link managers' emotional intelligence and employees' organizational commitment, the human resource department provided a list with employees' e-mail addresses that made it possible to link the managers with valid emotional intelligence data and their direct subordinates. An invitation e-mail with a link to the questionnaire (utilizing the survey software provided by Google called "Google Forms") to evaluate the level of organizational commitment was send to them.

The emotional intelligence competencies, measured via the ESCI include a 5-point Likert scale asking the participants how often a manager is showing the behavior. It is ranging from 1= "never" to 5="consistently" with a 6th option being "don't know". The utilized scale for the ESCI is an ordinal one. Ordinal scales are used to arrange objects according to some particular

order, but they do not give information regarding the absolute magnitude of the difference between the positions (Sreejesh, Mohapatra and Anusree, 2014). In other words, ordinal variables allow to order given values but it is not possible to measure precisely the distance between the two scale points (Muijs, 2011).

To get insight about the organizational commitment of subordinates, the German translation (Schmidt et al., 1998) of the OCS by Meyer and Allen (1991) has been utilized. The scale of the OCS is also a 5-point Likert scale, ranging from 1 = "strongly disagree" to 5 = "strongly agree" and therefore, as explained above, also uses an ordinal scale.

The data regarding the self- and other-rating of emotional intelligence competencies was provided by the HayGroup after the set deadline for the data collection was met. The HayGroup provided data in an Excel format. First, all data have been recoded for the items defined in the questionnaire. Managers with fewer than three raters have been taken out from the data. Raters of participating managers were also taken out of the data set if they left more than 25% of the questions blank or answered with don't know, since than it was expected that the person probably doesn't know the manager well enough.

The responses for the OCS questionnaire have been compiled in Excel since each group of employees received a single questionnaire, depending on their direct responsible manager. After summarizing the responses for the OCS data, the first step was also to recode the items according to the prior defined score key. Since all questions in the OCS were structured to be mandatory and saving and returning the online survey with items missing was not possible, there was no need to exclude missing data before the statistical procedures.

The data from the two Excel spreadsheets (data about emotional intelligence and organizational commitment) was then transferred to SPSS where the self-ratings and averaged others rating for each of the emotional intelligence competencies for every manager was calculated. Further, the organizational commitment (distinguished between affective, normative and continuance organizational commitment) of subordinates was averaged and linked to the responsible manager.

First, descriptive statistics (mean, median, standard deviation and variance) are presented for each of the 12 competencies and four domains of the ESCI as well as for the three components of the OCS. Second, the validity and reliability of the measurement items are discussed and compared to data existing from previous studies utilizing the emotional and social competence

inventory (ESCI) and the organizational commitment scale (OCS). Cohens *d* is being calculated to show the effect size of the two measures. To test for normal distribution of data, the Kolmogorov-Smirnov test was applied, and histograms of the data were analyzed. All data were utilizing an ordinal scale. The data for the emotional intelligence competencies was normally distributed, but data for the organizational commitment was nonnormal distributed. Therefore it was decided to use Spearman's rho (instead of Pearson's r). Following, the competencies and domains of managers' emotional intelligence have been correlated with each of the components of organizational commitment using Spearman's rho to test an existing relationship. In addition, the four clustered domains of emotional intelligence have been correlated with the OC components. To receive further insight in the relation between emotional intelligence and organizational commitment, multiple regression analysis has been performed.

Statistical procedures for the "Feedback and Reaction model" data analysis

Following the self- and other-ratings of managers, utilizing the ESCI questionnaire, individual feedback for each of the 28 participating managers with valid self- and other-rating data has been created and provided to them. A questionnaire regarding the reaction to the feedback has been sent a week after feedback regarding managers' self- and other-rating of emotional intelligence has been provided to the managers. In total 26 managers (92.9%) completed the questionnaire. Since each manager received a personalized feedback and questionnaire it was possible to link them to the previous data concerning their self- and other-rating of emotional intelligence. Managers were grouped in "overraters", "underraters" and "in-agreement" regarding their self- and other-rating. Since the data for the competences of emotional intelligence were showing a normal distribution, the paired sample t-test has been applied to answer the question whether there are differences between self- and others ratings of managers' emotional intelligence. Following, Spearman's rho was computed to find whether the parameters of perceived accuracy, usefulness and likelihood to take development actions, correlate. Following it was tested, utilizing the Kruskal-Wallis Test, whether the difference between self- and other-rating, shown in the three groups of overraters, underraters, and in-agreement, also explain differences in the perceived accuracy of feedback, its usefulness and the likelihood that managers take future development actions on their own.

Demographic data

The population of the manufacturing company within this study was approximately 1,300 employees who are employed in Austria (out of 2,500 worldwide). Out of those employees 30 first, mid and senior level managers volunteered to participate in the evaluation of their emotional intelligence competencies. In total 29 managers and 155 raters (subordinates and peers of participating managers) delivered valid data about the level of the nominated managers' emotional intelligence competencies.

Table 4.1.: Demographics – Participating Managers emotional and social competence inventory (ESCI)

Gender	N	in %
Male	25	89,3%
Female	3	10,7%
Age	**N**	**in %**
25-30 years	1	3,6%
31-40 years	4	14,3%
41-50 years	10	35,7%
51-60 years	11	39,3%
over 60 years	2	7,1%
Affiliation with the company	**N**	**in %**
1-5 years	2	7,1%
6-10 years	3	10,7%
11-15 years	5	17,9%
16-20 years	3	10,7%
over 20 years	15	53,6%
Direct reports	**N**	**in %**
3-10	15	53,6%
11-20	3	10,7%
21-50	5	17,9%
51-100	2	7,1%
over 100	3	10,7%
Manager level	**N**	**in %**
First level manager	8	28,6%
Mid level manager	15	53,6%
Senior level manager	5	17,9%
Education	**N**	**in %**
High school	15	53,6%
Secondary school	7	25,0%
University degree	6	21,4%

Source: created by the author, based on the author's performed study in 2015

Additional ten raters completed the questionnaire but had to be excluded because they had just answered less than 75 percent of the questions. One manager did not receive others feedback and had to be excluded from further analyzes (but has been included in the calculation for instrument validity and reliability of the ESCI self-rating questionnaire). In general neither managers nor raters had a time limit to fill out the provided questionnaire.

Demographics for the remaining 28 managers with a valid self-rating of emotional intelligence competencies are shown in Table 4.1. The sample includes 25 male and 3 female managers. The majority of the participating managers is over 40 years old (82.1%), and over half of the managers have been with the company for over 20 years (53.6%). Since it was a requirement for the study, every manager had at least three employees that he was supervising. In total, the 28 managers participating in the study were responsible (direct and indirect) for 1,080 subordinates.

In a second step, a survey was distributed to subordinates of the 28 managers with valid self- and other-ratings. Out of 303 electronically distributed questionnaires, 149 employees reported their level of organizational commitment. Only employees that are direct subordinates of the participating managers have been chosen for the study. The demographics for the organizational commitment are shown in Table 4.2. Participants that have been completing the organizational commitment questionnaire can be distinguished due to age, education, gender and years of affiliation with the company. Out of the 149 participants, 81.9 % are male, and 18.1% are female. Participants' age is ranging from 21 to 61 years with an average of 38.3 years. The majority of employees (73.8 %) are between 25 and 50 years old. 83.2% of the population completing the organizational commitment questionnaire have been with the company for over 4 years where 26.2% are even employed for more than 20 years. On average, employees were working 7.6 years with their current superior with a minimum of 1 year and a maximum of 24 years. The majority possesses a high school diploma (74.5%) or higher university education (24.2%).

Table 4.2.: Demographics – Participants organizational commitment

Gender	N	in %
Male	122	81.9%
Female	27	18.1%
Age	**N**	**in %**
20-25 years	14	9.4%
25-30 years	31	20.8%
30-40 years	40	26.8%
40-50 years	39	26.2%
50-65 years	25	16.8%
Affiliation with the company	**N**	**in %**
1-4 years	25	16.8%
4-8 years	27	18.1%
8-12 years	25	16.8%
12-20 years	33	22.1%
20-48 years	39	26.2%
Affiliation with current manager	**N**	**in %**
1-4 years	76	51.0%
4-8 years	28	18.8%
8-12 years	8	5.4%
12-20 years	25	16.8%
20-34 years	12	8.1%
Education	**N**	**in %**
Grammar school	2	1.3%
High school	111	74.5%
University degree	32	21.5%
Higher academic degree (e.g. MBA, PhD)	4	2.7%

Source: created by the author, based on the author's performed study in 2015

Note: Affiliation with the company 1-4 years means that all participants that are 1 year to exactly 4 years affiliated with the company are included in the data; affiliation with the company for 4 years and 1 month is included in the group 4-8 years etc.

4.1 Descriptive statistics of emotional intelligence competencies and domains

Means, standard deviations, and variance have been calculated for the twelve emotional intelligence competencies and the four domains of emotional intelligence. Table 4.3 and 4.4 show the data for means and standard deviations of the emotional intelligence competencies, first for the self, second for the other-rating. The competencies of emotional intelligence were assessed by using a 5-point Likert scale ranging from 1="never" to 5="consistently" indicating

how frequent managers are displaying certain behaviors. The means for the self-rating of emotional intelligence competencies range from 3.58 to 4.21 and from 3.58 to 4.23 for the others-rating. The standard deviation ranges from .33 to .53 for the self-rating and from .56 to .70 for the others rating.

Table 4.3.: Main indicators of descriptive statistics for emotional intelligence competencies – self rating

Cluster	Competency Scale	N	Mean	SD	Var
Self-awareness	Emotional Self Awareness_S	28	3,77	,48	,23
Self-management	Achievement Orientation_S	28	4,00	,43	,18
	Adaptability_S	28	3,95	,40	,16
	Emotional Self Control_S	28	3,99	,40	,16
	Positive Outlook_S	28	4,19	,41	,17
Social awareness	Empathy_S	28	3,87	,35	,12
	Organizational Awareness_S	28	3,99	,41	,16
Relationship management	Conflict Management_S	28	3,87	,46	,21
	Coach and Mentor_S	28	3,73	,53	,28
	Inspirational Leadership_S	28	3,58	,48	,23
	Influence_S	28	3,62	,43	,19
	Teamwork_S	28	4,21	,33	,11

Note: _S = self-rating

Source: created by the author, based on the author's performed study in 2015

Table 4.4.: Main indicators of descriptive statistics for emotional intelligence competencies – others rating

Cluster	Competency Scale	N	Mean	SD	Var
Self-awareness	Emotional Self Awareness_O	155	3,58	,64	,41
Self-management	Achievement Orientation_O	155	4,23	,59	,34
	Adaptability_O	155	4,01	,56	,32
	Emotional Self Control_O	155	3,99	,69	,48
	Positive Outlook_O	155	4,05	,61	,37
Social awareness	Empathy_O	155	3,73	,61	,38
	Organizational Awareness_O	155	4,11	,57	,32
Relationship management	Conflict Management_O	155	3,80	,69	,47
	Coach and Mentor_O	155	3,90	,70	,49
	Inspirational Leadership_O	155	3,63	,68	,46
	Influence_O	155	3,65	,60	,35
	Teamwork_O	155	4,11	,60	,36

Note: _O = others-rating

Source: created by the author, based on the author's performed study in 2015

The means and standard deviations of the competencies have been compared to data already available in prior studies. For the evaluation of the ESCI competencies, the HayGroup (2011) subsumed studies including 4,014 participants and 42,092 raters from 272 organizations to validate measurement instrument. Means in this meta-analysis have been presented to range from 3.79 (self-awareness) to 4.29 (achievement orientation) for the self-ratings, with standard deviations ranging from .44 (teamwork) to .58 (coach and mentor). For the others-rating, the means range from 3.72 (self-awareness) to 4.25 (organizational awareness) with standard deviations from .31 (organizational awareness) to .44 (coach and mentor). Table 4.5 shows the data in detail for all 12 competencies. Both sets of date assessed the items by using a 5-point Likert scale ranging from 1="never" to 5="consistently".

The mean self-rating overall competencies is 3.90 for the actual study compared to 4.03 in the previous studies performed by the HayGroup. For the others rating, the mean is also 3.90 for the actual study compared to 4.04 for the data in the earlier studies. This shows that the mean data in the actual study is aligned with the data conducted in previous research. In addition, the standard deviation as a measure of the spread of the values around the mean is shown in Table 4.5. What is noticeable, is that the standard deviation in the empirical data of this study for the other-ratings is lower than in previous studies, indicating that the data points tend to be closer to the mean.

Table 4.5.: Comparison of means and standard deviation of emotional intelligence with previous research

Competency Scale	Self* (n=28)		Self** (n=4,014)		Other* (n=155)		Other**(n=42,092)	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Emotional Self Awareness	3.77	.48	3,79	.52	3.58	.64	3.72	.34
Achievement Orientation	4.00	.43	4,29	.49	4.23	.59	4.28	.33
Adaptability	3.95	.4	4,09	.45	4.01	.56	4.10	.32
Emotional Self Control	3.99	.4	3,94	.54	3.99	.69	4.15	.41
Positive Outlook	4.19	.41	4,15	.51	4.05	.61	4.15	.34
Empathy	3.87	.35	3,95	.45	3.73	.61	3.92	.36
Organizational Awareness	3.99	.41	4,19	.47	4.11	.57	4.25	.31
Conflict Management	3.87	.46	3,86	.47	3.80	.69	3.88	.33
Coach and Mentor	3.73	.53	4,02	.58	3.90	.70	3.97	.44
Inspirational Leadership	3.58	.48	3,94	.54	3.63	.68	3.94	.43
Influence	3.62	.43	3,89	.49	3.65	.60	3.91	.36
Teamwork	4.21	.33	4,27	.44	4.11	.60	4.23	.37

Note: *Author's own statistical data of performed study; **Subsumed data HayGroup (2011)

Source: created by the author, based on the author's performed study in 2015 and data from the Hay Group

The twelve competencies of emotional intelligence have been subsumed into four domains. Descriptive statistics for these four domains of emotional intelligence, distinguished between self- and other-rating, are presented in Table 4.6. The domain of Self-Management shows the highest mean value for the self-rating (M = 4.03; SD = .25) as well as in the case of others-rating (M = 4.09; SD = .055).

Table 4.6.: Main indicators of descriptive statistics for emotional intelligence – Self and other-rating

	N	Mean	SD	Var
Self Awareness_Self	28	3.771	.4791	.230
Self Management_Self	28	4.030	.2500	.063
Social Awareness_Self	28	3.932	.3244	.105
Relationship Management_Self	28	3.800	.3354	.113
Self Awareness_Other	28	3.562	.3188	.102
Self Management_Other	28	4.093	.2339	.055
Social Awareness_Other	28	3.921	.2775	.077
Relationship Management_Other	28	3.841	.3356	.113

Source: created by the author, based on own empirical research results

Testing the data of emotional intelligence competencies and domains for normal distribution

To select the appropriate statistical procedure as an initial step the normal distribution of data has to be analyzed which was performed using the Kolmogorov-Smirnov-Test with a set p-value of .05. The tables for all competencies and domains of emotional intelligence as rated by managers themselves, and rated by others are displayed in the Appendix. It can be noticed that all competencies of emotional intelligence as rated by the managers themselves are normally distributed. The only exception is the value for adaptability which with a significance level of .009 suggests to be not normally distributed.

Also, the distribution of data for managers' emotional intelligence rated by others indicates that all p values of the competencies are above .05 which suggests a normal distribution. It is

important to mention that, due to reliability, usually the data of others-rating in 360-degree feedbacks is used for further analysis which will also be the case in this thesis.

As previously explained, the twelve competencies of emotional intelligence are subsumed in four domains. The data for these four domains of emotional intelligence has also been tested for normal distribution. The significance level of all four domains, for self- and other-rating is above .05. Therefore it can be concluded that the data for all domains of emotional intelligence are normally distributed.

In addition to testing the normal distribution of date utilizing the Kolmogorov-Smirnov-Test, the histograms of values for emotional intelligence domains are shown in the Appendix. In conclusion, only adaptability as rated by managers themselves, with a p-value of .009 is indicating a non-normal distribution. Since all other competencies and all other domains of emotional intelligence are normally distributed and for better comparability of data, statistical measures for normally distributed data are approached when performing a statistical analysis comparing the self- and other-rating values on emotional intelligence.

4.2 Descriptive statistics for the organizational commitment scales

In Table 4.7. the means and standard deviations of the three components of organizational commitment are shown. The items of organizational commitment were assessed on a 5-point Likert scale ranging from 1="strongly disagree" to 5="strongly agree".

The mean value is 3.88 for affective commitment (AC), 3.04 for continuance commitment (CC) and 2.93 for normative commitment (NC). This indicates that the mean value for affective organizational commitment is the highest between the three commitment scales. This suggests that employees in the organization generally have a high affective organizational commitment and therefore stay with the company because they want to (affective commitment) and not so much because they need to (continuance commitment) or feel obliged to stay (normative commitment). The standard deviation as a measure of dispersion shows how much the data spread out about the mean. For the data regarding organizational commitment, the standard deviation ranges from .59 for AC, .70 for NC to .76 for CC showing that the data are concentrated around the mean.

Table 4.7.: Main indicators of descriptive statistics for the organizational commitment scales

	N	Mean	Median	Std. Deviation	Variance
Affective Commitment	149	3.880	4	.5863	.344
Continuance Commitment	149	3.037	3	.7608	.579
Normative Commitment	149	2.934	3	.7011	.492
Valid N (listwise)	149				

Source: created by the author, based on own empirical research results, evaluation scale 1-5

As for the emotional intelligence competencies and domains, also for the domains of organizational commitment, initially the normal distribution of data has been analyzed. This has been done by computing the Kolmogorov-Smirnov-Test for all three domains of organizational commitment which are shown in Table 4.8. The statistics indicate, that only data for continuance commitment, with a p value above .05 is normally distributed but data for affective commitment (p= .002), normative commitment (p= .044), and total organizational commitment (p= .000) are not normally distributed.

Table 4.8: Testing the normal distribution of organizational commitment domains for each subordinate

One-Sample Kolmogorov-Smirnov Test

		Affective Commitment	Continuance Commitment	Normative Commitment	Total Organizational Commitment
N		149	149	149	149
Normal Parameters[a,b]	Mean	3.88087	3.03775	2.93456	3.2844
	Std. Deviation	.586362	.760860	.701197	.54509
Most Extreme Differences	Absolute	.096	.066	.074	.106
	Positive	.057	.066	.068	.059
	Negative	-.096	-.050	-.074	-.106
Test Statistic		.096	.066	.074	.106
Asymp. Sig. (2-tailed)		.002[c]	.200[c,d]	.044[c]	.000[c]

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

d. This is a lower bound of the true significance.

Source: created by the author, based on own empirical research results

This statement is also supported when looking at the histograms for affective, normative, continuance and total organizational commitment, illustrated in Appendix F. As it is also noticeable in the histograms, the mean value for affective organizational commitment (AC) is

3.9 with most of the values being between three and five, suggesting that subordinates generally have a high affective commitment towards their organization with the most frequent value being above four (with items measured on a Likert scale from 1 to 5). The mean value for continuance commitment (CC) is at 3.0 and for normative commitment (NC) at 2.9 indicating that both forms of organizational commitment, between the groups of employees, are less developed compared to affective organizational commitment.

Influence of gender, age, years with the company and years spend with the current managers on organizational commitment

Figure 4.1 shows the different means for affective, continuance and normative organizational commitment distinguished by gender. The items of organizational commitment were assessed on a 5-point Likert scale ranging from 1="strongly disagree" to 5="strongly agree". No difference in normative commitment is noticeable, but the data indicates that female participants show a higher affective and continuance commitment than their male colleagues.
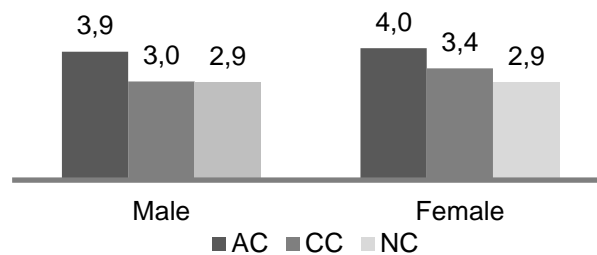
Figure 4.1: Arithmetic means of evaluations on affective, continuance and normative commitment distinguished by male and female participants

Source: created by the author, based on own empirical research results (n= 149), evaluation scale 1-5

Figure 4.2 shows an interesting finding, indicating that all types of organizational commitment (affective, continuance and normative commitment) increase with employees' age. Especially the average rating for affective organizational commitment increases significantly with age, being 3.5 in the group of 20 to 25-year-old and 4.2 (out of the maximum value of 5) in the group of 50-65-year-old employees.
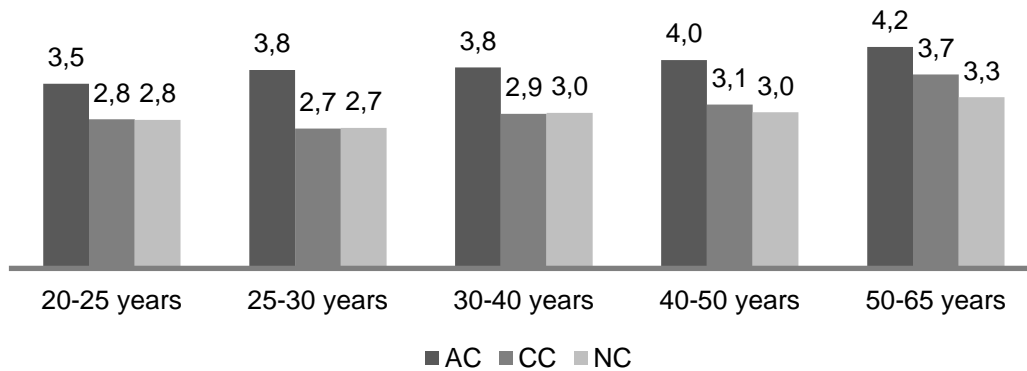
Figure 4.2: Arithmetic means of evaluations on affective, continuance and normative commitment differentiated by the participants' age

Source: created by the author, based on own empirical research results (n=149), evaluation scale 1-5

Comparing the mean values for organizational commitment regarding the year's employees are affiliated with the company as shown in Figure 4.3, it can be noticed that although employees are highly committed when entering the organization, the commitment is decreasing slightly with longer affiliation with the organization. An increase is noted for the group of participants having 12 and more years of affiliation with the company. It must be noted that the group of employees that are with the company for more than 20 years have the highest level of organizational commitment in all three forms of OC.
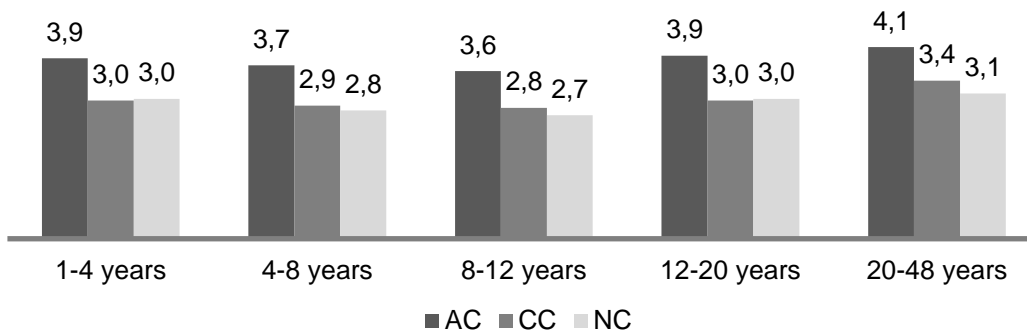
Figure 4.3: Arithmetic means of evaluations on affective, continuance and normative commitment considering the affiliation with the company

Source: created by the author, based on own empirical research results (n=149), evaluation scale 1-5

Correlation analyses utilizing Spearman's rho are presented in Table 4.9., revealing a significant positive correlation (.278, .373, .220) between the age of employees with all three forms of organizational commitment at a p-value of .01.

Table 4.9.: Analyzing the influence of subordinates age, years in the organization and years of collaboration with the current manager with their affective, continuance and normative organizational commitment

			Age	Years in Organization	Years of collaboration with present manager	Affective Comm.	Continuance Comm.	Normative Comm.
Spearman's rho	Age	Correlation Coefficient	1.000	.687**	.510**	.278**	.373**	.220**
		Sig. (2-tailed)	.	.000	.000	.001	.000	.007
		N	149	149	149	149	149	149
	Years in Organization	Correlation Coefficient	.687**	1.000	.668**	.217**	.225**	.135
		Sig. (2-tailed)	.000	.	.000	.008	.006	.100
		N	149	149	149	149	149	149
	Years of collaboration with present manager	Correlation Coefficient	.510**	.668**	1.000	.074	.126	.084
		Sig. (2-tailed)	.000	.000	.	.369	.124	.310
		N	149	149	149	149	149	149
	Affective Commitment	Correlation Coefficient	.278**	.217**	.074	1.000	.373**	.474**
		Sig. (2-tailed)	.001	.008	.369	.	.000	.000
		N	149	149	149	149	149	149
	Continuance Commitment	Correlation Coefficient	.373**	.225**	.126	.373**	1.000	.475**
		Sig. (2-tailed)	.000	.006	.124	.000	.	.000
		N	149	149	149	149	149	149
	Normative Commitment	Correlation Coefficient	.220**	.135	.084	.474**	.475**	1.000
		Sig. (2-tailed)	.007	.100	.310	.000	.000	.
		N	149	149	149	149	149	149

**. Correlation is significant at the 0.01 level (2-tailed).

Source: created by the author, based on the author's performed study in 2015

Furthermore the years employees are in the organization correlate significantly positive with affective commitment (r= .217, p < .01) and continuance commitment (r= .225, p = 0.1) but not with normative commitment. Interestingly, the number of year's employees have been working with their present managers shows to not affect their organizational commitment. This could be due to the fact that relationships between leaders and followers are building early in the collaboration. Naturally, relationships between individuals might change over time, but often in professional situations assumptions about others are set and difficult to change.

The findings derived from the empirical data is in accordance with results that are reported in the academic literature (Abdullah & Ramay, 2012). The age of employees, as well as the year's employees, have been with the organization are influencing the organizational commitment of these employees meaning the longer employees stay with a company the higher, in general, their level of organizational commitment will be.

4.3   Assessment of construct validity and reliability

Validity and reliability of instrument scores lead to a meaningful interpretation of data, where validity is a process that allows us to link sample data to an entire population and to show the ability of a scale or a measuring instrument to measure what it is intended to measure (Creswell, 2014). Since it is often not possible to measure concepts directly, instruments that are being used must be tested in regard to their validity and reliability. Thus, the analysis of validity is helping to answer the question of whether the measures used are measuring what they are intended to measure (Muijs, 2011). When testing the validity of data, the difference between internal and external validity must be made. Internal validity refers to the interpretation of the data as they allow the researcher to draw a cause-and-effect relationship. External validity refers to generalizing the results to the target population and consists of two parts, the generality of findings and the generality of conclusions (Weathington, Cunningham and Pittenger, 2012). Researchers have to be alert to threats regarding internal and extern validity. Creswell (2014) argues that internal validity threats can arise from experimental procedures, treatments, or experiences of the participants that threaten the researcher's ability to draw correct conclusions from the data about the general population in an experiment. On the other side, threats of external validity arise when researchers draw incorrect inferences from sample data to other

persons and settings, and past or future situations. Schmitt (1996) argues that the application of the Cronbach alpha (or coefficient alpha) as an indicator of the internal consistency or reliability of psychological measures has become standard in social and psychological studies and that the usually used α-value to consider a scale internally consistent is .70.

Measuring instruments are considered to be reliable if the outcome of a measuring process is reproducible an the scales provide stable measures at different times and conditions (Sreejesh, Mohapatra and Anusree, 2014). The two main instruments used in this research (the OCS and the ESCI) have demonstrated adequate reliability in numerous studies which have been described in chapter 3. To validate previous research, Cronbach's alpha was calculated for both instruments.

Table 4.10 provides the calculated Cronbach's alpha for all twelve competencies of emotional intelligence for self- and other-ratings. The total other-ratings show similar high alpha levels as the previously computed data, ranging from .793 for inspirational leadership up to .903 for emotional self-control. All the competencies show an alpha level over .7. The alpha for other-rating is higher in every competence of emotional intelligence.

Table 4.10.: Cronbach's alpha for each competency of emotional intelligence

ESCI Competencies	Number of Items	N Self	α Self	N Others	α Other
Emotional Self Awareness	6	29	.649	155	.802
Achievement Orientation	6	29	.363	155	.892
Adaptability	6	29	.668	155	.833
Emotional Self-Control	6	29	.708	155	.903
Positive Outlook	6	29	.699	155	.867
Empathy	5	29	.398	155	.822
Organizational Awareness	5	29	.614	155	.827
Coach and Mentor	6	29	.864	155	.888
Conflict Management	5	29	.705	155	.816
Influence	6	29	.608	155	.796
Inspirational Leadership	5	29	.665	155	.793
Teamwork	6	29	.592	155	.821

Source: created by the author, based on own empirical research results

Boyatzis et al. (2015) with a sample of 5,761 self-assessments and 62,292 other assessments computed statistical tests which showed an average alpha of 0.87 on the other-rating. These calculated Cronbach's alpha is shown for each scale in Table 4.11. As with the data compiled in this study, each competency has a higher alpha value for others rating and all competencies value of alpha is above the suggested value of .70.

Table. 4.11.: Comparing the Cronbach's alpha for each competency with previous studies

	ESCI	
	Self	Other
Emotional self-awareness	.754 (5,534)	.827 (42,215)
Emotional self-control	.854 (5,664)	.910 (56,713)
Achievement orientation	.800 (5,668)	.861 (47,975)
Adaptability	.720 (5,573)	.845 (53,875)
Positive outlook	.829 (5,641)	.883 (54,598)
Empathy	.708 (5,638)	.856 (52,138)
Organizational awareness	.786 (5,579)	.861 (54,475)
Influence	.721 (5,606)	.835 (50,702)
Teamwork	.771 (5,668)	.886 (58,911)
Coach and mentor	.856 (5,546)	.920 (48,744)
Conflict management	.682 (5,607)	.785 (51,948)
Inspirational leadership	.897 (5,221)	.887 (51,199)

Source: Created by the author, based on Boyatzis et al. (2015). Emotional and Social Intelligence and Behavior

Nickerson (2000) recommends that the effect size should be standardly reported either along or instead of the results of statistical significance tests and that the most straightforward connotation of the effect size is that of the magnitude of some measure, such as the size of the difference of two means. For calculating the effect size, Cohen's *d* is one widely used indicant of effect size, showing the difference between means divided by the pooled within-group standard deviation. In other words, the effect size equals the difference between the two groups, divided by the standard deviation of the combined groups. Table 4.12 shows the calculated Cohen's d for all four domains of the ESCI. It is notable that the effect size for the mean differences between self and others rating of the emotional intelligence domains is only small, with social awareness and relationship management near zero.

Table 4.12.: Utilizing Cohens *d* to analyze the difference between self and other-ratings in the four domains of the Emotional and Social Competence Inventory

	Mean Self	Mean Other	SD Self	SD Other	Cohens d	Effect
Self Awareness	3.77	3.62	.48	.34	.34	small positive effect
Self Management	4.03	4.09	.25	.25	-.24	small negative effect
Social Awareness	3.93	3.90	.32	.27	.10	0 or near zero effect
Relationship Management	3.80	3.84	.34	.33	-.12	0 or near zero effect

Source: created by the author, based on own empirical research results

Table 4.13 shows the Cronbach alpha for the original version of the organizational commitment survey (Allen and Meyer, 1990) as well as for the following German translation (Schmidt, Hollmann and Sodenkamp, 1998) and the calculated data from this study. All alpha values show to be above .70 which indicate the validity of data in the empirical data of this dissertation and also in data of previous research using the organizational commitment scale (OCS) as a test for employees organizational commitment.

Table 4.13.: Comparison of Cronbach's alpha values for each organizational commitment scale with previous studies

Affective Commitment Scale	Continuance Commitment Scale	Normative Commtiment Scale	Reference/Sample
.87	.75	.79	Allen & Meyer (1990) - Sample 1
.86	.82	.73	Allen & Meyer (1990) - Sample 2
.76	.76	.79	Schmidt et al. (1998)
.77	.81	.83	Calculated data actual study

Source: created by the author, based on own empirical research results

Allen and Meyer (1996) in a meta-analysis further examined the construct validity of the three-component view on organizational commitment. With 40 employee samples, representing over 16,000 individuals from different organizations the internal consistency has been calculated, using the coefficient alpha. The median reliabilities for the affective, continuance and normative commitment scale are .85, .79, and .73, respectively. With very few exceptions all reliability estimates exceeded .70. Very similar results have been found in this study. Cronbach alphas of .77 for affective commitment, .81 for continuance commitment and .83 for normative

commitment have been calculated. This data indicates that the dataset of the carried out study can be seen as internal reliable.

4.4 Interpretation of the research results and testing of postulated cause-effect relationships

The main thesis stated: *Managers emotional intelligence competencies have a positive effect on the organizational commitment of their subordinates*.

Based on the theoretic insight a cause-effect relationship between the independent variables of emotional intelligence competencies and the dependent variable organizational commitment is postulated. Throughout the next pages, the proposed sub-hypotheses will be addressed.

SH 1: The use of a 360-degree feedback model to evaluate managerial emotional intelligence will disclose differences between managers self- and other rating.

According to sub-hypothesis 1, the data analyses aimed to investigate whether differences between the self-rating of managers and the rating they received from others exist. For that reason, the mean average others-rating from peers and subordinates was compared to the self-ratings utilizing the paired sample t-test for parametric independent variables. As stated by Church (1997) "research has demonstrated that averaged ratings are more reliable and therefore better indicators of the behavior being rated than any single assessment" (p. 285). In accordance, the other-ratings from peers and direct reports in the ESCI were averaged by each competency for each manager. The item scales have been utilizing an ordinal scale and data is normally distributed, except one competence (achievement orientation) as rated by the managers themselves. Due to comparability and the fact that all the rest of the data is normally distributed the paired sample t-test has been applied (compared to the alternative of the Mann-Whitney U-Test). The t-test has been computed for all competencies of emotional intelligence which is shown in Table 4.14a and 4.14b.

Table 4.14a.: Paired sample correlations for self- and other-rating of emotional intelligence competencies

		N	Correlation	Sig.
Pair 1	Emotional Self Awareness_Self & Emotional Self Awareness_Other	28	.215	.271
Pair 2	Achievement Orientation_Self & Achievement Orientation_Other	28	.125	.525
Pair 3	Adaptability_Self & Adaptability_Other	28	.070	.723
Pair 4	Emotional Self Control_Self & Emotional Self Control_Other	28	.612	.001
Pair 5	Positive Outlook_Self & Positive Outlook_Other	28	.193	.325
Pair 6	Empathy_Self & Empathy_Other	28	.298	.124
Pair 7	Organizational Awareness_Self & Organizational Awareness_Other	28	.295	.128
Pair 8	Conflict Management_Self & Conflict Management_Other	28	.342	.075
Pair 9	Coach and Mentor_Self & Coach and Mentor_Other	28	.351	.067
Pair 10	Inspirational Leadership_Self & Inspirational Leadership_Other	28	.332	.085
Pair 11	Influence_Self & Influence_Other	28	.079	.690
Pair 12	Teamwork_Self & Teamwork_Other	28	.461	.014

Note: Pearson - Paired sample correlations

Table 4.14b.: Paired sample t-test for self- and other-rating of emotional intelligence competencies

		Paired Differences							
		Mean	Deviation	Error Mean	95% Confidence Lower	95% Confidence Upper	t	df	Sig. (2-tailed)
Pair 1	Emotional Self Awareness_Self - Emotional Self Awareness_Other	.2093	.5151	.0974	.0096	.4091	2.150	27	.041
Pair 2	Achievement Orientation_Self - Achievement Orientation_Other	-.2510	.4776	.0903	-.4362	-.0658	-2.781	27	.010
Pair 3	Adaptability_Self - Adaptability_Other	-.0550	.4665	.0882	-.2359	.1259	-.624	27	.538
Pair 4	Emotional Self Control_Self - Emotional Self Control_Other	-.0604	.3535	.0668	-.1975	.0767	-.904	27	.374
Pair 5	Positive Outlook_Self - Positive Outlook_Other	.1172	.4863	.0919	-.0713	.3058	1.276	27	.213
Pair 6	Empathy_Self - Empathy_Other	.1321	.4188	.0791	-.0303	.2945	1.669	27	.107
Pair 7	Organizational Awareness_Self - Organizational Awareness_Other	-.1091	.4140	.0782	-.2696	.0515	-1.394	27	.175
Pair 8	Conflict Management_Self - Conflict Management_Other	.0584	.4875	.0921	-.1306	.2475	.634	27	.531
Pair 9	Coach and Mentor_Self - Coach and Mentor_Other	-.2278	.5245	.0991	-.4311	-.0244	-2.298	27	.030
Pair 10	Inspirational Leadership_Self - Inspirational Leadership_Other	-.0838	.5061	.0956	-.2801	.1124	-.876	27	.389
Pair 11	Influence_Self - Influence_Other	-.0463	.5596	.1058	-.2633	.1707	-.438	27	.665
Pair 12	Teamwork_Self - Teamwork_Other	.0947	.3505	.0662	-.0412	.2306	1.430	27	.164

Note: Paired sample t-Test

Source: created by the author, based on own empirical research results

The results support the sub-hypothesis SH1, indicate that within three out of twelve competencies, namely Emotional Self Awareness, Achievement Orientation, and Coach and Mentor the significance levels is below the set p-value of .05. It must, therefore, be argued that there is a significant difference between the self- and other-rating of the investigated managers'

emotional intelligence. Since the self- and others-rating of managers' emotional intelligence differentiates, it was decided to use data from the other-rating for further analysis. Due to the large number of other-raters, the data can be seen as more objective and reliable than with self-ratings alone. This is also common understanding in current literature and therefore the correlation of managers' emotional intelligence and subordinates organizational commitment, which is analyzed in the following paragraph is based on rating data from other raters rather than from managers self-rating.

SH 2:   Certain competencies regarding managers' emotional intelligence, have a significant impact on the organizational commitment of their subordinates

The results of correlational and regression analyses provide support for sub-hypothesis 2. In Table 4.15 the correlation between the emotional competencies of managers, as evaluated by others, and the affective, normative, continuance and total organizational commitment of their subordinates are illustrated.

Three of the twelve competencies of emotional intelligence, Achievement Orientation ($r = .194$, $p < .05$), Emotional Self Control ($r = .313$, $p < .05$) and Empathy ($r = .286$, $p < .01$) correlate significantly with total organizational commitment. Affective Organizational commitment (AC) is correlating with four EI competencies, namely Emotional Self Awareness ($r = .171$, $p < .05$), Achievement Orientation ($r = .191$, $p < .05$), Emotional Self Control ($r = .250$, $p < .01$) and Empathy ($r = .202$, $p < .05$). Continuance organizational commitment (CC) is also shown to be influenced positively with three competencies of emotional intelligence namely Achievement Orientation ($r = .177$, $p < .05$), Emotional Self Control ($r = .286$, $p < .01$) and Empathy ($r = .222$, $p < .01$) and negatively from Organizational Awareness ($-.176$, $p < .05$). Normative Organizational Commitment (NC) is positively influenced by Emotional Self Control ($.185$, $p < .05$) and Empathy ($.220$, $p < 0.1$). At this point is has to be acknowledged that managers emotional Self Control and Empathy are positively correlated with all three forms of employees organizational commitment.

Table 4.15.: Impact of managers' emotional intelligence competencies on the organizational commitment of their subordinates

			Affective Commitment	Continuance Commitment	Normative Commitment	Total Organizational Commitment
Spearman's rho	Emotional Self Awareness_O	Correlation Coefficient	.171*	.059	.142	.154
		Sig. (2-tailed)	.037	.473	.084	.061
		N	149	149	149	149
	Achievement Orientation_O	Correlation Coefficient	.191*	.177*	.120	.194*
		Sig. (2-tailed)	.020	.031	.145	.018
		N	149	149	149	149
	Adaptability_O	Correlation Coefficient	-.040	-.062	-.034	-.042
		Sig. (2-tailed)	.624	.455	.685	.615
		N	149	149	149	149
	Emotional Self Control_O	Correlation Coefficient	.250**	.286**	.185*	.313**
		Sig. (2-tailed)	.002	.000	.024	.000
		N	149	149	149	149
	Positive Outlook_O	Correlation Coefficient	.119	-.026	.031	.050
		Sig. (2-tailed)	.149	.751	.708	.543
		N	149	149	149	149
	Empathy_O	Correlation Coefficient	.202*	.222**	.220**	.286**
		Sig. (2-tailed)	.013	.007	.007	.000
		N	149	149	149	149
	Organizational Awareness_O	Correlation Coefficient	-.107	-.176*	-.118	-.153
		Sig. (2-tailed)	.195	.032	.152	.063
		N	149	149	149	149
	Conflict Management_O	Correlation Coefficient	.102	.107	.105	.120
		Sig. (2-tailed)	.214	.194	.203	.145
		N	149	149	149	149
	Coach and Mentor_O	Correlation Coefficient	.096	.116	.112	.140
		Sig. (2-tailed)	.243	.159	.172	.089
		N	149	149	149	149
	Inspirational Leadership_O	Correlation Coefficient	.086	.016	.010	.044
		Sig. (2-tailed)	.299	.847	.906	.593
		N	149	149	149	149
	Influence_O	Correlation Coefficient	.102	.075	.040	.068
		Sig. (2-tailed)	.216	.363	.630	.411
		N	149	149	149	149
	Teamwork_O	Correlation Coefficient	.079	.080	.070	.104
		Sig. (2-tailed)	.337	.334	.399	.205
		N	149	149	149	149

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Source: created by the author, based on own empirical research results

The twelve competencies have been subsumed into the four domains of emotional intelligence, self-awareness, self-management, social awareness and relationship management. Correlating these domains with the three forms of organizational commitment indicate that only self-awareness and self-management are positively correlated to affective organizational commitment which is shown in Table 4.16. Only the domain of self-management (consisting of the competencies emotional self-control, adaptability, achievement orientation, and positive outlook) is shown to significantly positive correlate with employees' total organizational commitment.

Table 4.16.: Correlation of managers' emotional intelligence domains with the organizational commitment of their subordinates

			Affective Commitment	Continuance Commitment	Normative Commitment	Total Organizational Commitment
Spearman's rho	Self Awareness_O	Correlation Coefficient	.171*	.059	.142	.154
		Sig. (2-tailed)	.037	.473	.084	.061
		N	149	149	149	149
	Self Management_O	Correlation Coefficient	.214*	.156	.117	.214*
		Sig. (2-tailed)	.009	.058	.154	.009
		N	149	149	149	149
	Social Awareness_O	Correlation Coefficient	.113	.082	.119	.148
		Sig. (2-tailed)	.170	.323	.148	.072
		N	149	149	149	149
	Relationship Management_O	Correlation Coefficient	.119	.099	.107	.130
		Sig. (2-tailed)	.149	.229	.195	.115
		N	149	149	149	149

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Source: created by the author, based on own empirical research results

The three components of the organizational commitment scales (OCS), the affective commitment (AC), continuance commitment (CC), and normative commitment (NC) have been correlated utilizing the Spearman's correlation coefficient to investigate whether all three types of organizational commitment are interrelated. Table 4.17 shows the correlation of these three commitment scales, indicating a strong positive correlation between affective and continuance

commitment (r = .373, p < .01), affective and normative commitment (r = .474, p < .01) and continuance with normative commitment (r = .375, p < .01). Meyer and Allen (1993) pointed out that the nature of the psychological state of each form of commitment is quite different and that "employees with a strong affective commitment remain with the organization because they want to, those with a strong continuance commitment remain because they need to, and those with a strong normative commitment because they feel they ought to do so" (p. 59). Nevertheless, data gathered in the present study show that although the three forms of commitment might be different, they do correlate significantly positive with each other.

Table 4.17.: Correlation between the three commitment scales

			Affective Commitment	Continuance Commitment	Normative Commitment
Spearman's rho	Affective Commitment	Correlation Coefficient	1.000	.373**	.474**
		Sig. (2-tailed)	.	.000	.000
		N	149	149	149
	Continuance Commitment	Correlation Coefficient	.373**	1.000	.475**
		Sig. (2-tailed)	.000	.	.000
		N	149	149	149
	Normative Commitment	Correlation Coefficient	.474**	.475**	1.000
		Sig. (2-tailed)	.000	.000	.
		N	149	149	149

**. Correlation is significant at the 0.01 level (2-tailed).

Source: created by the author, based on own empirical research results

Multivariate regression of emotional intelligence and organizational commitment

To further explore the relationship between manager's emotional intelligence and subordinate organizational commitment, multivariate regression was performed using the twelve competencies of manager's emotional intelligence as independent variables and total subordinate organizational commitment as the dependent variable. Table 4.18 shows the multiple linear regression model summary and overall statistics. The adjusted R^2 in the model

is .160 which means that the linear regression explains 16.0 percent of the variance of total subordinate organizational commitment. The Durbin-Watson d = 1.902 which is between the two critical values of $1.5 < d < 2.5$. Therefore, it can be assumed that there is no first order linear auto-correlation in the multiple linear regression data. Next, the linear regression's F-test has been performed. The F-test has the null hypothesis that the model explains zero variance in the dependent variable (in other words $R^2 = 0$). The F-test is highly significant. Thus it can be stated that the model explains a significant amount of the variance in the total organizational commitment of subordinates. Although the correlational analysis, utilizing Spearman's rho indicated three competencies of managers emotional intelligence to correlate with their subordinates total organizational commitment, the t-test performed in the regression analysis shows statistical significance ($p < .05$) only for the influence of managers empathy on subordinates organizational commitment ($p = .029$).

As such, there is enough evidence to accept the main hypothesis stating that "Managers emotional intelligence competencies have a positive effect on the organizational commitment of their subordinates".

Table 4.18.: Multiple regression of emotional intelligence competencies and total organizational commitment of subordinates

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.478[a]	.229	.160	.49946	1.902

a. Predictors: (Constant), Teamwork_O, Emotional Self Control_O, Positive Outlook_O, Influence_O, Emotional Self Awareness_O, Organizational Awareness_O, Empathy_O, Inspirational Leadership_O, Adaptability_O, Coach and Mentor_O, Conflict Management_O, Achievement Orientation_O

b. Dependent Variable: Total Organizational Commitment

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	10.048	12	.837	3.357	.000[b]
	Residual	33.927	136	.249		
	Total	43.975	148			

a. Dependent Variable: Total Organizational Commitment

b. Predictors: (Constant), Teamwork_O, Emotional Self Control_O, Positive Outlook_O, Influence_O, Emotional Self Awareness_O, Organizational Awareness_O, Empathy_O, Inspirational Leadership_O, Adaptability_O, Coach and Mentor_O, Conflict Management_O, Achievement Orientation_O

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.837	1.442		1.967	.051
	Emotional Self Awareness_O	.349	.242	.198	1.442	.151
	Achievement Orientation_O	-.244	.565	-.122	-.432	.667
	Adaptability_O	.150	.458	.074	.327	.744
	Emotional Self Control_O	.353	.237	.278	1.491	.138
	Positive Outlook_O	.112	.219	.071	.514	.608
	Empathy_O	.639	.290	.405	2.205	.029
	Organizational Awareness_O	-.448	.378	-.186	-1.185	.238
	Conflict Management_O	.102	.431	.065	.237	.813
	Coach and Mentor_O	-.330	.359	-.210	-.919	.360
	Inspirational Leadership_O	-.459	.251	-.303	-1.829	.070
	Influence_O	.342	.423	.249	.809	.420
	Teamwork_O	-.324	.347	-.179	-.934	.352

a. Dependent Variable: Total Organizational Commitment

Source: created by the author, based on own empirical research results

The EI/OC model displayed in Table 4.18 includes all 12 variables of emotional intelligence. For further analysis of the model, the control variables of conflict management, adaptability, achievement orientation, and positive outlook have been excluded due to the lower levels of significance. In Table 4.19 multiple regression analyses have been performed, including only eight variables with the exclusion of variables with lower significance the adjusted R^2 increases to .178. An additional effect can be discovered when looking at the significance level of individual variables. Especially noteworthy is the fact that the competence of empathy is increasing in significance (from $p = .029$ to $p = .002$). Based on these result it could be argued that the variables should be eliminated to calculate a better final model with higher explanatory power. Nevertheless, the research in this dissertation is investigating how all competencies of the construct of emotional intelligence are influencing organizational commitment. Excluding certain variables would increase the explanatory power but would not support in answering the research question. This is why the initial model including all twelve variables is used for further research.

Table 4.19.: Multiple regression analysis of the EI/OC model excluding lower significance variables

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.472[a]	.223	.178	.49412

a. Predictors: (Constant), Teamwork_O, Emotional Self Control_O, Influence_O, Emotional Self Awareness_O, Organizational Awareness_O, Inspirational Leadership_O, Empathy_O, Coach and Mentor_O

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9.793	8	1.224	5.014	.000[b]
	Residual	34.182	140	.244		
	Total	43.975	148			

a. Dependent Variable: Total Organizational Commitment

b. Predictors: (Constant), Teamwork_O, Emotional Self Control_O, Influence_O, Emotional Self Awareness_O, Organizational Awareness_O, Inspirational Leadership_O, Empathy_O, Coach and Mentor_O

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	2.814	1.144		2.460	.015
	Emotional Self Awareness_O	.288	.218	.164	1.323	.188
	Emotional Self Control_O	.288	.164	.226	1.751	.082
	Empathy_O	.716	.227	.453	3.153	.002
	Organizational Awareness_O	-.356	.262	-.148	-1.360	.176
	Coach and Mentor_O	-.333	.319	-.211	-1.043	.299
	Inspirational Leadership_O	-.330	.191	-.218	-1.726	.087
	Influence_O	.238	.197	.173	1.209	.229
	Teamwork_O	-.284	.237	-.157	-1.197	.233

a. Dependent Variable: Total Organizational Commitment

Source: created by the author, based on own empirical research results

Multiple regression analysis has not only been performed for total organizational commitment but also for the three separate forms of organizational commitment. In Table 4.20 the multiple regression analysis is shown for affective organizational commitment. The adjusted R^2 of the model is .113 (Durbin-Watson d = 1.930) for affective organizational commitment. The F-Tests is significant. Thus it can be stated that the model explains a significant amount of the variance in the affective organizational commitment of subordinates. Out of the competences of emotional intelligence, the t-test in the regression analysis shows statistical significance only emotional self-awareness (p = 0,047) and emotional self-control (p = 0.041).

Table 4.20.: Multiple regression of emotional intelligence competencies and affective organizational commitment of subordinates

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.430[a]	.185	.113	.552298	1.930

a. Predictors: (Constant), Teamwork_O, Emotional Self Control_O, Positive Outlook_O, Influence_O, Emotional Self Awareness_O, Organizational Awareness_O, Empathy_O, Inspirational Leadership_O, Adaptability_O, Coach and Mentor_O, Conflict Management_O, Achievement Orientation_O
b. Dependent Variable: Affective Commitment

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9.401	12	.783	2.568	.004[b]
	Residual	41.484	136	.305		
	Total	50.885	148			

a. Dependent Variable: Affective Commitment
b. Predictors: (Constant), Teamwork_O, Emotional Self Control_O, Positive Outlook_O, Influence_O, Emotional Self Awareness_O, Organizational Awareness_O, Empathy_O, Inspirational Leadership_O, Adaptability_O, Coach and Mentor_O, Conflict Management_O, Achievement Orientation_O

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.693	1.595		1.062	.290
	Emotional Self Awareness_O	.535	.267	.283	2.003	.047
	Achievement Orientation_O	-.112	.625	-.052	-.179	.858
	Adaptability_O	.214	.506	.098	.423	.673
	Emotional Self Control_O	.541	.262	.396	2.062	.041
	Positive Outlook_O	.113	.242	.066	.469	.640
	Empathy_O	.194	.321	.114	.605	.546
	Organizational Awareness_O	-.252	.418	-.097	-.603	.547
	Conflict Management_O	-.342	.476	-.204	-.718	.474
	Coach and Mentor_O	-.558	.397	-.329	-1.405	.162
	Inspirational Leadership_O	-.012	.278	-.007	-.042	.966
	Influence_O	.636	.468	.431	1.360	.176
	Teamwork_O	-.274	.384	-.141	-.713	.477

a. Dependent Variable: Affective Commitment

In Table 4.21 the multiple regression analysis is shown for continuance organizational commitment. The adjusted R^2 of the model is .104 (Durbin-Watson d = 1.773) for continuance organizational commitment with the F-Tests also being significant. Out of the competences of emotional intelligence the t-test in the regression analysis shows statistical significance only empathy (p = .046) and inspirational leadership (p = .019).

Table 4.21.: Multiple regression of emotional intelligence competencies and continuance organizational commitment of subordinates

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.421[a]	.177	.104	.720076	1.773

a. Predictors: (Constant), Teamwork_O, Emotional Self Control_O, Positive Outlook_O, Influence_O, Emotional Self Awareness_O, Organizational Awareness_O, Empathy_O, Inspirational Leadership_O, Adaptability_O, Coach and Mentor_O, Conflict Management_O, Achievement Orientation_O

b. Dependent Variable: Continuance Commitment

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	15.161	12	1.263	2.437	.007[b]
	Residual	70.517	136	.519		
	Total	85.678	148			

a. Dependent Variable: Continuance Commitment

b. Predictors: (Constant), Teamwork_O, Emotional Self Control_O, Positive Outlook_O, Influence_O, Emotional Self Awareness_O, Organizational Awareness_O, Empathy_O, Inspirational Leadership_O, Adaptability_O, Coach and Mentor_O, Conflict Management_O, Achievement Orientation_O

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.564	2.079		1.233	.220
	Emotional Self Awareness_Other	.177	.348	.072	.507	.613
	Achievement Orientation_Other	.004	.815	.002	.005	.996
	Adaptability_Other	.221	.660	.078	.336	.738
	Emotional Self Control_Other	.311	.342	.176	.911	.364
	Positive Outlook_Other	.279	.315	.126	.885	.378
	Empathy_Other	.841	.418	.381	2.012	.046
	Organizational Awareness_Other	-.568	.545	-.169	-1.044	.298
	Conflict Management_Other	.267	.621	.123	.430	.668
	Coach and Mentor_Other	-.345	.518	-.157	-.667	.506
	Inspirational Leadership_Other	-.861	.362	-.407	-2.379	.019
	Influence_Other	.279	.610	.146	.458	.648
	Teamwork_Other	-.400	.501	-.158	-.798	.426

a. Dependent Variable: Continuance Commitment

In Table 4.22 the multiple regression analysis is shown for normative organizational commitment. Although the F-test is significant, and it is possible to argue that the model explains a variance in the normative organizational commitment of subordinates it has to be mentioned that the adjusted R^2 of the model is .074 (Durbin-Watson d = 2.031) for normative organizational commitment and is therefore rather low. Out of the competences of emotional intelligence the t-test in the regression analysis shows statistical significance only for empathy (p = .026).

Table 4.22.: Multiple regression of emotional intelligence competencies and normative organizational commitment of subordinates

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.386[a]	.149	.074	.674887	2.031

a. Predictors: (Constant), Teamwork_O, Emotional Self Control_O, Positive Outlook_O, Influence_O, Emotional Self Awareness_O, Organizational Awareness_O, Empathy_O, Inspirational Leadership_O, Adaptability_O, Coach and Mentor_O, Conflict Management_O, Achievement Orientation_O

b. Dependent Variable: Normative Commitment

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	10.824	12	.902	1.980	.030[b]
	Residual	61.944	136	.455		
	Total	72.768	148			

a. Dependent Variable: Normative Commitment

b. Predictors: (Constant), Teamwork_O, Emotional Self Control_O, Positive Outlook_O, Influence_O, Emotional Self Awareness_O, Organizational Awareness_O, Empathy_O, Inspirational Leadership_O, Adaptability_O, Coach and Mentor_O, Conflict Management_O, Achievement Orientation_O

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.255	1.949		2.184	.031
	Emotional Self Awareness_O	.334	.327	.148	1.022	.309
	Achievement Orientation_O	-.625	.763	-.243	-.818	.415
	Adaptability_O	.014	.618	.005	.023	.982
	Emotional Self Control_O	.209	.320	.128	.651	.516
	Positive Outlook_O	-.055	.295	-.027	-.185	.853
	Empathy_O	.883	.392	.434	2.254	.026
	Organizational Awareness_O	-.523	.510	-.169	-1.024	.307
	Conflict Management_O	.380	.582	.190	.653	.515
	Coach and Mentor_O	-.087	.485	-.043	-.179	.858
	Inspirational Leadership_O	-.505	.339	-.259	-1.487	.139
	Influence_O	.112	.571	.063	.195	.845
	Teamwork_O	-.299	.469	-.129	-.638	.525

a. Dependent Variable: Normative Commitment

To get further insight and qualitative data regarding the main hypothesis, all participating managers were asked in the follow-up questionnaire, whether they think that the emotional intelligence of managers is important for the organizational commitment of employees. The items were assessed on a 5-point Likert scale ranging from 1="strongly disagree" to 5="strongly agree". The results for the question whether managers think that their emotional intelligence is influencing their subordinates organizational commitment are presented in Figure 4.4 where 69% of participating managers (N = 26) agreed or strongly agreed that managers emotional intelligence does influence subordinates organizational commitment, whereas only 4% disagreed with the statement. This can be understood as additional support for the validity of the main hypothesis of this dissertation.
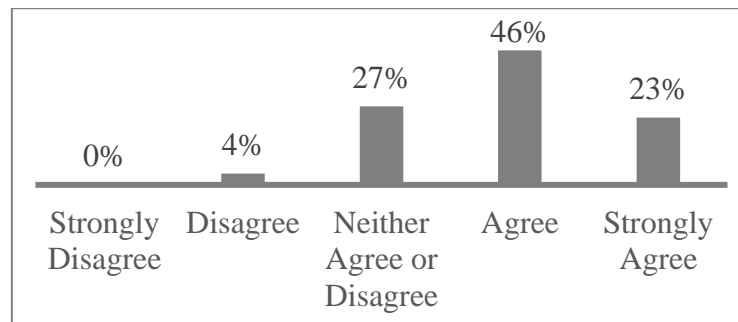
Figure 4.4: Distribution of managers answers to whether they see managers' emotional intelligence influencing subordinates organizational commitment

Source: created by the author, based on own empirical research results

Descriptive statistics for the data of perceived accuracy, the usefulness of feedback and the likelihood to take development actions are performed. The three values will be correlated to help to answer the third thesis of this dissertation:

SH 3:   *Perceived accuracy and usefulness in feedback also leads to an increased likelihood to take personal development actions*

In Table 4.23 the descriptive statistics for the perceived accuracy and usefulness as well as for the likelihood of managers to take individual development actions are shown. In the underlying questionnaire a 5 point Likert scale ranging from 1="strongly disagree" to 5="strongly agree" has been used. The minimum and maximum values for accuracy range between 3 and 5, between

2 and 5 for usefulness and likelihood to take development actions. Due to the data, it can be stated that the participants perceived the development program particularly useful with a mean value of 4.04. Although the mean values are lower for accuracy and likelihood for development, the mean values are still above average.

Table 4.23 Descriptive Statistics for accuracy and usefulness of feedback and the likelihood to take development actions

	N	Minimum	Maximum	Mean	Std. Deviation	Variance
Accuracy	26	3,00	5,00	3,9038	,40048	,160
Usefulness	26	2,00	5,00	4,0423	,84719	,718
Likelyhood for development	26	2,00	5,00	3,6346	,79445	,631
Valid N (listwise)	26					

Source: created by the author, based on own empirical research results

The data for perceived accuracy, usefulness and likelihood to take development actions are tested for their normal distribution. In Table 4.24 it is possible to see that the significance level is above .05 only for the data of "usefulness". Thus it is concluded that the data are not normally distributed.

Table 4.24.: Kolmogorov-Smirnov-Test for testing the normal distribution of accuracy, usefulness, and likelihood to take development actions

		Accuracy	Usefulness	Likelyhood for development
N		26	26	26
Normal Parameters[a,b]	Mean	3,9038	4,0423	3,6346
	Std. Deviation	,40048	,84719	,79445
Most Extreme Differences	Absolute	,290	,166	,221
	Positive	,290	,129	,221
	Negative	-,287	-,166	-,174
Test Statistic		,290	,166	,221
Asymp. Sig. (2-tailed)		,000[c]	,064[c]	,002[c]

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

Source: created by the author, based on own empirical research results

In table 4.25 the three variables of perceived accuracy and usefulness as well as likelihood to take development actions have been correlated using Spearman's rho. It can be noted that the perceived accuracy of the feedback that participants of leadership development programs have correlated positively with the perceived usefulness of this feedback (p= .03). Furthermore, it is possible to see that perceived usefulness of feedback is positively correlated with individuals' likelihood to take development actions on their own. Thus sub-hypothesis three SH3 can only be partly confirmed. Perceived accuracy of feedback doesn't show to be influencing the likelihood to take development actions. On the other side, the more useful participants perceive the feedback to be, the more likely they are to engage in further development actions on their own.

Table 4.25.: Correlation between perceived accuracy, usefulness and likelihood to take development actions

			Accuracy	Usefulness	Likelihood for development
Spearman's rho	Accuracy	Correlation Coefficient	1.000	.422*	.224
		Sig. (2-tailed)	.	.032	.272
		N	26	26	26
	Usefulness	Correlation Coefficient	.422*	1.000	.547**
		Sig. (2-tailed)	.032	.	.004
		N	26	26	26
	Likelihood for development	Correlation Coefficient	.224	.547**	1.000
		Sig. (2-tailed)	.272	.004	.
		N	26	26	26

*. Correlation is significant at the 0.05 level (2-tailed).
**. Correlation is significant at the 0.01 level (2-tailed).

Source: created by the author, based on own empirical research results

As proposed by Atwater and Yammarino (1992) that introduced the idea to use rating agreement categories to analyze self and others' agreement data, difference scores between self- and others' ratings have been computed and the mean and standard deviation of the difference scores have been calculated. Individuals were then classified as "over-raters" in-agreement" and "underraters" based on the extent of their self-others' difference (i.e., the standard deviation from the mean self–others difference). Following the recommendations of Shanock, Baran, Gentry, Pattison, & Heggestad, (2010) descriptive information about the occurrence of congruence and incongruence between self and others' ratings have been calculated to achieve a clearer initial understanding of the data. This has been done by standardizing the score for self

and other-ratings. Leaders with a standardized score on the self-rating half a standard deviation above others' score were categorized as over-estimator, whereas any leader with a standardized score for self-rating, half a standard deviation below others' score was categorized as an under-estimator. Leaders within these limits were categorized as in-agreement with others. As illustrated in table 4.26, all three of the categories were well represented in the sample, which, according to Shanock et al. (2010), constituted a good basis for the subsequent self-other analyses.

Table 4.26.: Classification of groups according to rating differences

	N	Mean Self-Rating	Mean Other Rating
In-Agreement	9	3.91	3.90
Overrater	9	4.06	3.79
Underrater	8	3.75	4.12

Note. N = 26.

Source: created by the author, based on own empirical research results

It was possible to show the there are differences between the self- and other-rating in a 360-degree feedback process. A further step was to analyze whether those differences between self- and other-ratings also influence participants of leadership development programs to the extent that they are more or less likely to take personal development actions.

> *SH4: Overrating or underrating oneself in 360-degree feedback will influence the extent to which participants are engaging in development actions on their own*

In Table 4.27 the mean ranks for the groups of overraters, underraters and in agreement for accuracy, usefulness and the likelihood for development actions are displayed. Further, the Kruskal Wallis Test has been performed to understand if self-other-rating differences affect the likelihood to take personal development actions.

Table 4.27.: Influence of self- and other-rating differences on perceived accuracy, usefulness, and likelihood for development actions using the Kruskal Wallis Test

	Over_Under_InAgreement	N	Mean Rank
Accuracy	Overrater	9	14.06
	InAgreement	9	13.28
	Underrater	8	13.13
	Total	26	
Usefulness	Overrater	9	13.33
	InAgreement	9	17.22
	Underrater	8	9.50
	Total	26	
Likelihood for development	Overrater	9	16.22
	InAgreement	9	13.89
	Underrater	8	10.00
	Total	26	

Test Statistics[a,b]

	Accuracy	Usefulness	Likelihood for development
Chi-Square	.094	4.441	3.037
df	2	2	2
Asymp. Sig.	.954	.109	.219
Exact. Sig.	.958	.108	.222
Point Probability	.005	.000	.001

a. Kruskal Wallis

b. Grouping Variable: Over_Under_InAgreement

Source: created by the author, based on own empirical research results

Reviewing the results of the data analysis, it can be stated that with a significance level of .954 for accuracy, .109 for usefulness and .219 for the likelihood to take development actions the three groups of self-other-rating comparison (Overrater, Underrater, In-Agreement) do not differ significantly. Therefore, sub-hypothesis 4 has to be rejected, meaning that the difference in rating does not influence how accurate or useful participants perceive the development initiative to be, and it does not influence how likely those participants will engage in personal development actions without external influence.

4.5   Summary of key findings

The purpose of this study was to examine the relationship between managerial emotional intelligence and subordinates organizational commitment. Further, the relationship between feedback differences in a leadership development initiative with perceived accuracy, usefulness and the likelihood to take development actions, have been analyzed.

Summarizing the analysis, the main hypothesis: Managers emotional intelligence competencies have a positive effect on the organizational commitment of their subordinates is supported. Overall, the emotional intelligence/organizational commitment model (EI/OC model) showed that certain competencies of emotional intelligence significantly influence the organizational commitment of employees. Managers' emotional intelligence competencies correlate with all three forms of organizational commitment (affective, continuance and normative commitment) as well as total organizational commitment. Three of the twelve competencies of emotional intelligence, Achievement Orientation ($r = .194$, $p <.05$), Emotional Self Control ($r= .313$, $p <.05$) and Empathy ($r= .286$, $p <.01$) correlate significantly positive with total organizational commitment. Managers' emotional intelligence explains 16.0% variance in total subordinates organizational commitment. Empathy does not only show a positive correlation with all forms of organizational commitment, but the performed regression analysis also confirms the positive statistical significance. In addition to those findings, a significant positive correlation of age and the year's employees have been with the company with all forms of organizational commitment has been found. Analyzing the data, differences between managers self and others rating was found, but no evidence was discovered that those differences (overrater, underrater, in-agreement) influenced whether participants perceived feedback as more or less accurate or useful. The data doesn't support the suggested hypothesis that rating differences would influence the extent to which participants of leadership development initiatives engage in personal leadership development on their own. Nevertheless, it was possible to show a significant positive correlation between how usefulness participants of leadership development programs perceive the feedback and how likely managers are to actively engage in further development actions regarding the topic.

Sub-hypothesis 1 predicted that there is a significant difference between self- and other-ratings when evaluating managerial emotional intelligence with 360-degree feedback tools. The mean average others-rating was compared to the self-ratings utilizing the paired sample t-test which indicated that within three out of the twelve competencies, namely Emotional Self Awareness, Achievement Orientation, and Coach and Mentor there is a significant difference between the self- and other-rating of the investigated managers' emotional intelligence.

Sub-hypothesis 2 predicted that certain competencies regarding managers' emotional intelligence have a significant impact on the organizational commitment of their subordinates. This was supported by the data. Affective organizational commitment is positively influenced by four competencies (Emotional Self Awareness, Achievement Orientation, Emotional Self Control, and Empathy), continuance organizational commitment from three competencies of emotional intelligence (Achievement Orientation, Emotional Self Control, and Empathy) and Normative organizational commitment is positively influenced by two competencies (Emotional Self Control and Empathy).

Sub-hypothesis 3 predicted that the perceived accuracy and usefulness of feedback also leads to an increased likelihood to take personal development actions. This thesis was partly supported. On the one side, perceived accuracy of the feedback did not correlate with the likelihood to take development actions, on the other hand, the more useful participants perceived the feedback to be, the more likely they were to engage in further personal development actions.

Sub-hypothesis 4 predicted that overrating or underrating oneself in 360-degree feedback would influence the extent to which participants are engaging in development actions on their own. There was no evidence to be found that supported the postulated hypothesis. Rating differences don't influence the likelihood that participants of leadership development initiatives engage in personal leadership development on their own.

CONCLUSION AND SUGGESTIONS

Conclusion

The results of the theoretical and empirical findings support the postulated main hypothesis that managers' emotional intelligence competences are influencing the organizational commitment of their subordinates. From the literature research and statistical analysis following conclusion can be drawn:

1. Research on emotional intelligence is continuously growing. One of the reason is that many studies support the statement that high levels of emotional intelligence also positively influence individuals' success and performance. It is also due to the fact that during the last decade many studies have provided evidence that emotional intelligence competencies can be taught, that more researchers are investigating what impact higher levels of emotional intelligence can have. The analysis of current literature made clear that it is crucial for researchers in this field to distinguish between ability and trait emotional intelligence concepts and to choose sound measurement tools accordingly. When decided to analyze individuals' trait emotional intelligence, scholars agree that 360-degree feedback tools should be utilized.

2. It was found that the differentiation between organizational commitment as an affective attachment to the organization *(affective commitment)*, commitment as a perceived cost associated with leaving the organization *(continuance commitment)* and commitment as an obligation to remain in the organization *(normative commitment)* is still state of the art in current literature. This has to be questioned, since the empirical data in this study shows that all three forms of commitment are significantly correlated and therefore don't justify the distinguishment within the organizational commitment concept.

3. The main hypothesis of this thesis has been confirmed by correlational and regression analysis, showing that managerial emotional intelligence is influencing subordinates' total organizational commitment. But it is important to point out that not all emotional intelligence competencies are significantly influencing subordinates organizational commitment.

4. The empirical results have shown that three of the twelve defined emotional intelligence competencies, achievement orientation, emotional self-control, and empathy, all correlate significantly with total organizational commitment of subordinates. Empathy not only significantly positive impacts total organizational commitment but also affective, normative and continuance organizational commitment. Empathy, emotional self-awareness, achievement orientation, and emotional self-control all had a significant positive impact on affective organizational commitment. Since employees showing high affective organizational commitment stay with the company because they want to and not because they have to or feel obliged to, the importance to influence subordinates with managerial emotional intelligence might even be the highest in this particular form of organizational commitment.

5. Previous research has been confirmed in regard to the correlation between age and employees organizational commitment. In the actual study, not only age but also the year's employees have been with the corporation had a significant positive effect on their organizational commitment.

6. In contrast, it was possible to show that the years employees worked with their current managers did not influence their level of organizational commitment. In can be concluded that not the time managers and subordinates work together but the intensity of the collaboration and the managerial competencies influence subordinates commitment to the organization to a larger extent.

7. In accordance with the empirical data and findings in this thesis, it can be concluded that organizations should expand emotional intelligence training in their current leadership development initiatives. Analyzing the literature throughout the first part of this thesis showed that despite the vast amount of effort and money that is put in leadership development initiatives, many of these development programs fail. Research clearly indicates that the lack of feedback plays an integral part in this phenomenon. Although the 360-degree feedback is becoming an increasingly prominent way to provide managers and leaders with feedback about the view of others on their capabilities, it often occurs that after the feedback has been submitted, participants are left alone with the outcome.

8. Summarizing the scientific literature it can be argued that organizational interventions in leadership development are less successful without stimulating individuals to personal development into their own hands. Nevertheless, still, many corporations do not encourage employees to increase their leadership capabilities. Data gathered in this study suggest that it is essential for individuals to see and understand the usefulness in leadership development programs to be motivated to engage in their development following an initiative that was introduced by their organization.

9. Since differences between self- and other ratings have been found it is concluded that leadership development initiatives should emphasize on 360-degree feedback processes. But it has been shown that those differences did not influence the extent to which participants were likely to engage in further development actions on their own.

Suggestions

Based on the literature review and the quantitative research conducted, following suggestions and recommendations are given:

To general management

1. Organizations should invest in leadership development programs that emphasize on emotional intelligence not only due to the effects on each participating individual but also due to the effects that increased managerial emotional intelligence can have on the organizational commitment of subordinates.

2. Management should work on the preconditions to increase organizational commitment due to the positive effect for organizations that have been shown in many studies over the last decades. Reduced absenteeism and increased turnover and productivity are only some of those effects. Nowadays, younger employees are more flexible and willing to work for multiple organizations which will force managers to focus more than ever on retaining talent. To understand the status quo, management should measure organizational commitment continuously.

3. Investments in leadership development programs should continue because it can pay off. To secure a sustainable and continuous improvement of the management and leadership force, organizations need to focus on the feedback process following the initiatives. This

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research shows that it is essential to know how useful participants see the initiative to be so that they take development actions once the corporate intervention is over.

4. The importance of emotional intelligence in leadership positions puts general management under pressure to find future leaders that have, or train them to develop those capabilities. Management needs to start early to invest in leadership development in this particular area because it can give them a competitive advantage. This will be especially important in the future with more and more millennials entering organizations, questioning traditional roles and values.

To managers

1. Managers should invest in developing their emotional intelligence competencies due to the positive effects it can have on themselves and their subordinates. In times where many processed and tasks are automated, also traditional management tasks change. In a competitive environment increasing one's interpersonal capabilities can make the difference between average and outperforming managers.

2. Managers that are faced with diminishing organizational commitment of employees should use the developed EI/OC model to understand and evaluate their current situation. Developing managerial emotional intelligence can be understood as one part of a series of necessary actions to increase organizational commitment.

3. This research suggests that managers should understand the importance of empathy in interpersonal relations. Managers need to understand that leadership is not about being in charge, but instead about taking care of employees in their charge.

To human resource professionals

1. This research supports the perception that emotional intelligence is one of the key aspects to be a successful manager. Human resource departments should consider extending their hiring process also including questions for potential candidates that focus on emotional intelligence.

2. As it is the case for many personal capabilities, also capabilities of emotional intelligence can be trained. Human resource professionals should add programs to increase emotional intelligence in their workforce to their standard leadership development initiatives.

3. Today there are different ways to measure emotional intelligence, but research shows that 360-degree feedback should be preferred when companies engage in this form of leadership development.

4. Many corporations invest heavily in the development of their leaders, but despite the big effort, only mediocre results are reported. Often this is the case because participants don't get feedback or they are left alone with their feedback results. There is a need for a specific strategy following every leadership development initiative, taking into consideration that employees want feedback but that they do react differently on it. Some participants will need more encouragement than others to develop their skills further.

5. As research was showing, the perceived usefulness of leadership development initiatives is correlating with the likelihood to take personal development actions. Human resource professionals, often initiators of leadership development programs, have to make sure to explain how participants can benefit from training, possibly also providing examples from workplace situations where participants can understand the value of the planned leadership development initiative.

Future research implications

1. Since research on emotional intelligence is still in its early stages, further research needs to focus on increasing the reliability of the different test methods. To achieve this, more studies are needed especially regarding the comparison of different test methods.

2. Today, the focus of research on emotional intelligence lies on linking emotional intelligence to personal success and performance, neglecting mostly the importance to analyze the influence that one's emotional intelligence can have on others. Scholars, in further studies, should, therefore, investigate not only the effect managers emotional intelligence can have on their employees but also on peers and superiors.

3. Further research on the relationship between managers and subordinates should also consider the intensity and type of the relationship, the difference of department employees work in, and the span of control of managers, since this might influence their relationship. Even though some managers might have high levels of emotional intelligence, if they don't work closely with their subordinates they might not be affected or influenced by the managers' emotional intelligence.

4. Feedback in leadership development programs is increasing the chances for success of those initiatives. Research should now focus on the different types and forms of feedback to understand whether certain ways to provide feedback are more successful than others regarding the intended outcomes.

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APPENDIXES

Appendix A: Application for the use of the German version of the OSC

Von: Manuel Urban

Gesendet: Mittwoch, 10. Juni 2015 12:57

An: Klaus-Helmut Schmidt

Betreff: Anfrage Commitment-Fragebogen

Sehr geehrter Hr. Professor Schmidt,

mein Name ist Manuel Urban und ich bin ein Doktorand an der Fakultät für Betriebswirtschaft an der University of Latvia in Riga. Im Rahmen meiner Dissertation beschäftige ich mich mit dem Thema der Emotionalen Intelligenz von Führungskräften und dem Einfluss von emotionaler Intelligenz auf die Organisationsbindung von Mitarbeitern.

Gerne würde ich in meiner Studie den Fragebogen aus Ihrem Artikel „Psychometrische Eigenschaften und Validität einer deutschen Fassung des <<Commitment>>-Fragebogens von Allen und Meyer (1990)" verwenden.

Aus diesem Grund würde ich gerne auf diesem Weg ihre Freigabe zur Verwendung des Fragebogens einholen.

Ihre Zustimmung würde mir sehr weiterhelfen mein Doktorat erfolgreich abzuschließen.

Ich danke Ihnen im Voraus für Ihre Antwort!

Mit freundlichen Grüßen,

Manuel Urban

Appendix B: Application to use the ESCI

Von: Manuel Urban

Gesendet: Donnerstag, 21. August 2015 21:42

An: 'esci.research@haygroup.com'

Betreff: ESCI Research Request

Dear Sir/Madam,

My name is Manuel Urban, and I am a doctoral candidate at the University of Latvia. My dissertation is entitled „Influence of Managers Emotional Intelligence on the Performance and Organizational Commitment of their Subordinates.

For the study, I intend to use the ESCI-Tool (German Version). Attached you find the documents as requested on your website.

The permission to use the ESCI is essential to my project, and I would appreciate your approval very much.

You may contact me by phone or email with any questions.

Sincerely,

Manuel Urban

Appendix C: A Sample questionnaire of the German version of the Organizational Commitment Scale –

From the Article:
Psychometrische Eigenschaften und Validität einer deutschen Fassung des "Commitment"-Fragebogens von Allen und Meyer (1990). / Psychometric properties and validity of a German version of Allen and Meyer's (1990) questionnaire for measuring organizational commitment. (Schmidt et al. 1998)

Personal Information

Organisationsbindung D

Im Folgenden Formular wird die Organisationsbindung gemessen. Bitte nehmen Sie sich Zeit und füllen Sie alle Fragen aus!

* Erforderlich

Ihr Alter *

Abteilung *

Jahre im Unternehmen *
(z.B. 1 Jahr 3 Monate)

Dauer der Zusammenarbeit mit Ihrem derzeitigen Vorgesetzten *
(z.B. 1 Jahr 3 Monate)

Geschlecht *
☐ Männlich
☐ Weiblich

Höchste Ausbildung *
☐ Grundschule
☐ Haupt-/Realschule/Gymnasium
☐ Universitätsabschluss
☐ Höhere akademische Abschlüsse (Promotion, MBA, PhD usw)

Questions

1. Ich wäre sehr froh, mein weiteres Berufsleben in diesem Betrieb verbringen zu können. (AC1)

2. Ich unterhalte mich gerne auch mit Leuten über meinen Betrieb, die hier nicht arbeiten. (AC2)

3. Probleme des Betriebes beschäftigen mich häufig so, als seien sie meine eigenen. (AC3)

4. Ich glaube, ich könnte mich leicht mit einem anderen Betrieb gleich stark verbunden fühlen wie mit meinem jetzigen. (AC4)

5. Ich empfinde mich nicht als „Teil der Familie" meines Betriebes. (AC5)

6. Ich fühle mich emotional nicht sonderlich mit dem Betrieb verbunden. (AC6)

7. Dieser Betrieb hat eine große persönliche Bedeutung für mich. (AC7)

8. Ich empfinde kein starkes Gefühl der Zugehörigkeit zu meinem Betrieb. (AC8)

9. Ich mache mir keine Sorgen darüber, was passieren würde, wenn ich hier kündigte, ohne eine andere Stelle in Aussicht zu haben. (CC1)

10. Selbst wenn ich es wollte, würde es mir sehr schwer fallen, gerade jetzt meinem Betrieb zu verlassen. (CC2)

11. Zu vieles in meinem Leben würde sich verändern, wenn ich mich dazu entschlösse, meinen Betrieb momentan zu verlassen. (CC3)

12. Es wäre nicht mit zu vielen Nachteilen für mich verbunden, wenn ich momentan meinen Betrieb verlassen würde. (CC4)

13. In meinem Betrieb zu bleiben, entspricht sowohl der Notwendigkeit als auch meinen Wünschen. (CC5)

14. Ich glaube, dass ich momentan zu wenige alternative Beschäftigungsmöglichkeiten habe, um einen Betriebswechsel ernsthaft in Erwägung zu ziehen. (CC6)

15. Eine der wenigen ernsthaften Folgen eines Betriebswechsels wäre der Mangel an tatsächlichen Beschäftigungsalternativen. (CC7)

16. Einer der Hauptgründe, warum ich hier weiterarbeite, besteht darin, da? Ein Stellenwechsel beträchtliche persönliche Opfer von mir verlangte, die ein anderer Betrieb nicht aufwiegen könnte. (CC8)

17. Ich glaube, dass die Leute heutzutage den Betrieb zu häufig wechseln. (NC1)

18. Ich glaube nicht, dass man seinem Betrieb immer treu sein muss. (NC2)

19. Es erscheint mir überhaupt nicht unmoralisch von Betrieb zu Betrieb zu wechseln. (NC3)

20. Einer der Hauptgründe, in diesem Betrieb weiter zu arbeiten, besteht für mich darin, dass ich glaube, dass Treue dem Betrieb gegenüber wichtig ist. Ich fühle mich deshalb auch moralisch verpflichtet, in meinem Betrieb zu bleiben. (NC4)

21. Wenn mir ein anderer Betrieb eine bessere Stelle anböte, würde ich es nicht als richtig empfinden, meinen Betrieb zu verlassen. (NC5)

22. Einem Betrieb treu zu bleiben, messe ich eine große Bedeutung bei. (NC6)

23. Heutzutage stünde es um die Dinge besser, wenn die Leute die meiste Zeit ihres Berufslebens in einem Betrieb bleiben würden. (NC7)

24. Ich denke nicht, dass es heutzutage noch vernünftig ist, so ein richtiger „Betriebsmensch" zu werden. (NC8)

Skala:

☐	☐	☐	☐	☐
Trifft gar nicht zu	Trifft weniger zu	Trifft teils-teils zu	Trifft eher zu	Trifft völlig zu

<div align="center">

Original - Organizational Commitment Scale (OCS)

(Allen & Meyer, 1990)

</div>

Affective Commitment Scale Items
1. I would be very happy to spend the rest of my career with this organization.
2. I enjoy discussing about my organization with people outside it.
3. I really feel as if this organization's problems are my own.
4. I think that I could easily become as attached to another organization as I am to this one. (R)
5. I do not feel like 'part of the family' at my organization. (R)
6. I do not feel 'emotionally attached' to this organization. (R)
7. This organization has a great deal of personal meaning for me.
8. I do not feel a 'strong' sense of belonging to my organization. (R)

Continuance Commitment Scale Items
1. I am not afraid of what might happen if I quit my job without having another one lined up. (R)
2. It would be very hard for me to leave my organization right now, even if I wanted to.
3. Too much in my life would be disrupted if I decided to leave my organization now.
4. It wouldn't be too costly for me to leave my organization now. (R)
5. Right now, staying with my organization is a matter of necessity as much as desire.
6. I feel that I have very few options to consider leaving this organization.
7. One of the few serious consequences of leaving this organization would be the scarcity of available alternatives.
8. One of the major reasons I continue to work for this organization is that leaving would require considerable personal sacrifice—another organization may not match the overall benefits I have here.

Normative Commitment Scale Items
1. I think that people these days move from company to company too often.
2. I do not believe that a person must always be loyal to his or her organization. (R)
3. Jumping from organization to organization does not seem at all unethical to me. (R)
4. One of the major reasons I continue to work in this organization is that I believe loyalty is important and therefore feel a sense of moral obligation to remain.
5. If I got another offer for a better job elsewhere I would not feel it was right to leave my organization.
6. I was taught to believe in the value of remaining loyal to one organization.
7. Things were better in the days when people stayed in one organization for most of their careers.
8. I do not think that to be a 'company man' or 'company woman' is sensible anymore. (R)

(R) = Reverse-coded item

Scale:

☐ Strongly Disagree   ☐ Disagree   ☐ Neither Agree or Disagree   ☐ Agree   ☐ Strongly Agree

Appendix D: Self- and other-rating of the Emotional and Social Competence Inventory

Self-Rating: Emotional and Social Competence Inventory – ESCI 3.0

(© Goleman, Boyatzis, 2007- Distributed worldwide by the Hay Group)

Item Number	Please carefully respond to each survey item below. You:	Never	Rarely	Sometimes	Often	Consistently	Don't know
1	Anticipate how others will respond when trying to convince them	O	O	O	O	O	O
2	Work well in teams by encouraging cooperation	O	O	O	O	O	O
3	Convince others by developing behind the scenes support	O	O	O	O	O	O
4	Initiate actions to improve own performance	O	O	O	O	O	O
5	Do not cooperate with others	O	O	O	O	O	O
6	Coach and mentor others	O	O	O	O	O	O
7	Lose composure when under stress	O	O	O	O	O	O
8	See possibilities more than problems	O	O	O	O	O	O
9	Show awareness of own feelings	O	O	O	O	O	O
10	Remain calm in stressful situations	O	O	O	O	O	O
11	Understand the informal processes by which work gets done in the team or organization	O	O	O	O	O	O
12	Understand the team's or organization's unspoken rules	O	O	O	O	O	O
13	Convince others by getting support from key people	O	O	O	O	O	O
14	Adapt to shifting priorities and rapid change	O	O	O	O	O	O
15	Do not try to improve	O	O	O	O	O	O
16	Convince others through discussion	O	O	O	O	O	O
17	Are able to describe how own feelings affect own actions	O	O	O	O	O	O
18	Seek to improve own self by setting measurable and challenging goals	O	O	O	O	O	O
19	Seek ways to do things better	O	O	O	O	O	O
20	Understand the values and culture of the team or organization	O	O	O	O	O	O
21	See the positive in people, situations, and events more than the negative	O	O	O	O	O	O
22	Convince others by appealing to their self-interest	O	O	O	O	O	O
23	View the future with hope	O	O	O	O	O	O
24	Adapt by applying standard procedures flexibly	O	O	O	O	O	O
25	Understand others' perspectives when they are different from own perspective	O	O	O	O	O	O
26	Remain composed, even in trying moments	O	O	O	O	O	O
27	Understand social networks	O	O	O	O	O	O
28	Understand others by listening attentively	O	O	O	O	O	O
29	Acknowledge own strengths and weaknesses	O	O	O	O	O	O
30	Do not spend time developing others	O	O	O	O	O	O
31	Do not inspire followers	O	O	O	O	O	O
32	See opportunities more than threats	O	O	O	O	O	O

Item Number	Please carefully respond to each survey item below. You:	Never	Rarely	Sometimes	Often	Consistently	Don't know
33	Work well in teams by being supportive	O	O	O	O	O	O
34	Provide on-going mentoring or coaching	O	O	O	O	O	O
35	See the positive side of a difficult situation	O	O	O	O	O	O
36	Try to resolve conflict instead of allowing it to fester	O	O	O	O	O	O
37	Personally invest time and effort in developing others	O	O	O	O	O	O
38	Care about others and their development	O	O	O	O	O	O
39	Work well in teams by soliciting others' input	O	O	O	O	O	O
40	Control impulses appropriately in situations	O	O	O	O	O	O
41	Act appropriately even in emotionally charged situations	O	O	O	O	O	O
42	Are aware of the connection between what is happening and own feelings	O	O	O	O	O	O
43	Do not strive to improve own performance	O	O	O	O	O	O
44	Have difficulty adapting to uncertain and changing conditions	O	O	O	O	O	O
45	Believe the future will be better than the past	O	O	O	O	O	O
46	Resolve conflict by bringing it into the open	O	O	O	O	O	O
47	Lead by inspiring people	O	O	O	O	O	O
48	Adapt by smoothly juggling multiple demands	O	O	O	O	O	O
49	Do not understand the subtle feelings of others	O	O	O	O	O	O
50	Understand another person's motivation	O	O	O	O	O	O
51	Allow conflict to fester	O	O	O	O	O	O
52	Understand the informal structure in the team or organization	O	O	O	O	O	O
53	Adapt overall strategy, goals, or projects to fit the situation	O	O	O	O	O	O
54	Resolve conflict by de-escalating the emotions in a situation	O	O	O	O	O	O
55	Describe underlying reasons for own feelings	O	O	O	O	O	O
56	Work well in teams by encouraging participation of everyone present	O	O	O	O	O	O
57	Lead by articulating a compelling vision	O	O	O	O	O	O
58	Do not describe own feelings	O	O	O	O	O	O
59	Try to resolve conflict by openly talking about disagreements with those involved	O	O	O	O	O	O
60	Understand others by putting self into others' shoes	O	O	O	O	O	O
61	Work well in teams by being respectful of others	O	O	O	O	O	O
62	Provide feedback others find helpful for their development	O	O	O	O	O	O
63	Lead by building pride in the group	O	O	O	O	O	O
64	Get impatient or show frustration inappropriately	O	O	O	O	O	O

Item Number	Please carefully respond to each survey item below. You:	Never	Rarely	Sometimes	Often	Consistently	Don't know
65	Adapt overall strategy, goals, or projects to cope with unexpected events	O	O	O	O	O	O
66	Strive to improve own performance	O	O	O	O	O	O
67	Lead by bringing out the best in people	O	O	O	O	O	O
68	Convince others by using multiple strategies	O	O	O	O	O	O

Others Rating: Emotional and Social Competence Inventory – ESCI 3.0

(© Goleman, Boyatzis, 2007 - Distributed worldwide by the Hay Group)

Item Number	Please carefully respond to each survey item below. The person you are rating:	Never	Rarely	Sometimes	Often	Consistently	Don't know
1	Anticipates how others will respond when trying to convince them	O	O	O	O	O	O
2	Works well in teams by encouraging cooperation	O	O	O	O	O	O
3	Convinces others by developing behind the scenes support	O	O	O	O	O	O
4	Initiates actions to improve own performance	O	O	O	O	O	O
5	Does not cooperate with others	O	O	O	O	O	O
6	Coaches and mentors others	O	O	O	O	O	O
7	Loses composure when under stress	O	O	O	O	O	O
8	Sees possibilities more than problems	O	O	O	O	O	O
9	Shows awareness of own feelings	O	O	O	O	O	O
10	Remains calm in stressful situations	O	O	O	O	O	O
11	Understands the informal processes by which work gets done in the team or organization	O	O	O	O	O	O
12	Understands the team's or organization's unspoken rules	O	O	O	O	O	O
13	Convinces others by getting support from key people	O	O	O	O	O	O
14	Adapts to shifting priorities and rapid change	O	O	O	O	O	O
15	Does not try to improve	O	O	O	O	O	O
16	Convinces others through discussion	O	O	O	O	O	O
17	Is able to describe how own feelings affect own actions	O	O	O	O	O	O
18	Seeks to improve own self by setting measurable and challenging goals	O	O	O	O	O	O
19	Seeks ways to do things better	O	O	O	O	O	O
20	Understands the values and culture of the team or organization	O	O	O	O	O	O
21	Sees the positive in people, situations, and events more than the negative	O	O	O	O	O	O
22	Convinces others by appealing to their self-interest	O	O	O	O	O	O
23	Views the future with hope	O	O	O	O	O	O
24	Adapts by applying standard procedures flexibly	O	O	O	O	O	O
25	Understands others' perspectives when they are different from own perspective	O	O	O	O	O	O
26	Remains composed, even in trying moments	O	O	O	O	O	O
27	Understands social networks	O	O	O	O	O	O
28	Understands others by listening attentively	O	O	O	O	O	O
29	Acknowledges own strengths and weaknesses	O	O	O	O	O	O
30	Does not spend time developing others	O	O	O	O	O	O
31	Does not inspire followers	O	O	O	O	O	O
32	Sees opportunities more than threats	O	O	O	O	O	O

Item Number	Please carefully respond to each survey item below. The person you are rating:	Never	Rarely	Sometimes	Often	Consistently	Don't know
33	Works well in teams by being supportive	O	O	O	O	O	O
34	Provides on-going mentoring or coaching	O	O	O	O	O	O
35	Sees the positive side of a difficult situation	O	O	O	O	O	O
36	Tries to resolve conflict instead of allowing it to fester	O	O	O	O	O	O
37	Personally invests time and effort in developing others	O	O	O	O	O	O
38	Cares about others and their development	O	O	O	O	O	O
39	Works well in teams by soliciting others' input	O	O	O	O	O	O
40	Controls impulses appropriately in situations	O	O	O	O	O	O
41	Acts appropriately even in emotionally charged situations	O	O	O	O	O	O
42	Is aware of the connection between what is happening and own feelings	O	O	O	O	O	O
43	Does not strive to improve own performance	O	O	O	O	O	O
44	Has difficulty adapting to uncertain and changing conditions	O	O	O	O	O	O
45	Believes the future will be better than the past	O	O	O	O	O	O
46	Resolves conflict by bringing it into the open	O	O	O	O	O	O
47	Leads by inspiring people	O	O	O	O	O	O
48	Adapts by smoothly juggling multiple demands	O	O	O	O	O	O
49	Does not understand subtle feelings of others	O	O	O	O	O	O
50	Understands another person's motivation	O	O	O	O	O	O
51	Allows conflict to fester	O	O	O	O	O	O
52	Understands the informal structure in the team or organization	O	O	O	O	O	O
53	Adapts overall strategy, goals, or projects to fit the situation	O	O	O	O	O	O
54	Resolves conflict by de-escalating the emotions in a situation	O	O	O	O	O	O
55	Describes underlying reasons for own feelings	O	O	O	O	O	O
56	Works well in teams by encouraging participation of everyone present	O	O	O	O	O	O
57	Leads by articulating a compelling vision	O	O	O	O	O	O
58	Does not describe own feelings	O	O	O	O	O	O
59	Tries to resolve conflict by openly talking about disagreements with those involved	O	O	O	O	O	O
60	Understands others by putting self into others' shoes	O	O	O	O	O	O
61	Works well in teams by being respectful of others	O	O	O	O	O	O
62	Provides feedback others find helpful for their development	O	O	O	O	O	O
63	Leads by building pride in the group	O	O	O	O	O	O
64	Gets impatient or shows frustration inappropriately	O	O	O	O	O	O
65	Adapts overall strategy, goals, or projects to cope with unexpected events	O	O	O	O	O	O

Item Number	Please carefully respond to each survey item below. The person you are rating:	Never	Rarely	Sometimes	Often	Consistently	Don't know
66	Strives to improve own performance	O	O	O	O	O	O
67	Leads by bringing out the best in people	O	O	O	O	O	O
68	Convinces others by using multiple strategies	O	O	O	O	O	O

Appendix E: Example of a feedback about self- other-ratings of emotional intelligence provided for every participating manager

Feedback-Report zur emotionalen und sozialen Intelligenz

Teilnehmer: Sample

Emotionale und soziale Intelligenz

Was ist emotionale und soziale Intelligenz?

Emotionale und soziale Intelligenz ist die Fähigkeit, die eigenen Gefühle sowie die Gefühle anderer zu erkennen. Es ist die Fähigkeit sich selbst zu motivieren und die eigenen Emotionen sowie die Emotionen anderer effektiv zu steuern. Es beschreibt die Verhaltensweisen, die Menschen in schwierigen Rollen oder anspruchsvoller werdenden Karrieren beibehalten und umfasst die Qualitäten, die Menschen helfen mit Veränderungen effektiv umzugehen.

Das Model der emotionalen und sozialen Kompetenz (ESCI*)

Basierend auf jahrzehntelangen Forschungsarbeiten umfasst das Kompetenz-Modell der emotionalen und sozialen Intelligenz 12 Kompetenzen, die in 4 Dimensionen zusammengefasst werden.**

Vier Dimensionen emotionaler und sozialer Intelligenz:	
Selbstwahrnehmung:	Die eigenen Emotionen wahrnehmen und verstehen
Selbstmanagement:	Die eigenen Emotionen effektiv managen
Soziales Bewusstsein:	Die Emotionen anderer wahrnehmen und verstehen
Beziehungsmanagement:	Emotionales Verständnis in den Beziehungen zu anderen anwenden

Obwohl alle ESCI-Kompetenzen wichtig sind, ist es nicht notwendig in allen überdurchschnittlich gute Werte zu erreichen, um erfolgreich zu sein. In Abhängigkeit der eigenen Stärken sowie den Präferenzen und Bedürfnissen der Personen mit denen man zusammenarbeitet, werden unterschiedliche Kompetenzen benötigt.

* ESCI = Emotional and social competency inventory — Seite 1
**Quelle: Daniel Goleman, 2011, *Leadership: The power of emotional intelligence*

Die vier Dimensionen der emotionalen und sozialen Intelligenz

Die vier zentralen Fähigkeiten setzen sich aus persönlichen Kompetenzen (Selbstwahrnehmung und Selbstmanagement) und aus sozialen Kompetenzen (Soziales Bewusstsein und Beziehungs-management) zusammen. Im persönlichen Bereich geht es vor allem darum, wie gut wir uns selber managen können. Die sozialen Fähigkeiten beziehen sich darauf, wie gut wir unsere Beziehungen gestalten.

Selbstwahrnehmung ist der Kern des Models. Es beschreibt die Fähigkeit die eigenen Emotionen, unseren Antrieb und unsere Stärken und Schwächen zu verstehen. Es befähigt uns unsere emotionale und soziale Intelligenz im Laufe der Zeit auch bei Rückschlägen zu erhalten.

Selbstmanagement beschreibt die Fähigkeit biologische Impulse die unsere Emotionen beeinflussen im Griff zu haben. Es ist die Komponente der emotionalen Intelligenz die es uns ermöglicht keine Gefangenen unserer Gefühle zu sein. Menschen mit einer hohen Kompetenz in Selbstmanagement spüren schlechte Launen oder emotionale Impulse wie alle anderen, können diese jedoch besser kontrollieren und darüber hinaus in nützliche Bahnen lenken.

Soziales Bewusstsein umfasst die Fähigkeiten zu spüren was andere Personen fühlen. Es ist die Kompetenz, die Perspektive von anderen einzunehmen und Verbindungen und Beziehungen mit anderen herzustellen und zu pflegen.

Beziehungsmanagement ist die Dimension bei der emotionale und soziale Intelligenz (oder dem Fehlen dieser) am Besten für andere sichtbar wird. Die Kompetenzen in diesem Cluster beeinflussen die Motivation und Performance von Anderen, hängen aber von Stärken in den Dimensionen des sozialen Bewusstseins und des Selbstmanagements ab.

Persönliche Kompetenzen / Soziale Kompetenzen

Wahrnehmung / Handlungen

Selbst-wahrnehmung / Soziales Bewusstsein / EI / Selbst-management / Beziehungs-management

Seite 2

Feedback zum Test der emotionalen und sozialen Intelligenz

Das Feedback umfasst folgende Punkte:

ESCI Model

- Eine Auflistung und Beschreibung der 4 Dimensionen und 12 Kompetenzen die in diesem Modell gemessen werden

Auswertung

- Vergleich der Eigen- und Fremdsicht in allen 12 Kompetenzen der emotionalen Intelligenz
- Hinweis auf Stärken in einzelnen Bereichen
- Vergleich der Eigen- und Fremdbewertung mit einer Normgruppe (4.000 Personen und 42.000 Bewerter)

Erkennen von Stärken in den Kompetenzen der emotionalen Intelligenz

- Erklärung, wie sich Stärken in den 12 Kompetenzen auswirken bzw. zeigen

Seite 3

Emotionale und soziale Intelligenz

Die 4 Dimensionen und 12 Kompetenzen des Models der emotionalen und sozialen Kompetenz:

Selbstwahrnehmung
- Emotionale Selbstwahrnehmung = Wahrnehmen und verstehen der eigenen Emotionen

Selbstmanagement
- Leistungsorientierung = Das Streben die eigene Leistung zu verbessern und hohe Leistungsstandards zu erreichen
- Anpassungsfähigkeit = Flexibilität im Umgang mit Veränderungen
- Emotionale Selbstkontrolle = Störende Emotionen und Impulse im Griff haben
- Optimismus = Beständigkeit im Verfolgen von Zielen auch bei Schwierigkeiten oder Rückschlägen

Soziales Bewusstsein
- Einfühlungsvermögen = Die Gefühle anderer Menschen wahrnehmen und aktives Interesse für ihre Anliegen zeigen
- Organisationsverständnis = Gruppen, Netzwerke und ungeschriebene Regeln erkennen
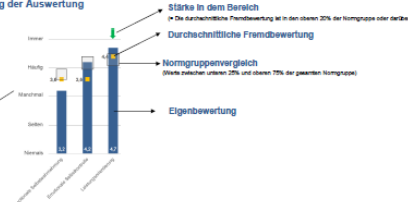
Beziehungsmanagement
- Konfliktmanagement = Verhandlungsfähigkeit und das Beheben von Meinungsverschiedenheiten
- Coaching und Mentor Funktion = Potenziale bei anderen erkennen und ihre Fähigkeiten fördern
- Einflussnahme = Einsetzen von effektive Strategien zur Überzeugung anderer
- Visionäre Führung = Mit einer überzeugenden Vision lenken und motivieren
- Teamarbeit = Mit anderen Personen an einem gemeinsamen Ziel arbeiten und dabei Synergien in Gruppen schaffen

Seite 4

Das Feedback interpretieren

Die Auswertung des ESCI-Tests bietet einen Überblick über Ihre **Stärken** und **Bereiche zur Verbesserung**. Es fasst die Eigenbewertung sowie die durchschnittliche Fremdbewertung zusammen. Des weiteren werden die Werte mit denen einer **Normgruppe** von 4.000 Personen und rund 42.000 Bewertern verglichen.
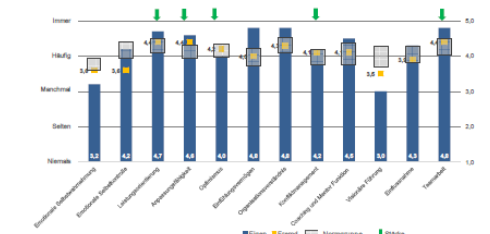
Beschreibung der Auswertung

Seite 5

Auswertung der Eigen- und Fremdbewertung zur sozialen und emotionalen Intelligenz

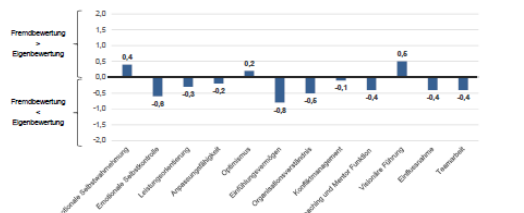**Vergleich der Eigen- und Fremdbewertung mit der Normgruppe**

Anzahl gültiger Fremdbewertungen: 5

Seite 6

Erkennen der Unterschiede in der Eigen- und Fremdsicht

Darstellung der **Abweichung zwischen Eigen- und Fremdbewertung**. Positive Zahlen zeigen, dass die Fremdbewertung über der Eigenbewertung liegt. Negative Zahlen zeigen dass die Fremdbewertung unter der Eigenbewertung liegt.

Wert 0 = Selbst- und Fremdsicht stimmen exakt überein

Seite 7

Was sagen die Kategorien über Führungskräfte aus

Selbstwahrnehmung
- Emotionale Selbstwahrnehmung

  Führungskräfte, die über emotionale Selbstwahrnehmung verfügen, erkennen ihre inneren Signale und wissen, wie sich ihre Gefühle auf sie selbst und ihre Arbeitsleistung auswirken. Sie kennen ihre Leitwerte und entscheiden sich oft intuitiv für die beste Vorgehensweise, weil sie auch in komplexen Situationen das Gesamtbild im Auge haben.

Seite 8

Was sagen die Kategorien über Führungskräfte aus

Selbstmanagement
- Emotionale Selbstkontrolle

  Eine Führungskraft mit emotionaler Selbstkontrolle findet Wege seine negativen oder störenden Emotionen und Impulse zu kontrollieren und sinnvoll zu lenken. Ein Kennzeichen von Selbstkontrolle sind Führungskräfte die auch unter Stress oder einer Krise ruhig bleiben und einen klaren Kopf bewahren – Jemand der auch in schwierigen Situationen unerschütterlich bleibt.

- Leistungsorientierung

  Leistungsorientierte Führungskräfte haben hohe persönliche Standards die sie antreiben ständig nach Leistungsverbesserungen, für sich selbst und für diejenigen die sie führen, zu suchen. Sie sind pragmatisch, setzen messbare aber anspruchsvolle Ziele und sind in der Lage Risiken abzuschätzen, so dass ihre Ziele auch angemessen und erreichbar sind. Ein Kennzeichen des Erfolgs ist das kontinuierliche Erlernen und Weitergeben von Möglichkeiten Dinge besser zu tun.

- Anpassungsfähigkeit

  Führungskräfte die anpassungsfähig sind können mehrere Anforderungen gleichzeitig erledigen ohne ihren Fokus oder ihre Energie zu verlieren. Sie fühlen sich wohl mit den unvermeidbaren Unklarheiten des organisatorischen Lebens. Solche Führungskräfte passen sich flexibel an neue Herausforderungen und fließende Veränderungen an. Sie sind fähig angesichts neuer Daten oder Realitäten schnell umzudenken.

- Optimismus

  Eine optimistische Führungskraft nimmt die Dinge wie sie sind und sieht eher Chancen als Gefahren in einem Rückschlag. Solche Führungskräfte sehen andere positiv und erwarten das Best von ihnen. Ihre „das Glas ist halb voll" Einstellung führt dazu, dass Sie davon ausgehen das Veränderungen in der Zukunft positiv sein werden.

Seite 9

Was sagen die Kategorien über Führungskräfte aus

Soziales Bewusstsein
- Einfühlungsvermögen

  Führungskräfte mit Einfühlungsvermögen sind in der Lage eine breite Palette von emotionalen Signalen zu erkennen, und die gefühlten, aber unausgesprochenen Emotionen, in einer Person oder Gruppe zu verstehen. Solche Führungskräfte hören aufmerksam zu und können die Perspektive der anderen Person erfassen. Empathie macht es möglich mit Menschen unterschiedlicher Herkunft oder verschiedenen Kulturen auszukommen und zusammenzuarbeiten.

- Organisationsverständnis

  Eine Führungskraft mit einem ausgeprägten Organisationsverständnis ist unternehmenspolitisch scharfsinnig. Sie ist in der Lage, entscheidende soziale Netzwerke zu erkennen und zu lesen und ist sich wichtiger Machtverhältnisse in der Organisation bewusst. Solche Führungskräfte können die politischen Kräfte, sowie die Werte und unausgesprochenen Regeln mit denen die Menschen in einer Organisation arbeiten, verstehen.

Seite 10

Was sagen die Kategorien über Führungskräfte aus

Beziehungsmanagement
- Konfliktmanagement

  Führungskräfte mit einer hohen Kompetenz im Konfliktmanagement sind in der Lage alle Beteiligten und deren unterschiedlichen Perspektiven zu verstehen, und ein gemeinsames Optimum zu finden dem jeder zustimmen kann. Sie bringen Konflikte an die Oberfläche, erkennen die Gefühle und Ansichten aller Seiten und leiten die Energie in Richtung einer gemeinsamen, idealen Lösung.

- Coaching und Mentor Funktion

  Führungskräfte, die geschickt im Fördern von Fähigkeiten anderer sind, zeigen ein echtes Interesse an den Personen denen sie helfen. Sie verstehen ihrer Ziele, Stärken und Schwächen. Solche Führungskräfte können rechtzeitiges und konstruktives Feedback geben und sind natürliche Mentoren oder Coaches.

- Einflussnahme

  Anzeichen einer hoher Einflusskraft von Führungskräften sind das Finden des richtigen Zuganges zu bestimmten Zuhörern. Diese Führungskräfte wissen wie man die Unterstützung von wichtigen Personen erhält und ein Netzwerk zur Unterstützung von Initiativen kreiert. Führungskräfte mit Einfluss sind überzeugend und engagiert wenn sie zu einer Gruppe sprechen.

- Visionäre Führung

  Führungskräfte die inspirieren schaffen Resonanz und bewegen Menschen mit einer überzeugenden Vision oder gemeinsamen Mission. Solche Führungskräfte verkörpern, was sie von anderen verlangen und sind in der Lage, eine gemeinsame Mission in einer Weise zu artikulieren, die andere inspiriert dieser zu folgen. Sie kommunizieren gemeinsame Ziele über die routinemäßigen Tagesaufgaben hinaus und sorgen dafür, dass die Arbeit spannend bleibt.

- Teamarbeit

  Führungskräfte die gute Teamspieler sind, erzeugen eine Atmosphäre freundlicher Kollegialität und sind selbst ein Vorbild für Respekt, Hilfsbereitschaft und Kooperation. Sie wecken das Engagement und die Begeisterung der Gruppe für die kollektiven Bemühungen und sorgen für Esprit und Übereinstimmung. Sie nehmen sich die Zeit enge Beziehungen die über die Arbeit hinausgehen aufzubauen und zu pflegen.

Seite 11

Appendix F: Follow-up questionnaire to managers receiving feedback about their emotional intelligence competencies

(evaluated with the ESCI 3.0)

Accuracy of feedback

1.) I agree with the feedback I received about my emotional and social competencies

☐ Strongly Disagree ☐ Disagree ☐ Neither Agree or Disagree ☐ Agree ☐ Strongly Agree

2.) I think that the feedback of my raters is very accurate regarding my competencies

☐ Strongly Disagree ☐ Disagree ☐ Neither Agree or Disagree ☐ Agree ☐ Strongly Agree

Usefulness of feedback

1.) This feedback is useful for me

☐ Strongly Disagree ☐ Disagree ☐ Neither Agree or Disagree ☐ Agree ☐ Strongly Agree

2.) This feedback is valuable for helping me develop my management abilities

☐ Strongly Disagree ☐ Disagree ☐ Neither Agree or Disagree ☐ Agree ☐ Strongly Agree

3.) Due to the feedback, I found areas that I can improve on

☐ Strongly Disagree ☐ Disagree ☐ Neither Agree or Disagree ☐ Agree ☐ Strongly Agree

Reaction to feedback

1.) What feeling closest reflects your mood after reading the feedback report:

Rather positive reaction:

Inspired, encouraged, informed, aware, pleased, motivated, enlightened

Rather negative reaction:

Angry, judged, confused, examined, criticized, discouraged

Other: *   "…………………."

*Will be later allocated to the categories "rather positive" or "rather negative"

Likelihood to take development actions

1.) Due to the feedback, I think that I will work on areas where I can improve

☐ Strongly Disagree ☐ Disagree ☐ Neither Agree or Disagree ☐ Agree ☐ Strongly Agree

2.) I think that I will actively inform myself about development possibilities to get better in certain areas of emotional intelligence

☐ Strongly Disagree ☐ Disagree ☐ Neither Agree or Disagree ☐ Agree ☐ Strongly Agree

Others/ Implications for HR

1.) It would be helpful for managers if training about emotional intelligence was a part of leadership development courses

☐ Strongly Disagree ☐ Disagree ☐ Neither Agree or Disagree ☐ Agree ☐ Strongly Agree

2.) I think that I could also influence the organizational commitment of my employees positively when improving my emotional intelligence competencies

☐ Strongly Disagree ☐ Disagree ☐ Neither Agree or Disagree ☐ Agree ☐ Strongly Agree

3.) The most important factor to become more emotionally intelligent in my opinion is (select one)
- Feedback
- Training
- Self-development through learning materials
- Other (explain)

4.) The biggest benefit when filing out the EI-questionnaire and receiving the feedback from other raters was (select one)
- The reflection of my own daily behavior when interacting with other people
- Getting direct feedback from employees and colleagues
- The introduction to the concept of Emotional Intelligence and the influence it can have on daily business
- Having a starting point for possible improvement in certain emotional competencies
- Other (explain)
- It had no value for me

Appendix G: Testing data for normal distribution

Table: Testing the normal distribution of emotial intelligence competencies data (self rating)

One-Sample Kolmogorov-Smirnov Test

		Emotional Self Awareness_Self	Achievement Orientation_Self	Adaptability_Self	Emotional Self Control_Self	Positive Outlook_Self	Empathy_Self	Organizational Awareness_Self	Conflict Management_Self	Coach and Mentor_Self	Inspirational Leadership_Self	Influence_Self	Teamwork_Self
N		28	28	28	28	28	28	28	28	28	28	28	28
Normal	Mean	3.771	4.000	3.950	3.986	4.186	3.871	3.993	3.871	3.725	3.575	3.618	4.211
Parameters	Std. Deviation	.4791	.4286	.3986	.3969	.4107	.3452	.4055	.4594	.5296	.4820	.4347	.3337
Most Extreme	Absolute	.112	.143	.193	.157	.111	.141	.150	.153	.160	.122	.161	.130
Differences	Positive	.072	.107	.129	.098	.103	.141	.100	.094	.078	.122	.161	.093
	Negative	-.112	-.143	-.193	-.157	-.111	-.110	-.150	-.153	-.160	-.108	-.132	-.130
Test Statistic		.112	.143	.193	.157	.111	.141	.150	.153	.160	.122	.161	.130
Asymp. Sig. (2-tailed)		.200	.150	.009	.074	.200	.161	.108	.094	.065	.200	.062	.200

Source: created by the author, based on own statistic results

Table: Testing the normal distribution of emotial intelligence competencies data (other-rating)

One-Sample Kolmogorov-Smirnov Test

		Emotional Self Awareness_Other	Achievement Orientation_Other	Adaptability_Other	Emotional Self Control_Other	Positive Outlook_Other	Empathy_Other	Organizational Awareness_Other	Conflict Management_Other	Coach and Mentor_Other	Inspirational Leadership_Other	Influence_Other	Teamwork_Other
N		28	28	28	28	28	28	28	28	28	28	28	28
Normal	Mean	3.562	4.251	4.005	4.046	4.068	3.739	4.102	3.813	3.953	3.659	3.664	4.116
Parameters	Std. Deviation	.3188	.2710	.2718	.4058	.3514	.3612	.2655	.3836	.3564	.3821	.3885	.3414
Most Extreme	Absolute	.137	.152	.078	.122	.118	.113	.119	.095	.115	.143	.099	.116
Differences	Positive	.070	.094	.078	.122	.118	.110	.119	.095	.097	.115	.091	.097
	Negative	-.137	-.152	-.065	-.077	-.118	-.113	-.094	-.090	-.115	-.143	-.099	-.116
Test Statistic		.137	.152	.078	.122	.118	.113	.119	.095	.115	.143	.099	.116
Asymp. Sig. (2-tailed)		.191	.095	.200	.200	.200	.200	.200	.200	.200	.150	.200	.200

Source: created by the author, based on own statistic results

Table: Testing the normal distribution of data for emotial intelligence domains (self and other-rating)

		Self Awareness_S	Self Management_S	Social Awareness_S	Relationship Management_S	Self Awareness_O	Self Management_O	Social Awareness_O	Relationship Management_O
N		28	28	28	28	28	28	28	28
Normal Parameters	Mean	3.771	4.030	3.932	3.800	3.562	4.093	3.921	3.841
	Std. Deviation	.4791	.2500	.3244	.3354	.3188	.2339	.2775	.3356
Most Extreme	Absolute	.112	.105	.147	.095	.137	.092	.085	.075
Differences	Positive	.072	.105	.147	.068	.070	.078	.085	.075
	Negative	-.112	-.095	-.092	-.095	-.137	-.092	-.071	-.070
Test Statistic		.112	.105	.147	.095	.137	.092	.085	.075
Asymp. Sig. (2-tailed)		.200	.200	.128	.200	.191	.200	.200	.200

Source: created by the author, based on own statistic results

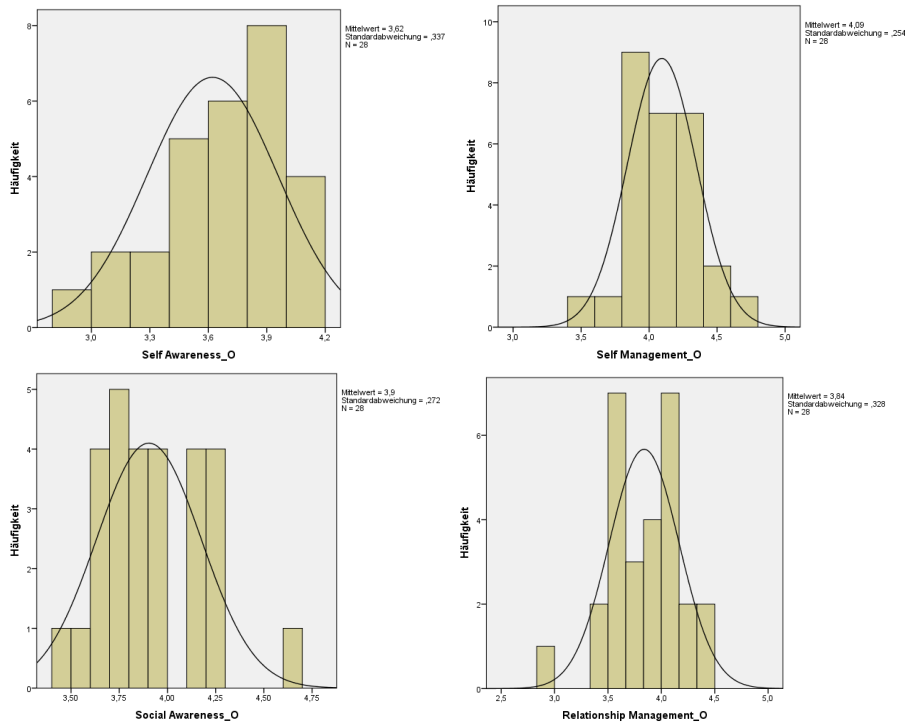**Appendix H: Histograms of data**

Figure: Histograms of data for emotional intelligence (other-rating)

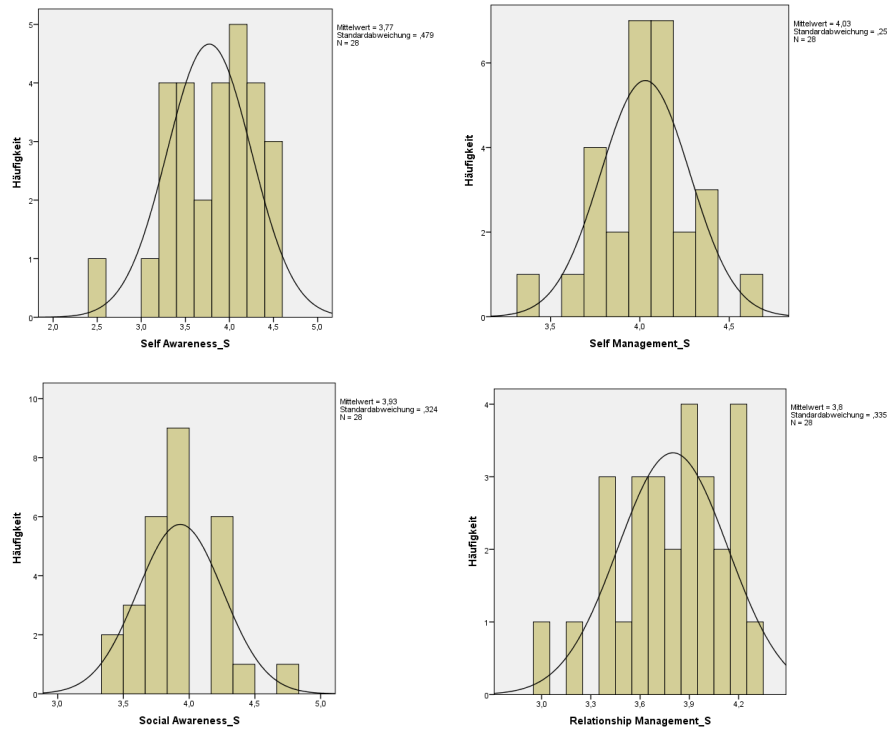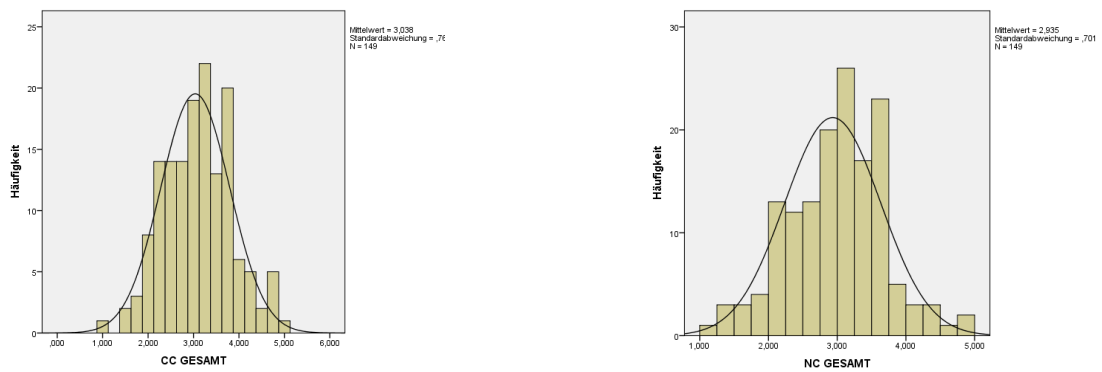Source: created by the author, based on own statistic results

Figure: Histograms of data for emotional intelligence (self rating)

Source: created by the author, based on own statistic results
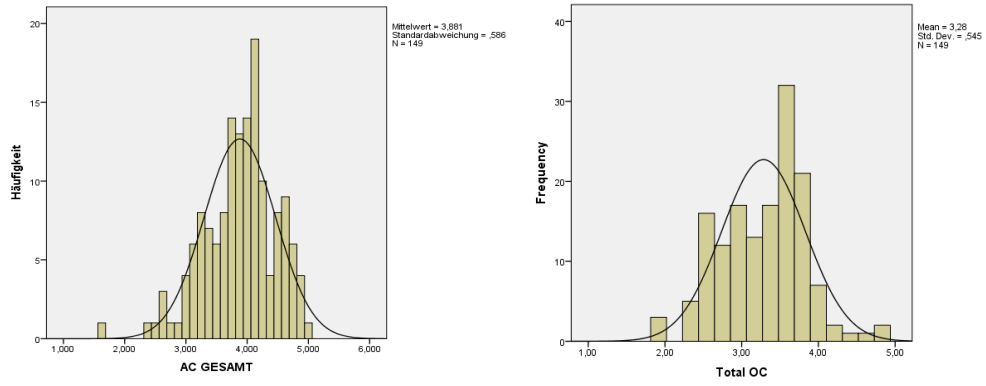
Figure: Histograms of distributed data for organizational commitment of each subordinate (AC, NC, CC, Total OC)

Source: created by the author, based on own statistic results