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Bachelor thesis

Emotional Intelligence in an Entrepreneurial context

Do entrepreneurs have a significantly higher EQ than other managers?



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Abstract

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Title: Emotional Intelligence in an Entrepreneurial context

Background: Emotional Intelligence (EI) has been said to matter twice as much as Intelligent Quotient (IQ) for predicting business success (Goleman, 1998b). This study addresses Emotional Intelligence in previously unexplored context in Sweden: entrepreneurship.

Purpose: The purpose of this research is to explain Emotional Intelligence and its possible relationship with the entrepreneur.

Hypothesis: *Being an entrepreneur is positively related to EQ*

Method: The study has a deductive research approach where the hypothesis is formed by the theoretical framework of Emotional Intelligence, providing an empirical framework that measures the concept in the entrepreneurial context and outlines linkages among the constructs. The study is conducted among members of the business organization Företagarna in Region Halland, Sweden, by the measurement instrument Emotional Intelligence Scale (EIS).

Conclusion: The assumptions derived from a theoretical perspective could be confirmed empirically. Being an entrepreneur is positively related to EQ.

Keywords: *CEO, EI, EIS, EQ, Emotional Intelligence, Entrepreneurs, Entrepreneurship*



Thanks

I would like to give special thanks to the participants of the study, particularly to Företagarna and especially Jennie Wijk, who enabled the study. Your contribution has been of the utmost importance for my analysis and in explaining Emotional Intelligence among entrepreneurs in Sweden. Thanks to Entergate for providing the survey software and their advice and support. I would also like to thank the opponents, my supervisor and my examiner, Anna Stafsudd. Her support and guidance have extended above and beyond the examiner role. Thank you.

With much appreciation,

Hanna Daneshmir



Acronyms

CEO: Chief Executive Officer

EI: Emotional Intelligence

EIS: Emotional Intelligence Scale

EQ: Emotional Quotient

IQ: Intelligence Quotient

Definitions

CEO: CEO:s that did not participate in founding the business (definition used in this study).

Entrepreneurs: CEO:s and founders of their businesses (definition used in this study).

Intelligence: The ability to deal with cognitive complexity (Gottfredson & Saklofske, 1994).

Empathy: The ability to recognize moods and emotions in others (Salovey & Sluyter, 1997).

Företagarna: Business organization in Sweden. English: The Swedish Federation of Business Owners (Företagarna, 2017).

Skill: The ability to do something in an effective manner (Salovey & Sluyter, 1997).

Trait: A variety of individual attributes, including aspects of personality as temperament, needs, motives and values (Salovey & Sluyter, 1997).



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1. Introduction

This section of the study will begin by presenting the concept of Emotional Intelligence (EI) and the entrepreneur, followed by an analysis of EI in the context of entrepreneurship.

In the problem summary, the necessity of the research is stated with regards to current related studies in *Table 1*, where this study is positioned within the context of the field and discussed.

Lastly, the purpose is stated together with the research questions, followed by a disposition of this thesis illustrated in *Figure 1*.

1.1 Background

Emotional Intelligence is the ability to perceive, understand, integrate and manage emotions (Lyons & Schneider, 2005). Emotional Intelligence, from here on after referenced by its acronym EI, is measured using the Emotional Quotient (EQ) (NE, 2017). Although the term is relatively new, individuals with high EI have been ubiquitous throughout history; a famous example is Mahatma Gandhi (Goleman, 1998a). Despite this, it is not until recently that the importance of EI has been widely highlighted. Its relevance with regards to entrepreneurship is even less explored, something this study hopes to rectify.

EI is a focus of interest, as it has been claimed to matter twice as much as Intelligent Quotient (IQ) for predicting business success (Goleman, 1998b). The Harvard Business Review hailed EQ as "a ground-breaking, paradigm-shattering idea" and claimed it was one of the most influential business ideas of the decade (Goleman, 1995, p. xii).

The term's rapid rise to fame originated in Daniel Goleman's bestselling book "Emotional Intelligence," first published in 1995 (Bar-On, 2006).

Goleman (1995) defines the term as the composition of capabilities that enable a person to manage oneself and others. Through Goleman's work, the term gained mainstream status and is today widely recognized as an important factor for both personal and business success (Goleman, 1995).



In the 1990's, few could have predicted how much the field would blossom in the next 15 years. The term EI first emerged in 1990 by Peter Salovey and John D. Mayer. They defined EI as the social capacity to assess and regulate emotions, both within oneself and amongst others. The Mayer-Salovey-Caruso Emotional Intelligence Test, the MSCEIT, was the first method to measure EQ (Mayer, Salovey, & Caruso, 2000). Another method is the Bar-On model of Emotional-Social Intelligence by Reuven Bar-On. Bar-On measures emotional and social competence through the EQ-Emotional Quotient Inventory, the EQ-i (Bar-On, 1997).

Thereafter Schutte, Malouff, Hall, Haggerty, Cooper, Golden and Dornheim (1998) constructed a revised Emotional Intelligence Scale often referred to as the EIS, based on Salovey and Mayer's EI model (Schutte et al., 1998). All of the mentioned EI models share a common core of basic concepts: the ability to recognize and regulate emotions in oneself and others (Goleman, 1998a). Schutte et al. (1998) believe that most of the dimensions of EI could be integrated into the EIS.

Like the concept of EI, entrepreneurship is about how well entrepreneurs handle themselves and others (McLaughlin, 2012). Extensive research has shown that EQ drives as much as 75 percent of business success, and is therefore considered a crucial personal ability in order to be successful in today's often chaotic business environment (Ngah & Salleh, 2015). The most recurrent characteristics of successful entrepreneurs in literature are change, innovation, value creation and the ability to recognize and exploit opportunities (Ahmetoglu, Leutner & Chamorro-Premuzic, 2011).

Entrepreneurship can be defined as "the creation of new enterprise" (Davidsson & Wiklund, 2001, p.2). In Sweden, 70135 companies were founded during 2015 (SCB, 2017). The purpose of entrepreneurial research is, according to Davidsson and Wiklund (2001, p.2), to "explain and facilitate the role of new enterprise in furthering economic progress."

According to Eurostat (2017), 86.1 percent of Swedish companies founded in 2012 were still operating two years later. The Swedish Central Bureau of Statistics (SCB) considers this 86.1 percent as a ratio for entrepreneurial activity (SCB, 2017).

At an international level, Eurostat (2017) considers this a quite superior percentage in comparison to other European countries. Entrepreneurial activity promotes innovation, creates jobs and encourages global competitiveness for firms as well as countries



(Davidsson & Wiklund, 2001). Entrepreneurial activity is a vital component of national economic growth and development (Ekonomifakta, 2015).

At a national level, the Swedish government is working to create better conditions for innovation and knowledge-intensive businesses (Regeringskansliet, 2016). A government agency under the Ministry of Labour is the Swedish European Social Fund (ESF) Council. The Swedish ESF Council's overall goal is to enhance competitiveness, knowledge and innovation and thereby increase employment. To accomplish these goals, they emphasize the importance of promoting an entrepreneurial approach in schools and teaching methods (ESF, 2017).

This study focuses on entrepreneurs in Halland, a region in the southwest of Sweden. Region Halland (2017) states that they provide good conditions for innovation and entrepreneurship. The region believes it is important to stimulate further innovation and that established companies with growth potential also require good conditions in order to develop (Region Halland, 2017). Halland also states that efforts may be needed to promote more knowledge-intensive enterprises in the region, requiring the development of innovation systems (Region Halland, 2017).

In order to meet the ambitions on a regional and a national level, Region Halland (2017) together with the Swedish ESF Council constructed a regional development strategy (RUS) for the period of 2005-2020. The RUS identified challenges as: identify and take advantage of innovations, to approach emerging markets and to strengthen the regions own growth.

Even though the concept of entrepreneurship is not new, researchers continuously explore the factors that underlie entrepreneurial performance. In today's society, entrepreneurs must have the ability to be flexible and adaptable in a constantly changing business society (Nghah & Salleh, 2015). As such, individuals with entrepreneurial occupations face business situations that require unique skills and abilities in social interactions (McLaughlin, 2012). As the core concepts of EI share similarities with the definitions of the entrepreneur, I agree with Ahmetoglu et al. (2011) that EI has implications for possibly being a factor that underlies entrepreneurial performance. But why is it interesting to study EI in the context of entrepreneurship; *how* can EI be beneficial for the entrepreneur?



The impact of EI in entrepreneurial and social interactions becomes evident in negotiations, identifying and exploiting opportunities, obtaining and organizing resources, managing stress, obtaining and maintaining customers as well as providing leadership (Nghah & Salleh, 2015). According to Humphrey (2013), the ability to regulate one's emotions can help entrepreneurs deal with well-known problems that arise when starting a business. The ability to interact effectively with other people, a skill associated with higher EI, is often necessary for individuals attempting to exploit opportunities through innovation (Ahmetoglu et al., 2011). Given that EI can be beneficial to entrepreneurs, it corresponds with the RUS (2005-2020) goals and the vision emphasized by Region Halland on a regional level and the government on a national level. Therefore, EI factors into the purpose of entrepreneurship research, the goal of which is stated by Davidsson and Wiklund (2001) to explain and facilitate the role of new enterprise in furthering economic progress.

I argue that understanding the factors that underlie entrepreneurial performance is a key component in the field of entrepreneurship. Thus, the primary aim of this study is to provide a better understanding of EI's role in an entrepreneurial context.



1.2 Problem Summary

By exploring the relationship between EI and the entrepreneur, this study might provide a theoretical as well as a practical contribution, discussed below.

1.2.1 The theoretical contribution

I believe that the theoretical conclusion reached in this study can be used as a basis for further research in the area of entrepreneurial research. The reason is twofold; firstly, the concept of EI is still quite new. As a consequence, EI in the context of entrepreneurship is virtually unexplored. The next paragraph will highlight the contribution by discussing the most prominent research in EI.

1.2.1.1 Related studies

The term EI first emerged in the 1990's by Salovey and Mayer. As such, the concept of EI can still be considered quite young and unexplored. Consequently, the same applies to the differing contexts in which EI may be applied.

Prominent researchers, such as Goleman (2011), Wong and Law (2002), Affandi and Raza (2013), have all examined EI in the context of leadership performance. All showed a positive correlation. Druskat and Wolff (2001) examined EI in social groups, and their study indicated that just like individuals, the most effective teams are the ones with a high collective EI. In addition, they concluded that any team could attain EI by training.

In contrast to the previous positive correlations, a study by Emmerling and Goleman (2003) contradicted these implications. Emmerling and Goleman (2003) focused on the correlation and predictive validity of EI when compared to IQ, and stated that IQ test scores are correlated with how well people perform in their careers. Therefore, Emmerling and Goleman (2003) argued that IQ is a better measure of work and academic performance than EI.



Since the 1990's, the concept of EI has gained prominence amongst both scholars and practitioners due to its potential to influence desired working outcomes and performances (Goldenburg et al., 2006). However, it is not until recently that EI has been applied to entrepreneurship research.

Within entrepreneurship research, the most prominent use of EI can be found in the following four studies: Ahmetoglu, et al. (2011), Zampetnakis, Beldekos, and Moustakis (2009) Cross and Travaglione (2003) as well as Ngah and Salleh, (2015). They are introduced in *Table 1* where the purpose, conclusion and methods are viewed followed by a short explanation of each study. To determine this study's potential theoretical contribution, the related studies will be discussed in comparison to give the reader further insight.



Article	Purpose	Conclusion	Methods
1. Ahmetoglu et al. (2011). EQ-nomics: Understanding the relationship between individual differences in Trait Emotional Intelligence and entrepreneurship. <i>Personality and Individual Differences</i> , 51(8), 1028-1033.	Their purpose was to examine if EI predicts entrepreneurship and if higher Trait EI is linked to entrepreneurial behaviours as well as entrepreneurial success.	Concluding that Trait EI could forecast only some entrepreneurial outcomes beyond other variables examined, and with small impact sizes. Their results indicated that more emotionally intelligent individuals are more likely to engage in innovative entrepreneurial activities.	Quantitative method – survey UK Measurement instrument: Trait Emotional Intelligence questionnaire (TEIQue, Petrides & Furnham, 2003)
2. Zampetakis et al. (2009) “Day-to-day” entrepreneurship within organizations: The role of Trait Emotional Intelligence and Perceived Organizational Support. <i>European Management Journal</i> ; 27, 165– 175.	Their purpose was to analyse the understanding of the factors influencing individual entrepreneurial behaviour in organizations.	Their findings indicated that the positive relationship between POS (Perceived Organizational Support) and entrepreneurial behaviour is stronger for employees with less tenure, compared to employees with high tenure.	Quantitative method – survey Among employees in the service sector in Greece. Measurement instrument: Trait EI questionnaire by Wong and Law, (2002).
3. Cross and Travaglione (2003). The untold story: is the entrepreneur the 21st century defined by emotional intelligence? <i>The International Journal of Organizational Analysis</i> , Vol. 11, No. 3.	Their purpose was to provide an analysis of the relationship between EQ and successful entrepreneurs.	Their findings indicated that entrepreneurs had an EQ level beyond the norm. Concluding that EQ contributes positively towards an individual's entrepreneurial behaviour.	Qualitative method - in-depth structured interviews. Among entrepreneurs in Australia. Measurement instrument: Ability-based (Mayer, Caruso and Salovey, 1990) and Goleman (1998) workplace model.
4. Ngah and Salleh (2015). Emotional Intelligence and Entrepreneurs’ innovativeness towards Entrepreneurial Success: A Preliminary Study. <i>Malaysian Academy of Entrepreneurship and SME Development</i> , Faculty of Business Management, University Technology MARA	Their study investigates the relevance of three constructs; emotional intelligence and entrepreneurs’ innovativeness in entrepreneurial success.	Their results indicated that EI could increase innovation that may lead to entrepreneurial success.	Quantitative method – survey Among young entrepreneurs in Malaysia. Measurement instruments: Trait EI questionnaire by Wong and Law (2002)

Table 1- *Related studies*



First, Ahmetoglu et al. (2011) conducted a study in the UK where they examined whether or not EI predicts successful entrepreneurship, and if higher Trait EI is linked to entrepreneurial behaviours as well as entrepreneurial success. They concluded that Trait EI could only predict some entrepreneurial outcomes beyond other variables examined and with small impact sizes. Interestingly, their results indicated that emotionally intelligent individuals are more likely to engage in innovative entrepreneurial activities (Ahmetoglu et al., 2011).

Second is a study by Zampetankis et al. (2009) conducted in Greece examining the role of Trait EI and perceived organizational support (POS). They aimed to deepen the understanding of the factors influencing individual entrepreneurial behaviour in organizations. Zampetankis et al.'s (2009) results indicated that both personal and contextual variables correlate with individual entrepreneurial behaviour.

Thirdly, prominent research was conducted by Cross and Travaglione in 2003. They conducted a study among several Australian entrepreneurs with the goal to provide an explanation for the relationship between EI and successful entrepreneurs with an Ability EI approach. Their results indicated that entrepreneurs had an EQ level beyond the norm, suggesting that EQ contributes positively towards an individual's entrepreneurial behaviour. In addition, they argue that EQ is the missing factor researchers have been searching for in entrepreneurial studies.

Lastly, Ngah and Salleh (2015) conducted a pilot study in Malaysia closely related to the aims of this study. They investigated EI and the entrepreneur's innovativeness towards entrepreneurial success in Malaysia. Their results indicated that EI could, in fact, increase the entrepreneur's innovativeness, potentially leading to entrepreneurial success. The findings of this pilot study support implications for further investigation in this area.

In contrast to the theoretical approaches in the aforementioned four studies, this study will focus on the EI concept through a branch of EI called Ability EI. This is similar to Cross and Travaglione (2003), who also used an Ability EI approach, but in contrast to Ahmetoglu et al. (2011), Zampetankis et al. (2009) and Ngah and Salleh (2015) who all focused on the other EI branch called Trait EI.

The aim of the aforementioned studies differs from the focus of this study. Ahmetoglu et al. (2011) aimed to examine if EI predicts entrepreneurship and if higher Trait EI is



linked to entrepreneurial behaviours and success, starkly different than the ability EI approach of this study. The same applies to Zampetankis et al. (2009), who took an organizational approach. Ngah and Salleh's (2015) pilot study approach was EI, innovativeness and entrepreneurial success of entrepreneurs. This differs to some extent from this study, as innovativeness is not a central measurement method. The most notable difference in Cross and Travaglione's (2003) study is their comparison of EQ to a norm. In this study, the results are not related to a standard EQ norm. Instead, a comparison is made by separating CEOs using the definition "the creation of a new enterprise" by Davidsson and Wiklund (2001, p. 2) in order to examine if entrepreneurship is linked to a higher than average EQ.

None of the four above-mentioned studies used the Ability EI measurement instrument chosen in this study, and as a consequence, the findings may differ. An overview of the studies that have been conducted using Ability EI is shown in Appendix A. Notably, none of those studies has the same approach or a similar range of participants. In addition, the geographic scope differs, as this study will be conducted in Sweden as opposed to the UK, Greece, Australia or Malaysia in the previously mentioned studies. In consideration of Sweden's comparatively high ratio for entrepreneurial activity (SCB, 2017) it is possible that this study may generate a different set of empirical findings.

The only study conducted in Sweden using the Ability EI measurement method is by Sjöberg (2001). Sjöberg (2001) targeted university students in Stockholm and, in sharp contrast to this study, did not have an entrepreneurship approach. In addition, this study will be conducted in Halland and not in Stockholm.

The research methods differ considerably in the four studies outlined in *table 1*. Cross and Travaglione (2003) conducted in-depth structured interviews, a qualitative research method. On the other hand, Ahmetoglu et al. (2011), Zampetankis et al. (2009) and Ngah and Salleh (2015) used quantitative research methods. In that sense, they are similar to this study, which will also be conducted using a quantitative research method. Therefore, even though Cross and Travaglione (2003) also used the theoretical approach of Ability EI, the different research method used here will hopefully put this study in a different context in the field.



To summarize the previous paragraphs, several studies have been conducted concerning EI, a few regarding EI in an entrepreneurial context. However, there are few – if any – studies that are specifically concerned with whether or not entrepreneurs possess a considerably higher EI than average.

Regardless of what the outcome may be, I believe this study has the opportunity to contribute to the established EI research within the entrepreneurship context, and in particular to research concerning the entrepreneur. By executing a comparative study among business managers, I believe this study contributes to research concerning EI as a valid concept. Due to the resemblance of the core concepts of EI and entrepreneurship, the outcome could therefore either contribute to more research in the area or perhaps to disprove the concept of EI. In conclusion, given the spectrum of results and methods viewed, I argue that it is interesting to examine the interaction between these areas. To then contribute to the building of a nomological network to support this fascinating stream of research.

1.2.2 Practical contribution

Even if the concept of EI is intriguing, what benefits can be gained by examining the interaction of EI among entrepreneurs?

I believe it is interesting to explore a term that can measure a new form of intelligence. Previous intelligence measurements, such as IQ, cannot be developed and enhanced to the same extent as EQ (Goleman & Boyatzis, 2017), which is one of the main reasons why I decided to study EI. I argue that it is more important to measure something that you have the possibility of improving, as opposed to the static nature of IQ.

Groves, McEnrue and Shen (2008) proved that it was possible to increase EI through training. Their study, entitled "Developing and Measuring the Emotional Intelligence of Leaders", was based on the Mayer and Salovey model and concluded that those who completed an EI test and further engaged in EI skill-building activities successfully enhanced their EI. Although this study takes on an entrepreneurial perspective in contrast to Groves, McEnrue and Shen (2008), their research remains relevant as it proved that EI abilities were beneficial, and could be improved through training.



Translating beneficial into more practical terms, McLaughlin (2012) argues that EI abilities should be considered when educators design and assess an entrepreneurial curriculum, seeing as these constructs can change and improve with training, attention, and practice (Groves, McEnrue & Shen, 2008). The implication is clear; this study could confirm the need to create supportive classrooms that focus on key entrepreneurial skills aimed at helping individuals launch successful businesses in a competitive global climate (McLaughlin, 2012). Such a conclusion would meet the need emphasized by the government, ESF, and Region Halland and is in tune with the goals presented in the regional development strategy (RUS), such as the importance of promoting an entrepreneurial approach in schools and teaching methods (ESF, 2017).

In conclusion, I argue that this study can have a real and practical contribution to the field of entrepreneurship. I believe that by accurately measuring EI, something that can be learned and enhanced, positive change can occur.

With this in mind, I argue that this EI perspective can be used as another tool scholars can use to understand and predict performance, as well as being a useful concept for Region Halland, ESF and organizations promoting entrepreneurship. All things considered, I argue that there are several important and interesting implications that can be gained through this study.



1.3 Research question

The aim of this study is to explain the factors that underlie entrepreneurial performance from an Emotional Intelligence (EI) perspective. Therefore, I strive to investigate if the entrepreneur, defined as an individual who established their business, has a higher EI compared to CEO:s, defined as individuals that did not found their business. Furthermore, if that is the case, what patterns can be identified? My research question is the following:

Do entrepreneurs have a significantly higher EQ?

If so, which patterns can be identified?

1.4 Purpose

The purpose of this research is to explain Emotional intelligence's (EI) relationship with being an entrepreneur.



1.5 Disposition

The disposition of this thesis is presented in the following illustration in *Figure 1*.

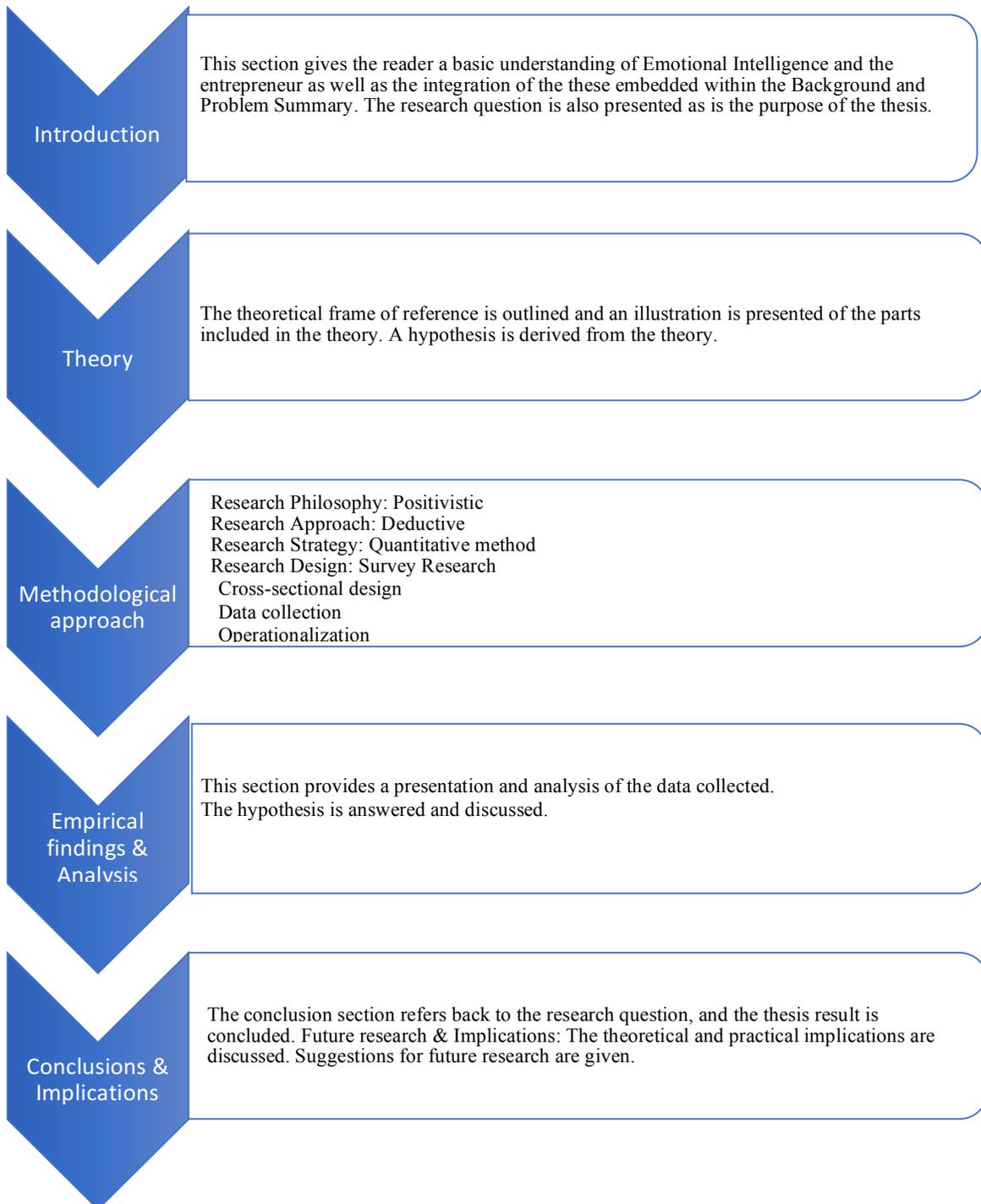


Figure 1- *Disposition of the thesis*

2. Theory

Firstly, the theoretical framework of reference will be introduced, followed by a theoretical view of the entrepreneur within the chosen definition. To present the term Emotional Intelligence (EI), a breakdown of "Emotion" and "Intelligence" will follow. Thereafter, the different central concepts of Emotional Intelligence will be analysed. Finally, to tie the theoretical framework together, the connection between the two concepts' will be demonstrated in accordance with the purpose of the study. Due to the study's deductive approach, a hypothesis based on the theory is included in this part of the thesis. An approximate outlay of the theoretical chapter is illustrated in *Figure 2* below.

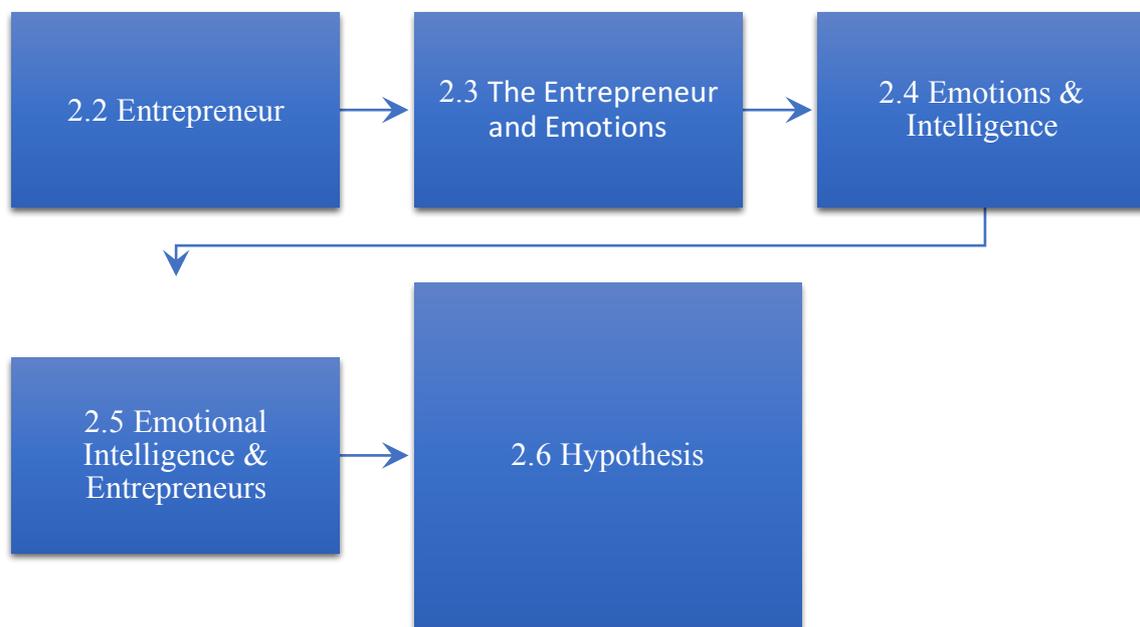


Figure 2. *Illustration of the theoretical chapter*



2.1 Theoretical frame of reference

In this section, the theoretical reference frame is discussed, as well as EI and the entrepreneur. The study will use EI as a framework for understanding the entrepreneur, and as a consequence, the entrepreneur is introduced first. The entrepreneur and its connections with emotions will be used to bridge the following section, EI.

2.2 The Entrepreneur

Josef Schumpeter coined the term entrepreneurship in the 1920's, although the word itself dates back to the 1850's (Hagemann, 2015). Davidsson and Wiklund (2001, p.2) define entrepreneurship as "The creation of new enterprise" and entrepreneurs as those who carry out entrepreneurial initiatives (Schumpeter, 1934 in Davidson & Wiklund, 2001 p.2). These initiatives are described as those that take place in organizational contexts, usually resulting in the creation or renewal of firms (Moran & Ghoshal, 1999; Shane & Venkataraman, 2000, Gartner, 1988; Schumpeter, 1934 cited in Davidsson & Wiklund, 2001).

According to Shane (2003), the field of entrepreneurship focuses on how to create and grow new ventures through the discovery and exploitation of opportunities, bringing goods and services into existence (Shane, 2003 in Volkmann et al., 2010). Other definitions suggest that entrepreneurship should not only be characterized by who the entrepreneur is and what he or she does, but also by the way he or she sees opportunities (Rhee & White, 2007).

Hence, the focus should also be on the process by which entrepreneurship is created. For this reason, theories and models of the entrepreneurial process have portrayed the individual manager or entrepreneur as a key component (Rhee & White, 2007), and as such, it is a relevant aspect in this study.

A general theory of entrepreneurship framework is proposed by Shane (2003) in Volkmann et al. (2010) and shown in *Figure 3*. The majority of the existing studies focuses on what underlie entrepreneurial success, typically addressing environment or individual attributes. The environmental factors of entrepreneurial research mainly focus on industry and macro environment: factors external to the entrepreneurial business itself (Volkmann et al., 2010). The focus of this study is on the individual attributes with an emphasis on EI, including psychological and demographic factors, conducted in an environmental and organizational context.

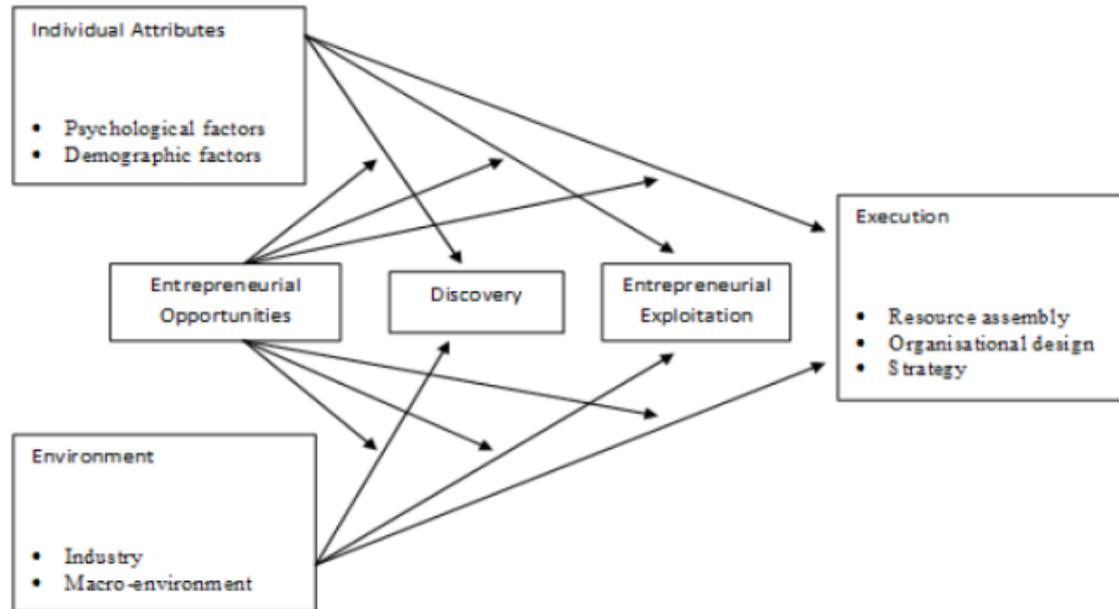


Figure 3. *Entrepreneurial process according to Shane (2003) in Volkmann et al. (2010)*

This study focuses on the individual attributes aspect of entrepreneurial research. A model with an additional focus on the entrepreneurial process with a limelight on the characteristics of entrepreneurs themselves is proposed by Shane (2003) in Volkmann et al. (2010) and can be seen in *Figure 4*. The model of the entrepreneurial process includes the following abilities: resource acquisitions, recognizing and exploiting opportunities, entrepreneurial strategy and organizational processes that lead to higher performance.

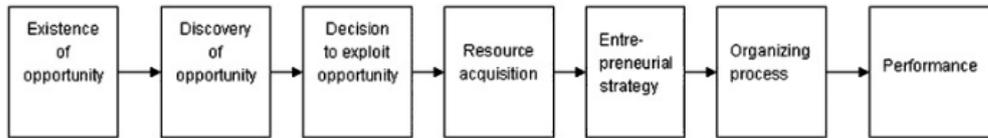


Figure 4. *The entrepreneurial process according to Shane (2003) in Volkmann et al. (2010) with a further division on the individual attributes.*

Similarly, Ahmetoglu et al. (2011) argue that entrepreneurship is not only about the creation of businesses, but rather a set of behaviours or activities. They argue that behaviours such as innovation, opportunity recognition, opportunity exploitation and value creation are consistently identified in the literature concerning entrepreneurial success. Furthermore, Ahmetoglu et al. (2011) state that recognizing the entrepreneurial behaviour as a function of individual differences, personality and ability factors should, in fact, successfully predict entrepreneurial activity and success. An illustration of these behaviours is presented in *Figure 5*.

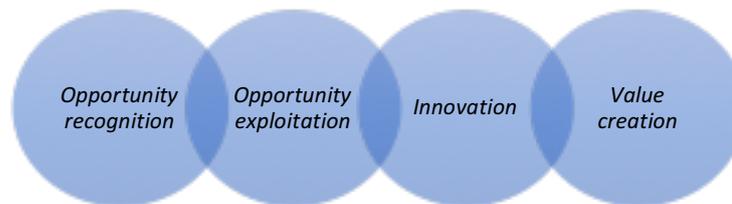


Figure 5. *Own illustration based on Ahmetoglu et al. (2011) entrepreneurial behaviours*

As demonstrated in *Figure 5*, opportunity recognition, opportunity exploitation and innovation are the central aspects. Of these, Ngah and Salleh (2015) identify innovation as the key aspect of entrepreneurship. Entrepreneurial initiatives often include innovation, either to existing enterprises or during the creation of new ones. The initiatives conducted by the entrepreneur have a profound effect on society and is one of the major reasons for the increased interest in entrepreneurship (Davidsson & Wiklund, 2001).

Schumpeter's view on entrepreneurship theory is that the entrepreneur is an innovator. His entrepreneurship innovation theory ignores risk-taking and solely emphasizes innovation, underlining any abilities the entrepreneur may have. Schumpeter (1934)



defines an entrepreneur as being willing and able to convert a new idea or invention into a successful innovation (Volkman et al., 2010). Schumpeter viewed the entrepreneur as the main actor of capitalistic economic development and considers innovation the basis of entrepreneurial activity (Backhaus et al., 2003).

A risk approach is also relevant for value creation. Knight constructed an entrepreneurship theory that framed the entrepreneur as a risk-taker. He believed that the main function of entrepreneurs is taking risks, which he described as spending time and capital on an uncertain venture (Knight, 1964 cited in Volkman et al., 2010).

Even if individuals have an economically viable business idea with good market prospects, founding an enterprise is often a difficult decision to make. The changes and risks to one's personal life can often be overwhelming and unexpected. On the other hand, there are people that view the changes a new business entails as liberating, and take joy in giving up their secure workplace. This should be taken into consideration, as others may not perceive the recognition of entrepreneurial opportunities. Furthermore, the establishment of a new enterprise indicates a substantial degree of individuality and heterogeneity (Volkman et al., 2010).

Stefanovic, Prokic and Rankovic (2012) argue that psychological attributes, such as a competitive nature, innovative orientation, attitude towards risks and a drive for independence, are all related to success. These psychological attributes were particularly essential when an entrepreneur works in a challenging business environment. Of particular significance is risk aversion, as successful entrepreneurs will be willing and motivated to bear the risk (Stefanovic, Prokic & Rankovic, 2012).

2.3 The entrepreneur and emotions

Entrepreneurship is often associated with passion, energy, and creativity by discovering, generating and further stimulating opportunity (Ngah & Salleh, 2015), as noted in *Figure 3 and 4* by Shane (2003) in Volkman et al. (2010).

Psychology has seldom been highlighted in entrepreneurial studies; it is however related to the capability of an individual to analyse one's values and emotions (Ngah & Salleh, 2015). Research literature has occasionally connected entrepreneurial innovation with human personality, but not with emotions (Cross & Travaglione, 2003).



Furthermore, the importance of EI in entrepreneurial success can be seen when the entrepreneur makes decisions and judgments in the experiential mode (emotional) rather than the rational mode. To demonstrate, positive moods have shown to increase the memory of self-assurance, positive information, flexibility, creativity and further inductive reasoning. Feelings of happiness and joy can serve as a motivational tool that encourages entrepreneurs to push their performance to higher levels and thereby achieve contentment and success. EI is a contributing factor to a superior performance where emotions are one of the key components in helping entrepreneurs in both the rational decision-making and innovation process (Nghah & Salleh, 2015). Correspondingly, Baron (2008) agrees that positive emotions may enhance entrepreneurial creativity as well as opportunity recognition. Indeed, D'Intino et al. (2007) argue that persistence and being able to maintain a positive attitude through challenging times can sometimes be the difference between entrepreneurial success and business failure.

Since emotions can and do affect processes and behaviours, their impact on entrepreneurship is evident (Goldenburg et al., 2006). Therefore, I believe it is relevant to first discuss the psychological basis of EI in order to understand the concept itself. Cross and Travaglione (2003, p. 224) argue the emotional relevance in this context; "What little is known about the truth behind entrepreneurial success has not previously been explored from an emotions perspective."

2.4 The psychological basis of Emotional Intelligence

To better understand the concept of Emotional Intelligence, EI, in the next section, a clarification of the two components "emotions" and "intelligence" will follow.

Psychologists have recognized an important three-part division of the mind, described as the sphere of mental functioning, widely considered as an individual's personality. The three divisions are cognition (thought), affect (including emotion) and motivation (conation). The cognitive sphere includes functions such as memory, reasoning, judgment and abstract thought. Psychologists have recognized a division in our mind between motivation, comprising cognition and effect. The cognitive sphere is also referred to as intelligence, a concept often used by researchers to characterize how well the cognitive sphere functions. This is often described as the individual's abilities, such as the power to judge, reason, combine and separate concepts, and to engage in abstract thought. It is the cognitive sphere that measures Intelligence Quota, more commonly



known as IQ. Emotions, on the other hand, belong to the affective sphere of mental functioning (Mayer, Salovey & Caruso, 2000) and include evaluations, moods, and feelings of fatigue or sadness. Furthermore, EI refers to the fusion of emotion and cognition (Salovey & Sluyter, 1997).

The third division is the motivation aspect, such as taught goal-seeking behaviour and biological urges (Salovey & Sluyter, 1997; Mayer & Salovey, 1997). According to Goldenburg et al. (2006), ability models of EI are based on a functionalistic perspective where emotions are viewed as responses that guide an individual's behaviour and provide information that enables goal achievement.

2.4.1 Emotions

The nature of emotions and their ability to influence cognition and behaviour alludes to their potential role in affecting the thoughts and behaviours of entrepreneurs (Cross & Travaglione, 2003). Furthermore, Cross and Travaglione (2003) argue that a missing piece of the entrepreneurial discussion is an emotional influence and its determining role in entrepreneurial success. They also state that entrepreneurship literature has been dominated by trait, cognitive and management theory, while emotions have previously been documented to interfere with the cognitive processes of leadership. They address the lack of research regarding the fusion of two domains of psychology: entrepreneurship and EI (Cross & Travaglione, 2003).

Emotions are high-intensity feelings triggered by specific stimuli that can be both external and internal to the individual. They demand attention and interrupts cognitive processes and behaviours. Emotions have been shown to influence judgment, attribution processes, memory recollection, inductive and deductive reasoning. Negative moods have proved to increase deductive reasoning and more thorough critical and comprehensive evaluations. On the contrary, positive moods have shown to increase inductive reasoning, enthusiasm, flexibility, self-assurance, and memories of positive information (Mayer & Salovey, 1997).

An emotionally intelligent person tends to use emotion as a path towards growth. EI involves self-regulation that is appreciative of temporarily hurt feelings. Moreover,



emotional restraint is often necessary for the service of a greater objective (Salovey & Sluyter, 1997).

2.4.2 Intelligence

For intelligence to be considered scientifically legitimate, it must meet several standard criteria. In our context, EI must meet certain criteria for it to be judged as true intelligence. These criteria can be divided into three distinct groups: Conceptual, Correlational and Developmental. These are the guidelines for determining the theoretical approach in this study (Mayer, Salovey & Caruso, 2000).

The Conceptual criteria state that intelligence should be capable of being handled as a set of abilities. Intelligence must reflect mental performance, rather than other behaviours determined by the status quo, a person's self-esteem or non-intellectual attainments (Mayer, Salovey & Caruso, 2000)

The Correlational criteria indicate an empirical standard, a criterion that claims intelligence should describe a set of closely related abilities that are similar and thus interrelated. They should not be completely distinct from the mental abilities described by the already established intelligence (Mayer, Salovey & Caruso, 2000).

The Developmental criterion states that it should be related to pre-existing intelligence, but unique variances exist. The developmental criteria also state that the abilities of intelligence should develop with experience and age (Mayer, Salovey & Caruso, 2000).

2.5 Emotional Intelligence - an evolving conceptualization

Emotional Intelligence can be traced back to Darwin in the 19th century (Darwin, 1998); he published the first known work in the area of Emotional-Social Intelligence as early as 1872 (Bar-On, 2006). His definitions of Social Intelligence influenced the way Emotional Intelligence was conceptualized by theorists like Salovey and Mayer (Bar-On, 2006). Despite the relatively recent debut of the concept, there are already some competing definitions of EI (Goldenberg et al., 2006).

These conceptualizations can be divided into two general streams; the Ability model and the Mixed models (where the Trait-based model is included) (Caruso, Mayer & Salovey, 1999; Goldenberg et al., 2006). The models are distinct in two significant



ways; they are based on different conceptual frameworks and they use different measurement approaches, such as performance tests and self-report inventories (Goldenburg et al., 2006).

In the Ability-based models, the definition of Emotional Intelligence is a set of cognitive abilities in emotional functioning, in contrast with the Mixed-Trait ability model that includes a broad range of personality characteristics, traits and non-cognitive abilities (Goldenburg et al., 2006; Mayer & Salovey, 1997). Despite this, the concepts share the notion that cognitive ability and emotional competency must be considered in order to predict success adequately (Emmerling & Goleman, 2003).

To determine which measurement tool is appropriate to use in this study, the two conceptualizations will be presented further in the following sections.

2.5.1 The Ability-based models

The first stream, the Ability-based models, include Salovey and Mayer's work from 1990 as well as their work from 1997 and will be presented in that order.

2.5.1.1 The Ability-based model from 1990

Salovey and Mayer first defined emotional Intelligence in the 1990's, and their definition is currently used by scholars (Humphrey, 2013). Their initial approach to the field was with an article entitled "Emotional Intelligence", where they describe EI as:

"The subset of Social Intelligence that involved the ability to monitor one's own and others' feelings and emotions, to discriminate among them and to use this information to guide one's thinking and actions" (Salovey & Mayer, 1990, p.189).

To clarify, Salovey and Mayer (1990) divided Emotional Intelligence into three branches:

- (A) Appraisal and expression of emotion in the self and others.
- (B) Regulation of emotion in self and others.
- (C) Using emotions in adaptive ways.



The first category, (A) is appraisal and expression of emotion in the self and appraisal of emotion in others. The category (A) is split into self and others, where self is divided into the subcomponents of verbal and non-verbal and others are divided into subcomponents of non-verbal perception and empathy.

The second category (B) is named regulation of emotions. This category is also divided into the subcomponents of self and others.

The third category (C) is the utilization of emotion. This category has four subcomponents: flexible planning, creative thinking, redirected attention and motivation (Salovey & Mayer, 1990). Branch A, B and C are illustrated below in *Figure 6*.

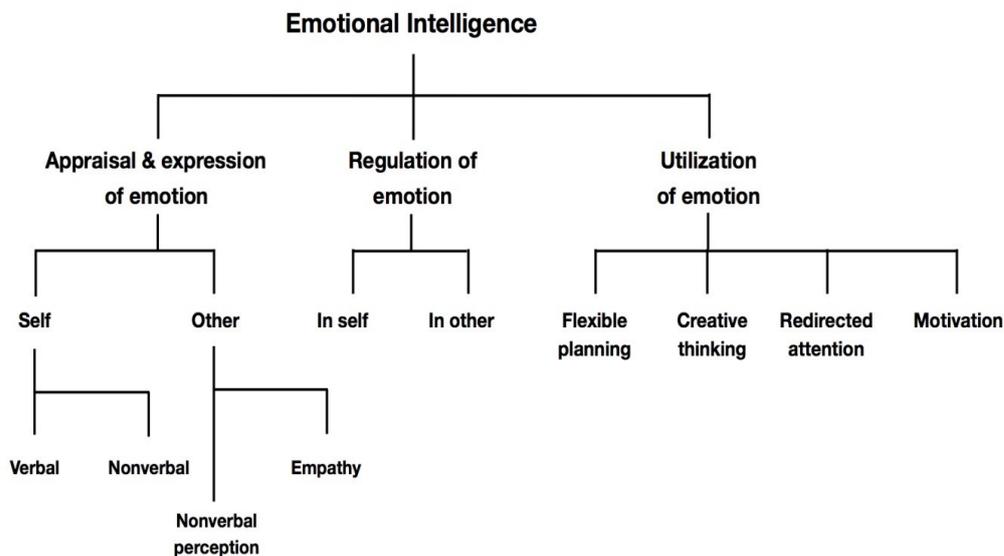


Figure 6. Emotional Intelligence. Imagination, Cognition and Personality from Salovey & Mayer, (1990)

2.5.1.2 The Ability-based model from 1997 - The four-branch model

In 1997, Mayer and Salovey redefined their model into a so-called four-branch model. In their Ability-based model from 1997 their definition of EI is as follows:

”Emotional intelligence involves 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” (Mayer & Salovey, 1997, p.10).

The abilities and skills of the Emotional Intelligence model are divided into four branches and displayed in *Figure 7*. In the four-branch model, EI consists of the following branches (bottom up): 4th Perceiving and expressing emotions, 3rd Assimilating emotion in thoughts or emotional facilitation of thinking, 2nd Understanding and analysing emotion; employing emotional knowledge and 1st Reflective regulation of emotions to promote emotional and intellectual growth. The four-branch model of skills is summarized in *Figure 7* by Mayer, Salovey and Caruso (1999). After that, Mayer and Salovey’s (1997) model is explained.

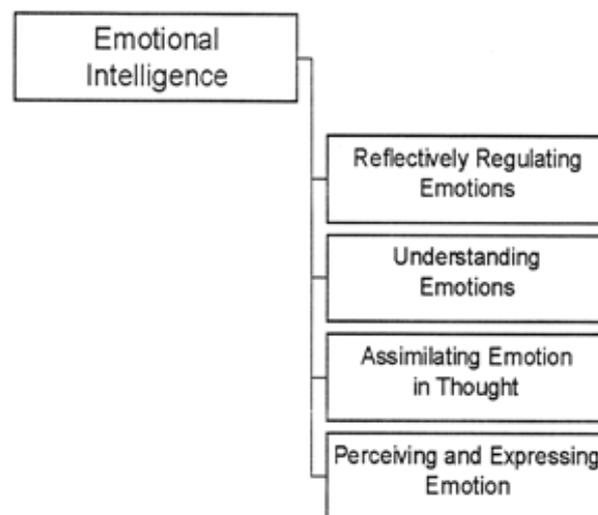


Figure 7. *The four-branch model of skills involved in Emotion Intelligence by Mayer and Salovey (1999) after Mayer, Salovey and Caruso (1997).*

1st Branch: Perceiving and expressing emotions

In *Figure 7*, the lowest branch measures the accuracy with which individuals can identify emotions and emotional content. The branch reflects the perception of emotions and involves the capacity to recognize emotions in others facial as well as postural expressions. The first branch also involves nonverbal perception and expression of



emotions in the face, voice and other communication channels (Salovey & Sluyter, 1997).

2nd Branch: Assimilating emotion in thoughts or emotional facilitation of thinking.

This branch describes emotional events that accommodate intellectual processing, meaning that the branch addresses emotions as they act on intelligence. (Salovey & Sluyter, 1997).

3rd Branch: Understanding and analysing emotion; employing emotional knowledge

This third branch is about the understanding of emotions and the ability to use it to one's advantage. For instance, if a two-year-old breaks her parent's lamp she may be emotionally apprehensive. A six-year-old will probably surpass the two-year-olds capacity easily, by labelling and discriminating among feelings. In comparison, a 35-year-old is likely to do even better (Salovey & Sluyter, 1997).

4th branch: Reflective regulation of emotions to promote emotional and intellectual growth.

This branch involves the conscious regulation of emotion to develop emotional and intellectual growth. It reflects on the management of emotions, which is necessary to involve the rest of the personality. In addition, it looks at how emotions are managed in the context of individual goals, self-knowledge, and social awareness (Salovey & Sluyter, 1997).

The 3rd and 4th branch are discrete areas of information processes that bound within the emotional system. The 1st branch concerns relatively simple abilities to perceive and express emotions. Comparatively the highest-level branch, the 4th branch, concerns the conscious, reflective regulation of emotion (Salovey & Sluyter, 1997). This 4th branch, the emotional management, should in contrast to the previous be an integrated part of an individual's plan and goals (Mayer & Salovey, 1997).

To summarize, Mayer and Salovey (1997) argue that personal differences are caused by these four abilities, and it should, therefore, be possible to measure the EQ of individual



personalities. A more comprehensive illustration of the four-branch model by Mayer, Salovey and Caruso (1997) can be found in Appendix B.

2.5.1.3 Criticism towards the Ability-based model

Brody (2004) criticized the Ability-based model, claiming that it measures knowledge and not ability, unlike tests of cognitive ability. He argues that it tests knowledge of emotions but not necessarily the ability to perform tasks that are related to the knowledge that is assessed. Brody (2004) claims that even if someone knows how he should behave in an emotionally laden situation, it does not necessarily mean that the person could carry out the reported behaviour.

2.5.2 The Mixed models

The Mixed models include the Trait-based model and Mixed Trait-Ability model, which are often referred to as the Mixed models (Mayer, Salovey & Caruso, 2000). A further outlay of these will follow.

2.5.2.1 The Trait-based Model

In 2001, the Trait-based EI model emerged. Since they are measured through self-report questionnaires, they are considered a personality trait rather than cognitive ability (Petrides & Furnham, 2001). Petrides and Furnham (2001) conceptualized Emotional Intelligence as a constellation of self-perceptions, a model of Trait EI that remains most salient today (Goldenburg et al., 2006).

2.5.2.2 The Mixed Trait-Ability Model

After the Trait EI models, a new approach called the Mixed Trait-Ability models emerged. The Mixed Trait-Ability models often referred to as the Mixed-Ability models include research done by Reuven Bar-on and Daniel Goleman. These models also reference abilities regarding the processing and use of emotional information. These models, in contrast to the Ability models, combine these abilities with other Traits and characteristics, for instance, optimism, motivation and the capacity to engage in relationships. The Mixed Trait-Ability models should be measured through personality questionnaires (Goldenburg et al., 2006).

2.5.2.2.1 Bar-On's view of Emotional Intelligence

Bar-On believes that a better name for the construct of Emotional Intelligence is Emotional and Social Intelligence, often called the Bar-On model of Emotional-Social Intelligence (Bar-On, 2006). Bar-on (1997) defined the term Emotional-Social Intelligence as a cross-section of interrelated emotional and social competencies, skills and facilitators. They determine how effectively we can understand and express ourselves, relate to others and cope with daily demands.

Furthermore, Bar-On (2006) constructed the term as the ability to (1) Be aware to understand and to express oneself, (2) Be aware of, to understand, and to relate to others, (3) Deal with strong emotions and control one's impulses and lastly (4) Adapt to change and solve problems of a personal or social nature (Bar-On, 2006). The five main domains in Bar-on's model are intrapersonal skills, interpersonal skills, adaptability, stress management and general mood (Goleman, 2005).

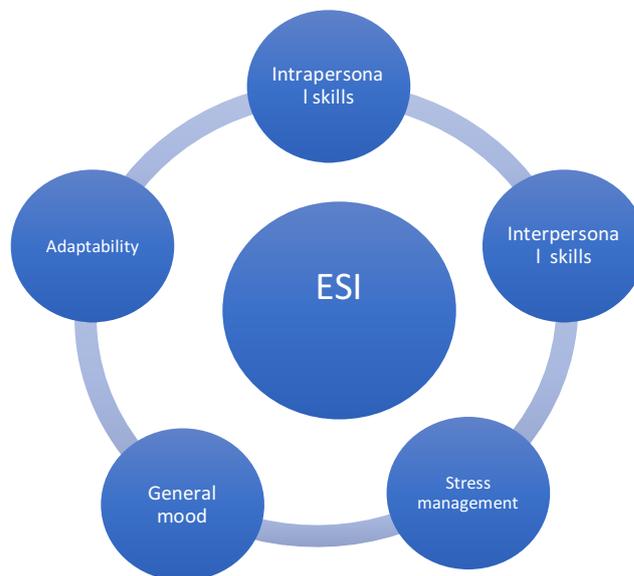


Figure 8. *Own illustration of Emotional Intelligence based on Bar-on (2006)*

2.5.2.2.2 Goleman's view of Emotional Intelligence

In 1995 Daniel Goleman published his bestselling book "Emotional Intelligence," which widely popularized the term EI (Goldenburg et al., 2006). Goleman (2005) presented the Mixed Trait-Ability models, which suggest evaluations via personality

questionnaires. In contrast to the Ability-based models, the test includes elements of EI classified as both Ability and Trait. Goleman (2005) further defines EI by five characteristics that are illustrated in *Figure 9*.

1. Self-awareness: knowing one's internal intuitions, preferences and emotional states.
2. Self-regulation: managing one's internal impulses, states and resources.
3. Motivation: emotional tendencies that guide or facilitate reaching goals.
4. Empathy: awareness of others' emotions, feelings, need and concerns.
5. Social skills: adeptness at inducing desirable responses in others.

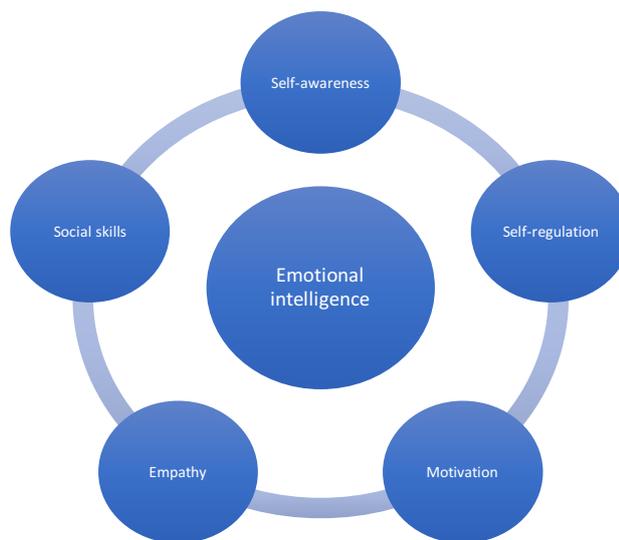


Figure 9. *Own illustration of Emotional Intelligence by Goleman (2005)*

2.4.2.3 Criticism towards Mixed Models

Goldenburg et al. (2006) argue that the Mixed-Trait models do not appear to represent any new conceptualization of emotional functioning, nor do they seem to relate specifically to the concepts of either Emotion or Intelligence. He argues that performance measurements are more valid if EI is conceptualized as a type of ability. Self-report instruments may be appropriate if EI is viewed as also comprising some on Ability-related Traits or attributes. Also, the test entails presenting problems thought to have correct responses (Goldenburg et al., 2006).



Furthermore, the Mixed models are criticized for being overly redundant with Personality Traits. For this reason, they fail to be justified as a distinct construct. Empirical results supported this argument and demonstrated that the Mixed models overlap with Big Five Personality Traits (Daus & Ashkanasy, 2003). Additionally, the questionnaire failed to meet reliability and psychometric property standards (Stough et al., 2009).

2.4.3 Summary of the major perspectives of Emotional Intelligence

Ability Model	Mixed Models	
Salovey and Mayer (1990) Mayer and Salovey (1997)	Goleman (1995;1998)	Bar-on (1997)
Identify emotions Facilitate emotions Understand emotions Manage emotions	Self- Awareness Self-Management Social -Awareness Relationship Management	Intrapersonal skills Interpersonal skills Adaptation Stress Management General Mode

Table 2. *Summary of the major perspectives of Emotional Intelligence*



2.5 Hypothesis

This chapter underlines the key ideas that emerged within the theoretical framework. The hypothesis section is introduced by specific information connecting EI to the entrepreneur through different dimensions.

Entrepreneurial success can be defined as the standard used by the entrepreneurs to judge the success of their business (Driessen & Zwart, 2013). Extensive research has shown that EQ drives as much as 75 percent of business success, and is therefore considered a crucial personal ability for success in today's often chaotic business environment (Ngah & Salleh, 2015). But what can a high EQ indicate and what are the other possible benefits?

Individuals who have a high EI are better at being effective. They are better at informing creative dispositions and thereby facilitating innovation (Ahmetoglu et al., 2011). As noted, entrepreneurial behaviour is a function of individual differences in personality, and ability factors should predict entrepreneurial activity and success (Ahmetoglu et al., 2011). One possible way to predict individual differences in entrepreneurship is by EI since it informs how individuals develop and maintain social relationships as well as cope with challenges. It also highlights how individuals use emotional information in an effective and meaningful way (Bar-On, 2006), as well as the ability to motivate oneself (Goleman, 1995).

Bahadori (2012) claims that people with a high EQ have enhanced problem solving and emotional control, adding that EI is a conflict between what a person believes they think, and what they actually think. According to Bahadori (2012), people with high EI are better at solving problems efficiently and in controlling their emotions. This is beneficial considering the turbulent environment entrepreneurs experience when starting a new business (Bahadori, 2012).

Furthermore, the role of an entrepreneur includes managing a whole host of social interactions, making EI abilities particularly important. The variety of interactions



include negotiating, handling employees, gaining and maintaining customers, presenting to investors, handling suppliers and partners (Ngah & Salleh, 2015). This is an interesting perspective concerning not only the individual determinants but also the environmental factors presented in the entrepreneurial process by Shane (2003), illustrated in *Figure 3*.

Mayer and Salovey (1997) argue that organizational teams and individuals benefit from choosing leaders who have a high EQ, and by developing the skills of less emotionally intelligent leaders.

Furthermore, many researchers argue that women have higher Emotional Intelligence than men do (Mayer & Salovey, 1999; 1997, Goleman 1995). This argument is important: “If Emotional Intelligence plays a role in effective leadership, and if women as a group are higher in Emotional Intelligence than men, then we need to realize that women possess a critical leadership skill” (Mayer & Salovey, 1997, p.38). Previous research by Derksen, Kramer and Katzko (2002) show that EQ usually starts to develop when a person is 25 years of age, reaching its highest potential at 35-44 years, but is at its lowest after 80 years (Derksen, Kramer & Katzko, 2002). Goleman (1995) is less specific, stating only that EQ increases with age.

EI can help leaders solve complex problems, make better decisions and learn how to use their time effectively. In addition, it helps them adapt their behaviour according to the situation and manage crises (Bahadori, 2012). Wrong and Law (2002) found that EI was related to employee job satisfaction and performance, and a study made by McClelland (1985) states that division managers with a high EQ perform significantly higher in comparison to those with lower EQ (McClelland, 1985 in Goleman, 1995). Small business owners and entrepreneurs are the ultimate leaders; so naturally, these sets of abilities are relevant to entrepreneurship (Humphrey, 2013). Furthermore, Humphrey (2013) proposes nine propositions that relate EI competencies to entrepreneurship, suggesting that entrepreneurs with high EQ have the following competencies:

1. Emotionally resilient when facing possible obstacles.
2. Successful at handling intense emotions when working with family members.



3. Work effectively with their customers, employees and other possible stakeholders. Also, their employees will rate them higher on leadership.
4. Successful in developing new services and products.
5. Advantages when negotiating with employees, financial bankers, suppliers, as well as vendor's distributors and retailers.
6. Successful when leading and motivating employees.
7. Skilled at helping employees cope with workplace stresses.
8. They will have higher customer satisfaction, and more attuned to their customer's needs.
9. Innovative.

As noted, many benefits are favourable to leaders as well as entrepreneurs. But what makes EI interesting to study from a solely entrepreneurial approach? Further, what sets apart the entrepreneurs, who have founded their businesses, to CEOs, who have not?

Brandstätter (1997) studied random samples from groups, hoping to discover if EI played a part in successful entrepreneurship. The first group was composed of 255 small and medium business owners and the second group was composed of 104 people that had an interest in starting a business. He learned that the founding owners were more emotionally stable and independent than those who had taken over their business from parents, relatives or by marriage. Brandsätter (1997) discovered that the business owners who were emotionally stable and independent were the most successful. Given these points, the hypothesis this study will test is:

Hypothesis: Being an entrepreneur is positively related to EQ.



3. Methodological approach

The methods used to reach the purpose of the study are introduced in this chapter. To better understand the data collection, the structure of this chapter will follow *Figure 10*, based on “The Research Onion” by Saunders et al. (2007).

This methodological approach begins with a macro perspective on philosophy in the outer layer, and continues down to a micro perspective, with data collection and analysis in the core of the model. Following that, the presentation of the possible methodological approaches and reasons why certain methods were chosen is discussed. Subsequently, an operationalization of the variables is outlined and lastly, a chart of the methodological approach is presented in a summation of the chapter.

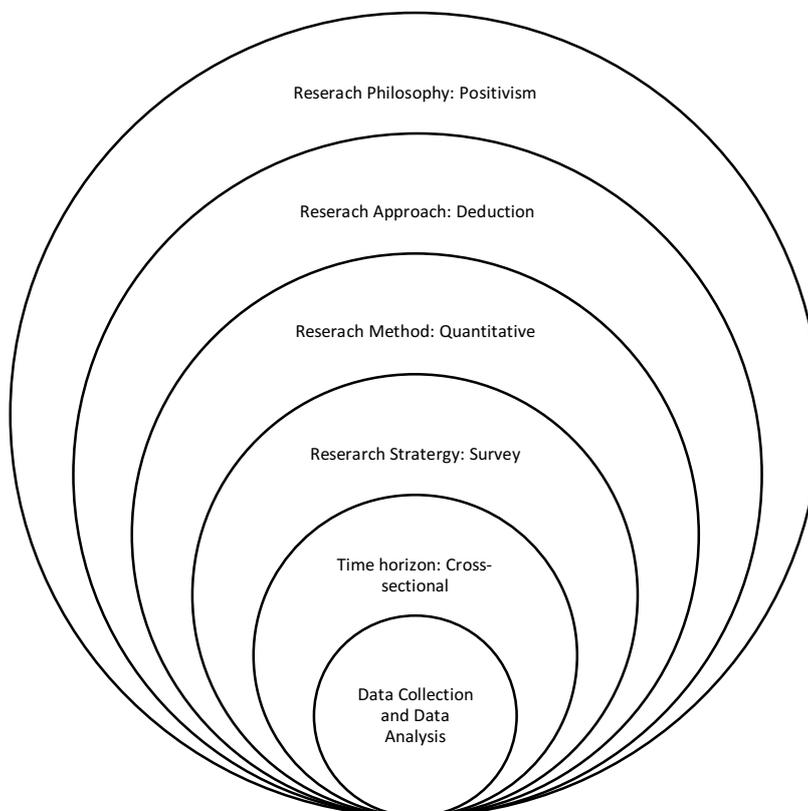


Figure 1- A visual guide to this method chapter, based on "The Research Onion" by Saunders et al. (2007)



3.1 Research philosophy

Objectivist strategy & positivism philosophy

According to Bryman and Bell (2011), it is important to understand how the author perceives reality and knowledge when interpreting and analysing the results. Therefore, it is of great importance for the reader to understand the authors' perspective and philosophy on research throughout the paper (Bryman & Bell, 2011).

In the following section, the epistemology and ontologies described and analysed. This study aims to explain how EI relates to the entrepreneur, with the intention to generate knowledge about the possible factors that make an entrepreneur. To do so, I believe that it is best achieved through the perception of the actual people the study focuses on. Accessibility to reality is essential for this research and can reveal important underlying factors of what drives entrepreneurial success that are not usually visible. The respondent's perceptions can argumentatively be viewed as a truth, their truth.

There are primarily two ontological approaches, with the first known as "constructionism." It argues that social things should be understood as constructions that build on the perceptions and actions of the actors (Bryman & Bell, 2011). The second perspective is called "objectivism" and suggests a more objective approach. Social phenomena are external facts and not affected by the actor; the same applies to research where the study's phenomenon exists outside of the researcher's influence (Bryman & Bell, 2011). This is the ontological approach that applies to this study. As such, I do not interact with the respondents to construct a truth, but instead, accept their responses as an external reality that I observe.

The epistemological or knowledge-based theory is about what is or can be regarded as acceptable knowledge in a subject area. Bryman and Bell (2011) argue that a positivistic approach is best suited for a quantitative method. Positivism means that knowledge obtained through natural science methods can be recognized as truth (Bryman & Bell, 2011). I have chosen to accept answers I receive from respondents in the survey as truth since I have taken a positivistic approach.

The belief of positivism is that reality can be measured through appropriate application tools. The principles are applied to the creation of knowledge mostly in the domain of natural science (Bryman & Bell, 2011). Due to the fact that positivists believe reality



can be measured absolutely, they are interested in the development and applications of robust theories and models for measurement.

3.2 Research Approach

Deductive approach

Two different research approaches can be used when conducting a study in this field of business research; deductive or inductive (Bryman & Bell, 2011). Bryman and Bell (2011, p. 11) explain deductive theory as “when the researcher based on what is known about a particular domain, deduces a hypothesis (or hypotheses) that must then be subjected to empirical scrutiny”.

To generate the hypothesis, a great amount of theory was used. The hypothesis is subjected to empirical scrutiny, as it is derived from pre-existing theories and research on the subject. Therefore, by explaining the hypothesis in this study, (Being an entrepreneur is positively related to EQ) the purpose of this study is achieved.

Embedded within the hypothesis are concepts that need to be translated into research entities. Therefore, the study has a deductive approach. The deductive theory is often used to represent the relationship between theory and data due to that hypothesis is generated through theory. The hypothesis is then tested through data collection. (Bryman & Bell, 2011). As such, a deductive method is appropriate for this study.

An alternative approach would be an inductive research effort, meaning that observations and results from the theory that underlies the study. This method is based on empirical data and researchers attempt to build their theory or conceptual framework from the data they collect (Bryman & Bell, 2011).

This inductive approach would have been difficult to apply to this study since the measurement method used is a standardized EI test: observations and results that form theory are irrelevant and would probably lead to high uncertainty as to what should be observed. It is not appropriate considering that the research purpose is to explain the EI of entrepreneurs in a way that can be relatively generalized, which would be complicated with an inductive approach, not to mention the fact that this study is not based on empirical data.



To summarize, quantitative models guide the empirical research conducted in this study. The hypotheses have been derived from pre-existing theories and previous research in the area, and therefore a deductive approach is most suited for this study.

3.3 Exploratory purpose

This study is intended to be exploratory in nature; it seeks to find out “what is happening, to seek new insights; to ask questions and to assess phenomena in a new light” (Saunders et al., 2007, p.139). This is in line with the research purpose of explaining EI’s connection with entrepreneurship, and to study which factors that can affect and explain entrepreneurial success.

I aim to further understand the research problem that has arisen from the interpretation of theory, as seen in the theoretical frame of reference. Exploratory studies are pertinent when little is known about the situation and there is inadequate information available on how similar problems have been solved in the past (Bryman & Bell, 2011). Since no prior study directly connects entrepreneurs with EI, especially with the measurement method chosen here, this study seeks to confirm or reject whether the relationship is empirically evident.

Descriptive research is not appropriate in this study, as it requires a large amount of knowledge about the topic (Bryman & Bell, 2011). Since the area of EI is relatively new and its relation to the entrepreneur has been analysed previously, there is not a large amount of knowledge to draw from. Therefore, a descriptive research is not appropriate.

However, an important note is that the purpose of this study could be construed as explanatory. EI is as characterized as variables, whereas “a problem is studied to explain the relationship between its variables” (Saunders et al., 2007, p. 158). With explanatory studies, you can determine causal relationships between variables (Saunders et al., 2007). Referring to the cross-sectional method that this study uses, causal relationships can only be assumed from theory, rather than proven empirically.

3.4 Research strategy

Quantitative

Bryman and Bell (2011) state that business research is usually classified into the two categories of qualitative and quantitative. The latter is used when one begins with a theory or hypothesis and tests for confirmation or disconfirmation of that hypothesis. A



quantitative research strategy emphasizes on quantification on the data collection and analysis, which is required in this study (Bryman & Bell, 2011).

Furthermore, it indicates a more deductive view on the relationship between theory and practical research; the focus lies on the testing of theories. A quantitative research strategy incorporates the norms and practices of the natural scientific model, positivism, whereas a qualitative research strategy focuses on an inductive approach. An inductive approach explains the individual's perception and interpretations of the social reality (Bryman & Bell, 2011). Moreover, qualitative research indicates that social reality is an emergent property of individuals' creation (Bryman & Bell, 2011).

To explain EI's relationship with the entrepreneur, and to study which factors that affect and explain entrepreneurial success, quantitative research has been conducted. Bryman and Bell (2011) suggest that a deductive approach and a quantitative research design should be used together since quantitative research is best suited for explaining phenomena and for predicting as well as testing the hypothesis (Bryman & Bell, 2011). Therefore, with the purpose of the study in mind, a quantitative approach is best suited for this study. Advantages of the chosen research strategy are the general conclusions that can be drawn due to that you use a representative selection (Bryman & Bell, 2011).

The outcome of this study can be of use for organizations and may contribute to research concerning entrepreneurs and EI, as highlighted in the practical and theoretical contribution. Additionally, Företagarna was chosen to get a better overview of the business managers in Halland, rather than pursuing a qualitative method by doing in-depth interviews with a few.

Even though this study has a positivistic approach, it should be taken into consideration whether or not the respondents are answering truthfully. Bryman and Bell (2011) indicates that there is a possibility that respondents may answer in a socially desirable way; choosing to answer in line with how desirable society finds said behaviour. Such actions result in a difference between the answer the respondent gives, and what their true feelings are on the subject (Bryman & Bell, 2011). One can argue that there is a possibility the respondents answered in a socially desirable way. While so might be the case, I argue that there may have been a higher possibility of socially desirable answers if in-depth interviews were conducted, or were the survey not anonymous, as I believe there is a risk the interviewer could affect the respondent's answers. In addition, I



believe the respondents feel more anonymous without any physical interaction. Therefore, in order to minimize the risk of respondents answering in a socially desirable way and to receive as truthful answers as possible, I consider a quantitative research strategy the preferable approach.

3.4.1 Variables

Variables can be classified as independent and dependent depending on how they are used. Independent variables influence dependent variables. When the “change in one variable causes a predictable change in the other”, a causal relationship exists (Bryman & Bell, 2011, p. 59). In this study, the primary independent variable is whether the respondents were entrepreneurs or not and the primary dependent variable is EQ.

Control variables will also be used to test the relative relationship between the dependent and the independent variables. This variable is constant and unchanged throughout the course of this study (Bryman & Bell, 2011). The control variables in this study will be gender and age.



3.5 Research design

Survey

There are two often-used methods for collecting data with a survey design. These are structured interviews, in the form of a standardized interview, as well as surveys that respondents answer on their own (Bryman & Bell, 2011). In this study, the latter is used.

The instrument used to collect data was an online survey. This is a cheaper method than interview and has a geographical advantage since respondents could be spread throughout in the municipality of Halland. In addition, surveys are quicker to administrate and the interviewer does not affect the outcome, as can be the case with interviews (Bryman & Bell, 2011).

However, there are some disadvantages compared to structured interviews. Without verbal guidance, the interpretation of the questions may vary. The respondents can also get bored and might therefore not finish the survey, leading to fewer results (Bryman & Bell, 2011).

To prevent these disadvantages with the online survey used in this study, I tried to write clear questions. They were designed after a pilot study that lead to more clarity and hopefully fewer misinterpretations. To prevent the respondents getting bored, I divided the survey into ten pages (see Appendix F). As such, the respondents could not see exactly how much was left, resulting in a feeling of progress that hopefully prevented a loss of responses. The division of the questions also resulted in respondents being unable to see the complete survey before answering the questions. The sequence effect was therefore lost, which was needed to differentiate the various questions. To summarize, considerations were taken to the disadvantages of survey designs by Bryman and Bell (2011).



3.6 Time horizon

Cross-sectional design

A survey research comprises a cross-sectional design (Bryman & Bell, 2011). In a cross-sectional design, data collection is executed from more than one case and often much more at a point in time. The purpose of a cross-sectional design is to collect a range of quantitative data that has a connection to two or more variables. After that, the variables are examined to possibly discover patterns with different connections (Bryman & Bell, 2011). The possibility to discover patterns is in tune with the aim of this study: to explain the relationship between EI and entrepreneurship, and if there are any patterns describing this connection.

In comparison, a longitudinal design is often used to identify changes over time (Bryman & Bell, 2011), which is not appropriate given the time constraints on this bachelor thesis, nor concerning the purpose of the study. Therefore, an analysis of the findings limits us to identify relationships. Since causality cannot be verified within this short period, a causal inference must be assumed based on support from previous empirical evidence, as is demonstrated in the theoretical frame of reference.

3.7 Data Collection Instrument

In this section four of the main instruments for measuring EI will be explained to determine which one is most suitable for this study, followed by a section arguing for the choice of model and instrument.

3.7.1 Measurement instruments based on Mayer and Salovey models

The first way to measure EQ is based on the four-branch model called the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT). It is an Ability test that identifies, generates, defines and determines emotions (Mayer et al., 2003). The test entails presenting problems thought to have correct responses (Goldenburg et al., 2006). Similarities can be drawn to cognitive intelligence tests that have objective items (Humphrey, 2013).



3.7.2. Measurement instruments based on the Bar-on model

Reuven Bar-on (1997) created a measurement test called the Emotional Quotient Inventory (EQ-i). The quantitative test measures emotional and social functioning in different individuals, to find out what an emotionally and socially competent behaviour was. The EQ-i was first published in 1997 and was described as "a self-report measure of emotionally and socially competent behaviour that provides an estimate of one's emotional and social intelligence" (Bar-On, 1997). Bar-on (2004) developed this test to measure the underlying factors he believed were present in people with high emotional and social intelligence. Bar-on was interested in pinpointing the factors leading to psychological well-being (Humphrey, 2013).

3.7.3 Measurement instruments based on the Goleman model

Daniel Goleman constructed two measurement tools. The first was the "Emotional Competency Inventory," developed in 1999 together with Boyatzis to provide a behavioural measure of the Emotional and Social Competencies (Boyatzis, Goleman, & Rhee, 2000). Secondly, "The Emotional Intelligence Appraisal" was created in 2001 (Goleman, 2005).

3.7.4 The Emotional Intelligent Scale (EIS)

The Emotional Intelligent Scale (EIS) was developed by Schutte, Malouff, Hall, Haggerty, Cooper, Golden, and Dornheim (1998) and is focused on typical Emotional Intelligence.

Schutte et al. (1998) believe that the model by Salovey and Mayer (1990), later revised by Mayer and Salovey in 1997, is the most cohesive and comprehensive model of EI. They argue that the revised version is an excellent process-oriented model that emphasizes stages of development in EI, growth potential and the contributions that emotions make to intellectual growth. Despite this, they believe the original model of Salovey and Mayer (1990) lends itself better to conceptualize the various dimensions of an individual's current state of emotional development (Schutte et al., 1998).

Therefore, EIS is based on Salovey and Mayer's (1990) original model for Emotional Intelligence (Schutte et al., 1998), though according to Schutte et al. (1998), most dimensions of other models can be integrated into this model. The EIS consists of a 33-



item self-report inventory using a five-point Likert scale. Total scores are calculated by reverse coding on items 5, 28 and 33 and then summing all items. The final EQ scores can range from a total of 33 up to 165, with higher scores indicating more characteristic of Emotional Intelligence.

3.7.5 Using the Ability-Based Model

Taking the initial criteria for measuring intelligence in section (2.3.1) into consideration, for an intelligence to be considered scientifically legitimate it must meet three standard criteria: The Conceptual, Correlational and Developmental criteria.

Empirical studies have shown that the Ability-Based models meet the conceptual criteria since it shows that a significant correlation exists between EI and General Intelligence. In other words, there appears to be sufficient discriminant validity between the model and various general intelligence measures (Stough et al., 2009). In fact, the tests based on the Ability-Based model correlate more highly with IQ than the Mixed-Based tests do. The latter assesses more how one sees oneself (Goleman, & Boyatzis, 2017).

In addition, The Correlational criteria showed that a significant correlation existed between Emotional Intelligence and verbal intelligence (Mayer, Caruso & Salovey, 2000). In other words, it shows that Emotional Intelligence is related to other types of intelligence.

Finally, it also fulfils the Developmental criteria, due to a study that examined EI in adolescents and adults and found that the latter performed at a much higher level than the former (Mayer, Caruso & Salovey, 2000). To summarize, all the criteria were met, and therefore Mayer, Caruso and Salovey (2000) concluded that Emotional Intelligence should be considered a form of general intelligence.

Due to the criticism that the Mixed models lack empirical support and further exceedingly broad conceptualizations by Groves, McEnrue and Shen (2008), this study will be conducted through the EIS, based on the Ability model. One advantage of the Ability model is that it has empirical validity, although it does not exhibit Traits such as the personality and cognitive Trait. As mentioned, Ability-Based Emotional Intelligence included obtaining and organizing resources negotiations, identifying and exploiting opportunities, obtaining and maintaining customers, leading the organization and



various other interpersonal activities. An important reason for this choice is that Trait-Emotional Intelligence measures personality Traits, and therefore EQ cannot be improved upon to the same extent (Groves, McEnrue & Shen, 2008). Due to the practical implications of this study, it is an important reason to consider.

Importantly, as most dimensions of other models can be integrated into the EIS by Schutte et al. (1998), one can argue that it is the most extensive model of them all. Therefore, it is the method used to test the hypothesis in this thesis.

3.7.6 Using the EIS instrument

The measurement tool used in this study is the Emotional intelligence scale, EIS, which focuses on typical EI. The instrument is developed by Schutte et al. (1998) and is based on Salovey & Mayer's (1990) original model for Emotional Intelligence. The test measures an individual's current level of EQ. Therefore, it is appropriate for a cross-sectional study. While self-report measures are the most common method of measuring EI, they suffer from self-assessment bias (Bar-On, 1997). The bias includes a lack of real self-awareness and an incentive to respond to questions in a socially desirable way. These factors were taken into consideration, as a self-assessment instrument was still the most suitable choice for this study. Since the self-assessment instrument was available immediately and for free, they were easily accessible.

The measurement instrument by Salovey and Mayer's (1990) initially contained 62 items, tested on 346 respondents. The pool of 62 items represented the different dimensions of the model. Based on a factor analysis of the responses of 346 participants, they created a 33-item scale called the EIS (Schutte, et al. 1998). The EIS is a 33-item self-report inventory where the respondents rate themselves on the items using a five-point Likert scale. Total scores are calculated by reverse coding items 5, 28 and 33 and then summing all items. The inverted items are marked with (*) in Appendix C. The final scores can range from a total of 33 up to 165, with higher scores indicating more characteristic Emotional Intelligence (Schutte et al., 1998).

Figure 6 of the theoretical framework indicates that each variable used in this study is comprised of a set of factors. The representation of different categories of the Salovey and Mayer (1990) model was roughly proportionate in the 33-item model. All 33-items are included in four subscales. The subscales were (1) Perceptions of emotions, (2)



Managing emotions in the self, (3) Managing others' emotions, and (4) Utilization of emotions (Stough., 2009). Cross and Travaglione's (2003) study among high profile entrepreneurs in Australia showed extremely high-level regulations and utilization of emotion in appraisal and expression of emotion.

The EIS has also been criticized on psychometric grounds by Petrides and Furnham (2000), but that can be rebuffed using Salovey and Mayer's (1997) argument that traditional intelligence is by no means a perfect predictor does not imply that Emotional Intelligence will fill the gap. I argue this argument applies to all measurement methods.

3.8 Data collection

3.8.1 Sample Selection

I have chosen to limit this study to members of the organization "The Swedish Federation of Business Owners," known in Swedish as "Företagarna." Hereafter the Swedish name will only be used. The organization operates everywhere in Sweden, but limitations have been made to the region of Halland. Further limits include time and access to organizations involving entrepreneurs. The results would most probably have varied if several companies had been studied, or if the whole organization was include since all companies differ in the range of members and structure.

Therefore, this is a total analysis and a non-probability sample due to the fact that not all individuals have the same chance to get chosen to participate. Thus, a non-probability sample is not randomized. A purposive sampling is a non-probability sampling method and it occurs when those selected for the sample are chosen by the judgment of the researcher. In those cases the researcher aims to sample cases/participants strategically so that those sampled are relevant to the participants in a strategic way (Bryman & Bell, 2013).

3.8.2 Choice of company

The focus of the study, Företagarna, is the largest business organization in Sweden. They are an independent organization owned by its members and they represent the interest of approximately 70 000 business owners. Företagarna work with issues whose purpose is to create better conditions for starting, operating, developing and owning



companies in Sweden. The goal of the organization is that Sweden will reach the position as one of the world's most entrepreneurial countries (Företagarna, 2017).

The organization Företagarna Halland was chosen as a purposive sampling because it was in tune with what this research was investigating. Advantages of choosing a purposive sample are that the respondents can be narrated to the study's subject of interest from the start. This allowed for a time and money saving perspective, which was needed in this thesis (due to the time constraint) advantages also highlighted by Bryman and Bell (2011).

In addition, they were chosen to participate in this survey because the organization consists of business managers, entrepreneurs and CEOs in small and medium-sized businesses (Wijk, chairman of Företagarna Halmstad, 2017). This corresponds with the purpose of the study and sample selection was an appropriate base for investigating the hypothesis.

3.8.3 Procedure

3.8.1 Survey collection instrument

The survey was collected using software provided by the company Entergate named esMaker, a Web-based survey and analysis tools (Entergate, 2017). The final analysis is made in SPSS 20.

3.8.2 Distribution of the surveys

The data collection was done through a self-completion survey and distributed via the monthly letter Företagarna sends out. A link to the survey was included in the newsletter that reached 1200 members (Wijk, chairman of Företagarna Halmstad, 2017).

3.8.4 Pilot study

Before the survey was distributed, a pilot study was conducted to detect any mistakes and search for improvements. An entrepreneur in Halmstad, who founded his company 18 years ago and currently employs 20 people, conducted the pilot study. He is the company's CEO and won the "Entrepreneur of the year" price in Halland. Therefore, he was considered suitable for the pilot study. His score on the EIS was 150 out of the possible 165. These high scores gave further impetus for conducting this study. He gave



suggestions for adding an "other" box in 3 of the questions (See Appendix F). This is also in tune with Bryman and Bell (2011), who suggest that finishing with open questions captures what closed questions cannot. The pilot studies answer sheet can be seen in Appendix E.

3.8.5 Response rate

The response rate represents the percentage of the sample that actually answers the questions, and the loss consists of the ones who do not. The response rate is calculated based on Bryman & Bell (2011). However, it is a little more complicated than this since not everyone who replies will be included, because the respondent might not answer a large number of questions. Therefore, it is better to include just usable questionnaires as the numerator. The total number of responses (including the unusable ones) was 58, the responses used in the analysis was 39.

(Number of usable questionnaires)

$$\frac{(\text{Total sample} - \text{Unsuitable or uncontactable members of the sample})}{\text{Total sample}} * 100 = \text{Response rate}$$

Number of usable questionnaires= 39

Total sample = 1200

Unsuitable or uncontactable members of the sample = 1142

Response rate = $39 / (1200 - 1142) = 67,24 \%$

Number of usable questionnaires compared in proportion to total sample: 3,25 %

3.9 Data Analysis

3.9.1 Operationalization

This section explains the variables that are collected through the survey, how they are collected and how they have been operationalized with regards to the hypothesis. The variables are divided into three categories based on whether they are dependent, independent or control variables (Bryman & Bell, 2011).



3.9.2 Survey compilation

The questionnaire contained two parts. The first part contained basic information about the respondents, and the second part was the EI instrument used - Emotional Intelligence Scale (EIS) by Schutte et al. (1998). These 33-questions complied with demographic variables, given a total question bank of 42 items.

Preceding the two parts was a cover sheet containing Swedish instructions and a presentation of the study's subject. The cover sheet also outlined the length of time estimated to complete the test and informed the respondents that the responses were completely anonymous and that participation was voluntary. It also included a presentation of me and my area of study, including Linnaeus University and its logo (See Appendix F for the cover page in Swedish).

The outlay of the test was also presented, which consisted of two parts. Part 1 was presented as a couple of background questions to get a general image of the respondents.

In other words, part 1 consisted of demographic data; a total of 8 question including gender, age, education, current position, firm age, firm size, and who founded the company. Part 2 consisted of the EIS test and was presented as an EQ test that measures Emotional Intelligence (See Appendix F for the cover page in Swedish).

A short instruction was given before Part 2 of how to estimate the value of their response to an item on the Likert-type scale. In addition, it should be noted that the respondents were informed that answers were to be based entirely on their perceptions. This was intended to mitigate any respondent bias of answering based on social desirability.

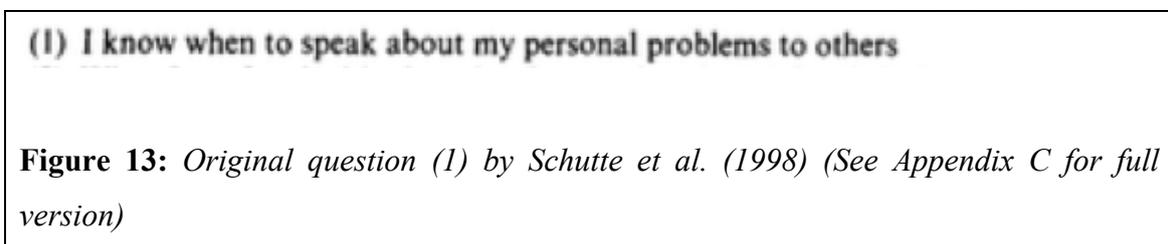
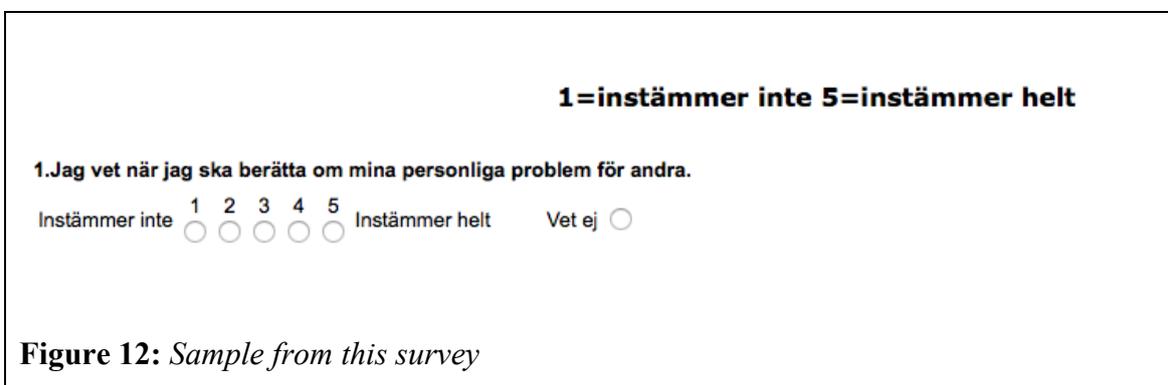
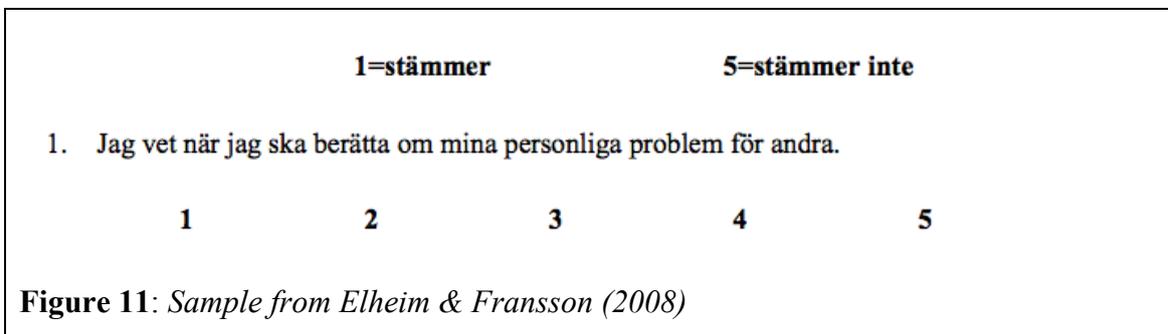
The test used was based on the Swedish translated version by Elheim and Fransson (2008). They conducted a "back translation" on the surveys in English: to check that the translation had been correct, one of them translated them into Swedish, and then the other person translated them into English again. They drew the conclusion that the translation from English was good, and therefore the reliability is assumed to be as good as in the original surveys.

However, changes were made to their version of the 33 questions. For instance, in this version, the participants' grade their level from 1 to 5 where 1 is roughly translated to



"Does not agree at all" (Swedish: Instämmer inte) and 5 is "Completely agree." (Swedish: Instämmer helt). In Elheim and Fransson's (2008) version they inverted the levels so that 1 was "Completely agree" and 5 was "Does not agree at all." This was not implemented in this survey since Schutte et al. (1998) had not inverted the levels. The difference between Elheim and Fransson (2008) version *Figure 11* and this survey *Figure 12* is illustrated with a sample from both versions.

Nevertheless, to clarify, I added the description of the levels both on the top of the page and in the margins of the response sets. I also added a box with the external alternative "I don't know" (Swedish: Vet ej). This is illustrated in *Figure 13* below. These changes were added after consulting with the company Entergate and the pilot study. The changes are also in tune with Bryman and Bell (2011) guidelines for conducting a survey.





4.9.3 Operationalization for the dependent variable EQ

The questions 1-33 in the survey are summarized as one total score, EQ. The 33- items are all interval variables with a Likert scale of 1-5 and coded correspondingly. The only exceptions are questions 5, 28 and 33, which have reversed scores. The total scores can range from 33 up to 165, with higher scores indicating more characteristic Emotional Intelligence. The dependent variable EQ is operationalized: 1 = 1, 2= 2, 3= 3, 4= 4, 5=5 and coded as interval variables.

Question 1 in the survey is illustrated in *Figure 14* below. The translation can be found in Appendix C.

1.Jag vet när jag ska berätta om mina personliga problem för andra.

Instämmer inte 1 2 3 4 5 Instämmer helt Vet ej

Figure 14- *Question 1 in the survey*



4.9.3.1 Reversed questions

This operationalization follows through the rest of the questions except questions 5, 28 and 33, which are inverted. The scores that had reverse scores are marked with (*) in Appendix C and are illustrated in *Figure 15* below.

(5) I find it hard to understand the non-verbal messages of other people*

Swedish: Jag tycker att det är svårt att förstå andra människors icke-verbala budskap

(28) When I am faced with a challenge, I give up because I believe I will fail*

Swedish: 29.När jag står inför utmaningar så ger jag upp eftersom jag tror att jag ska misslyckas.

(33) It is difficult for me to understand why people feel the way they do*

Swedish: När jag står inför utmaningar så ger jag upp eftersom jag tror att jag ska misslyckas.

Det är svårt för mig att förstå varför människor känner som de gör.

Figure 15-*Reversed scores*

The reversed scored questions 5, 28 and 33 are coded as an interval variable and are operationalized as:

1 inverts to 5 (1=5)

2 inverts to 4 (2=4)

3 inverts 3 (3=3)

4 inverts to 2 (3=3)

5 inverts to 1 (5=1)



3.9.3.2 Subscales

The 33 questions can also be divided into four subscales. These four subgroups are based on the Ability-Based model by Salovey and Mayer (1990) and can be applied to Mayer and Salovey (1997). The four subscales are (1) Perceptions of emotions, (2) Managing emotions in the self, (3) Social skills or managing other emotions, and (4) Utilizing emotions.

The 33 items by Stough et al. (2009) are divided as follows:

Subgroup 1. Perception of Emotion (items: 5, 9, 15, 18, 19, 22, 25, 29, 32, 33)

Subgroup 2. Managing own emotions (item 2, 3, 10, 12,14, 21, 23, 28, 31)

Subgroup 3. Managing other's emotions (items 1,4, 11, 13, 16, 24, 26, 30)

Subgroup 4. Utilization of Emotions (items 6, 7, 8, 17, 20, 27)

As higher scores of EIS indicate higher EQ, the higher the score on the subscales indicates the certain ability (or subscale) that is encompassing the others, thus viewing which aspect of EI can be distinguished. All items are seen in Appendix C.



3.10 Independent variable

This section describes the operationalization of the independent variable that is expected to explain if entrepreneurs have higher EQ than CEOs who are non-entrepreneurs. In other words, if the hypothesis: Being an entrepreneur is positively related to EQ is accepted or rejected.

Variable-Entrepreneurs

The variable entrepreneur is an essential variable for the outcome of this study. To separate the entrepreneurs and non-entrepreneurs, hereinafter classified as CEOs, the question asked was if they had founded their company. As noted the entrepreneurial definition this study uses is the "creation of new enterprise". The separation of the variable is vital to reach the purpose of the study, as the dichotomous variables separate the CEOs and the entrepreneurs. The separation is possible due to the variable "current position." The Swedish translation was simplified so that those who had not established their company were automatically classified as CEO since Företagarna stated that their members mainly consisted of CEOs.

Vem startades företaget av? (Who founded the company?)

- Någon annan (CEO:s)
- Mig själv (Entrepreneur)
- Annat: (not included in the analysis)

The independent variable Entrepreneurs is operationalized as 0 = CEO (non-entrepreneur) and 1 = Entrepreneur and are coded as a dichotomous variable.



3.11 Control variables

To ensure that the result is not explained by other factors, control variables were used to minimize the risk of apparent results. The control variables are the following: location, gender, age, current position, company age, employees, education level and the subject of education. The following section will briefly explain why the variables were included as control variables and how the variables have been used in previous research. To clarify, these questions are alphabetically marked in this section, unlike in the survey, as can be seen in Appendix F. In addition, the English translation is written after the original question.

(A) Control Variable- Location

The first variable is location, due to the fact that Företagarna Halland included five different towns. The five towns were all in the Halland municipality: Falkenberg, Halmstad, Hylte, Laholm or Varberg. While the purpose of the variable was to get an overview of areas that respondents live in, it also allowed Företagarna to get an overview of the respondents. This variable is not used in any tests. Nominal variables were used, as the different towns possible classifications are not relevant in this study. As such, they are nominal or categorical variables. This location variable can also be classified as several dichotomous variables (Bryman & Bell, 2011).

Vilken ort bor du i? (Which town do you live in?)

- | | | |
|-------------------------------------|-----------------------------------|--------------------------------|
| <input type="checkbox"/> Falkenberg | <input type="checkbox"/> Halmstad | <input type="checkbox"/> Hylte |
| <input type="checkbox"/> Laholm | <input type="checkbox"/> Varberg | |

The variable location is coded as nominal variables and operationalized as

- | | |
|------------|---|
| Falkenberg | 1 |
| Halmstad | 2 |
| Hylte | 3 |
| Laholm | 4 |
| Varberg | 5 |



The variable location can also be coded as dichotomous variables and operationalized as:

Falkenberg 0/1

Halmstad 0/1

Hylte 0/1

Laholm 0/1

Varberg 0/1

(B) Control Variable – Gender

Many researchers argue that females have higher Emotional Intelligence than males (Salovey & Mayer, 1990; Mayer & Salovey, 1997; Goleman, 1995). Therefore, gender is a control variable in this study to investigate if Salovey and Mayer (1990), Mayer and Salovey (1997) and Goleman (1995) argument is durable. These dichotomous variables are also tested as independent variables.

Är du kvinna eller man? (Are you female or male?)

Kvinna

Man

The variable gender is coded with a dichotomous variable and operationalized as:

Kvinna (Female) 0

Man (Man) 1



(C) Control Variable – Age

Since many researchers argue that EQ increases with age (Goleman, 1995 & Mayer and Salovey, 1997) it was included as a control variable in this study. To test the correlation, respondents answered an open-ended question where they typed in the year they were born. This was also tested as an independent variable.

Vilket år är du född? (What year were you born?)

(Free-text question)

The control variable age is a continuous variable age and is coded as a ratio variable and operationalized as:

0: under 16 år	1: 16–20 år	2: 21–25 år
3: 26–30 år	4: 31–35 år	5: 36–40 år
6: 41–45 år	7: 45–50 år	8: 51–55 år
9: 56–60 år	10: 61–65 år	11: över 65 år

(D) Variable- Current position

This question is open-ended, where the respondents answered freely. It was included to give a clear overview of the main respondents were CEOs, owners or neither. As the sample was entrepreneurs and CEOs in small and medium-sized businesses (SMEs), this question was relevant to test the range of members that Företagarna claimed to have. Although it is not used in any tests, it was important to include this question.

If the answers had not been in tune with what Företagarna claimed, this study would not have been possible to conduct. This question is also relevant with the definition of an entrepreneur as the person who carries out entrepreneurial initiatives that take place in organizational contexts (Davidsson & Wiklund, 2001). Thus, the question assumes that the respondents are among the "organizational contexts". While the question is open-ended, nominal variables were used to differentiate the data.

Vilken är din nuvarande position i företaget? (What is your current position in the company?) (free-text question)



The variable current position is coded as nominal variable and operationalized as:

Self –employees 0

CEO 1

Owner 2

(E) Variable- Company age

This question was designed to get an overview of how long the companies had been in business. The variable company age is included to control the entrepreneurial success (Driessen & Zwart, 2013). Driessen and Zwart (2013) argue that a business is successful when it has been operating for more than two years. This question was designed as a "value regulation" question where the respondent drags a point on a scale and then setting it on one of the below numbers. This is an interval or a ratio variable, as it can range from 0 to 100 years. As years are continuous, it is an interval variable.

Hur länge har företaget varit verksamt? (How long has the company been in business?)

0	1	2	3	4	5	6	7	8	9
<input type="checkbox"/>									
10	11	12	13	14	15	16	17	18	19
<input type="checkbox"/>									
20	21	22	23	24	25	26	27	28	29
<input type="checkbox"/>									
30	31	32	33	34	35	36	37	38	39
<input type="checkbox"/>									
40	41	42	43	44	45	46	47	48	49
<input type="checkbox"/>									
50	51	52	53	54	55	56	57	58	59
<input type="checkbox"/>									
60	61	62	63	64	65	66	67	68	69
<input type="checkbox"/>									
70	71	72	73	74	75	76	77	78	79
<input type="checkbox"/>									
80	81	82	83	84	85	86	87	88	89
<input type="checkbox"/>									
90	91	92	93	94	95	96	97	98	99
<input type="checkbox"/>									
<input type="checkbox"/>									
100									

The variable company age is operationalized as an interval variable



(F) Variable - Employees

This variable was included to get an overview of how many employees there are within the company. The sample selection consists of mostly small to medium-sized businesses, with many businesses being solo companies. This question is a way to measure and control that the sample was in accordance with the statistics that Företagarna claimed. The variable Employees is constructed as an open-ended question and coded as a continuous variable.

Hur många anställda finns i företaget? (How many employees are in the company?)

(Free text question)

The variable employees are operationalized as a continuous variable.

(G) Variable - Education level

This question collects data concerning the educational background the respondents may have. Ordinal variables are used due to the range from elementary school to high school and university.

Vilken är din högsta avlagda examen? (What is your highest completed degree?)

- Grundskola (Elementary school)
- Gymnasiekompetens (High School Competence)
- Universitetsexamen/Högskoleexamen (University/Bachelor degree)

The variable Education level is coded as ordinal variables operationalized as:

Elementary school	0
High School degree	1
University degree/ Bachelor	2



(H) Variable- Subject of education

The background of the respondent's education area may also be of interest. These are nominal variables in contrast to the previous question (H) due to that the different areas do not have an increasing level. They are more categories of different areas and therefore they are category variables or nominal variables.

Inriktning på utbildningen var: (Subject/major of education was:)

Ekonomi (Economy)

Teknik (Technology)

Samhällsvetenskap/Humaniora (Social Sciences/Humanities)

The variable Subject of education was coded as nominal variables and operationalized as:

Economy	0
Technology	1
Social Sciences / Humanities	2



3.12 Ethical issues

Ethical issues can occur in most studies, as research methods may affect people in the study. The four main areas discussed are the following: if any harm might come to the participants, if there is a lack of consent, if it violates the privacy of the participants and if there is fraud, false information or the retrieval of facts (Bryman & Bell, 2013).

The respondents were informed about the purpose of the survey through the cover sheet before they began. In addition, the respondents were given information about the study and my background (See Appendix F).

The respondent's privacy and right to not answer a part or several parts of the survey was taken into consideration. That is why the "I don't know" box was added to the original survey (See Appendix F). None of the questions were mandatory in order to continue the survey, and the survey was entirely voluntarily. In addition, esMaker ensured the respondent's anonymity. Making the questions optional resulted in the loss of certain answers, but the ethical issue was prioritized over data collection. The survey was optional; participants did not have to participate, and as the link was sent through email, no one could know if they had answered it or not.

Still, individuals have different views and opinions regarding ethics, and there will always be differences in individuals' perception of what is ethically acceptable or not (Bryman & Bell, 2011).



3.13 Method Summary

3.1 Research philosophy	Positivism
3.2 Research approach	Deduction
3.3 Research method	Quantitative
3.4 Research design	Survey
3.5 Time horizon: Sample	Cross-sectional Non-probability sampling Purposive sampling
Quality measurements	Conceptuality: Key reviewers have reviewed the report before completion. In addition, a pilot study was conducted. Internal validity: Information has been retrieved from several people in the organization and in different areas in Halland. External validity: Achieved using existing theory and the study has been analytically generalized so some extent. Reliability: Accurate and detailed documentation, ensuring the ability to replicate the study.

Table 1- *Method Summary*



4. Empirical findings & Analysis

This section begins with a presentation of the variables, with an overview of the dependent and independent variables and the used selection. Together, these form the basis for testing the hypothesis. A descriptive statistic methodology was used to analyse the data distribution by frequency, median and range to give an overview of the spread of collected data. The data is then compiled into tables to provide a clear demonstration.

To analyse the data, a Spearman rank correlation coefficient was performed between the dependent variable, EQ, and the independent variable “Entrepreneur” with the control variables. The purpose of the analysis method is to see if there is a correlation between the variables. Spearman's rank correlation coefficient was chosen in consideration to the number of observations used in this study: (N=39).

To analyse the data further, two regression analyses were performed. Regression analysis 1 (4.8) analysed the independent variable and the control variables gender and age with the dependent variables. This tested if there was any statistical relationship between the dependent variables for the hypothesis testing. The second regression analysis, regression analysis 2 (4.9), analysed the dependent variable divided into subgroups, with all other things equal to regression analysis 1. A corresponding analysis of both regression analyses can be found in Appendix H and I.

In contrast with a correlation analysis, a regression analysis provides an opportunity to analyse the relationship between a dependent, an independent and control variable (Bryman & Bell, 2011). This is the reason that a regression analysis was ultimately preferred rather than a correlation analysis to present the result.

Both analyses had a confidence level of 90 percent, which provided a ten percent accepted level of significance. Due to the lack of previous research in the area, (especially with this measurement method as seen in Appendix A) this percentage is considered acceptable (Bryman & Bell, 2011). The section is concluded by an analysis of the results of the models that determine the final hypothesis test.



4.1 Overview of the dependent and independent variables and selection

To provide an overall picture of the data underlying the correlation and regression analyses as well as the final hypothesis test, descriptive statistics are presented in *Table 4* for the study's independent variable, the entrepreneur. In *Table 5* EQ is divided into each alternative the respondents could choose on every question in the test. The dependent variable is also divided into four subgroups.

4.2 Dependent variable - EQ

Table 4,5 and *Chart 1* demonstrates the study's dependent variable, EQ. The mean value of the dependent variable EQ in this study is 123,36. The lowest score was 71, and the highest was 156 with a highest possible of 165. The standard deviation is 19,745. Compared to other studies complied with EIS, where the range was between 11,22 to 20,35, as seen in Appendix A, the standard deviation for this study can be considered appropriate.

The total scores for the different alternatives are viewed in *Table 4*. The table illustrates how the respondents answered, the alternatives being 1-5 according to the Likert scale standards. The reversed questions have been taken into consideration. The respondent's mean value for each alternative was 3,73 and the standard deviation was 1,051, as shown in *Table 5*. *Chart 1* shows the how the EQ test alternatives are distributed on each question.

It is illustrated that alternative 1 has a score of 21, alternative 2 has a score of 82, alternative 3 has a score of 124, alternative 4 has a score of 124 and alternative 5 has a score of 100.



EQ

N	Valid	39
Mean		123,36
Std. Deviation		19,745
Range		85
Minimum		71
Maximum		156

Table 2-Descriptive data, *EQ*

EQ- Each alternative

Mean	3,73
Std. Deviation	1,051

Table 3- Descriptive data, *Each alternative*

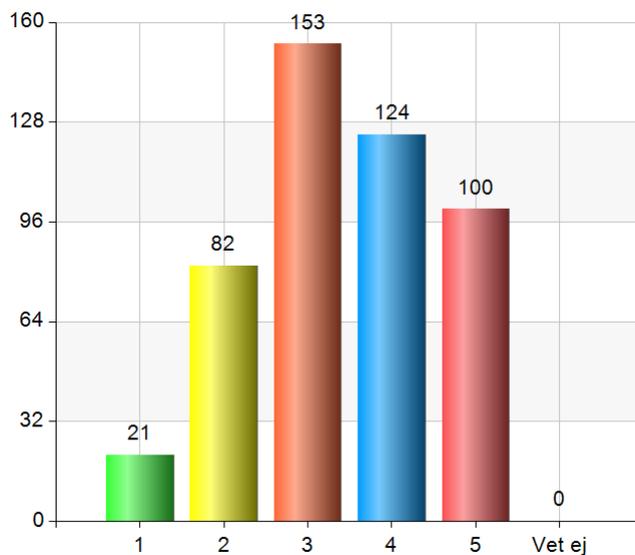


Chart 1- Illustration of how the *EQ* alternatives were distributed on each question



4.3 The subgroups of the dependent variable

In order to detect any patterns of special EI abilities the dependent variable is divided into four subscales: (1) Perceptions of emotions, (2) Managing emotions in the self, (3) Managing others' emotions, and (4) Utilization of emotions. *Table 6* below shows the descriptive statistics of the subgroups. The mean value in subgroup (1) is 36,69, 34,15 in subgroup (2), 30,38 in subgroup (3) and 22,41 in subgroup (4). The range in the subgroup (1) was 22-48, 20-43 in the subgroup (2), 16-38 in the subgroup (3) and 10-30 in the subgroup (4). The standard deviations are 5,77, 6,128, 5,314 and 5,051 in the respective order. Thus, subgroup (2) has the highest standard deviation.

Subgroups of EQ

	Minimum	Maximum	Mean	Std. Deviation
(1) Perception of emotion	22	48	36,69	5,777
(2) Managing own emotion	20	43	34,15	6,128
(3) Managing others emotion	16	38	30,38	5,314
(4) Utilization of emotions	10	30	22,41	5,051

Table 4- *Descriptive data, Subgroups of EQ*



4.4 Independent variable – Entrepreneur

The total distribution of the independent variable entrepreneur is 15 CEOs (38.5%) and 24 entrepreneurs (61.5%), as demonstrated in the frequency table: *Table 8*. The independent variable is a dichotomous variable, (CEO = 0 and Entrepreneur = 1). Descriptive statistics are shown in *Table 7*, where the mean is 0,6154 and the standard deviation is 0,49286.

Entrepreneur

Mean	,6154
Std. Deviation	,49286

Table 7- *Descriptive data, Entrepreneur*

Entrepreneur

	Frequency	Percent	Valid Percent	Cumulative Percent
Val CEO	15	38,5	38,5	38,5
id Entrepreneur	24	61,5	61,5	100,0
Total	39	100,0	100,0	

Table 8- *Frequency table, Entrepreneur*



4.5 Control variables

4.5.1 Variable-Gender

The distribution of the gender variable is 17 female respondents (43.6%) and 22 male respondents (56.4%). As demonstrated in *Table 9*, this results in a mean value of 0,5641 and a standard deviation of 0,50236.

Gender

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Female	17	43,6	43,6	43,6
Male	22	56,4	56,4	100,0
Total	39	100,0	100,0	

Table 9- *Frequency Table, gender*

4.5.2 Variable –Age

The total age is demonstrated in the descriptive data in *Table 10*. The mean value is 52,44 and the standard deviation is 10,855. The age range of the respondents is 25-74 years.

Mean	52,44
Std. Deviation	10,855
Range	49
Minimum	25
Maximum	74

Table 10- *Descriptive data, age*



4.5.3 Variable- Location

The variable “location” is demonstrated in *Table 11* below. They are tested as dichotomous variables in the correlation analysis. As you can spot in *Table 11*, the number of respondents varies between the different locations, where Halmstad has the most with their 15 respondents and Hylte has the least with only two.

Location

Locations in Halland	Nr	%
Falkenberg	3	7,7
Halmstad	15	38,5
Hylte	2	5,1
Laholm	8	20,5
Varberg	11	28,2
Total	39	100

Table 11- *Frequency table, the different locations*



4.5.4 Variable- Company age

The variable “company age” is included in order to get an overview of the companies where the respondents work or that they own, but also to assess entrepreneurial success; Driessen and Zwart (2013) argue that a business is successful when it has been operating for more than two years. This is not a fixed indicator in this thesis, but it does provide more of an overview.

The variable “company age” is presented in the descriptive data for all the respondents in *Table 12*. The mean value is 11,54 with a range of 1 to 37 years and the standard deviation is 10,54.

Company age

Mean	11,54
Std. Deviation	10,367
Range	36
Minimum	1
Maximum	37

Table 12- *Descriptive statistics, Company age*

4.5.5 Variable- Employees

The variable “employees” is presented in the descriptive data in *Table 13* for all the respondents. The average is 3,79 and the standard deviation is 3,750. The number of employees at the companies where the participants work ranged from 0 to 20.

Employees

Mean	3,79
Std. Deviation	3,750
Range	20
Minimum	0
Maximum	20

Table 53- *Descriptive statistics, Employees*



4.5.6 Variable - Education level

The education level of the respondents is demonstrated in *Table 14*. The percentage of respondents who had reached elementary school was 12.8 percent, 20.5 percent had a high school degree and the majority of the respondents, 66.7 percent, had a university or a bachelor degree.

Education level

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Elementary	5	12,8	12,8	12,8
High School degree	8	20,5	20,5	33,3
University/Bachelor degree	26	66,7	66,7	100,0
Total	39	100,0	100,0	

Table 14- *Frequency Table, education level*



4.5.7 Variable - Subject of education

The subject of the education variable is included to get a further view of the respondent's educational background. For this study, the percentage of the respondent's educational background was quite evenly split between three sectors: economy, 30.8 percent technology 33.3 percent and social sciences/humanities 3.9 percent. This is illustrated in *Table 15*.

Subject of Education

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Economy	12	30,8	30,8	30,8
Technology	13	33,3	33,3	64,1
Social Sciences/ Humanities	14	35,9	35,9	100,0
Total	39	100,0	100,0	

Table 15- *Frequency Table, Subject of education*



4.5.8 Variable - Current position

The respondents were asked about their job position, the result of which is demonstrated in *Table 16*. As the sample consisted of entrepreneurs and business CEOs in small and medium-sized businesses, this question is relevant as it verified the claim Företagarna made regarding their range of members. It also allowed for a clear and concise overview of the main respondents. As seen in *Table 16*, out of the respondents 15.38 percent were self-employed, 56.4 percent were CEOs and 28.2 percent were owners. If the result had shown otherwise, it would not have been in accordance with the range of members that Företagarna stated, and consequently, the study would not have been possible to conduct.

Current position

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Self-employed	6	15,38	15,38	15,38
CEO	22	56,4	56,4	71,8
Owner	11	28,2	28,2	100
Total	39	100,0	100,0	

Table 16-Frequency Table, current position



4.7 Correlation analysis 1

The correlation analysis includes the dependent, the independent and the control variables as well as the results and can be found in Appendix H. The analysis shows that there is a significant correlation between EQ and entrepreneurs. Therefore, the correlation analysis supports the hypothesis in this study.

There is a significant negative relationship between EQ and the employees, and there is also a significant negative relationship between EQ and the location Laholm. As for EQ, there is a significant negative relationship between entrepreneurs and employees. Interestingly, it is worth mentioning that there is a significant negative relationship between Entrepreneurs and Laholm and Falkenberg, while there is a significant positive relationship between Entrepreneurs and Halmstad.



4.8 Regression analysis 1 – EQ

A regressions analysis of the dependent, the independent, and the control variables “gender” and “age” are shown in *Table 17*. The corresponding correlation analysis can be found in Appendix I.

EQ	Model 1		
	beta	sig.	tol.
Entrepreneur	0,292	0,072	0,961
Gender	0,113	0,528	0,755
Age	-0,265	0,148	0,741
(Constant)		0,000	
R ²			0,166
Adjusted R ²			0,094
Standard error			18,793
F			2,316
Significance			0,093

Table 17-Regression analysis, EQ- (model 1)

In order to determine if any of the independent variables caused multicollinearity, the tolerance level of the variables was examined. As seen in *Table 17* the model does not contain any multicollinearity.

The model is significant, there is a significant relationship between EQ and Entrepreneur.



There is no significant relationship between EQ and “gender” or “age. This indicates that the model is robust, as it shows the same result as the correlation found in Appendix H. Just like the correlation analysis; the regression analysis indicates that the entrepreneur is significant and positively related to EQ.

In sum, regression analysis 1 found that the only significant relationship is the independent variable “entrepreneur” and the dependent variable EQ.

4.9 Correlation analysis 2 - Subgroups of EQ

The correlation analysis in Appendix I illustrates that the “age” variable is significant to subgroups (3) and (4), Managing others Emotion and Utilization of Emotions. The “gender” variable is significant to subgroup (1) Perception of Emotion. The correlation analysis shows a significant relationship between subgroup (2) Managing own Emotion and the entrepreneur.



4.10 Regression analysis 2 - Subgroups of EQ

The regression analysis on the four subgroups is in this section divided as shown in *Table 18*, where model 1-4 represents subgroup 1-4. The accepted significance level of 10 percent also applies here, as for all the analyses. The corresponding correlation analysis can be found in Appendix H.

	1			2			3			4		
	beta	sig.	tol.	beta	sig	tol.	beta	sig	tol.	beta	sig	tol.
Entrepreneur	,264	,110	,961	,352	,027	,961	,198	,208	,961	,100	,511	,961
Gender	-,281	,131	,755	,308	,082	,755	,216	,222	,755	,155	,307	,755
Age	,043	,815	,741	-,132	,453	,741	-,418	,023	,741	-,507	,006	,741
(Constant)		,000			,000			,000			,0000	
R ²			,128			,221			,202			,232
Adjusted R ²			,053			,154			,134			,166
Standard error			5,771			6,128		,	5,314			5,051
F			1,7213			3,309			2,956			3,518
Significance			,182			,031			,046			,025

Subgroups of EQ

Table 18-Regression analysis, subgroups of EQ (model 1-4 represents subgroup 1-4)



Since regression analysis 2 consists of subgroups of EQ in regression 1, the tolerance levels should be applicable here. As can be seen in *Table 18*, none of the subgroups contains any multicollinearity.

Subgroup (1) Perception of Emotion. The model is not significant. There is no significant relationship between subgroup 1 and the entrepreneur.

Subgroup (2) Managing own Emotion. The model is significant. Entrepreneur is significant and positively related to subgroup 2.

There is also a significant relationship between subgroup 2 and “gender,” as subgroup 2 is significant and positively related to being male. There is no significant relationship between subgroup 2 and “age”. *Table 18* also shows that subgroup 2 has the highest standard deviation.

Subgroup (3) Managing others Emotion. The model is significant. There is no significant relationship between subgroup 3 and the entrepreneur. Subgroup 3 shows a significant relationship with “age”.

Subgroup (4) Utilization of Emotions. The model is significant. There is no significant relationship between subgroup 4 and the entrepreneur. Subgroup 4 shows a significant relationship with “age”.

In comparison with the correlation analysis in Appendix I, subgroup 3 and 4 showed a significant relationship with the “age” variable but the “gender” variable is significant to subgroup (1) Perception of Emotion. The correlation analysis shows as the regression analysis a significant relationship between subgroup (2) Managing own Emotion and the entrepreneur.

In the regression analysis 1, the R-Square is 0,094, which corresponds to 9.4 percent of the explained variation, all independent variables in the model affect the dependent variable. In comparison, regression analysis 2 has an Adjusted R-Square of 15.4 percent. Entrepreneur is significant and positively related to subgroup 2, although the level of significance indicated a stronger relationship than regression analysis 1 -EQ



4.11 Analysis

To introduce this analysis, the previous conclusions are summarized:

- Correlation analysis 1: There is a significant relationship between EQ and the entrepreneur.
- Regression analysis 1: Entrepreneur is significant and positively related to EQ.
- Correlation analysis 2: There is a significant relationship between EQ and the entrepreneur.

There is a significant relationship between subgroup 2 and the entrepreneur.

- Age is significant to subgroup 3 and 4.
- Gender is significant to subgroup 1
- Regression analysis 2: Entrepreneur is significant and positively related to subgroup 2.
 - Subgroup 2 is significant and positively related to being male.

4.11.1 Hypothesis testing

Hypothesis: Being an entrepreneur is positively related to EQ.

The hypothesis can be supported by the correlation analysis (4.7, Appendix H, I), which demonstrated a significant relationship between EQ and the entrepreneur. The correlation analysis between the subgroups of EQ (in Appendix I) also showcased a significant positive relationship between the entrepreneur and subgroup (2) Managing one's Emotions. The 10 percent level of significance is used in this study.

The correlation analysis revealed that there is a significant correlation between Entrepreneurs and EQ. Regression analysis 1 showed that the entrepreneur is significant and positively related to EQ (*Table 17*). Regression analysis 2 showed that the entrepreneur is significant and positively related to subgroup 2 (*Table 18*). The level of significance indicated a stronger relationship (0,027/0,072) than regression analysis 1 – EQ.

As the 10-percentage level of significance is used in this study, both regression analyses illustrated a significant positive relationship. Even if the ten-percentage level of



significance is solely used in this study, it is worth mentioning that regression analysis 2 (*Table 18*) showed a significant relationship at the five-percentage level as well. This fact can be used to argue that many of the abilities and behaviours that an entrepreneur is classified by in literature relates to EI abilities, which supports the hypothesis.

Since the entrepreneur shows significant positive correlations with EQ, the hypothesis that being an entrepreneur is positively related to EQ can be **accepted**.

4.11.2 Previous research

The pilot study, with a total score of 150 out of 165 possible, had very high scores compared to the overall mean. This resulted in a score of 123,36, seen in the descriptive statistics of EQ in *Table 4*. Compared to the other studies conducted with EIS, the lowest mean is 94,57 and the highest is 142,51. An overview of the means in other studies is shown in Appendix A. In consideration of Sweden's comparatively high number and ratio for entrepreneurial activity (SCB, 2017) it is possible that this study could generate a different set of empirical findings when conducted in other countries.

Stough et al. (2009) concluded that women generally score somewhat higher on the EIS than men. He gave examples of some studies where this difference has been statistically significant (e.g., Carmeli & Josman, 2006; Ciarrochi et al., 2001; Pau & Croucher, 2003; Van Rooy, Alonso & Viswaran, 2005; Saklofske, Austin, Galloway & Davidson, 2007; Schutte et al., 1998 in Stough et al. 2009). Stough et al. (2009) also gave examples of other studies where the difference was not statistically significant (e.g., Saklofske, Austin & Minski, 2003; Schutte, Malouff, Bobik, Coston, Greeson, Jedlicka, Rhodes & Wendorf, 2001; Wing, Schutte & Byrne, 2006 in Stough et al. 2009). In addition, several other researchers who are included by Stough et al. (2009) can be found in Appendix A.

Petrides and Furnham (2000) conducted the EIS on college students. They found that males estimated themselves significantly higher than females, although there was a significant gender difference on subgroup (3) Managing others Emotion, with females scoring higher than males. In this study, gender was not significant in subgroup 3, although subgroup 2 is significant and positively related to being male. This was partly



in tune with Petrides and Furnham (2000) study, but not with Schutte et al. (1998). Ngah and Salleh (2015) did not find any gender differences.

Derksen, Kramer and Katzko (2002) claimed that EQ begins to develop and increase at 25 years of age. While previous research (e.g., Goleman, 2009) agrees that EQ increases with age, the findings from this study contradict those assumptions in the total EQ analysis. In this study, age is significant in the correlation analysis 2 in subgroups 3 and 4. But on the contrary, it is not increased by age.

4.11.3 Theoretical basis

Connections with the theoretical frame of reference can be made through subgroup (2) Regulation of Emotion are illustrated in *Figure 16*. The branch to which the entrepreneur showed a significant positive correlation is illustrated with a round green marker. The theory concerning the subgroups could only be applied to subgroup (2) since none of the other subgroups showed a significant relationship with the entrepreneur.

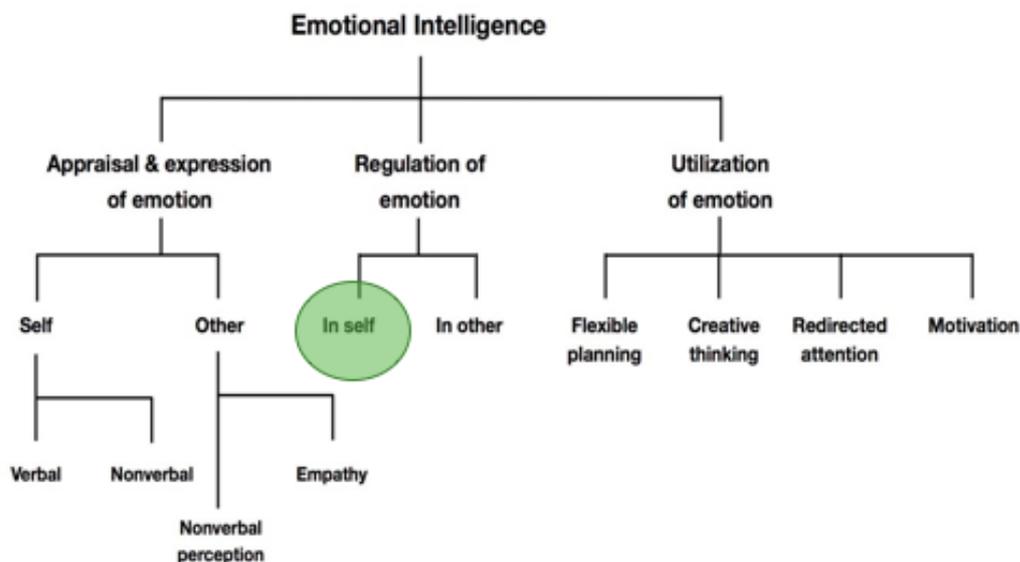


Figure 16- Salovey and Mayer (1990) model of EI. Round marker is the branch entrepreneur have a significant relation to

In addition, subgroup (2) Regulation of Emotion correlates with Mayer and Salovey's model from 1997 4th branch - Reflective regulation of emotions to promote emotional and intellectual growth. (Dulewicz & Higgs, 2003). Interestingly, the entrepreneurs have a significant relationship with the highest-level branch that concerns the conscious, reflective regulation of emotion. Abilities that come from the Regulation of Emotion branch helps individuals develop emotional and intellectual growth (Salovey & Sluyter, 1997).

The abilities of the four-branch model are seen in Appendix B. They abilities are (1) Staying open to both pleasant and unpleasant feelings, (2) Reflectively engaging or



detaching from emotion, depending on how the emotion is judged to be informative or useful. (3) Reflectively monitoring emotions about oneself and others and recognizing how clear, influential, typical, or perhaps reasonable the emotion is. (4) Managing emotion in oneself and others by moderating and enhancing emotions without limiting or exaggerating the information they convey. In other words, it relates to the management of emotions in the context of an individual's goals, self-knowledge and social awareness (Salovey & Sluyter, 1997).

Therefore, given positive significant relationship, one can assume that the ability for this subgroup is suitable for entrepreneurs. Furthermore, as the changes and risk to an entrepreneur's personal life can often be overwhelming (Volkman et al., 2010), the ability to stay open to both pleasant and unpleasant feelings can be an important quality.

Ahmetoglu et al. (2011) state that behaviours consistently identified with individual differences in entrepreneurial success are the following: opportunity recognition, opportunity exploitation, innovation, and value creation. He argues that recognizing the entrepreneurial behaviour as a function of individual differences, personality and ability factors should predict entrepreneurial activity and success. An illustration of these behaviours is presented in *Figure 5* in the theoretical frame of reference.

The second ability is reflectively engaging or detaching from emotion if it is deemed informative or useful, which can certainly be effective when recognizing and exploiting opportunities. Further, to engage with the emotion depending on how informative or useful it is can be necessary for pursuing innovation and value creation.

The entrepreneurial process is also suitable for the third ability: reflectively monitoring emotions about oneself and others and recognizing how clear, influential or typical these emotions are, as well as the ability to be reasonable with emotions. A further definition regarding entrepreneurship argues that it should not only be characterized by who the entrepreneur is and does, but also by how he or she discovers opportunities (Rhee & White, 2007). As such, an emotionally intelligent person tends to use emotion as a path towards growth (Salovey & Mayer, 1990). Furthermore, Volkman et al. (2010) state that the establishment of a new enterprise indicates a substantial degree of individuality and heterogeneity, which is compatible with the fourth ability: managing emotion in oneself. In addition, emotional restraint is often necessary in the service of a greater objective (Salovey & Mayer, 1990).



Ability-based EI is based on the assumption that emotions are viewed as responses that guide an individual's behaviour and provides information that enables goal achievement (Goldenburg et al., 2006). Ability-based EI refers to one's actual ability to recognize, process and utilize emotion-laden information (Zampetenakis et al., 2009). Considering Zampetenakis et al. (2009) definition, having a high Ability-based EI and being able to utilize emotion-laden information does not suggest that an individual will have an enhanced perception of control over their environment.



5. Conclusion and implications

This section discusses the conclusions that can be drawn from the study's outcome, considering its stated purpose, and summarizes the results of the hypothesis testing as determined by the empirical analysis. The theoretical perspectives discussed in the theoretical basis leads to both theoretical and practical implications. Finally, the study's limitations are presented and followed by a critique, which highlights conditions and opportunities for future research into the relationship between EI and entrepreneurship.

5.1 Conclusions

The primary purpose of this study is to explain Emotional Intelligence, EI, and its possible relationship with the entrepreneur through the to the research question: *Do entrepreneurs have a significantly higher EQ?*

The aim of this study is to explain the factors that underlie entrepreneurial performance from an EI perspective and to investigate if the entrepreneur, defined as an individual who has founded a business, have a higher EI compared to CEOs, defined as individuals who have not founded their businesses. Moreover, this study aimed to examine the role of emotional intelligence in the entrepreneurial context, giving light to an otherwise understudied area.

The secondary purpose is to characterize the nature of this relationship with the research problem, *which patterns can be identified?*

Since EI is a relatively unexplored area, the research literature on how EI has been conceptualized is the basis of the study. The theories that have been applied with the purpose of explaining how EI relates to the entrepreneur are based on the Ability-based model by Salovey and Mayer (1990; 1997). To get an entrepreneurial perspective the entrepreneurial process by Shane (2003) in Volkmann et al. (2010) has been embedded throughout this study.

A hypothesis was created and used for statistical analyses based on literature and research about entrepreneurship and EI. The empirical results enabled the study to address the hypothesis and to come to the following conclusion:

Hypothesis: Being an entrepreneur is positively related to EQ.

Accepted.



The entrepreneur is positively related to EQ. This indicates that EQ measured with the EIS test can be predicted by whether or not a person is an entrepreneur. Apparent from the empirical analysis, *being an entrepreneur is positively related to EQ*. Therefore, the research problem can be answered as follows; entrepreneurs have a significantly higher EQ compared to CEO:s. The secondary purpose is met by identifying the significant relationships between entrepreneurs and CEO:s, which indicated:

- Entrepreneur is positively related to subgroup 2.
- Subgroup 2 is positively related to being male.

Thereby answering the research question of which patterns can be identified. The significant relationships are the patterns illustrated, with the entrepreneur is positively related to subgroup 2 and subgroup 2 is positively related to being male.

Therefore, the assumptions that were derived from a theoretical perspective can now also be confirmed empirically. This has not been previously tested in Sweden and can now also be confirmed empirically. Comparative tests have been executed to distinguish the entrepreneur. This means that the possible contributions discussed in the problem summary are confirmed.



5.2 Theoretical implications

This study contributes to the field of entrepreneurship, having addressed the influence of a high EI on the entrepreneur. Researchers have previously investigated the role of EI within leadership (e.g. Groves, McEnrue & Shen, 2008), general workplace performance (e.g. Dulewicz & Higgs, 2003) and education as Sjöberg (2001) did in Sweden, but they have spent considerably less time exploring EI in the context of entrepreneurship. This study may have had a different outcome than previously conducted research because of its geographical location. Since Sweden has a high ratio of entrepreneurial activity (SCB, 2017). Therefore, this study can contribute to the immature subject of EI and the immaturity of its interaction with entrepreneurship. I argue that understanding the factors related to entrepreneurial success is a key component in the field of entrepreneurship, and also broadens perspectives on traditional notions of intelligence, often measured by IQ. Through executing a comparative study among business managers, and with the confirmed results, this study contributes to research concerning EI as a valid concept. Besides contributing to EI as a valid concept, a comparative study among business managers through this perspective has not been conducted before.

More precisely, the study includes the theoretical framework of EI and provides an empirical framework for measuring it in the entrepreneurial context and outlines linkages among and between the constructs. It also provides a useful tool that scholars can use to understand what underlies, and therefore predicts, entrepreneurial performance. Therefore, I argue that this study can contribute to the construction of a nomological network to support further EI research.



5.3 Practical implications

The ability to regulate one's emotions can help the entrepreneur to deal with well-known difficulties when starting their business (Humphrey, 2013). This is interesting since subgroup (2) Regulation of one's emotion of EQ, is the one subgroup that entrepreneurs also showed a positive significant relationship with. As Företagarna focuses on helping entrepreneurs deal with various difficulties when starting a business, the ability to regulate one's emotions can be beneficial.

"Leaders aren't born, they are made."

- Vince Lombardi. (Vincelombardi.com, 2017)

I believe that the same concept can apply to entrepreneurs. My argumentation is supported by (Groves, McEnrue & Shen, 2008), who proved that it is possible to enhance an individual's EI through training. Furthermore, if the persons who completed the EI test further engaged in EI skill-building activities they could enhance their overall EI. This can be beneficial for the organization Företagarna. For instance, it would be possible for Företagarna to arrange EI skill-building activities in tune with Groves, McEnrue and Shen (2008) theory.

EI skill-building activities can meet the need emphasized by Region Halland (2017): to promote entrepreneurship in the region and to develop innovation systems. Since enhancing one's EI can increase innovativeness and lead to entrepreneurial success (Nghah & Salleh, 2015), this could be the factor that Region Halland has been missing. It can also be beneficial for economic growth, considering that successful entrepreneurial activity is essential for a healthy economy (Davidsson & Wiklund, 2001).

Consequently, EI enhancement can help in meeting the overall goal conducted by the Swedish ESF Council in the RUS, as EI is shown to enhance innovativeness and help individuals gain a competitive advantage. Stefanovic, Prokic, & Rankovic (2012) state that EI can be a helpful tool that enterprises can use to reach their goal to increase employment through competitiveness and innovation. In order to reach these goals, they emphasize the importance of promoting an entrepreneurial approach in schools and teaching methods (ESF, 2017). The practical implications of this study can also confirm the need to create supportive classrooms that focus on key entrepreneurial skills, which can help individuals to launch successful businesses in a competitive global climate



(McLaughlin, 2012). Therefore, EI abilities should be considered when educators design and assess an entrepreneurial curriculum.

In conclusion, the purpose of entrepreneurship research is to “explain and facilitate the role of new enterprise in furthering economic progress” (Davidsson & Wiklund, 2011, p. 23). This study has placed a significant part in that by the discussed practical contributions.



5.4. Criticism, limitations and further research

The positive image often composed in the discussion of EI should be taken into consideration, as many articles that describe EI as an evolving ability (e.g., Groves, McEnrue & Shen, 2008). But experiencing an emotion and showing the semblance of one, such as a smile, are two completely different things and should be taken into consideration. An individual who shows the ability to be empathetic can have difficulties with actually feeling empathy. EI, despite these positively charged words, can thereby also be used as a tool for manipulating individuals. I argue that this is important to take into consideration.

Moreover, even if the reliability and validation are tested, if the core of the research is not correct, the theoretical frame of reference is ambiguous or perhaps not vigorous. Then the results cannot possibly be.

One limitation of this study is the use of self-reported data. Despite the wide use of self-report data in survey research, individuals often have difficulty accurately rating their behaviours (Goleman, 1995). While efforts were made to minimize the bias associated with self-reported data, a further research suggestion would still be to use a measurement instrument that does not use self-reported data.

The questions used in the EQ measurement, EIS are based upon theoretically derived, previously validated instruments (Stough, 2009). Though the EIS has been criticized on psychometric grounds (Petrides & Furnham, 2000), it should also be mentioned that no measurement method is ultimate. Several prominent researchers have highlighted criticism regarding the well-established measurement of IQ. Mayer and Salovey (1997, s. 38) argue: “The fact that traditional intelligence is by no means a perfect predictor does not imply that emotional intelligence—however, measured—will fill the gap.” With this said, I consider it important to not consider the instrument as airtight. If further research were to examine similar approaches, it would be a suggestion to try another measurement instrument and possibly compare the findings to this study. Such a comparison would contribute to further knowledge concerning EI instruments.



Furthermore, another limitation of the study concerning data collection involves an assurance of causality. As this study could confirm causality: EQ measured with the EIS test can be predicted by if the person is an entrepreneur with a cross-sectional study. I argue that the possibility exists that the causality could be reversed; if the person is an entrepreneur, can EQ measured with the EIS test be predicted? To confirm the direction of causality, a longitudinal study comprising several opportunities for data collection would be necessary.

In addition, cross-sectional data collection techniques raise concerns regarding a lack of causal evidence. While there were relative associations between EI abilities and entrepreneurs, the results are correlational as opposed to casual. With this in mind, it is not possible to determine if EI developed before or simultaneously with the "creation of enterprises" definition in a longitudinal study. Nevertheless, cross-sectional research designs have frequently been used and are considered acceptable for this type of research (Bryman & Bell, 2011). Future research could investigate if EI abilities are changed or continued in a longitudinal study.

A limitation regarding the sample should also be noted: the respondents consisted of members in Företagarna. Considerations must be given that the respondents who chose to participate are possibly more open and if those respondents have more EI abilities due to that. The organization also has a networking function. Therefore, the conclusions can be made that those who enjoy networking may have abilities that correlate with greater EI abilities. In addition, it must be considered that if those respondents had chosen to answer the test, the result might have differed. Therefore, a research where respondents are obliged to participate may possibly yield other results.

Several ideas for future research have emerged based on the results of this study. Future research could explore if entrepreneurs who became CEOs are better leaders than those who are solely CEOs - if their EI level contributes to better outcomes. Another interesting approach would be to investigate how EI abilities may affect the company. For example, do companies with leaders that have high EI have higher revenue, higher growth rates or perform better measured by other performance indicators? Potential implications could be used to answer the question as to why some entrepreneurial businesses are more successful than others. Another idea is to measure EQ before and



after an EI skill-building activity, for example, arranged by Företagarna in tune with Groves, McEnrue and Shen (2008).

Another limitation involves the demographics of the sample of participants. The accessible sample was drawn primarily from a relatively specific geographic area in Sweden, which may have contributed to the small sample of respondents. A larger sample including respondents from multiple geographic regions may provide additional value, possibly in comparison and contrast with the present sample. Future research could therefore be conducted in different geographic regions in Sweden and around the world. Future research could also address additional variables that may influence why the entrepreneurs have a significant positive relation to EQ since this study, in conclusion, has illustrated that a person's EQ level can be predicted if the person is an entrepreneur.



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7. Appendices

7.1 Appendix A - from Stough et al. (2009)

Table 2 Internal consistency, means and standard deviations for the assessing emotions scale

Author	Sample	Country of data collection	Scale alpha	Mean	SD
Abraham (2000)	79 customer service employees	United States	.89	*	**
Austin et al. (2004)	500 university students	Canada	.84	*	**
Bastian et al. (2005)	246 university students	Australia	.89	123.80	12.50
Brackett and Mayer (2003)	207 university students	United States	.93	123.42	14.52
Brown and Schutte (2006)	167 university students	Australia	.85	126.51	11.61
Carmeli (2003)	98 senior managers	Israel	.90	122.43	12.21
Carmeli and Josman (2006)	215 employees	Israel	.83	126.39	12.21
Charbonneau and Nicol (2002)	134 adolescents	Canada	.84	124.41	14.52
Ciarrochi, Chan, and Bajgar (2001)	131 adolescents	Australia	.84	120.45	13.86



Table 2 (continued)

Author	Sample	Country of data collection	Scale alpha	Mean	SD
Clyne and Blampied (2004)	11 women with binge eating disorder undergoing treatment	New Zealand	***	113.40 at pre, 122.50 at post	19.50 12.44
Depape, Hakim-Larson, Voelker, Page, and Jackson (2006)	125 university students	Canada	.85	127.78	12.38
Guastello and Guastello (2003)	566 university students	United States	.78	122.27	**
Guastello and Guastello (2003)	465 mothers of university students	United States	.86	122.41	**
Guastello and Guastello (2003)	401 fathers of university students	United States	.83	117.66	*
Liau et al. (2003)	203 adolescents	Malaysia	.76	132.08	11.14
Newcombe and Ashkanasy (2002)	537 university business students	Australia	.88	94.57****	13.60
Ogińska-Bulik (2005)	330 human service professionals	Poland	***	123.58	15.15
Pau and Croucher (2003)	223 university students	United States	.90	117.54	14.90
Riley and Schutte (2003)	141 community members and students	Australia	***	121.54	17.18
Saklofske et al. (2007)	258 female university students	Canada	***	123.96	14.40
Saklofske et al. (2007)	104 male university students	Canada	***	119.29	12.66
Saklofske et al. (2007)	362 university students	Canada	.90	*	**
Schutte and Malouff (2002)	49 university students in emotional intelligence training program	United States	***	126.88 at pre, 134.05 at post	14.39 15.49
Schutte and Malouff (2002)	103 university students in a control condition	United States	***	130.79 at pre, 131.35 at post	13.73 18.14

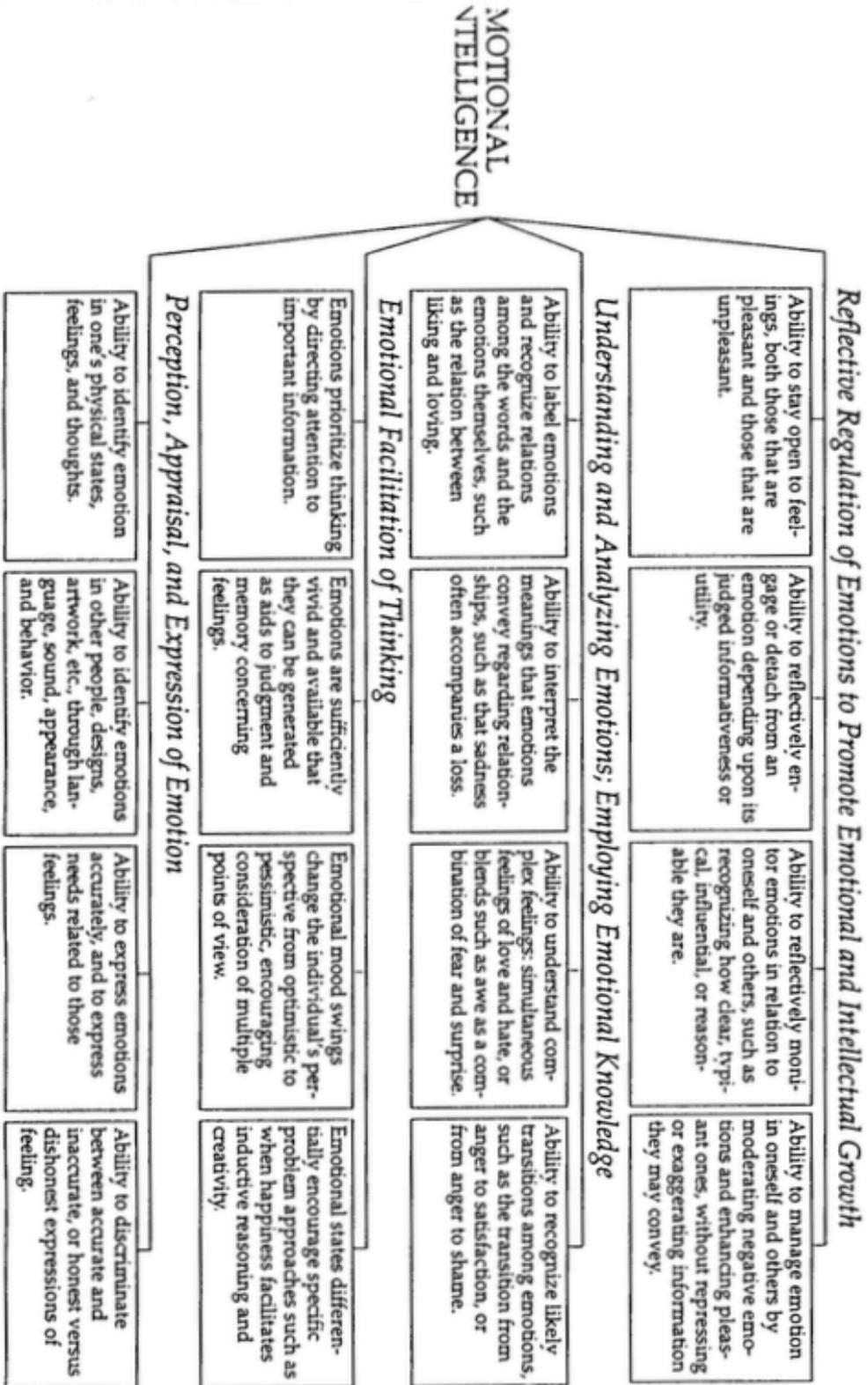


Table 2 (continued)

Author	Sample	Country of data collection	Scale alpha	Mean	SD
Schutte et al. (2002)	40 retail employees	United States	***	130.00	14.99
Schutte et al. (2002)	50 students and employees	United States	***	133.46	14.62
Schutte et al. (2002)	47 students and employees	United States	***	131.17	14.37
Schutte et al. (1998)	346 community members and university students	United States	.90	128.86	15.57
Schutte et al. (1998)	32 university students	United States	.87	*	**
Schutte, Malouff, et al. (2001)	24 university students	United States	***	126.88	12.18
Schutte, Malouff, et al. (2001)	37 teaching interns	United States	***	142.51	9.46
Schutte, Malouff, et al. (2001)	77 community members and university students	United States	***	132.84	12.37
Schutte, Malouff, et al. (2001)	38 employees and university students	United States	***	131.61	14.23
Schutte, Malouff, et al. (2001)	43 community members and university students	United States	***	131.56	15.67
Schutte, Malouff, et al. (2001)	37 married employees	United States	***	121.13	13.18
Scott, Ciarrochi, and Deane (2004)	276 university students	Australia	***	122.10	12.87
Sjöberg (2001)	226 prospective university students	Sweden	.79	*	**
Thingujam and Ram (2000)	165 male and female university students	India	.89	*	**
Thingujam and Ram (2000)	293 male university students	India	***	121.69	13.84
Thingujam and Ram (2000)	518 female university students	India	***	126.43	14.78
Totterdell and Holman (2003)	18 customer service employees	United Kingdom	.89	127.39	13.66
Van Rooy et al. (2005)	275 university students	United States	.87	129.46	14.21



7.2 Appendix B – from Mayer and Salovey (1997)





7.3 Appendix C - from Schutte et al. (1998)

Table 1
The 33-item emotional intelligence scale

-
- (1) I know when to speak about my personal problems to others
 - (2) When I am faced with obstacles, I remember times I faced similar obstacles and overcame them
 - (3) I expect that I will do well on most things I try
 - (4) Other people find it easy to confide in me
 - (5) I find it hard to understand the non-verbal messages of other people*
 - (6) Some of the major events of my life have led me to re-evaluate what is important and not important
 - (7) When my mood changes, I see new possibilities
 - (8) Emotions are one of the things that make my life worth living
 - (9) I am aware of my emotions as I experience them
 - (10) I expect good things to happen
 - (11) I like to share my emotions with others
 - (12) When I experience a positive emotion, I know how to make it last
 - (13) I arrange events others enjoy
 - (14) I seek out activities that make me happy
 - (15) I am aware of the non-verbal messages I send to others
 - (16) I present myself in a way that makes a good impression on others
 - (17) When I am in a positive mood, solving problems is easy for me
 - (18) By looking at their facial expressions, I recognize the emotions people are experiencing
 - (19) I know why my emotions change
 - (20) When I am in a positive mood, I am able to come up with new ideas
 - (21) I have control over my emotions
 - (22) I easily recognize my emotions as I experience them
 - (23) I motivate myself by imagining a good outcome to tasks I take on
 - (24) I compliment others when they have done something well
 - (25) I am aware of the non-verbal messages other people send
 - (26) When another person tells me about an important event in his or her life, I almost feel as though I have experienced this event myself
 - (27) When I feel a change in emotions, I tend to come up with new ideas
 - (28) When I am faced with a challenge, I give up because I believe I will fail*
 - (29) I know what other people are feeling just by looking at them
 - (30) I help other people feel better when they are down
 - (31) I use good moods to help myself keep trying in the face of obstacles
 - (32) I can tell how people are feeling by listening to the tone of their voice
 - (33) It is difficult for me to understand why people feel the way they do*
-

Note: The authors permit free use of the scale for research and clinical purposes.

*These items are reverse scored.



7.4 Appendix D - EQ-I scales from Bar-on (2006)

EQ-i SCALES	The EI Competencies and Skills Assessed by Each Scale
Intrapersonal	Self-awareness and self-expression:
Self-Regard	<i>To accurately perceive, understand and accept oneself.</i>
Emotional Self-Awareness	<i>To be aware of and understand one's emotions.</i>
Assertiveness	<i>To effectively and constructively express one's emotions and oneself.</i>
Independence	<i>To be self-reliant and free of emotional dependency on others.</i>
Self-Actualization	<i>To strive to achieve personal goals and actualize one's potential.</i>
Interpersonal	Social awareness and interpersonal relationship:
Empathy	<i>To be aware of and understand how others feel.</i>
Social Responsibility	<i>To identify with one's social group and cooperate with others.</i>
Interpersonal Relationship	<i>To establish mutually satisfying relationships and relate well with others.</i>
Stress Management	Emotional management and regulation:
Stress Tolerance	<i>To effectively and constructively manage emotions.</i>
Impulse Control	<i>To effectively and constructively control emotions.</i>
Adaptability	Change management:
Reality-Testing	<i>To objectively validate one's feelings and thinking with external reality.</i>
Flexibility	<i>To adapt and adjust one's feelings and thinking to new situations.</i>
Problem-Solving	<i>To effectively solve problems of a personal and interpersonal nature.</i>
General Mood	Self-motivation:
Optimism	<i>To be positive and look at the brighter side of life.</i>
Happiness	<i>To feel content with oneself, others and life in general.</i>



7.5 Appendix E- Pilot study

Vilken ort bor du i?	Halmstad
Är du kvinna eller man?	Man
Vilket år är du född?	1962
Vilken är din nuvarande position i företaget?	VD
Vem startades företaget av?	Mig själv
Hur länge har företaget varit verksamt?	18
Hur många anställda finns i företaget?	20
Vilken är din högsta avlagda examen?	Universitetsexamen/Högskoleexamen
Inriktning på utbildningen var:	Teknik
1. Jag vet när jag ska berätta om mina personliga problem för andra.	4
2. När jag är utsatt för svårigheter, minns jag tider då jag stod inför liknande svårigheter och övervann dem.	5
3. Jag förväntar mig att jag kommer göra bra ifrån mig med det flesta uppgifter jag tar mig an.	5
4. Andra människor tycker det är lätt att anförtro sig till mig.	5
5. Jag tycker att det är svårt att förstå andra människors icke-verbala budskap.	1
6. Några av mina största händelser i mitt liv har drivit mig att omvärdera vad som är viktigt och vad som inte är viktigt.	5
7. När mitt humör förändras, ser jag nya möjligheter.	5
8. Känslor är en av sakerna som gör mitt liv värt att leva.	4
9. Jag är medveten om mina känslor medan jag upplever dem.	4
10. Jag förväntar att bra saker ska hända	4
11. Jag tycker om att dela med mig av mina känslor till andra.	3
12. När jag upplever en positiv känsla, vet jag hur jag ska gå till väga för att den ska vara.	4
13. Jag ordnar händelser för att göra andra lyckliga.	5
14. Jag söker mig till aktiviteter som gör mig lycklig.	5
15. Jag är medveten om de icke-verbala budskap jag sänder ut till andra.	4
16. Jag presenterar mig på ett sådant sätt som ger ett bra intryck till andra.	5
17. När jag är på ett bra humör, är det lätt för mig att lösa problem.	5
18. Genom att se på deras ansiktsuttryck, känner jag igen känslor som personer upplever.	4
19. Jag vet varför mina känslor förändras.	4
20. När jag är på ett bra humör, är jag skicklig med att komma med nya idéer.	5
21. Jag har kontroll över mina känslor.	5
22. Jag känner lätt igen mina känslor medan jag upplever dem.	4
23. Jag motiverar mig själv genom att	5

föreställa mig att de uppgifter jag tar mig an ger ett bra resultat.	
24. Jag ger andra komplimanger när de gjort något bra	5
25. Jag är medveten om de icke-verbala budskap andra personer sänder.	4
26. När en annan person berättar om en viktig händelse i hans eller hennes liv så kan jag känna att jag har upplevt denna händelse själv.	4
27. När jag känner en känslöförändring, tenderar jag att komma med nya idéer.	4
28. När jag står inför utmaningar så ger jag upp eftersom jag tror att jag ska misslyckas.	1
29. Jag vet vad andra personer känner genom att bara se på dem.	5
30. Jag hjälper andra personer att må bättre när de är nere.	5
31. Jag använder mig av ett bra humör för att hjälpa mig själv att fortsätta försöka i bemötandet av svårigheter.	5
32. Jag kan säga hur personer känner sig genom att lyssna till tonen i deras röster.	5
33. Det är svårt för mig att förstå varför människor känner som de gör.	2

Summering av viktningspoäng	150/165
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7.6 Appendix F- Survey

(see English translation on questions 1-33 in Appendix C)

Skriv ut Anpassa webbplatsen

Linnéuniversitetet
Kalmar Växjö

Hej!

Jag heter Hanna Daneshmir och studerar Civilekonomprogrammet på Linnéuniversitetet och jag skulle uppskatta Din medverkan i denna enkätundersökning som handlar om entreprenörskap och emotioner. Testet tar 10-15 minuter.

Din medverkan är självklart frivillig och svaren kommer att behandlas helt anonymt.

Del 1 är först några bakgrundsfrågor för att vi ska kunna få en allmän bild av de som svarar.

Del 2 är ett EQ (emotional quotient) test som mäter emotionell intelligens.

Tack för din medverkan!

1/10 **Nästa**

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Skriv ut Anpassa webbplatsen

Linnéuniversitetet
Kalmar Växjö

Vilken ort bor du i?

Falkenberg Halmstad Hylte
 Laholm Varberg

Är du kvinna eller man?

Kvinna
 Man

Vilket år är du född?

2/10 **Tillbaka** **Nästa**

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Vilken är din nuvarande position i företaget?

Vem startades företaget av?

Någon annan

Mig själv

Annat:

Hur länge har företaget varit verksamt?

5

Hur många anställda finns i företaget?

Vilken är din högsta avlagda examen?

Grundskola

Gymnasiekompetens

Universitetsexamen/Högskoleexamen

Annan:

Inriktning på utbildningen var:

Ekonomi

Teknik

Samhällsvetenskap/Humaniora

Annan:

Del 2 - EQ

Vänligen läs detta först:

Läs påståendet och **kryssa** i den siffra som passar bäst in på dig

1=instämmer inte 5=instämmer

helt

1.Jag vet när jag ska berätta om mina personliga problem för andra.

Instämmer inte 1 2 3 4 5 Instämmer helt Vet ej



2. När jag är utsatt för svårigheter, minns jag tider då jag stod inför liknande svårigheter och övervann dem.

Instämmer inte 1 2 3 4 5 Instämmer helt Vet ej

3. Jag förväntar mig att jag kommer göra bra ifrån mig med det flesta uppgifter jag tar mig an.

Instämmer inte 1 2 3 4 5 Instämmer helt Vet ej

4. Andra människor tycker det är lätt att anförtro sig till mig.

Instämmer inte 1 2 3 4 5 Instämmer helt Vet ej

5. Jag tycker att det är svårt att förstå andra människors icke-verbala budskap.

Instämmer inte 1 2 3 4 5 Instämmer helt Vet ej

4/10

Tillbaka

Nästa



6. Några av mina största händelser i mitt liv har drivit mig att omvärdera vad som är viktigt och vad som inte är viktigt.

Instämmer inte 1 2 3 4 5 Instämmer helt Vet ej

7. När mitt humör förändras, ser jag nya möjligheter.

Instämmer inte 1 2 3 4 5 Instämmer helt Vet ej

8. Känslor är en av sakerna som gör mitt liv värt att leva.

Instämmer inte 1 2 3 4 5 Instämmer helt Vet ej

9. Jag är medveten om mina känslor medan jag upplever dem.

Instämmer inte 1 2 3 4 5 Instämmer helt Vet ej

5/10

Tillbaka

Nästa

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10. Jag förväntar att bra saker ska hända

Instämmer inte 1 2 3 4 5 Instämmer helt Vet ej

11. Jag tycker om att dela med mig av mina känslor till andra.

Instämmer inte 1 2 3 4 5 Instämmer helt Vet ej

12. När jag upplever en positiv känsla, vet jag hur jag ska gå till väga för att den ska vara.

Instämmer inte 1 2 3 4 5 Instämmer helt Vet ej

13. Jag ordnar händelser för att göra andra lyckliga.

Instämmer inte 1 2 3 4 5 Instämmer helt Vet ej

14. Jag söker mig till aktiviteter som gör mig lycklig.

Instämmer inte 1 2 3 4 5 Instämmer helt Vet ej

6/10

Tillbaka

Nästa

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15. Jag är medveten om de icke-verbala budskap jag sänder ut till andra.

Instämmer inte 1 2 3 4 5 Instämmer helt Vet ej

16. Jag presenterar mig på ett sådant sätt som ger ett bra intryck till andra.

Instämmer inte 1 2 3 4 5 Instämmer helt Vet ej

17. När jag är på ett bra humör, är det lätt för mig att lösa problem.

Instämmer inte 1 2 3 4 5 Instämmer helt Vet ej

18. Genom att se på deras ansiktsuttryck, känner jag igen känslor som personer upplever.

Instämmer inte 1 2 3 4 5 Instämmer helt Vet ej

19. Jag vet varför mina känslor förändras.

Instämmer inte 1 2 3 4 5 Instämmer helt Vet ej

20. När jag är på ett bra humör, är jag skicklig med att komma med nya idéer.

Instämmer inte 1 2 3 4 5 Instämmer helt Vet ej

7/10

Tillbaka

Nästa



21. Jag har kontroll över mina känslor.

Instämmer inte 1 2 3 4 5 Instämmer helt Vet ej

22. Jag känner lätt igen mina känslor medan jag upplever dem.

Instämmer inte 1 2 3 4 5 Instämmer helt Vet ej

23. Jag motiverar mig själv genom att föreställa mig att de uppgifter jag tar mig an ger ett bra resultat.

Instämmer inte 1 2 3 4 5 Instämmer helt Vet ej

24. Jag ger andra komplimanger när de gjort något bra

Instämmer inte 1 2 3 4 5 Instämmer helt Vet ej

8/10

Tillbaka

Nästa



25. Jag är medveten om de icke-verbala budskap andra personer sänder.

Instämmer inte 1 2 3 4 5 Instämmer helt Vet ej

26. När en annan person berättar om en viktig händelse i hans eller hennes liv så kan jag känna att jag har upplevt denna händelse själv.

Instämmer inte 1 2 3 4 5 Instämmer helt Vet ej

27. När jag känner en känsloförändring, tenderar jag att komma med nya idéer.

Instämmer inte 1 2 3 4 5 Instämmer helt Vet ej

28. När jag står inför utmaningar så ger jag upp eftersom jag tror att jag ska misslyckas.

Instämmer inte 1 2 3 4 5 Instämmer helt Vet ej

9/10

Tillbaka

Nästa



29. Jag vet vad andra personer känner genom att bara se på dem.

Instämmer inte 1 2 3 4 5 Instämmer helt Vet ej

30. Jag hjälper andra personer att må bättre när de är nere.

Instämmer inte 1 2 3 4 5 Instämmer helt Vet ej

31. Jag använder mig av ett bra humör för att hjälpa mig själv att fortsätta försöka i bemötandet av svårigheter.

Instämmer inte 1 2 3 4 5 Instämmer helt Vet ej

32. Jag kan säga hur personer känner sig genom att lyssna till tonen i deras röster.

Instämmer inte 1 2 3 4 5 Instämmer helt Vet ej

33. Det är svårt för mig att förstå varför människor känner som de gör.

Instämmer inte 1 2 3 4 5 Instämmer helt Vet ej

10/10

Tillbaka

Skicka



Vi tackar dig för din medverkan!

Skriv ut svarsjournal

Här kan du skriva ut dina svar till ett Word-dokument

Skicka svarsjournal

Här kan du skicka dina svar till en e-postadress (skriv in e-postadresserna separerade med semikolon om du vill skicka till flera adresser)



7.7 Appendix G – Mean and standard deviation from previous research from Stough et al. (2009)

Table 3 Means and standard deviations for males and females on the assessing emotions scale

Author	Sample	Male <i>N</i>	Male Mean	Male SD	Female <i>N</i>	Female Mean	Female SD
Charbonneau and Nicol (2002)	Canadian adolescents	72	121.77	15.81	62	127.38	13.53
Ciarrochi et al. (2001)	Australian adolescents	73	115.00 *		58	126.72 *	
Pau and Croucher (2003)	British dental students	103	115.10	16.37	110	119.82	13.05
Saklofske et al. (2003)	Canadian university students	119	121.70	13.83	235	124.25	13.22
Saklofske et al. (2007)	Canadian university students	104	119.29	12.66	258	123.96	14.40
Schutte et al. (1998)	United States adults	111	124.78	16.52	218	130.94	15.09
Van Rooy et al. (2005)	United States university students	59	127.15	12.82	216	130.09	14.53

* SD not provided in article.



7.8 Appendix H - Correlation analysis 1

Correlations ^c													
Spearmen's rho	EQ	Entrepreneur	Gender	Age	Falkenberg	Halmstad	Hylte	Laholm	Varberg	Company age	Employees	Education level	Subject of Education
Correlation Coefficient	1,000	,293	-,021	-,161	-,111	,262	,196	-,350	,000	-,018	-,394	,036	-,054
Sig. (2-tailed)		,070	,901	,270	,500	,107	,231	,029	1,000	,913	,013	,626	,744
Correlation Coefficient	,293	1,000	,049	-,202	-,365	,408	,184	-,643**	,261	,009	-,425**	,267	,241
Sig. (2-tailed)	,070		,767	,218	,022	,010	,263	,000	,108	,955	,007	,100	,139
Correlation Coefficient	-,021	,049	1,000	,683	-,134	,057	,204	,062	-,138	,385	-,033	-,328	-,012
Sig. (2-tailed)	,901	,767		,002	,415	,729	,212	,708	,400	,015	,842	,041	,941
Correlation Coefficient	-,161	-,202	,683	1,000	-,026	-,014	-,207	,285	-,124	,707	,156	,030	-,051
Sig. (2-tailed)	,270	,218	,002		,877	,932	,206	,078	,451	,000	,343	,857	,759
Correlation Coefficient	-,111	-,365	-,134	-,026	1,000	-,228	-,057	-,147	-,161	,017	,159	-,216	-,141
Sig. (2-tailed)	,500	,022	,415	,877		,162	,685	,373	,270	,917	,337	,187	,393
Correlation Coefficient	,262	,408	,057	-,014	-,228	1,000	-,184	-,402	-,496*	,136	,149	,188	,007
Sig. (2-tailed)	,107	,010	,729	,932	,162		,263	,011	,001	,408	,365	,261	,964
Correlation Coefficient	,196	,184	,204	-,207	-,067	-,184	1,000	-,118	-,146	-,332	-,323	,161	,274
Sig. (2-tailed)	,231	,263	,212	,206	,685	,263		,474	,376	,039	,045	,327	,081
Correlation Coefficient	-,360	-,643**	,062	,285	-,147	-,402	-,118	1,000	-,318	,119	,345	-,081	,051
Sig. (2-tailed)	,029	,000	,708	,078	,373	,011	,474		,048	,471	,032	,623	,758
Correlation Coefficient	,000	,261	-,138	-,124	-,161	-,496*	-,146	-,316	1,000	-,102	-,405	-,082	-,105
Sig. (2-tailed)	1,000	,108	,400	,451	,270	,001	,376	,048		,538	,010	,619	,526
Correlation Coefficient	-,018	,009	,365	,707	,017	,136	-,332	,119	-,102	1,000	,193	-,146	-,301
Sig. (2-tailed)	,913	,955	,015	,000	,917	,408	,039	,471	,538		,238	,374	,063
Correlation Coefficient	-,364	-,425**	-,033	,156	,158	,149	-,323	,345	-,405	,193	1,000	,008	-,383
Sig. (2-tailed)	,013	,007	,842	,343	,337	,365	,045	,032	,010	,238		,973	,016
Correlation Coefficient	,036	,267	-,328	,030	-,216	,188	,161	-,081	-,082	-,146	,006	1,000	,487
Sig. (2-tailed)	,826	,100	,041	,857	,187	,251	,327	,623	,619	,374	,973		,002

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

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

c. Listwise N = 39



7.9 Appendix I - Correlation analysis 2

Correlations

Spearman's rho		Perception of Emotion	Managing own emotion	Managing others emotion	Utilization of Emotions	Entrepreneur	GENDER	Age
Perception of Emotion (model 1)	Correlation Coefficient		,551**	,730**	,736**	,228	-,285	-,191
	Sig. (2-tailed)	.	,000	,000	,000	,163	,078	,244
Managing own emotion (model 2)	Correlation Coefficient	,		,770**	,666**	,338*	,208	-,036
	Sig. (2-tailed)	.		,000	,000	,035	,205	,829
Managing others emotion (model 3)	Correlation Coefficient	,			,898**	,226	,039	-,269
	Sig. (2-tailed)	.		.	,000	,167	,812	,097
Utilization of Emotions (model 4)	Correlation Coefficient		*	,		,216	-,065	-,331*
	Sig. (2-tailed)			.		,186	,696	,039
Entrepreneur	Correlation Coefficient						,082	-,202
	Sig. (2-tailed)						,615	,218
GENDER	Correlation Coefficient							,483**
	Sig. (2-tailed)						.	,002
Age	Correlation Coefficient				*			
	Sig. (2-tailed)							.
	N		39	39	39	39	39	39

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

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