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"Emotional Intelligence in Family Business Management – An Empirical Study"

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Chrysoula D. Tsirimokou 17/09/2021

To my parents To Lefteris

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Abstract

Family businesses have been the subject of research and policy making for several years. However, while the Greek business landscape is highly dependent on family businesses, with 80% of owners considering their business family-run, the endogenous factors that determine the performance and competitiveness of these businesses have little concern for academia and research community. The utilization of modern tools for evaluating the quality characteristics of human behavior of family business managers is essential to identify their impact on management performance. Therefore, the performance of these companies are the points where a significant research gap is identified, which leads to the central hypothesis: "If and to what extent emotional intelligence, Machiavellianism and economic opportunism, affect the administration and management and ultimately the performance of family businesses ". The methodological approach for a substantiated answer to the question consists in the adoption of modern tools for conducting primary research with questionnaires in a pan-Hellenic sample of family businesses, the creation of a database and their statistical-inductive analysis.

Keywords: family business; emotional intelligence; Machiavellianism; economic opportunism; performance

Introduction

Emotional intelligence (EI) adopted by economics as an effectiveness variable of management capacity of businesses and organizations has been the subject of academic interest in recent decades¹ (Law et al., 2004; Goleman, 1998; Côté, 2014). However, despite multifaceted research approaches to identifying, evaluating, controlling and regulating emotions, no consensus has been reached as to whether EI is an ability or a trait of human behavior, thus preventing the formulation of a universally accepted definition (Ciarocchi et al., 2001). Nonetheless, after multiple efforts towards conceptualizing EI, more generalized definitions that cover the range of EI dimensions have been given and are used widely in the literature (Côté et al., 2014), followed by various theoretical approaches and conceptual models regarding the nature of EI as a personality trait or an ability that leads to maximizing performance.

Regardless of the theoretical approach adopted, the role of emotional intelligence in management practices and business psychology has proven to be more than acceptable in working environments (Coetzee & Harry, 2014; Obradovic et al., 2013). The managers' ability to plan, organize, motivate and positively influence the fulfillment of their business goals is a basic prerequisite for managerial efficiency (Ashraf & Khan, 2012; Dinh et al., 2014; Tonidandel et al., 2012). At the same time, EI is considered to be an important success factor in interpersonal relationships in the work environment for operating effectively and reaching high performance (Goleman, 1998). Although the effect of emotions on private sector businesses is acknowledged in the literature, the idea of EI in challenging environments like a family business has not yet been explicitly explored (Gómez-Betancourt et al., 2014; Labaki et al., 2013; Rafaeli, 2013)

Family firms are one of those professional management arenas highly affected by the behavior and personality of their human capital, in managerial or non-managerial positions (Gómez-Betancourt et al., 2014; Brundin and Sharma, 2012). The overlapping needs occurring between the "family" and the "business" in the process of running a family business may lead to misunderstandings and conflicts, which could be avoided by mapping and understanding the factors determining shareholders' behavior

¹There is confusion over the concepts of administration and management, especially in the Greek language $(\delta ι ο ίκηση-διαχείριση)$, due to their overlapping content. Management is defined as the act of managing people and their work, in order to achieve a common goal through the efficient use of resources.

and motivations (Woods et al., 2019; Newstrom & Davis, 2002; Ensley et al., 2007; Kellermans & Eddleston, 2007).

The uniqueness of the family business is mostly attributed to the family and personality factors that affect the dynamic system of ownership, management and governance of the business and influence decision-making and effective use of limited resources (Astrachan et al., 2002; Feltham et al., 2005; Newbert & Craig, 2017). In parallel, giving the right job positions to the right people-family members of a family firm contributes to the avoidance of potential manipulative tactics (Jaskiewicz & Klein, 2007), like Machiavellianism, that may lead to opportunistic behaviors. The main source of these opportunistic intra-business phenomena, a common challenge in family businesses, is attributed to the role that the firm's manager holds over his subordinates who are usually his relatives too (Leeson, 2011; Poza et al. 2004; Burkart et al., 1997; Vassiliadis & Vassiliadis, 2014). The empirical investigation of EI levels and personality traits like Machiavellian and opportunistic behavior of the manager and the family firm's workforce, seems critical in understanding the role of emotions in family business dynamics and in drawing conclusions regarding their effects on the overall business performance.

Utilization of modern measurement tools for the observation, measurement and evaluation of the qualitative characteristics of family business managers' behavior, the interpersonal relations within the family and their influence on the general performance of these firms, have not been extensively examined (Chrisman et al., 2012; Chua et al., 2018; Basco, 2017; Madison et al., 2016; Williams et al., 2018) This doctoral dissertation aspires to fill this gap by responding to the central research question: "If and to what extent the level of emotional intelligence, Machiavellianism and opportunism of a family business manager, affects the performance of family businesses".

In order to investigate, analyze and answer the above question, the present doctoral thesis begins with the clarification of the terms under consideration, that is: EI, Machiavellianism and opportunism. The review of the related developed theoretical approaches of EI drove the design and implementation of the adopted methodology. The configuration of the questionnaire, the design of the sample, the conduct of the pilot research and the analysis of the collected qualitative and quantitative data are the steps involved in the aforementioned methodology process.

In the first chapter, the international literature on the theoretical concept of EI is reviewed. The history of the use of the term, from Aristotle to the theories of multiple intelligences, is discussed together with the conceptualization of EI. The models and tools developed for the measurement of EI, categorized as "self-report-based-on-traits" and "maximum-performance-based-on-abilities" measures, are quoted comprehensively. The chapter closes by exploring the application of emotional intelligence in everyday life, with an emphasis on the family business work environment.

The concept of the alternative – so-called "dark" – aspect of emotional intelligence and its relationship with the Dark Triad of personality (narcissism, Machiavellianism, psychopathy) is introduced in the second chapter of the literature review. Emphasis is given to the definitions and measurement tools developed so far, so that familiarity with Machiavellianism is achieved for the reader.

The institutional role of the family business is explored in the third chapter. The analysis of the unique characteristics attached to family businesses lead to a better comprehension of the operational process of those businesses. Next, the role of emotions in the managerial processes of the family firm, together with the concept of economic opportunism, is discussed in conjunction with the family business performance. In the fourth chapter, the research hypotheses emerged from the literature review are summarized.

The design, planning and implementation of the adopted methodology in the fieldwork is extensively discussed in the fifth chapter of the present thesis. Emphasis is given to the development of the questionnaire, involving back-translation process to secure the validity and reliability of the adopted EI, Machiavellianism and opportunism measurement tools. For this purpose, a pilot test of the final questionnaire was conducted. Finally, the research method adopted for the sample collection of the primary data is presented together with an extensive descriptive and inductive analysis of the data and findings.

In response to the central hypothesis and the sub-hypotheses combined with the statistical findings, the related results and conclusions are summarized in the sixth chapter. Since nothing is perfect and not all aspects of the issue could be tackled bearing in mind the limited resources, the limitations that need to be taken into consideration are pointed out, as well as suggestions for further research on this topic, so as to evaluate findings.

This doctoral dissertation contributes to the promotion of the existing research material in the field of administration and management of companies and organizations in relation to the elements of human behavior and its further development. Family businesses are considered to be a mixture of social and economic forces, with their development and sustainability oscillating between the needs of the business and the expectations of family members. Therefore, it is necessary to identify and evaluate the factors that affect their optimal performance and contribute to it. The analysis and findings of the fieldwork information aims at the future establishment of socially "smart" companies, able to take advantage of the diversity of their human resources. The ultimate goal is to identify means of improvement of performance, reducing at the same time the mortality rate of family businesses, which are vital pillars of socioeconomic development.

The designed and planned methodology adopted for the validation of the questionnaire, the sample, the whole process of the fieldwork and the statistical analysis of the collected information could very well contribute to the research effectiveness. Concurrently, the fulfillment of Social Science goals, including knowledge acquisition and the avoidance of future mistakes, and the production of technology in order to facilitate everyday life is achieved. More specifically, the topic touches on two subdisciplines of the social sciences, those of Psychology and Economics, studying the part of individual and social behavior and action that is most associated with satisfaction and the use of material requirements that lead to prosperity. Thus it covers the scientific gap in which the study of the individual as a member of the family and manager of the family business aims to facilitate the resolution of key issues that hinder the smooth conduct of business activity to date.

A. LITERATURE REVIEW

1. The concept of Emotional Intelligence

The interpretation of everyday situations is a mental process that people follow unconsciously, driven by the heuristic experience of their emotions (Kunnanatt, 2004; Mayer et al., 2008). These situations contain information and stimuli perceived by individuals and interpreted in conjunction with the emotion experienced each moment, determining behavioral actions both on a personal and professional level (Carmelli, 2003). Awareness and recognition of such emotional experiences work as part of an innate quality called Emotional Intelligence (EI), that, as discussed below, could be a regulating factor of human behavior in everyday life, working and family environments.

The evolution of theoretical approaches and empirical findings supporting EI as an inherent trait of personality, an ability, or a mixture of skills to improve performance at any level (Mayer & Salovey, 1997; Bracket & Mayer, 2003; Fiori & Antonakis, 2011; Maul, 2012; Rossen and Kranzler, 2009; Goleman, 1995; Bar-On, 1997; Petrides and Furnham, 2001; Mikolajczak et al., 2006; Siegling et al., 2017; Davies et al., 1998; Chamorro-Premuzic et al., 2017; Andrei et al., 2016; Sanchez-Ruiz et al., 2016; Di Fabio et al. al., 2016; Feher et al., 2019) are reviewed and evaluated in this chapter. In parallel, the definitions of EI are reviewed and analyzed to identify possible commonalities among the wide range of theoretical approaches developed so far (Mayer & Salovey, 1997; Goleman, 1995; Davies, Stankov & Roberts, 1998; Bar-On, 1997; Cote et al., 2014). The applied measurement tools and psychometric tests developed to identify EI levels are presented and evaluated in order to select the most appropriate method to serve best the empirical part of the thesis. Finally, the practical implementation of EI in everyday life, with special focus on working environments, is reviewed and analyzed.

1.1. Historical Background

1.1.1. From Greek philosophers to social intelligence models

Although EI has been conceptualized recently, the theory and its dimensions were mentioned frequently by the Greek stoic philosophers. Greek philosopher Aristotle in *Rhetoric, Book II* states that emotions are "a precondition for the operation of the cognitive forces of the imagination and the intellect". In his theory, to have an

emotion is to experience pain, pleasure, or both, where this pain or pleasure is intentional and representational. Aristotle was probably the first to point out in Ithica Nikomachia the importance of emotions in human interaction.

"Everyone can get angry, it's easy. But getting angry with the right person, to the right degree, for the right reason, at the right time and in the right way, is not easy at all."

Aristotle, "Ithica Nikomachia", 1109a, 26-29

Aristotle's point of view on emotions, though it has some limitations since he examines emotion from a physical perspective, has considerable merits. Indeed, in the Middle Ages, the Aristotelian view of emotions was adopted and further developed by scholasticism, and in particular by Thomas Aquinas (Scherer, 2005). The philosophical research (Spinoza, Descartes, etc.) on the relation of mind and body (Scherer, 2005) influenced by stoics, stating that emotions are psycho-physical events expressed by changes in physical vitality was followed by the analysis of potential components of emotion such as cognitive appraisal, bodily symptoms, action tendencies, facial and vocal expression and feelings (Scherer, 2005). At an early stage, the creation of this mental state works in proportion to the incoming emotional stimulus (Reizensein, 2007; Widen & Russell, 2010) as an outward movement, a momentum that is born inside the human self and "speaks" to the environment, inevitably and imperceptibly permeating his mental life. Evolutionarily, emotion was defined as "mental arousal, the mental state accompanied by a corresponding mood" (Mulligan & Scherer, 2012), which led to arguments over the relationship of emotions with the newly presented terms of cognition and intelligence (Bula, 2018).

The acknowledgement of the multidimensional nature of intelligence as a mixture of distinct and independent mental and cognitive abilities that complement each other socially and emotionally, has its roots in the early 1920s (Thorndike, 1920). The strong interest in the effect of sense and emotion prevailed over the initial view that intelligence depends solely on the cognitive factor (Weschler, 1958)². The term

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² David Wechsler (1896-1981) was a Romanian-American psychologist known for his intelligence tests (Wechsler-Bellevue Intelligence Test, Wechsler Intelligence Scale for Children, Wechsler Preschool and Primary Scale of Intelligence), a proponent of the belief that intelligent behavior is the result not only of cognitive factors. According to Wechsler, intelligence is "the universal ability of the individual to function purposefully, to think rationally, and to deal effectively with his environment." For more information see Wechsler, D. (1958). The measurement and appraisal of adult intelligence. Baltimore: The Williams and Wilkins Company.

"emotional intelligence" first appears in an article by Beldoch (1964), part of the book "The communication of emotional meaning" to re-appear two years later in the field of psychiatry (B. Leuner, 1966). It was, however, McClelland's work in 1973 that sparked interest in emotional intelligence. In his work, EI is placed in the context of the work environment, where a set of specific skills, including empathy, self-discipline and initiative, make the most successful employees stand out (McClelland, 1973).

In the early eighties, Gardner's (1983)³ concept of interpersonal and intrapersonal intelligence (theory of multiple intelligences) and Sternberg's (1985) concept of experiential, constituent, and contextual intelligence (triarchic model⁴), made clear that cognitive intelligence coexists with other types of intelligence, probably including EI. Also, preliminary studies on the development of individuals' EI (Wayne, 1985), focusing on factors related to personality elements such as social, intrapersonal and emotional abilities⁵ (Riggio, 1986; Cheung & Hue, 2015; Obradovic et al., 2013),

³ In the theory of multiple intelligences, Gardner challenges the concept of intelligence as a fixed parameter capable of being evaluated through a test, referring to multifactoriality. The skills that contribute to the functioning of intelligence that meet certain criteria (a) Existence of a corresponding brain center, b) Existence of individuals with highly developed abilities, c) Existence of a clear path of development of mental capacity and creation of specific products;) Existence of evolutionary history in the human species, e) Research support from psychometric research, f) Research support from Experimental Psychology, g) Existence of a set of individual cognitive functions, h) Possibility of expression in a symbolic. Based on these criteria, he recognizes the following eight types of intelligence: linguistic, logical, mathematical, spatial, kinesthetic, music, intrapersonal, interpersonal, naturalistic. For more information see Gardner, H. (1983). Frames of mind: The theory of multiple intelligences. New York: Basic Books, Fontana Press, London.

⁴ The triarchic model is a theory that was originally used to interpret unusual intelligence in children, but also to prove the inadequacy of the intelligence tests developed so far. Sternberg's three-pronged theory of intelligence consists of the following three hypotheses: component, experiential, and contextual. A complete explanation of intelligence implies the interaction of these three hypotheses. Constituent hypothesis determines the capacity of the mental processes that underlie behavior, while contextual theory connects intelligence with the outside world in terms of which behaviors are considered intelligent and under what conditions. Experiential hypothesis refers to the relationship between behavior toward a given goal-situation and the individual's accumulated experience in relation to that goal or situation. For more information see Sternberg, R.J. (1985). Beyond IQ: A triarchic theory of human intelligence. Cambridge: Cambridge University Press.

⁵ The repertoire of human emotions includes emotions such as joy, eagerness, surprise, fear, anger, sadness, jealousy, disgust, etc. (Kunnanatt, 2004). Emotions relate to the integration of the senses associated with physiological changes, cognitive patterns of action (reactions), and internal experiences, as they emerge, through mental capacity, from personal assessments of situations. Intelligence is the mental capacity that allows recognition, learning, memory, and the ability to speak to perceive specific forms of information, such as oral information or visual information (Mayer et al., 2008). For a long time, it was considered that the primary and main factor influencing personal, interpersonal and professional development, IQ, is the main factor that contributes to professional, personal and interpersonal development. The first successful attempt to measure and evaluate IQ (The Binet - Simon Test) is due to the construction of an intelligence test in relation to the ability to learn in the school environment. Since then, additional scales have been created to measure intelligence and its high levels were considered to have a major impact on an individual's success. In ancient Greece, the prevailing belief was

laid the foundation for more extensive research, leading to the conceptualization of a form of intelligence theoretically stronger and empirically more independent than social intelligence⁶.

1.1.2. Evolution of conceptualization and measurement of EI

1.1.2.1. The 1990's: Progress in EI conceptual frameworks and psychometric tests

The issue of EI, reflected in the theory and application of organizational behavior and management, has captured the interest of academia and business since the last quarter of the 20th century (Barsade et al., 2003. Coetzee & Harry, 2014; Obradovic et al., 2013). Emotional Intelligence (EI) or Emotional Quotient (EQ) is a term used by scientists to describe a person's specific traits and competences that contribute to the success of individuals' lives, especially their work (Parker et al., 2004; Doe et al., 2015; Romanelli et al., 2006).

The very first theoretical effort to conceptualize EI (Greenspan, 1989) was overshadowed by well-argued theories (e.g., Mayer & Salovey theory of EI, Bar-On's theory of EI, etc.) that provide a sound basis for the development of more complicated models and measurement tools (Mayer & Salovey, 1990; Salovey et al., 1995; Tapia & Burry Stock, 1998; Jordan et al., 2002; Martinez-Pons, 2000). Most of the theories and the ensuing discussions about EI perceive it as an "umbrella" concept that includes further dimensions (abilities, characteristics, skills) and that focus on a range of human nature, such as cognitive potential, personality, and behavior.

The sound theoretical basis of EI, paving the way for further research on a new field of study, was laid down by Mayer's & Salovey's (1990) definition of EI: "the subset of social intelligence that involves the ability to monitor one's own and others'

that logic was superior to emotion, because people usually agree on logical arguments, but often disagree on emotions. However, even later, the idea that logic was superior to sentimentality is not universally accepted (Mayer et al., 2008), as later studies (Gardner's theories of multiple intelligence, Sternberg's trinity model, etc.), creating the trigger for the study of socio-emotional factors that influence behavior and decision making.

⁶ According to Mayer and Salovey (1993), the context of the emotional intelligence is examined in terms of whether it is a form of intelligence, what mechanisms work when one uses emotional intelligence, and whether it is ultimately correct to call it intelligence. They consider the possibility of associating it as a term of ability with differences from the classical functions of abilities, since here we are talking about emotion management, expression of emotions verbally and not. Different types of people will be more or less emotionally intelligent, which will affect their behavior and the way they make decisions. The purpose of that period was to formulate the framework of emotional intelligence in order to extend the exploration and use of the term research literature that could be related to each other as well as to encourage new research on the subject. Mayer, J.D. and Salovey, P. (1993). The intelligence of emotional intelligence. Intelligence, 77 (4), 433-442

feelings and emotions, to discriminate among them and to use this information to guide one's thinking and actions". Here, based on the earlier research on emotions and types of intelligence, EI is considered a subset of social intelligence, with focus on the regulation of emotions in interpersonal relationships (Gardner, 1983; Wayne, 1985; Obradovic et al., 2013).

The need for the public to become acquainted with the concept of EI gave new impetus to the study of human behavior, favoring its popularization with the publication of more digestible treatises on the subject of self-improvement (Goleman, 1995; 1998). Hence, EI is considered a competence (not an ability) that enables the individual to recognize, understand and use emotional information in a way that leads to effective performance (Goleman, 1995; Goleman 1998) because it "includes self-control, enthusiasm, persistence, and the capacity to motivate oneself" (Goleman, 1995). Characteristics, such as self-control, zeal, perseverance, and the ability to create self-motivation, are detected in the broader context of EI (Goleman, 1995). Moreover, great emphasis is placed on conscious understanding of emotions, at interpersonal and intrapersonal levels (Goleman 1998) in the light of goal setting, goal achievement and effective problem solving (Platsidou, 2004).

Later, Goleman's research team adopted sub-dimensions, like self-awareness, self-regulation, internal motivation, empathy and social skills, to analyze EI (Goleman, 1995; 1998; Goleman & Boyatzis, 2001). The first sub-dimension, self-awareness, is the ability to "read" one's emotions and recognize their effects in order to make decisions, while self-regulation involves both controlling emotions and impulses, and adapting to changing circumstances (thinking before acting). The third dimension, internal motivation, represents each individual's aspiration, something like what is really important in life. Fourth in line, empathy, includes the ability to feel, understand, and react to the emotions of others at the social level (to be in the other person's shoes). Finally, social skills, the fifth dimension, implies an individual's ability in managing relationships and building networks (Goleman, 1998; Goleman & Boyatzis, 2001). It is important to emphasize that all these five dimensions include a set of emotional abilities that act as potential competencies needing to be developed by someone to achieve high performance (Boyatzis, Goleman, & Rhee, 1999). The level of a person's focus on his inner feelings and emotional states, his ability to understand and distinguish between emotions and the ability of regulating moods and restoring negative emotional experiences, are only some of the elements that comprise the concept of EI (Fitness & Curtis, 2005).

The quoted range of approaches signaled the need for quantifying EI, by implementing the so-far developed theoretical models and setting a new milestone in EI measurement research. A very first attempt to measure EI, the **Trait Meta-Mood Scale** (TMMS), was designed by Mayer and Salovey to assess the relatively constant individual differences in people's tendency to monitor, separate, and regulate their moods and emotions (Salovey et al., 1995). TMMS, the first self-report tool developed to measure perceived EI through peoples' beliefs and attitudes, revealed dimensions of EI related to individuals' attention to emotions and feelings, emotional clarity and emotion repair.

In its original version, TMMS was an extensive 48-item questionnaire to be reduced, by the same authors (Salovey et al., 1995), in a subsequent, more efficient, version to 30 items. The shorter version has high internal consistency for its three factors (Attention, Cronbach's alpha = 0.86, Clarity, alpha = 0.87 and Repair, alpha = 0.82) (Salovey et al., 1995; Ciarrochi, Chan & Bajgar, 2001; Petrides & Furnham, 2000; Saklofske et al., 2003; Schutte et al., 2000; Perez et al., 2005). Respondents are asked to state their level of agreement on a 5-point Likert scale (from 1: strongly disagree, to 5: strongly agree). The translation of TMMS into various languages has confirmed its validity and reliability (Fernandez-Berrocal et al., 2004).

Though the first half of the 90's could be defined as the period of early research on the conceptualization and measurement of EI, the second half was characterized by new and more comprehensive research efforts aiming to establish a unanimous definition and new measurement tools. The development of new theoretical approaches, on the basis of revising and enhancing existed conceptual models, shed light on the multidimensionality issues of EI. More specifically, Mayer's & Salovey's revision of their early 1990 definition of EI led in 1997 to a new definition of EI: "the ability to perceive emotions, to access and generate emotions so as to assist thought, to understand emotions and emotional knowledge, and to reflectively regulate emotions so as to promote emotional and intellectual growth" (Mayer & Salovey, 1997). It becomes obvious that EI is now clearly defined as an ability rather than as a subset of another type of intelligence (social). Furthermore, the term "growth" is introduced in this definition, revealing that EI could work as a potential factor in positive outcomes like increased performance and productivity.

Performing confirmatory analysis has indicated that EI can be divided into four further dimensions: (a) perception, appraisal and expression of emotions, (b) emotional facilitation of thinking, (c) understanding and analysis of emotional information and (d) regulation of emotion (Mayer & Salovey, 1997). Also, the appraisal of one's emotional states seems to facilitate problem solving, judgement and creativity (Salovey, Mayer & Caruso, 2002). The hierarchy of those dimensions suggests that the emotions is a concept that can be (1) perceived, (2) appraised, (3) expressed, (4) understood, (5) analyzed and (6) regulated. The emotions' regulation is at the highest and most complex level of the hierarchy. Therefore, the ability to regulate the emotions of others is built on the previous actions. The Mayer & Salovey theoretical approach to EI could possibly guide the understanding of the two systems of thinking (fast and slow) described in Daniel Kahneman's work about the pervasive influence of intuitive impressions on thoughts and behavior (Kahneman, 2011).

While the revision of the Mayer and Salovey definition and conceptual model of EI was taking place, Reuven Bar-On (1997) published his work on EI conceptualization which claims that cognitive skills are not related to EI. More specifically, Bar-On states that EI is correlated with social intelligence as a combination of non-cognitive capacities, aptitudes and abilities that facilitate coping with exogenous environment challenges (Bar-On, 1997). The Bar-On's concept of EI is related to performance by focusing on the process and not the result (Bar-On, 2002). The Bar-On theory concentrates on a range of emotional and social skills, such as the ability to know, understand, and express oneself, the ability to know and understand others, the ability to deal with strong emotions, and the ability to adapt to change, as well as in solving social and personal problems A prerequisite for interpreting and understanding Bar-On's conceptual framework is that EI is developed over time and can be improved through self-training (Bar-On, 2002). In addition, it is argued that people with higherthan-average EI are generally more successful in dealing with demanding and stressful situations, while lack of EI can mean failure and emotional problems. Consequently, in this model it is argued that emotional intelligence and cognitive intelligence contribute equally to an individual's intelligence, which in turn provides an indication of the potential for achieving personal goals (Bar-On, 2002).

The first attempt to measure and evaluate the individual's levels of EI using TMMS, although an important step in EI research was not the final one. Bar-On's conceptualization of EI could be considered the first complete approach, because it

combines the theory supporting the conceptual model and the associated measurement tool. The **Emotional Quotient Inventory** (EQ-I; Bar-On, 1997) is a self-report psychometric questionnaire measuring emotionally and socially intelligent behavior that assesses EI (Bar-On, 2004; Bar-On, 1997; Geher, 2004). It consists of 133 items and uses a 5-point Likert scale ranging from "very rare or not true" (1) to "very often true for me or true for me" (5). EQ-I is suitable for people aged 17 and over and takes about 40 minutes to complete. The individual responses make an overall EQ score that results from the following five scales: (a) Intrapersonal, (b) Interpersonal, (c) Stress Management, (d) Adaptability and (e) General Mood. The EQ-I is not intended to measure personality traits or cognitive ability but rather to measure the ability to cope with the demands and pressures of one's environment (Dawda & Hart 2000; Bar-On 2002). Versions of the questionnaire have been translated into a number of languages and have been used in different populations and situations.

The multidisciplinary nature of EI and the various theoretical approaches have so far obstructed the adoption of a unanimous EI definition. An additional approach to EI conceptualization towards a globally accepted EI concept was introduced by Davies et al. (1998), in which all the past theories of EI are summarized in four dimensions that form a new definition of EI (Davies et al., 1998). More specifically, the individual's ability to understand and express deeper emotions is considered vital for the acknowledgement of emotions in the personal and interpersonal levels, creating the first dimension entitled "appraisal and expression of emotion in oneself". The second dimension, "appraisal and recognition of emotion in others" relates to an individual's ability to perceive and understand the emotions of the people around them, enabling sometimes the prediction of others' emotional responses. The ability of a person to regulate their emotional state, enabling control of impulses and rapid recovery from psychological distress is the basis for the third dimension in this EI model, "regulation of emotion in oneself". The fourth dimension, "use of emotion to facilitate performance", reflects the ability of a person to make use of their emotions by directing those emotions toward constructive activities and personal performance. Recalling the revised definition of EI (Mayer & Salovey, 1997), it is observed that this approach is also focusing on the use of emotions to encourage engagement in positive and productive directions, an approach that gained great attention later in the literature.

Along with the research attempt to design a matrix of EI subdimensions (Davies et al., 1998), two new EI assessment tools based on the subcategories of the original

Salovey and Mayer model, the **Schutte Emotional Intelligence Scale** (SEIS, Schutte et al., 1998) and the **Tapia Emotional Intelligence Inventory** (TEII, Tapia & Burry-Stock, 1998;), were published. The SEIS includes 33 self-report items and requires respondents to rate the extent to which they agree or disagree with each of them on a five-point scale (1 = strongly disagree, 5 = strongly agree) (Ciarocchi et al., 2000; Petrides & Furnham, 2000). In SEIS, the perception, understanding, expression, regulation and utilization of emotion in oneself and others are evaluated (Schutte et al., 1998). Possible uses of this tool in theoretical research include exploring the nature of EI, its impact, and the potential for cultivating and enhancing it (Schutte et al., 1998; Jonker and Vosloo, 2008). On the other hand, the **Tapia Emotional Intelligence Inventory** (TEII) is a self-report tool measuring EI as a trait of personality with items that emphasize the functionality of perceptions and moods, instead of emotional cognitive abilities (Tapia & Burry-Stock, 1998; Salovey & Mayer, 1990, 1997; Acker, et al., 1996; Goleman, 1995).

The wide interest in newly published work on EI effects in the workplace (Goleman, 1998) raised even more doubts on the theory developed thus far. However, the new attempts (Dulewicz & Higgs, 1999) were based to a large extent on earlier EI theoretical establishments. The consideration of EI as the competence of recognition, comprehension and use of emotional information in a way that leads to effective performance (Goleman, 1998) led to a new set of EI dimensions (self-awareness, emotional resilience, motivation, interpersonal sensitivity, influence, intuitiveness, conscientiousness and integrity). It is worth mentioning that the dimensions in this model, as well as in the previously developed models, summarize and express abilities and reactions to different situations under various circumstances, like decision making approaches, motivation and self-consistency (Dulewicz & Higgs, 1999), also translated into new attempts of EI assessment.

1.1.2.2. The 2000's: Innovative thinking in assessment and theory of EI

Almost a decade after the publication of various conceptual models of EI and the development of important EI measurement tools, unanimity had not been reached either on the definition of EI or the most appropriate psychometric test for its measurement. Early in the new millennium, making use of Goleman's theoretical model of EI (1995, 1998), the **Emotional Competence Inventory 2.0,** henceforth ECI,

(Boyatzis et al, 2000. Sala, 2002) was developed, for application only in the workplace, pointing out the need of specified EI assessment for different populations and environments. The ECI consists of 110 items, of which 3 is the minimum number for the evaluation of each competency, while it includes two ways of evaluation: a self-reported evaluation measure where people are asked to evaluate their performance in each of the competencies, and the evaluation by external evaluators, such as colleagues or supervisors (360° assessment).

Self-reported EI obtained wide acceptance by the academic and entrepreneurial community, confirmed by the utilization of self-report EI measurement tools like ECI, EQ-I, TMMS, etc. However, the need to support the argument that EI can be used as a tool to achieve maximum performance led to the development of measurement tools focused on the personal outcome of a situation, rather than the personal perception of the best behavior adopted concerning it. The Mayer Salovey Caruso Emotional Intelligence Test (MSCEIT) was the psychometric test designed to assess EI as an ability that can lead to enhanced performance in the workplace and everyday life. Since its publication in 2000, under the original name Multifactor Emotional Intelligence Scale or MEIS, MSCEIT has undergone several revisions. Its current form reflects the four-dimensional model of EI of Mayer and Salovey (1997) and its 141 items are answered using the Likert scale 1 to 5. MSCEIT is considered to be a valid measure of EI assessment (Mayer, Salovey, Caruso, 2000; Mayer, Caruso, Salovey 2008; Mayer, Salovey, Caruso, Sitarenios, 2003; Mayer, Salovey, Caruso, 2012) despite compelling doubts expressed about its reliability (e.g., Matthews, Roberts, Zeidner, 2004; Fiori, Antonakis, 2011; Maul, 2012; Petrides, 2011).

MSCEIT is a competency questionnaire where respondents are presented with emotional problems and are asked to choose the best answer from a series of options (Mayer, Caruso and Salovey, 2000). More specifically, the MSCEIT includes items that ask respondents to: (a) identify emotions in photographs of faces, images and landscapes, (b) compare different emotions with different senses such as colors, (c) indicate how emotions affect their thinking and reasoning, (d) aggregate simple to more complex emotions and (e) evaluate the effectiveness of different emotion regulation strategies in both the interpersonal and interpersonal environment, making it one of a kind in contrast to the EI psychometric tests developed earlier. Respondents' scores are based on the degree to which their answers match the answers provided by a panel of experts from the International Society for Research on Emotion. Measuring EI adopting

an aptitude test removes the limitations of self-report and peer-report tests, introducing likewise an original difference in the process of assessment, almost making it an experience. Studies have also shown appropriate correlation with personality traits (Brackett and Mayer, 2003) and the validity of criteria with results such as the quality of social interactions (Lopes et al., 2004, 2005).

Recognizing the inherent subjectivity of emotional experience, a new definition of EI, that of <u>personality trait</u>, was adopted (Petrides and Furnham, 2001). This innovative approach was accepted in the international literature (Mikolajczak et al., 2006; Siegling et al., 2017; Chamorro-Premuzic et al., 2017; Andrei et al., 2016; Sanchez-Ruiz et al., 2016; Di Fabio et al., 2016; Feher et al., 2019) and altered drastically the perception of EI that had been formed so far.

In the personality-trait approach, EI is perceived as "a constellation of emotional self-perceptions located at the lower levels of personality hierarchies" (Petrides, 2010, p.137) Ito this extent, EI or more accurately trait EI concerns the personal assessments and moods about one's emotional state and functionality, under fifteen dimensions that were formed with the use of exploratory and confirmatory factor analyses (Figure 1).

Facets	High scorers perceive themselves as	
Adaptability	flexible and willing to adapt to new conditions	
Assertiveness	forthright, frank and willing to stand up for their rights	
Emotion perception (self and others)	clear about their own and other people's feelings	
Emotion expression	capable of communicating their feelings to others	
Emotion management (others)	capable of influencing other people's feelings	
Emotion regulation	capable of controlling their emotions	
Impulsiveness (low)	reflective and less likely to give in to their urges	
Relationships	capable of having fulfilling personal relationships	
Self-esteem	successful and self-confident	
Self-motivation	driven and unlikely to give up in the face of adversity	
Social awareness	accomplished networkers with excellent social skills	
Stress management	capable of withstanding pressure and regulating stress	
Trait empathy	capable of taking someone else's perspective	
Trait happiness	cheerful and satisfied with their lives	
Trait optimism	confident and likely to 'look on the bright side' of life	

Source: Petrides, K. V., & Furnham, A. (2001). Trait emotional intelligence: Psychometric investigation with reference to established trait taxonomies. European journal of personality, 15(6), 425-448

Figure 1: Emotional Intelligence model as a trait

However, although the conceptualization of EI as a personality trait was a theoretically groundbreaking, it did not prevent the development of one more accepted self-report EI measurement tool, the **Swinburne University Emotional Intelligence**

Test, henceforth SUEIT (Palmer & Stough, 2001). SUEIT aimed to examine the following five dimensions: (a) Emotional recognition and expression, (b) Immediate recognition of emotions, (c) Understanding of external emotions, (d) Emotional management and (e) Emotional control. It is a 64-item self-report tool, where items are rated on a 5-point Likert scale ranging from "almost never" to "almost always" and measures the frequency with which an individual typically displays emotionally intelligent behaviors in the workplace. Because SUEIT ignores basic aspects of personality such as happiness or impulsivity, it is considered that it cannot entirely reflect each aspect of the EI dimensions examined.

Summing up, the foregoing review of EI models developed so far could support the view that EI is an adaptive competence that enables dealing with emotional events and experiences", where the individual's emotional ability and behavior is reflected in the cognitive (Matthews et al., 2002). Indeed, competences like problem solving, awareness and understanding of emotions in self and others, impulse control, emotion regulation, coping with environmental stress and negative emotions, perspective taking and empathy, are considered to be some of the core dimensions of EI according to this argument (Matthews et al., 2002).

The importance of perception, comprehension and regulation of emotions led to the need for development of the ability to "perceive, assess and express emotions exactly on the basis of perception, comprehension and regulation" (Fernandez et al., 2002), through valid and credible assessment, bringing cultural issues to the forefront of EI assessment research (Fernandez-Berrocal et al., 2004)⁷.

In the name of the need for cultural adaptation of the psychometric tools adopted to assess EI in the workplace, the **Wong & Law Emotional Intelligence Scale** (WLEIS, Wong & Law, 2002) was developed. The WLEIS tool, initially developed and used in Hong Kong and China, claims flexibility to adapt to samples of different cultures (Huang, Chan, Lam, & Nan, 2010; Law, Wong, Huang & Li, 2008; Shi & Wang, 2007; Wong & Law, 2002). Its use gained international popularity, despite the challenge presented by its translation (Cheung, 2004; Hoyle & Smith, 1994; Whitman et al., 2009; al., 2004; Shi & Wang, 2007; Whitman et al., 2009). Its reliability and the validity of scores resulting from the evaluation of EI using WLEIS is demonstrated in the literature (Law et al., 2004; Law, Wong, Huang, & Li, 2008; Shi & Wang, 2007;

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⁷ This research team worked explicitly on the adjustment of TMMS Spanish version

Wong & Law, 2002). WLEIS scores have also been shown to be valid for predicting life satisfaction, academic performance, job performance, and job satisfaction (Song et al., 2010; Law et al., 2008; Wong Law, 2002).

However, WLEIS was not the only psychometric tool of EI assessment that made its debut in 2002. Another valid and reliable measurement tool, the Work Group Emotional Intelligence Profile (WEIP), suitable for student populations (Jordan et al., 2002), (Sue-Chan & Latham 2004; Donohue & Stevensen 2006; Kellett, Humphrey & Sleeth 2006), was published the same year. The WEIP, based on the theoretical model of Mayer and Salovey (1997), is a complex tool for assessing self-reported EI within adolescent groups. The questionnaire in its final form consists of 27 items that assess the behavioral use of specific emotional semantic abilities in a group environment. The reliability test for WEIP demonstrates sufficient internal consistency for the overall scale with Cronbach's alpha from 0.86 to 0.93 (Jordan et al., 2002; Moriarty & Buckley 2003; Sue-Chan & Latham 2004). A later version of WEIP (WEIP-6, Jordan & Troth 2004) aimed to improve the reliability of the measure by increasing the number of items to 30 and by reducing the number of subscales to 5. WEIP and WEIP-6 are considered useful measures because they assess the dimensions of EI in the light of awareness, empathy, management and focus. Both WEIP and WEIP-6 examine the individual's own abilities in relation to dealing with other team members, which allows us to examine both intrapersonal and interpersonal skills in a group context (Gardner 1983). However, neither could be considered an easy-to-use measure because of their length, in comparison with shorter EI measures that consist of half the number of items (Gosling, Rentfrow & Swann, 2003).

Another definition of EI refers to the ability of individuals to process emotional information in a variety of ways that are particularly concerned with perceiving, assimilating, understanding, and managing their own and others' emotions (Mayer & Cobb, 2000). That is, a person can function adaptively, when their beliefs about their own feelings are in line with the beliefs of others concerning them, regardless of whether these beliefs reflect reality or not. Indeed, EI could describe a good match between the individual and their social environment (Zeidner et al., 2003).

The conceptualization of EI as a personality trait led to the development of the **Trait Emotional Intelligence Questionnaire** (TEIQue) for measuring trait EI (Furnham & Petrides, 2003; Pérez et.al, 2005; Petrides, Frederickson, & Furnham, 2004; Petrides & Furnham, 2001, 2003). The updated version of the original form of

TEIQue includes 153 items supported by a four-dimensional structure that includes well-being, self-control skills, and emotional and social skills (Petrides & Furnham, 2009; Cooper & Petrides 2010) and has been translated and validated in many languages (Freudenthaler, Neubauer, Gabler, Scherl, & Rindermann, 2008; Martskvishvili, Arutinov, & Mestvirishvili, 2013; Mikolajczak, et al., 2007). Its short form, TEIQue-SF, is a 30-item measure of what we call global trait EI and its components, which has been widely used (Arora et al., 2011; Siegling, Saklofske, Vesely & Nordstokke, 2012). Research comparing TEIQue with other self-report measures of EI focuses on the power of its psychometric properties and validity (Freudenthaler et al., 2008; Gardner & Qualter, 2010; Martins, Ramalho, & Morin, 2010; Andrei, Siegling, Baldaro, & Petrides, 2015). Although there was a strong concern that the resulting validity was mainly due to the overlap of content prediction criteria (Zeidner, Matthews, & Roberts, 2012), the TEIQue scores themselves explain the gradual variation in non-overlapping criteri (Laborde, Lautenbach, Allen, Herbert, & Achtzehn, 2014).

The list of EI measures is not exhausted by those quoted above. A number of self-report psychometric tests, such as the Emotional Intelligence - International Personality Item Pool (EI-IPIP, http://www.ipip.org), the Emotional Intelligence Self-Regulation Scale (EISRS, Martinez-Pons, 2000), Dulewich & Higgs's Emotional Intelligence Questionnaire (DHEIQ, Dulewich & Higgs, 2001), Emotional INTElligence Questionaire (INTE, Jaworowska & Matczak, 2001), the Sjoberg Personality Test Battery (Sjoberg, 2001), Situational Test of Emotional Management (STEM, MacCann & Roberts, 2008), Situational Test of Emotional Understanding (STEU, MacCann & Roberts, 2008), Social Skills Inventory (SSI-Riggio & Carney, 2003) and the Geneva Emotional Competence Test (GECo-Schlegel & Mortillaro, 2019), were developed without, however, having found use in the scientific literature due to the lack of confirmatory studies regarding their validity and reliability.

1.2. Evaluating and measuring EI in every-day life

EI, after twenty-one years in the scientific forefront, is a field favored in applied research in academic, educational and organizational contexts, in the light of human well-being and life satisfaction (Costa & McCrae, 1992; Di Fabio & Kenny, 2011; Mayer & Salovey, 1997). A search for the term "emotional intelligence" on scholar or

non-scholar search platforms reveals over seven million hits, bearing witness to researchers' and practitioners' strong interest and involvement in the field. Years of research on EI have provided the necessary material for meta-analytic research, which reveals the predictive power of the study of EI in areas such as education, academic behavior, mental and physical health, and important areas of psychology (Bar-On, 1997; Martins, Ramalho & Morin, 2010; Mavroveli & Sanchez-Ruiz, 2011; Petrides, 2011).

In many cases EI is considered a prerequisite for a wide range of specialties, such as the medical professions, social work, service delivery and management (Bar-On & Parker, 2000), to improve relationships and communication skills (Schutte et al., 2001) between doctors and patients, managers and their subordinates, salesmen and customers. The focus of the literature on the social and psychological benefits of EI has brought to light its positive effects on problem-solving, interpersonal communication, self-management behavior and physical health⁸ (Schutte et al., 2007; Extremera & Fernández-Berrocal, 2002; Nightingale al., 2018; Sharp et al., 2020). Furthermore, EI is associated with stress sensitivity (Fallon et al., 2014) and is used in scientific, clinical and health studies, organizations, and intercultural studies (Fernandez-Berrocal and Extremera, 2008), in the context of life satisfaction (Sánchez-Alvarez et al., 2015), personal well-being and general mental, psychological and physical state (Landa, Martos Lopez-Zafra 2010; Extremera & Fernández-Berrocal 2006; Gomez-Baya, Mendoza & Paino 2016). Last but not least, EI is linked not only to the quality of professional life, but also to disorders such as psychosis, anxiety and depression, addressed to education and health workers, revealing another side, beyond the positive already proven (Landa, López-Zafra, Martos & del Carmen Aguilar-Luzón 2008; Aradilla - Herrero, Tomás - Sábado & Gómez - Benito 2014; Petrides & Furnham, 2000; Saklofske et al., 2003; Austin et al., 2004).

Personal health and wellness are not the only fields where EI is evaluated. A range of studies oriented towards management and leadership issues confirms the connection of EI with higher levels of performance, since the workplace represents a

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⁸ In particular, conditions such as chronic stress and the prolonged adverse effects that accompany it, such as anger, depression and anxiety, can cause hypertension, heart problems and diabetes, susceptibility to viruses and infections, and delayed wound healing. For more information see:

Bar-On, R. (2006). The Bar-On model of emotional-social intelligence (ESI). Psicothema, 18, 13-25.

Black, P. H., & Garbutt, L. D. (2002). Stress, inflammation and cardiovascular disease. Journal of psychosomatic research, 52(1), 1-23

separate social community, with peculiarities that differentiate it from personal life (Dulewicz & Higgs, 2003; Law, Wong & Song, 2004; Day & Carroll, 2004; Millet, 2007; Rieck, 2008; Jacques, 2009). It has been statistically established that higher levels of EI allows a person to better understand themselves and others, to communicate more effectively and to deal with difficult work situations. In other words, utilizing and developing EI in the workplace can significantly improve the personal and social capabilities of individuals in the workplace.

More specifically, emotionally intelligent employees have the ability to remain calm and think logically in order to make better decisions. Moreover, lower-ranking employees with advanced EI skills express the desire and ability to create and manage high-quality relationships in the workplace (Lopes, Salovey, & Straus, 2003) to handle situations and perform actions optimally (Moghadam, Tehrani & Amin, 2011). Part of this can happen through motivation, the basic psychological process that individuals use to stimulate themselves and push them into action in order to achieve the desired results (Magnano et al., 2016). EI matters for motivation and motivation matters for success. Whether in relation to work, personal goals or health, the emotionally intelligent manager understands the deeper meaning of his or her expectations and self-motivation skills needed to achieve them. High EI level managers usually have the necessary communication skills to motivate themselves and others, skills that can be extremely useful in the workplace (Beckerman & Zembylas, 2018; Minhas, 2017; Essop & Hoque, 2018). Consequently, the emotionally intelligent managers of a business can also influence employee motivation.

Regarding the recognition of emotions on the individual level but also with reference to the emotions of others, emotional regulation is a key dimension of EI, included almost in every reviewed theoretical model. Emotionally intelligent individuals recognize and regulate their and others' emotions, resulting in adequate management of negative emotions, stress and mental health issues such as depression (Mergal et al., 2019; Rezvani & Khosravi, 2019; Nespereira-Campuzano, Vázquez-Campo, 2017; Fernández-Berrocal & Extremera, 2016). These studies confirm the effectiveness of EI-related skills on people that deal with negative emotional states, such as stress, and promote more positive emotions in their place.

Conversely, failure to deal with stress issues can lead to further deterioration of the individual's mental state and in turn affect their physical health. For that matter, research on the social, psychological and medical components of stress emphasizes the importance of dealing with negative emotions in order to deal effectively with stress and in turn reduce potential negative psychological and physical health outcomes. The work environment is now considered to be the main source of stress and the ability to recognize the emotions and emotional information that arise in the workplace, is a vital tool for preventing and dealing with negative stress, ultimately leading to greater life satisfaction, happiness and personal development (Ruiz-Aranda, Extremera & Pineda-Galán, 2014). EI's close link to personal and professional development, through social complexity ultimately influencing decision-making, seems to further influence behavior management (Vaughan et al., 2019). Recognizing and regulating emotions in the decision-making process acts as a deterrent to personal prejudice and biases that could influence the decision, detecting the possible consequences of irrational decision making. (Hess & Bacigalupo, 2011). Understanding the causes and consequences of emotions allows the individual to further understand and manage emotional situations and avoid objectivity. It is proven that emotionally intelligent individuals can manage these emotional interferences and avoid emotionally driven decisions (Webb et al., 2014; Alkozei et al., 2016).

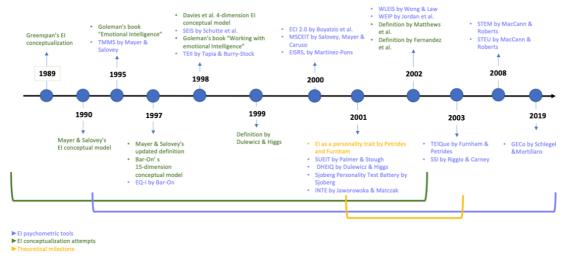
In the family business field, although there is high attribution of emotions to the family system (Carlock & Ward, 2001; Fleming, 2000; Kepner, 1983; Whiteside & Brown, 1991; Dyer, 2003; Rogoff & Heck, 2003), the study of emotions within all the family business systems as a unity has only recently started to gain attention (Astrachan & Jaskiewicz, 2008; Melin et al., 2004; Van-den-Heuval et al., 2007). Emotional constructs like emotional ownership (Bjornberg & Nicholson, 2008), family and business emotional cohesion (Pieper, 2007), emotional returns and costs (Astrachan & Jaskiewicz, 2008), and emotional value (Zellweger & Astrachan, 2008) were conceptualized in order to analyze the role of emotions among the family members in a family firm's environment. However, in contrast to the organizational behaviour field, emotions in the family business field have been mainly studied from the family point of view (Carlock & Ward, 2001), whereas the business is also a highly emotional arena.

Finally, one cannot help but comment on the fact that it was undoubtedly Goleman's book that sparked public interest in EI, further extending the field of analysis with an additional book about EI in the workplace (Goleman, 2006), in order to familiarize human resources with the implementation of EI in working environments. Goleman's theoretical basis for EI has received mixed reviews at times. Studying his work in parallel with the other theories, it is easy to understand that concepts such as

"emotional literacy", "emotional health", "ability", and "skill" are used to refer to the same content. In addition, it is claimed that the ECI-360 tool is the only authentic tool for measuring emotional intelligence, which has not been confirmed in the international literature, as it has not been used in scientific research. In addition, findings that verify its validity and reliability, and therefore its suitability, have not been published for the construction of this tool (Locke 2005; Eysenck, 2000; Elder, 1996; Lobaskova, 2015).

1.3. Conclusions

The theories and models developed to conceptualize EI were reviewed in this chapter chronologically (Figure 1), with focus on the value added by research in the field. The complexity of EI is attested by the multitude of theoretical approaches, and also by the number of attempts to introduce EI as an adequately conceptualized theoretical construct (Mayer & Salovey, 1990; Matthews et al., 2002; Geher, 2004; Fiori & Antonakis, 2011; Maul, 2012; Rossen and Kranzler, 2009; Roberts et al., 2006; Peters et al., 2009; Webb et al., 2013; Sanchez-Garcia et al., 2016; Mao et al., 2016; Delgado et al., 2018; Mayer and Salovey, 2012).



Source: Tsirimokou, C., (2021), Emotional Intelligence in Family Business Management – An empirical study, Doctoral Thesis, Department of Economic and Regional Development, Panteion University of Social and Political Sciences, Athens

Figure 2:EI conceptualization and measurement evolution timeline

Conceptualizing and defining EI depends on whether EI is considered to be an ability or a trait (Mayer & Salovey, 1997; Goleman, 1995; Davies, Stankov & Roberts, 1998; Bar-On, 1997). Thus, EI is recommended as the set of skills that determine the variability of accuracy in the way people perceive and understand their emotions (Mayer & Salovey, 1997). Therefore, as a subset of social intelligence, EI includes

monitoring one's own and others' feelings and emotions, distinguishing between them, and using this information to guide thinking.

However, in a more up-to-date approach it would be more tempting to distinguish between approaches where EI is examined (a) through self-evaluation through personal characteristics and (b) through evaluation of its maximum performance based on abilities (Siegling, Saklofske, & Petrides, 2015).

Concurrently with the development of theoretical models and definitions of EI, psychometric tools were developed to measure and evaluate EI (see Figure 1). The vast majority of the tools was developed to support corresponding theoretical models, depending on the dimensions of EI to be covered but also depending on the method of gathering the desired information. To this extent, on the one hand there are tools of self-assessment, where EI is treated as a personality trait, while on the other hand are to be found tools of maximum performance in set problems or situations where EI is evaluated as a skill. In addition to these two categories, there is a third approach where a third person, the so-called "informant", is called upon to assess the level of emotional intelligence of someone else (Mayer, Caruso & Salovey, 2000); these are also called 360-degree tools, as they include evaluation by subordinates or supervisors along with the respondent's self-evaluation.

Self-report measurement tools for evaluating an individual's EI level consist of items that relate to a series of descriptive statements to which the respondent is asked to state a degree of agreement. This category includes most of the tools that have been developed (WLEIS, Wong & Law, 2002; TMMS, Salovey et al., 1995; SEIS-SSREIS, Schutte et al., 1998; TEII, Tapia, 2001; WEIP, Jordan et al. ., 2002; EQi, Bar-On, 1997; TEIQue, Petrides & Furnham, 2001, 2003; ECI 2.0, Boyatzis et al, 2000; DHEIQ, Dulewicz & Higgs, 2001; EI-IPIP, Barchard, 2001; EISRS, Martinez -Pons, 2000; SUEIT, Palmer & Stough, 2002; SPTB, Sjoeberg, 2001) and have been widely used in the international literature, thanks to the valid and reliable results they provide to researchers.

However, "self-report-based-on-traits" EI measurement instruments proved to be more questionable than "maximum-performance-based-on-abilities" tools, due to their considerable limitations. These limitations arise from the fact that the high level of dependence on the self-knowledge of the respondents regarding misconceptions about themselves, in combination with social recognition factors, creates confusion in the answers resulting in an unrepresentative final score. Moreover, although

"maximum-performance-based-on-abilities" tools maintain EI distinct from other personality traits, there is still a problem with the rspondents' perception of a "correct" answer. This happens due to the sample uniqueness that might affect the expression of emotion, in combination with the fact that they usually are more time consuming and expensive than self-report tools. Apart from the above, it is also important to meet the conditions of validity and reliability of each measure.

Regardless of the adopted theoretical framework, the development of EI undoubtedly encourages many positive personality traits, such as adaptability in communication, and motivation to manage stress. The importance of utilizing personal EI to evaluate success and performance is reflected in the effectiveness of the team process and the focus of the target group. However, there are aspects of the spectrum of EI, as discussed in the following chapter of this thesis, that give a different tone to the utilization of these skills, emerging behavioral trends like manipulation and other non-cooperative strategies.

2. The dark side of EI and Machiavellianism

2.1. Towards the negative side of EI through the Dark Triad of Personality

The crucial role of EI in the functioning of private companies, public organizations, educational processes, family and personal balance is undoubtedly confirmed by the literature that has developed over the last decades. Indeed, EI is considered to be a positive trait, a necessary feature for shaping the internal culture of any organization and creating quality interpersonal relationships. After all, it is the basic element responsible for understanding and communicating with people and handling situations. Over the last decades, EI has been widely accepted to be related to a happy and balanced life, or as a predictor of professional performance and a successful career (Andrei et al., 2016; Sanchez-Ruiz et al., 2016; Di Fabio et al. al., 2016; Feher et al., 2019).

Certainly, the use of EI can contribute decisively to the outcome of a situation, due to its established positive relationship with job satisfaction, positive human interaction and good working relationships (Song et al., 2010; Law et al., 2008; Wong Law, 2002). The EI dimensions that describe recognition, management, regulation and utilization of emotions place EI under the umbrella of positive psychology⁹. To this extent, emphasis was placed on the design and implementation of employee training programs due to the expected benefit of a positive working climate leading to high performance of the individuals and the firms (Lopes, Salovey, & Straus, 2003; Moghadam, Tehrani & Amin, 2011).

However, the "supremacy" of EI in the workplace (Zeidner et al., 2004; Rathore et al., 2017; Arora, 2017) has been recently questioned by a large number of researchers, who turned their focus on identifying a particular context where EI not only is not beneficial but can also be a harmful and negative trait for individuals and their colleagues (Austin et al., 2007, 2014). The negative aspect of EI, especially the

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⁹ Positive Psychology is the branch of psychology that deals with the promotion of well-being, prosperity and development of people, so that they enjoy their lives as much as possible. Positive Psychology deals with what helps people become better and happier, as opposed to the more classic approach to psychology which focuses on mental illness and what causes it. The last decade has seen an increase in research findings that show that the interventions of Positive Psychology can significantly contribute to the effort of individuals and organizations to function properly and effectively, in harmony with the natural and social environment. Positive Psychology is based exclusively on the systematic study of human behavior and is developed through the findings of scientific research. For more information see Seligman, M. E., & Csikszentmihalyi, M. (2014). Positive psychology: An introduction. In Flow and the foundations of positive psychology (pp. 279-298). Springer, Dordrecht.

dimension of emotional regulation is thought to be responsible for manipulating and controlling others. Indeed, the possibility of utilizing (and not using) emotion to satisfy hidden goals for personal purposes reveal the "dark side" of EI (Davis & Nichols, 2016; Furham & Rosen, 2016). The concept of dark traits and abilities in individuals is not new, as prototypically negative personality traits attributed to callous and manipulative behaviors, frequently linked to reprehensible antisocial outcomes, are extensively examined in the literature (Miao et al., 2019; Furnham et al., 2013).

Research on the inspection of individuals' behavioral patterns has flourished in recent years (Matthews et al., 2002; Geher, 2004; Fiori & Antonakis, 2011; Maul, 2012; Rossen and Kranzler, 2009; Roberts et al., 2006; Peters et al., 2009; Webb et al., 2013). Due to the increased interest in the negative aspects of the work-organizational environment (Spain et al., 2014) in parallel with the studies on EI, there was a strong interest in the set of three conceptually distinct, but empirically overlapping, personality variables known in literature as the "Dark Triad of Personality" (Paulhus & Williams, 2002). This triad consist of three "interpersonal maladaptive" personality types: narcissism, Machiavellianism and psychopathy (Wai & Tiliopoulos, 2012; Rauthmann & Kolar, 2012; Schimmenti et al., 2019; LeBretton et al., 2018; Webster & Smith, 2019) which represent the intermediate stage between normal personality and clinical mental illness (Spain et al., 2013).

The dark triad personality traits are observed in employers with harsh contemptuous and manipulative tactics, often revealing opportunistic manifestations of their behavior (Smith, 2005; Phelan 2005; Leeson 2011). Moreover, such behavioral approaches appear as practices of adopting flattering comments and praise, often associated with malicious business plans, deception, incrimination and competition (practice of "divide and rule") to achieve their personal professional, social and economic goals (Ali et al., 2007, Villalonga & Amit, 2006; (Chrisman, Memili and Misra 2014).

The majority of researchers into the dark triad of personality focuses on models of "dark" characteristics based on personality disorders¹⁰ (Spain, Harms, Lebreton, 2013; Hogan & Hogan, 2009). Consequently, the connection of EI with the Dark Triad

¹⁰One such model is the HDS (Hogan Development Survey) (Hogan & Hogan 2009) which recognizes eleven subclinical characteristics (irritable, skeptical, cautious, reserved, sluggish, bold, naughty, intense, imaginative, diligent, obedient). Each of these features is related to a DSM-IV Axis II personality disorder with the difference that the HDS model, although based on the features of the disorder, "beautifies" the name of the features as they are not clinical cases.

of personality is not something new, especially because the regulation of emotion is the dimension most related to manipulative and malicious professional and interpersonal behavior (Côté et al., 2011). As a result, it is crucial for the evolution of personality and individual differences research that the differentiations that occur over a population are identified, towards a potential generalization of the results.

Towards better understanding of the potential relationship between EI and the dark traits of personality, it is necessary to acknowledge and understand these traits. Psychopathy, a part of the dark personality, is characterized by personality characteristics that are very common in the work environment, along with other environments (e.g., family). The concept of psychopathy includes a poor emotional life and lack of shame and conscience, guilt and empathy, superficial charm, insincerity, egocentrism, risk-taking and trying to guide others¹¹ (Hare, 1999, 1991; Lee & Murishton, 2014; Hmilieski et al., 2013). In contrast to the clinical approach of psychopathy, the presence of "organizationally psychopathic" people in the human resources had been recognized some years before (Boddy, 2006; 2015), raising questions about their survival in the professional environment without ever being perceived (Babiak & Hare, 2006; Sanecka, 2013; Smith & Lilienfeld, 2013; Boddy, 2015; Martin, 2015). Organizational psychopaths are more likely to occupy the upper echelons of the business hierarchy (Babiak & Hare, 2006), an observation that requires further systematic research.

The second element of the Dark Triad of personality, narcissism, is first mentioned in ancient Greek mythology. The story of Narcissus, who because of his excessive beauty, fell in love with his own image and lived his whole life in love with himself (Rosenthal & Pittinsky, 2006) gave its name to this element of personality that has gained strong research interest. A relatively recent definition of narcissism states that it is "a constant differentiation of the human personality characterized mainly by grandeur, beauty and distorted views of the narcissist, which is composed of the following three dimensions: the individual himself, interpersonal relationships and self-regulatory strategies" (Campbell et al., 2011, p. 269). Similar to organizational psychopathy, narcissistic behavior is observed at higher levels of the business hierarchy

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¹¹ According to the American Psychiatric Association (2000), psychopathy is associated with the DSM-IV-TR diagnosis of Antisocial Personality Disorder (ASPD) and is characterized by malicious manipulation and abuse of their rights. However, the diagnosis of ASPD is mainly clinical in nature and requires a history of antisocial and criminal behavior, which is not necessary for a person to be classified as psychopathic (Smith & Lilienfield, 2012).

(Lubit, 2002; Arjoon, 2010; Bucholz et al., 2020). In fact, this is such a common phenomenon that it has led to the synthesis of a new concept, the narcissistic leadership (Arjoon, 2010; Ouimet, 2010; Ong et al., 2016). Therefore, the actions of the leader are primarily aimed at satisfying his own egopathic needs and views that replace the needs of the organization (Rosenthal & Pittinsky, 2006; Judge et al., 2006; Grijalva et al., 2015).

In the socio-humanitarian literature, narcissism is considered a feature of human behavior that is normally distributed throughout the population without defining a point of distinction between narcissistic and non-narcissistic personality (Kubarych et al., 2004; Cichocka et al., 2018). The root of this dilemma stems from the question of whether some of the elements of a narcissistic personality can potentially be positive factors in the development and success of an employee in a leadership position (healthy narcissism) (Rosenthal & Pittinsky, 2006; Campbell et al., 2011).

While narcissist personalities are identified in various workplaces and levels of hierarchy, the third behavioral tactic, Machiavellianism, concerns personalities characterized by duplicity in interpersonal relationships and tendencies to manipulate others. Machiavellian individuals show a cynical attitude towards morality, absence of ethical barriers and a primary interest in their personal gain (Lam, 2016; Miller & Lynam, 2015; Sakalaki et al., 2007). The lack of emotion in these individuals leads to lack of effective contact and "bonding" with other people, making it easier for them to engage in manipulative behavior under the pretext of "the goal that sanctifies the means" (Christie & Geis, 1970).

The ability of emotionally intelligent people to manage their emotions so that they can stay calm and maintain high levels of optimism, is a soft skills competence that is common to almost all the theories developed and quoted so far (Miao et al., 2019). Focusing on isolating the negative emotions that come from external stimuli in the organizational environment, leads to high job satisfaction, successful interpersonal relationships with colleagues, increased sense of commitment to work and leadership (Miao et al., 2019; LeBretton et al., 2018). However, despite the positive approach of EI mostly adopted in the literature, there is a significant share of researchers who focus on the investigation of the negative, "dark" side of EI (Austin et al., 2014; Furnham & Rosen, 2016; Petrides et al., 2011).

Research findings support the view that individuals with high EI level may use it to exploit those around them by manipulating their emotions and behaviors to satisfy

personal interests (Nagler et al., 2014; Fix & Fix, 2015; Kilduff et al., 2010). More specifically, the negative relationship of Machiavellianism and psychopathy with EI aroused great interest, in the sense that individuals with high scores on psychometric tests score similarly low on tests for Machiavellian evidence (Ali et al., 2009a; Zhang et al., 2015; Austin et al., 2014; Nagler et al., 2014; Veselka et al., 2012). Without excluding the possibility of a positive relationship between EI and Machiavellianism, it is important to highlight the differences observed in the sub dimensions of EI and this non-cooperative behavioral strategy. Under this context, empathy, as a dimension of EI, is the element that seems to be most missing from Machiavellian and narcissistic individuals (Ali & Chammoro-Premuzic, 2010; Jonason & Krause, 2013; Wai & Tiliopoulos, 2012), making them unable to "get into each other's shoes", thus intensifying selfish and self-interested behavior.

Machiavellian, narcissistic and "organizationally psychopathic" characters are not absent from the business world. These individuals are more skilled in the recruitment processes through interviews (Nuzula & Why, 2020) despite their tendencies towards dishonest behavior (Smith et al, 2018).

In the following sections, the conceptualization of Machiavellianism is analyzed in depth chronologically by discussing definitions and psychometric measurement tools. Furthermore, Machiavellianism will be reviewed and evaluated in workplace environments, with close focus on the relationship that this dark personality trait to emotionally intelligent individuals.

2.2. The concept of Machiavellianism

To understand the concept of Machiavellianism in depth, a review of its evolution in the literature is needed. Notably, Machiavellianism is proven to be a multidisciplinary term: it occurs in political sciences research, in terms of explaining "Realpolitik" tactics, and also in evolutionary biology linked to adaptation and intelligence, as a strategy in game theory models and in psychology as a personality trait (Wilson et al., 1996; Ibragimov et al., 2018). This evolutionary course from social and political philosophy to social psychology is reflected in the historical review of the term that follows. Consequently, a gap starting from the birth of the term up to its adoption by the discipline of psychology is created. Indeed, the period between the 16th

century and the 1960's, when Machiavellianism was perceived as a tactic of political realism, under the discipline of political sciences, will not be included in this review.

2.2.1. Evolution of Machiavellianism: theory and measurement

"Men are so simple and so much inclined to obey immediate needs that a deceiver will never lack victims for his deceptions" (The Prince, p. 63).

The publication of Nicolo Machiavelli's work (1513 AD) was a prompt for the standardization of a pattern of leadership behavior, linking the author's name with everything related to deceit, exploitation and manipulation in interpersonal relationships¹². His book "*The Prince*" has been characterized as a well-detailed job description for a state ruler that wants to stay in power by maintaining the status quo (Skinner, 2000) by any means, based entirely on expediency and is devoid of the traditional virtues of trust, honor, and decency.

The first research attempts on Machiavellian behavior from a psychological approach were established to describe a pattern of behavior that consists of characteristics like absence of empathetic emotions in interpersonal relationships, lack of moral barriers and ethics, and low ideological commitment (Christie & Geis, 1970; Calhoon, 1969). According to this theory, the Machiavellian approach consists of three sub-domains (manipulativeness, cynicism and conventional immorality) that form a measurable variable; an individual difference to describe an unconscious personality (Czibor et al., 2017). A trigger from political theories and the studies of interpretation of the behavioral tactics followed by powerful figures at the time¹³, led to the construction of a conceptual model of Machiavellianism (Christie & Geis, 1970) under the attempt to identify the inner purposes of manipulative interpersonal behavior.

¹³ Richard Christie and Florence Geis thoroughly examined the psychological work that dealt with political behavior, especially Eysenk's *The Psychology of Politics* (1954), to become familiar with the assessment of variables like radicalism and conservatism, as their point of interest – Machiavellianism - was also considered more of a political term at the time. The main purpose of these studies was to create a general personality profile for participants and supporters of either communist or fascist parties, and later on, democratic or republican parties. For more information, please see the republished version of "Studies in Machiavellianism", 2013, Academic Press, by Christie & Geis.

¹² It is important to emphasize from the outset that what emerges from Machiavelli's work as Machiavellian behavior should not be confused with the author himself and his texts.

Empirical research on Machiavellianism began with the development of **Mach IV**, a self-report instrument developed through a process of selecting and updating parts of Machiavellian writings (Christie & Geis, 1970). More specifically, sentences from Machiavelli's "The Prince" were carefully selected and used to form the statements that would comprise the new psychometric tool. While **Mach IV** was originally developed to examine the characteristics associated with totalitarianism and other socio-political formations, research on Machiavellianism has focused on social and organizational psychology because it was considered that some of its features can be adapted to the work environment (Deshong et al., 2015; Jonason et al., 2012; Fraedrich et al., 1989; Gemmil & Heisler, 1972; Siegel, 1973). The distortion of Machiavelli's image in management along with the misunderstandings between Machiavelli and "The Prince", is evidenced by the widespread use of **Mach IV** in management studies (Grace & Jackson, 2014).

In its latest version, **Mach IV** is a psychometric measurement tool structured in the form of a questionnaire. It consists of 20 items responded to on a 5-point Likert scale. When reviewing the questionnaire, it would be appropriate to take into account that it follows tactics often used in such surveys. Initially, there is a repetition of the content between objects, and the positive answer does not always indicate Machiavellianism, since there are questions where the opposite happens (reverse scoring items). The development process of this psychometric instrument revealed four sub-dimensions of the Machiavellian behavior. The first dimension refers to the relative lack of affect in interpersonal relationships, and especially empathy. The second dimension describes the lack of concern with conventional moral principles, as it is observed that Machiavellian personalities-manipulators have a utilitarian rather a moral view of their actions. The third and fourth dimension of **Mach IV** focus on the lack of gross psychopathology and low ideological commitment. In the social experiments where **Mach IV** is used, participants are usually described as "High Machs" or "Low Machs", followed by a comparison of the behavior of the two groups.

Admittedly, **Mach IV** is a valid and reliable rating scale (Jones & Paulhus, 2009; Ramanaiah et al., 1994), despite weaknesses identified in terms of internal reliability, the dimensions under which the Machiavellian phenomenon is examined, and the selection and formulation of objects. In an attempt to overcome these points in which **Mach IV** seems to be defective, new scales have been constructed. The **Machiavellian Behavior Scale** (Aziz, May & Crotts, 2002), the **Machiavellian**

Attitudes - Machiavellistische Einstellungen (Ulbrich-Herrmann, 2008) and the German Machiavellianism Scale (Henning & Six, 2008) were such attempts that actually did not find great acceptance in the literature.

The conceptual framework of Machiavellianism summarizes the course of the bibliographic findings from the theoretical interpretation of Machiavelli's work and the studies for the creation of psychometric tools for the evaluation of Machiavellian behavior. The "ruthless and selfish" approach to managing everyday situations (McGuire & Hutchings, 2006) therefore composes a more generalized strategy of deceiving the social environment by cultivating conditions in which the Machiavellian character serves their interests to the detriment of those around them (Boddy, 2010; Wilson et al., 1996).

With increased interest in the Machiavellianism at the organizational level, the Machiavellian Personality Scale was developed (Dahling et al., 2009). In this approach, that flourished under the concerns about the Mach IV model, Machiavellianism is defined as need for control over others in the name of personal status, driven by the tendency to distrust and immorally manipulate (Dahling et al., 2009). The introduction of dimensions that go beyond cynicism and manipulation led to the development of a new scale. Starting with a total of 45 items, the authors came up with the final version, which contains 16 items rated on a seven-point Likert response scale, covering dimensions of Machiavellian behavior such as distrust of others, desire for social superiority, desire for control, and immorality. In order to test the psychometric properties of MPS, that is, its validity and internal reliability, statistical techniques like bifactor exploratory structural equation models and confirmatory factor analysis were used (Gu et al., 2017; Miller et al., 2015). Through this testing, important information was provided concerning the relationship of Machiavellianism with traits such as empathy and extraversion, which also correlate with EI (Faye et al., 2011; Castillo et al., 2013; Giménez-Espert et al., 2019).

As behavioral research gained a great audience of supporters, arguments about the application of Machiavellian tactics to employees, rather than only in top management positions, arose. To satisfy this argument another psychometric tool was developed, the **Organizational Machiavellianism Scale**, **OMS** (Kessler et al., 2010). The main aim of the OMS assessment tool was to detect Machiavellian behavior in the organizational environment, under the belief that individuals may behave differently in their workplace than in their personal lives, indicating that Machiavellian tactics can be

applied only for professional purposes. This psychometric tool, based on a multidimensional model that incorporates dimensions of Machiavellianism that did not exist in the previous scales, organizes Machiavellian behavior into three main dimensions: maintaining power, management practices and manipulativeness (Kessler et al., 2010).

The Organizational Machiavellian Scale may not have been sufficiently studied - and therefore the reliability and validity is not sufficiently estimated. However, despite the fact that it was not as successful as the previously developed tools, the framework in which it was constructed is a field for the creation of a new concept, organizational Machiavellianism, as "belief in the use of manipulation as necessary means to achieve specific personal level goals in the workplace" (Kessler et al., 2010, p. 1871).

The overlaps of Machiavellianism's theoretical and empirical conceptualization with psychometric tests developed to measure psychopathy (Vize et al., 2018; Miller et al., 2017), led to the development of a model that aspired to differentiate by attempting to analyze the Machiavellian personality under five dimensions (Collison et al., 2018). The development and preliminary validation of a Five Factor Machiavellianism Inventory (FFMI) is probably a new step in Machiavellianism measurement, as the factors identified (agency, antagonism and planfulness) can be scored over thirteen (13) subscales that represent different types of behavioral actions (achievement, activity, selfishness, competence, deliberations, invulnerability, immodesty, order, selfconfidence, manipulation, callousness, cynicism) (Collison et al., 2018). An important finding of this pilot validation research is that actions of Machiavellian individuals that responded to FFMI are not impulsive and are characterized by goal-oriented behavior, high responsiveness to reward and great emotional stability (Collison et al., 2018). Despite a number of limitations concerning its validation that remain an obstacle to its broad application, FFMI looks promising in Machiavellianism assessment research (Kückelhaus et al., 2020).

2.3. A review of Machiavellian tactics in workplaces: Are they related to EI?

Individuals with dark personality traits are not absent from the business world. It has been observed that these individuals are more skilled in the recruitment processes through interviews (Nuzulia & Why, 2020) despite their tendencies towards dishonest behavior (Smith et al., 2018). Machiavellian individuals are believed to be tough and

pragmatic manipulators who seek success by taking full control of their impulses (Miller & Lynam, 2015; Lam, 2016). It is a "personality syndrome", which describes an almost two-faced interpersonal style associated with cynicism towards people, the pragmatic concept of ethics and self-motivation based on selfishness (Christie & Geis, 1970; Jones & Paulhus, 2009; Wilson et al., 1996).

The tendency of Machiavellians to engage in immoral behavior, lying and cheating in the workplace is confirmed in the literature (Bass et al., 1999; Kish-Gephart et al., 2010; Kashy & DePaulo, 1996). Indeed, the assumption of a positive association of Machiavellian behavior with high hierarchical positions, especially in cases where such behavior yields measurable profits, is highly supported, providing important information about organizational environments (Zettler and Solga, 2013; Den Hartog and Belschak, 2012; Zettler et al., 2011; Kessler et al., 2010).

More specifically, Machiavellianism is frequently observed in senior executive positions (Paulhus & Williams, 2002; Baughman et al., 2012; Amernic & Craig, 2010; Galperin et al., 2010), especially expressed through bullying behaviors (Linton & Power, 2013). Also, reduced organizational commitment in any level of hierarchy could be considered as a Machiavellian behavior outcome (Zettler, Friedrich, & Hilbig, 2011). However, the urge of focusing on maintaining power and using manipulative behaviors does not apply only to top management positions (Kessler et al., 2010). Organizational research has focused on high Mach employees as they seem more likely to engage in unethical workplace behaviors with potentially negative effects on the entire organization (Winter et al., 2004; Dahling et al., 2009; Kessler et al., 2010; Kish Gephart et al., 2010; O' Boyle, et al., 2012).

Furthermore, Machiavellianism plays a significant role as a moderating factor of relationships observed among managers and employees (Zhao et al., 2010; Kilduff et al., 2010; Neuman & Keasly, 2010). Conflicts derived from position roles, emotional exhaustion and counterproductive work behavior, and also the relationships between the perceptions of adhocracy and hierarchy cultures tend to become weaker for employees because of high Machiavellianism levels (Pilch & Turska, 2015; Walter et al., 2005).

Moreover, Machiavellianism is associated with high cognitive and emotional ability (O'Boyle et al., 2012) which could suggest a relationship with the concept of emotional intelligence (EI). Such a combination of personality traits and abilities in an individual could trigger a "dark" use of EI in organizational settings (Kilduff et al.,

2010). In fact, employees that show Machiavellian behavior along with highly developed EI could be considered a threat towards a business's wellbeing, because these employees would probably make use of any means to satisfy their personal goals and aspirations (O'Boyle et al., 2012).

Published work on the relationship between EI and Machiavellian behavior suggests a negative correlation indicating that individuals who score high in EI tend to score low in Machiavellianism (Austin et al., 2007; O'Boyle et al., 2012). As a consequence, significantly low EI levels attributed to Machiavellian behavior indicate potential lack of self-control, due to the fact that the willingness to manipulate is not always translated into "carrying it out" (Austin et al., 2007; O'Boyle et al., 2012). Indeed, high Machs (individuals with high scores on Machiavellianism psychometric tests) with the ability to recognize emotions do not outperform low Machs but are less emotionally intelligent and socially competent in intimate situations or in cases of social exposure in a work environment (Pilch, 2008; Szabo & Bereczekei, 2017; Zhang et al., 2015; Sjoberg, 2003).

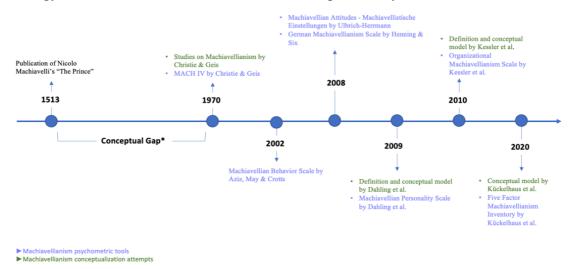
The negative correlation between trait EI and Machiavellianism is also attributable to genetic and non-shared environmental factors (Petrides et al., 2011; Szijjarto & Bereczekei, 2014; O'Connor & Athota, 2013). It is notable that the negative correlation between the variables under examination occurs in all types of EI, confirming that there potentially is a dark side (Austin et al., 2007; Jauk et al., 2016; Austin et al., 2014; Vonk et al., 2015, Malhotra, 2016), leading to emotionally manipulative behavior (Nagler et al., 2014; Bacon & Regan, 2016), lack of empathy (Ali et al., 2009b) and even to sadistic behavior (Plouffe et al., 2017). This established negative correlation is proven to play a significant role in moral identity, in the sense of the importance of morality to someone's self-perception (Côté et al., 2011).

2.4. Conclusions

In this chapter, a number of negative aspects of personality referred as the "Dark Triad" and their relationship with EI are discussed. The dark personality traits, narcissism, psychopathy (from an organizational rather than a clinical point of view) and Machiavellianism are elements that in various situations coexist in emotionally intelligent individuals.

The review of the Dark Triad of personality reveals the behavioral commonalities among the three personality traits and the dominance of the emotional regulation. Emotional regulation, apart from being an EI dimension, stems from the individual's ability to regulate self and others' emotion and in narcissistic, psychopathological and Machiavellian cases it aims at manipulating to serve personal interests. Furthermore, lack of empathy, an important EI dimension, in combination with lack of moral barriers are notable characteristics shared by narcissists, Machiavellians and organizational psychopaths.

The isolation and further review of the concept of Machiavellianism is considered to be crucial for the purposes of the present thesis. Being a field of high interest in areas of psychology such as evolutionary, personality and organizational psychology, the need for effective measurement and evaluation of Machiavellianism in a real environment becomes imperative, with several notable efforts so far (Winter et al., 2004; Dahling et al., 2009; Kessler et al., 2010; Kish Gephart et al., 2010; O' Boyle, et al., 2012; Jauk et al., 2016; Austin et al., 2014; Vonk et al., 2015, Malhotra, 2016). The chronological review of the term as presented in Figure 3, brought to light the evolutionary thinking which in turn led to a transmission of the term Machiavellianism from political theory to psychology, bringing the characteristics of a political realism strategy to the micro-environment of individual's personality.



Machiavellianism was studied as a war strategy in the context of political realism during this gap. It was launched as a term of personality studies only after 1970, as seen in the figure

Source: Tsirimokou C., (2019), Emotional Intelligence in Family Business Management – An Empirical Study, Doctoral Thesis, Department of Economic and Regional Development, Panteion University of Social and Political Sciences, Athens

Figure 3: Machiavellianism conceptualization and measurement evolution timeline.

The original and groundbreaking study of Christie and Geis (1970) led to the construction of a tool that so far, despite the drawbacks attributed to it, is in use in

different environments and has been the trigger for further studies and development of other tools. Each new measurement tool treats Machiavellianism from a different approach, either as an element of personality (trait) (Christie & Geis,1970), or as an internal set of "beliefs" and motivating elements (Dahling et al., 2009), or as a form of behavior (Kessler et al., 2010). This pluralistic approach stems from the fact that each research team defines Machiavellianism differently, as shown above, but converges on the construction of self-report tools aimed at measuring a person's tendency to manipulate and deceive other people in order to serve personal benefit, material or not. Finally, these tools differ in the dimensions under which they address Machiavellianism, with the most recent of them adopting a more multidimensional approach (Monaghan et al., 2016; Collison et al., 2018).

The research aims towards the conceptualization of the term and the development of a valid and reliable psychometric tool arising from the need to explain the causes of manipulative behaviors and to predict their potential outcomes, especially in professional environments. The identification of Machiavellian personalities in top management positions seem to be the answer for many of the challenges that organizational settings face (Baughman et al., 2012; Amernic & Craig, 2010; Galperin et al., 2010), including counterproductive behavior, low job satisfaction and affected performance levels (Szabo & Bereczekei, 2017; Pilch & Turska, 2015).

To conclude, special attention was given to the significant negative relationship between Machiavellianism and EI (Petrides et al., 2011; Szijjarto & Bereczekei, 2014; O'Connor & Athota, 2013), as high Machs with the ability to recognize emotions are less emotionally intelligent and socially competent in intimate situations or in cases of social exposure (Pilch, 2008; Szabo & Bereczekei, 2017; Zhang et al., 2014; Sjoberg, 2003). The combination of such personality traits and abilities in bigger or smaller business environments indicates the high importance it could have in decision making processes (Kellermanns et al., 2012; Zellweger & Dehlen, 2011). Lastly, the need to examine and analyze the emotional profile and behavior of a business' stakeholders is established, given the potential impact on professional well-being, job satisfaction, internal cohesion and emotional climate (Ashkanasy, 2003; Grandey, 2005; Binz et al., 2017; Jaskiewicz & Dyer, 2017; Umans et al., 2020), especially in businesses "emotionally overloaded", like family firms, that will be investigated in the following chapter.

3. Psychodynamics in family businesses

It is widely accepted that EI plays an important role in firms' and organizations' workplace environment (Brigham, 2013). Indeed, psychomanagement competences such as EI and personality traits such as Machiavellianism can potentially have significant effects on behavior in professional settings. One such professional setting where psychomanagement features could affect the operational process and outcomes, is family businesses (Fattoum & Fayolle, 2009; Hoy & Sharma, 2010; Hacker & Dowling, 2012, Ramadani, 2012).

The effective management of family businesses, whether performed by family or non-family members, has been proven to be vital for a firm's prosperity and longevity (Neubauer & Lank, 2016; Lipman, 2010). However, the question of how to achieve an effective and efficient level of financial and human resource management in a family business is encountered daily by the management and the board of directors (Neubauer & Lank, 2016). Indeed, the everyday operational processes, when impeded by strained relationships between senior and junior family business executives, usually disrupt the organized set of practices needed to regulate family and professional business behavior (Newstrom & Davis, 2002; Ensley et al., 2007; Kellermans & Eddleston, 2007; Masulis et al., 2011; Rodsutti & Makayathorn, 2005). To this extent, the overall performance of the family firm could be impacted by emotional and behavioral disruptions caused by the individuals occupied in it (Erven, 2010; Stewart & Hitt, 2012).

To better understand the role of psychomanagement in the operational process of a family firm, it is necessary to focus on the family firm's structure, i.e. family, management and ownership (Davis et al., 2010), because the emotional and behavioral features of the individuals occupied in the family business in all three systems - family, management and owner - could possibly be linked to some extent with the family business performance outcomes (De Vries et al., 2007).

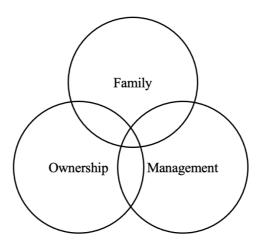
Within that structure, the roles undertaken by each individual in any job position within the family business systems are performed according to competences (EI) and personality traits (Machiavellianism) of the family firm's stakeholders (Caputo & Zarone, 2019; De Vries et al., 2007). Furthermore, the chances of behavior driven by self-interest, like opportunism, which are often present in a family business environment, should also be evaluated (Jaskiewicz & Klein, 2007). Opportunistic behavior, which consists of the pursuit of self-interest with deceit (Williamson, 1985),

seems to be developed mostly in cases where unsuitable job positioning occurs. The main source of in-house opportunism is attributed to the role of manager (Leeson, 2011) and is a common phenomenon in family businesses (Poza et al., 2004; Burkart et al., 1997; Vassiliadis & Vassiliadis, 2014). Consequently, to lay the foundation and reach conclusions on the possible effect of psychomanagement features that characterize the family business management, the structure and key characteristics of a family business are reviewed further in the following section.

3.1. The family business system

Family businesses are the oldest form of business, with undeniable importance for the global economy (Comi & Eppler, 2014). Because of this prominence, and due to its unique structural characteristics, a range of definitions of a family business derived from the anthropological and sociological literature has been proposed. According to these definitions, the family business adapts to the traditional model of the three systems - family, management and ownership - represented by overlapping circles (Figure 4) and are for-profit organizations where two or more members of the extended family influence the direction of the business (Rogers et al., 1996; Davis & Tagiuri, 1989).

The exercise of family ties, management roles, or property rights (Sharma, 2004) are key elements for this type of business to reach their core goal, which is none other than profitability and resilience.



Source: Davis, J. A., & Tagiuri, R. (1989). The influence of life stage on father-son work relationships in family companies. *Family Business Review*, 2(1), 47-74.

Figure 4: Family business circle model.

The involvement of at least two family members in the running of the business requires the development of a system that appraises and promotes emotional awareness and encourages the integration of the family members' roles within the business, bearing in mind the complex emotional and personality status of those members. However, although revealing that the complexity of the systems involved in a family business is vital to maintaining that business (Carsrud & Brännback 2010), the traditional conceptual approaches may not include non-traditional families such as divorced couples running a family business, same-sex couples starting a business or even social ventures based on a family.

According to the model of overlapping circles of the family, management and ownership, a family business system could be described as an interconnected unit of individuals who work within the same business, hopefully in a state of harmony (Carsrud and Brännback, 2010). The family system can still be explained as a unit consisting of interacting and interdependent members, who are able to meet their needs through cooperation to achieve business goals (Gashi & Ramadani, 2013). Alternatively, a family business operates in order to form and pursue the vision of a business that is controlled by members of the same family (Alderson, 2011). Consequently, the broad context of family business includes any business in which the majority of ownership or control belongs to a family and in which two or more family members are directly involved in the business (Brockhaus, 2004).

Nevertheless, when a business controlled and run by a family collapses, the "family culture and management philosophy" is often cited to be the cause, stigmatizing one of the most important forms of business. This generalization distorts the reality and degrades the important role played by family businesses, which are far from homogeneous, as they show significant differences in terms of both business and family characteristics (Klein & Bell, 2007; Lumpkin et al., 2008).

Indeed, family businesses, regardless of their size, share common features with the family responsible for their management and administration. Hence, individuals involved in a family business are the main contributors to the operational process, following specific structures and being interconnected inside and outside the business and the family (Del Giudice et al., 2010). To this extent, complex dynamic relationships are created, influenced by the external environment (Carsrud, 2006).

The family business system seems to operate in two sub-systems, the **family** and the **business** (Basco & Perez Rodriguez, 2009; Bertrand et al., 2008; Powell &

Eddleston, 2017). This argument is brought up because on the one hand, the family is a natural and fundamental unit under the protection of society and the state, while on the other hand, the business is the basic legal unit of a financially free society where individuals are organized based on their experience and skills, social and technological progress (Powell & Eddleston, 2017). As a consequence, the ethical cultivation and personal development of a family business' members is the primary purpose of the family system, while the business system is engaged in the production and distribution of goods and services (Debarliev & Janeska-Iliev, 2015; Mashavira et al., 2019; Poza, 2010).

Therefore, the family business should be regarded as a living organism within which the family members are called upon to make decisions that may contradict family traditions or previous generations' perceptions of how things should be done. On the other hand, the new generation has or can acquire skills in order to face more easily the challenges posed by the dynamics of newly developed technologies in the modern work and business environment. Indeed, the contemporary way of life both at family and professional level is so demanding that it often does not allow family business members time to express their emotional needs and personal preferences. A family firm culture that promotes open and clear communication, and a balance between personal and business needs, is an ally in the smooth operation and development of the business, in order to overcome the overlaps of the two sub-systems of family and business.

It becomes obvious that the intersection of the family and the business system constitutes a dynamic organization that is constantly evolving and changing through its own history and challenges. As with every business type, family businesses have strengths and weaknesses, gain opportunities and are exposed to threats. For that matter, the definition of family businesses ought to express their uniqueness over other types of businesses. The uniqueness of a family business is the ownership and management model that substantially influences the goals, strategies and structure adopted and implemented by the family that runs the business (Chua et al., 1999; Mandl 2008; Dibrell & Memili, 2019; Astrachan et al., 2002; Feltham et al., 2005; Newbert & Craig, 2017)).

In the same context, the combination of the two systems - family and business - in the operational process causes overlapping management roles that can lead to misunderstandings that may very well result in potential further conflicts (Woods et al., 2019). The importance of the active involvement of the family in the management of

the firm and the desire of family members to retain ownership, regardless of the recruitment of external partners in human resources (Schulze et al., 2001), is discussed in the present chapter.

Given the complex nature of the family business system, each of its elements, is next decoded. The family business' characteristics, e.g. size, location, but also features such as organization, goals, communication and evolutionary processes (Ramadani & Hoy, 2015) are the core points that, under the "familiness", differentiate the family business from other forms of businesses.

Indeed, the management approach of the family business characteristics seems to be related to the fact that the members of a family, apart from relatives are also colleagues and stakeholders. In the case of a family running a business, the **stakeholders** involved are the people in the family business system who are dependent on it, and this is where the overlap between the family and the business occurs.

Furthermore, the close relationship between the family's **goals** and the business's goals is another feature that indicates the overlap between the two systems, contributing to the uniqueness of family businesses (Carsrud et al., 2009; Basco, 2017; Binz et al., 2017; Williams et al., 2018). For example, the goals of the family are associated with the maximum possible development of all its members. Indeed, emotional and professional development could be achieved by providing equal opportunities and rewards for all the family business stakeholders, leading to effective operation of a family business (Basco, 2017).

Another core feature, essential for effective management and administration of a family business is **communication**. The exchange of any kind of information through internal meetings and everyday feedback among the stakeholders seems to be critical for the parallel and orderly simultaneous operation of family and business systems (Williams et al., 2018). Furthermore, effective communication lines between the family business members are crucial for the family and business systems' cohesion, since when information asymmetries occur, non-cooperative behavioral strategies such as opportunism take place (Sakalaki et al., 2007), with possible negative effects on the family business operation process and consequently on outcomes (Binz et al., 2017).

In mentioning the operational process of a family business, one cannot but also refer to the adoption of the **evolutionary process approaches of psychomanagement** that would allow the family system and its environment to constantly adapt to change, gaining resilience over time (Ramadani & Hoy, 2015). Through such a process that

could potentially affect the components of a family business system, an integral part of the stakeholders' personality is revealed and analyzed, namely, their emotions (Kellermanns et al., 2014; Akhmedova et al., 2019).

Summing up, having taken into consideration the main components of the family business system, it is argued that a different approach in the operational process of a family firm is indicated. Indeed, bearing in mind the main features that compose the uniqueness of the family business, giving it the characterization of the "emotional arena", one could say that it is a purely psychodynamic environment. Within such an environment, respect and mutual support among family members seem to be crucial for the strength, resilience and survival of the family firm. Therefore, through the psychodynamic nature of the family business, as defined by the EI and personality features like Machiavellianism of its stakeholders, the appropriate environment is created for the application of psychomanagement.

3.2. Emotion dynamics in family businesses

In order to explore emotions and their effects within the family business environment, the static version of emotions that has been studied so far, considering them as "on-off" responses to different situations, should be replaced by a more dynamic approach (Kuppens & Verduyn, 2017). Indeed, emotional changes tend to follow physiological, behavioral and experiential patterns that are aligned with an individual's behavior and form their EI or other personality traits that contribute to their overall emotional development (Kuppens & Verduyn, 2017; Kashdan et al., 2014).

Emotional development within the family business system plays an important role for family business's welfare and transmission of values to future generations (Coli & Rose, 2008; Poutziouris et al., 2008; Steier, 2009; Nilakantan et al., 2020). However, the potential conflicts between family goals and business goals seem to be intensified, as family members sometimes focus more on meeting their own human and psychological needs rather than increasing the business's financial performance (Aronof & Ward, 2016). Therefore, family members would be expected to adopt an organized set of practices to regulate family and professional business behavior. Furthermore, to avoid these potential conflicts, the family business's personnel should adjust to the social and personal rules and values that govern the family and business (Masulis et al., 2011; Rodsutti & Makayathorn, 2005; Erven, 2010; Stewart & Hitt,

2012). As a consequence, different roles and positions within the family, ownership and management systems occur and affect the overall outcome, that is, performance (Davis et al., 2010).

More specifically, the conflict between love (family) and work (business) that occurs for most family businesses arises because inadequate boundaries are drawn between the two (Ramos et al., 2014; Sharma et al., 2012). This conflict itself marks the expansion of the family system which is a challenge to its rules and patterns of behavior (Bernhard & O'Driscoll, 2011; Sieger et al., 2013; Pieper, 2010; Berrone et al., 2012). Indeed, clear boundaries and effective decision-making practices encouraged by all family members may lead to sound business processes (Romano et al., 2001; Ward, 1997; Miller et al., 2003; Tsai et al., 2018; Craig & Newbert, 2020). Correspondingly, if the boundaries between the family system and the business system are blurred, causing inefficient family functioning, business management processes will be adversely affected (Pieper, 2010). As a result, the strong identification of family members with their business and the intensity of their emotions towards the business can be an additional source of interpersonal conflicts (Rau et al., 2019; Astrachan & Jaskiewicz, 2008; Zellweger & Astrachan, 2008).

Furthermore, family members involved in the family business put significant amounts of effort into creating opportunities for their personal development (Salganicoff, 1990; Webb et al., 2010; Ward, 2016). Internal desires and personal motivations affect the family business, not always positively but constantly interdependently (Achmedova et al., 2019; Harvey & Evans, 1994; Pieper et al., 2013; Werbel et al., 2010). More specifically, family values and behavior influence business policies and decisions (Gallo, 1998; Aronoff, 2011; Reay et al, 2015). On the other hand, business affects the careers, relationships and finances of family members (Rau et al., 2019; Sieger et al., 2013; Pieper, 2010). Therefore, the merger of family and business systems into one psychodynamic system appears to be extremely useful in addressing family business issues that do not fall within traditional management theories, where the contribution of the individual's behavior and emotional situation is usually underestimated (Denison et al., 2004; Parada et al., 2010; Jaskiewicz & Dyer, 2017).

A conceptual way to overcome the under-estimation of the role of the individual's behavior and motivation within the family business is through psychoanalytic psychology, especially the theory of objective relations (Pieper, 2010;

De Vries et al., 2007; Zellweger & Astrachan, 2008). However, research on family businesses has shown that the orientation towards understanding complex human processes should be reinforced by the theory of family systems (Dyer Jr & Dyer, 2009; Leaptrott, 2005; Reilly & Jones, 2017). Consequently, the combination of psychodynamic thinking with the perception of family systems as psychodynamic can be the solution to key issues faced by "business families" inside family businesses.

3.2.1. Psychomanagement of family business systems

The family business psychomanagement approach focuses on the way rationality and behavior are shaped by experience and past events within the business environment. More specifically, potentially important factors such as EI and "dark" personality traits that affect behavior within the family business environment, are examined and evaluated (Hoy & Sharma, 2006; De Vries et al., 2007; Le Bretton-Miller & Miller, 2014). As a result, interactions among the family members place emphasis on the process of recognizing or regulating one another's behavior in order to create more effective relationships within the family and the business (Caputo & Zarone, 2019; De Vries et al., 2007). To this extent, the appraisal and use of behavior and emotions seems to be especially useful in situations where emotional and cognitive interactions occur within both family and business systems.

Indeed, the examination of the family system and the business system through a psychomanagement approach enables the evaluation of personality traits that support individual, interpersonal and family behavior and their use as a competitive advantage of family firms (Coury & Pecanha, 2016; Broekaert et al., 2018). Therefore, information about the cognitive, emotional, interpersonal and social sphere that affects the performance of the family business is achieved (Broekaert et al., 2018).

For a family business to appraise its "psychodynamics" and adopt psychomanagement, the identification of the emotional and behavioral issues faced is necessary (De Vries et al., 2007). Hence, the most difficult family issues seem not to be the business problems faced by the family business, but the emotional issues that arise within the business's environment, affecting its operational process (Cruz et al., 2010; Hamilton et al., 2017; Lingo & Elmes, 2019). Understanding the development of coping strategies, and narrative creation are the steps followed to explain the emotional dimension of these issues (De Vries et al., 2007; Botero et al., 2019; Michael-Tsabari et al., 2018). However, although the above is argued in the literature, a strongly rational

approach has been adopted so far in practice, in which family businesses focus on organizational structures and operational processes, marginalizing and underestimating their human resources dynamics (De Vries et al., 2007; Berrone et al., 2012).

Furthermore, the application of a dynamic concept like psychomanagement that also takes into consideration the interpretation of personality and behavior would allow the family to prepare for life cycle transitions such as succession and other issues that may arise in the future (De Vries et al., 2007; Jiang et al., 2016; Bjornberg & Nicholson, 2008). Such examples of emotional and behavioral issues faced by family businesses include deciphering roles and responsibilities in family and business systems, exploring stakeholder motivations, and developing organizational structures that reflect decision-making processes in the wider family business system (Salvato et al., 2010; Kim & Gao, 2013).

3.2.2. The role and effects of emotion in the family business system

Family businesses have been described in the literature as "emotional arenas" (Fineman, 2000). Indeed, imbalanced family relationships are often the main reason for serious interpersonal challenges that may arise (Fineman, 2000; Cruz et al., 2010; Gómez-Mejía et al., 2007). More specifically, in unfavorable family relationships, conflicts, rivalries and the desire for power are important factors that could possibly break down the family system (Berrone et al., 2012; Sepherd, 2016). In addition, along with the malfunctioning family relationships, the importance of emotions in decision-making on the operational process seems to play an important role for the future and the vitality of the family business (Kellermanns et al., 2012; Zellweger & Dehlen, 2011).

Therefore, emotions in the family business environment are mainly attributed to the family system (Carlock & Ward, 2001; Fleming, 2000; Dyer, 2003; Rogoff & Heck, 2003) rather than to the management or the ownership circles. In recent years, although the study of emotions in the family business has flourished, methodological issues have set a limit to the generalizability of the findings presented in the literature (Astrachan & Jaskiewicz, 2008; Melin, et al., 2013; Sheperd 2016; Berrone et al., 2012; Kellermanns, et al., 2012; Jiang et al., 2016; Bjornberg & Nicholson, 2008; Pieper, 2007; Astrachan & Jaskiewicz, 2008; Zellweger & Astrachan, 2008; Labaki et al., 2010).

More specifically, the circumstances through which the importance and role of emotions in family business arise, should be identified. The hybrid character of the family business (Albert & Whetten, 1985), composed as it is of the family and the business, is indeed a source of conflict of identity and roles with an emotional background (French & Allen, 2020; Cooklin et al., 2016). This conflict of identity mostly arises because of the phenomenon of emotional ownership, where family members feel "one with the business" (Ramos et al., 2014; Pieper, 2010; Avey et al., 2009; Astrachan & Jaskiewicz, 2008; Zellweger & Astrachan, 2008). In parallel, team cohesion among the family members who are also colleagues, is highly affected by the emotional and behavioral climate within the business environment (Ashkanasy, 2016; Nose et al., 2017). For the emotional status of the family in business to be evaluated, the emotional benefits and possible "dark sides of owning a family business" have been highlighted (Samara & Paul, 2019; Debicki et al., 2017; Labelle et al., 2018; Berrone et al., 2012; Kellermanns, et al., 2012). Consequently, the investigation of the emotional profile and behavior of members of the family in business seems to be crucial, given the obvious impact on the well-being of family members and job satisfaction, family cohesion and emotional state (Ashkanasy, 2003; Grandey, 2005; Binz et al., 2017; Jaskiewicz & Dyer, 2017; Umans et al., 2020).

3.3. Economic opportunism – a family business phenomenon

As previously argued, family businesses face significant challenges with a direct impact on their operational process and consequently on the harmonization of management-family-ownership cycles (Ramos et al., 2014; Pieper, 2010). To state only some of these challenges, entrepreneurship and innovation, human resource management, gender and nationality of stakeholders, succession issues, internationalization, culture and corporate social responsibility of family businesses have been thoroughly investigated in the international literature (Berrone et al., 2012; French & Allen, 2020; Cooklin et al., 2016; Avey et al., 2009; Bammens et al. 2008; Siebels et al., 2012). Furthermore, a range of the family members' qualitative inherent characteristics, including trust, altruism, and commitment, that can potentially improve effectiveness and performance of a family firm have also been examined (Chu, 2009; Saito, 2008; Sraer & Thesmar, 2007; Karra et al., 2006; Schulze et al., 2003).

Indeed, the effective management between family and non-family stakeholders is attributed to collaboration of skilled internal or external managers and promotion of behavior compatible with the family values that can contribute to the success or failure of family businesses (Neubaum et al., 2012). Good knowledge of best human resource management practices in the family business environment is enhanced by exploring differences by industry or ways of developing and utilizing organizational skills (de la Cruz Déniz-Déniz et al., 2012).

That is, maintaining the balance between a family-controlled management and the exploitation of talented external, non-family managers seems to be crucial in the name of the family business's financial performance (Chrisman et al., 2011). A manager's obligation (whether family member or not) to achieve a spirit of cooperation within the family business in the name of high performance, can potentially lead to economically opportunistic behavior (Leeson 2011).

Economic opportunism is defined as an incomplete or distorted distribution of information through deliberate attempts to mislead, distort, disguise, obscure, or confuse (Williamson 1985)¹⁴. Opportunistic behavior in management settings incorporates economic concepts, such as adverse selection, moral hazard, shirking, usurpation of resources, stealing, etc. (John, 1984; Smith 2005; Phelan 2005). First used as a term of political philosophy, Marxist opportunism expressed the "refusal of the revolutionary struggle of the proletariat, as capitulation of the working class against the bourgeoisie" (Grigoryeva & Grigoryeva, 2015 p.222). Afterwards, the concept of opportunism was extended (Rodney & Heide, 1996) in order to include malicious behaviors such as lying, cheating, and breaching agreements (Grigoryeva & Grigoryeva, 2015).

Opportunistic behavior includes withholding or distorting information or failing to deliver on promises (Sakalaki et al., 2009) and opportunists are more willing to manipulate financial statements to increase their personal profits (Lee et al., 2006). Comprehension and evaluation of opportunistic behavior within businesses began in the late 19th century, where opportunism was considered as a predatory way of thinking that often led to malicious acts. Later on, economic opportunism became a subject of

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¹⁴ Oliver E. Williamson, a distinguished American economist and professor at Berkeley University in California and winner of the 2009 Nobel Prize in Economics, defines opportunism as "the pursuit of deceitful self-interest" (Williamson, 1985).

interest in various scientific disciplines including management and organizational psychology.

Managers seem to be the main source of in-house opportunism, due to their possession of power over their subordinates in a way that, although it works for bottom-up relationships, does not arise in top-down relationships. For example, managers determine the payroll of employees, their break times, the definition of their duties, and so on. Managerial control is not an arbitrary act, but an effective response to the difficulties that arise during the production process (Gomez-Mejia et al., 2001). To prevent employee reactions, managers exercise disciplinary powers in order to improve cooperation between company members and therefore stable production (Leeson 2011; Poza et al., 2004). It is important to mention that the implementation of an opportunistic behavior pattern can be optional, meaning that the individual can choose to adopt such behavior or not, usually leading to negative effects on the family firm (Alessie et al., 2004; Beav & Klimov, 2009)

The negative work environment caused by opportunistic behavior potentially has adverse effects on productivity (Burkart et al., 1997; Bodrov; 2014). Opportunistic individuals are favored by the lack of external oversight of managers' performance (Schulze et al. 2001), while altruism, a selfless behavior that benefits others, can be a form of opportunism in family businesses (Eddleston et al., 2008). Indeed, opportunistic behavior can be asymmetric and non-reciprocal, potentially exploitable, and can harm family businesses (Chua et al. 2009; Wright & Kellermanns, 2011). Furthermore, the uncontrollable power that family business owners have over their businesses makes anyone who contributes to the family business vulnerable, especially external managers (Ali et al., 2007; Villalonga & Amit, 2006). Consequently, threats arising from owner arrogance, either as a result of disagreement or due to opportunism by the owner, constitute obstacles in recruiting, retaining and motivating experienced executives of the family firm (Chrisman et al., 2014).

Empirical research on economic opportunism, though theories for its interpretation have been developed, is quite limited so far, (Lumineau & Quelin, 2012). As has been observed, intentional economic crimes are sometimes attributed to opportunistic behavior patterns (Lomakin, 2013), affected by individual living standards caused by factors like economic crises (Silverstein, 2020; Kreishnan, 2011). In conditions of high growth and performance rates, low probability of opportunistic behavior is observed, because of profit rates psychologically perceived as sufficient for

a comfortable life and business, revealing a statistically significant dependence of opportunistic behavior upon performance and growth (Grigoryeva & Grigoryeva, 2015).

3.4. Conclusions

At present, family business research is largely descriptive rather than restrictive. This happens under the perspective of improvement of family relationships rather than business performance. While a better understanding of the family institution in the family and business binary system is valid and useful, there are other goals needed to be pursued as well. Research on family businesses has been developed over the last decade. However, it still remains an emerging field of study (Chrisman et al. 2008; Benavides-Velasco et al., 2013; De Massis & Foss, 2018; Jaskiewicz & Dyer, 2017). Lack of consensus on the exact definition of family business is an indicator, although scholars have made great efforts to develop a generally accepted definition (Litz, 1995; Miller et al., 2007).

Although the concept of the family business has drawn some research interest since the 1980s, the subject was largely ignored until the last decade. In the early years, the family business was included in the sociology category and later in a small business management category, none of which allowed the sector to be explored separately. As a result, the family business literature is less voluminous than is the case for other areas of management (Bird et al., 2002). It however has been, but it becoming a subject of great interest (Hamilton et al., 2017; De Massis & Foss, 2018; Jaskiewicz & Dyer, 2017). General issues of interest have received particular attention, including succession (Handler, 1994; Lansberg and Astrachan, 1994; Sharma et al., 2003), corporate governance (Dino et al., 2005; Miller & Le Breton-Miller, 2007), strategic management (Chrisman et al., 2005), etc.

Furthermore, substantial effort is needed to address the complexity of family businesses and their uniqueness over types of organizations. The future of the family business depends on a deeper knowledge of the past, given that it is the oldest form of business (Bird et al., 2002; Casillas & Acedo, 2007; Chrisman et al., 2003; Dyer & Sanchez, 1998; Hollander & Elman, 1988; Zahra & Sharma, 2004). The connections of the operational process of a family business to individual and group behavior, organizational structure and management processes related to the family business are

highlighted in the organizational and management literature, especially through comparative studies (French & Allen, 2020; Cooklin et al., 2016; Binz et al., 2017; Jaskiewicz & Dyer, 2017; Umans et al., 2020; Chrisman et al., 2005; Habbershon and Williams 1999).

Indeed, in the internal environment of a family business, the family organization in combination with the operation of the business and the formation of structures and rules that regulate and facilitate their interpersonal relationships is considered a daily task (Katz et al., 2010). Detecting dysfunctional interaction patterns is essential to avoid misunderstandings between family members and to save valuable time that could be devoted to business development¹⁵ (Soler et al., 2017; Ramos et al., 2014). Moreover, the interdependency of the family business circles can potentially be expressed through the emotional dynamics that characterize the "familiness" of the business (Barros et al., 2017; De Vries et al., 2007; Botero et al., 2019; Michael-Tsabari et al., 2018). In addition, challenging family issues usually have their roots in emotional issues of the family stakeholders, affecting its operational process (Cruz et al., 2010; Hamilton et al., 2017; Lingo & Elmes, 2019; De Vries et al., 2007; Berrone et al., 2012).

In sum, the role and effects of family members' emotions on the operational processes of a family business could be critical after taking into consideration the personality traits of its stakeholders. Consequently, the personal approach of each one of the involved people to the family business operation potentially plays an important part towards the achievement of the two main goals of a family business, i.e. its survival, provided that only 15% of the family business survive in the third generation, and its effectiveness.

Psychologist Carl Jung often asked his patients in therapy and counseling sessions with members of "family businesses": "Does this behavior work for you?". If the answer was no, his intervention concerned the possible different approaches that should be followed to make interpersonal positions functional (Kellermanns et al., 2014).

B. METHODOLOGY

4. The behavioral triad in Greek family businesses – Research Design

4.1. The central hypothesis

EI, adopted by economics as an effectiveness variable of management capacity of businesses and organizations has been the subject of academic interest over the last decades (Law et al., 2004; Goleman, 1998; Côté, 2014). However, despite multifaceted research approaches to identifying, evaluating, controlling and regulating emotions, no consensus has been reached as to whether EI is an ability or a trait of human behavior, thus preventing the formulation of a universally accepted definition (Ciarocchi et al., 2001). Nonetheless, following multiple efforts towards conceptualizing EI, more generalized definitions that cover the range of EI dimensions have been given and used widely in the literature (Côté et al., 2014), followed by a range of theoretical approaches and conceptual models regarding the nature of EI as a personality trait or an ability that leads to maximizing performance (Mayer & Salovey, 1997; Bracket & Mayer, 2003; Fiori & Antonakis, 2011; Maul, 2012; Rossen & Kranzler, 2009; Goleman, 1995; Bar-On, 1997; Petrides and Furnham, 2001; Mikolajczak et al., 2006; Siegling et al., 2017; Davies et al., 1998; Chamorro-Premuzic et al., 2017; Andrei et al., 2016; Sanchez-Ruiz et al., 2016; Di Fabio et al. al., 2016; Feher et al., 2019).

Regardless of the theoretical approach adopted, the role of EI in management practices and organizational behavior under the discipline of business psychology has proven to be more than acceptable in working environments (Coetzee & Harry, 2014; Obradovic et al., 2013; Martins, Ramalho & Morin, 2010; Mavroveli & Sanchez-Ruiz, 2011). A manager's ability to plan, organize, motivate and positively influence the fulfillment of their business goals is a basic prerequisite for managerial efficiency (Ashraf & Khan, 2012; Dinh et al., 2014; Tonidandel et al., 2012). At the same time, EI is considered to be an important success factor in interpersonal relationships in the work environment for operating effectively and reaching high performance (Goleman, 1998; Cavallo & Brienza, 2002; Dulewicz & Higgs, 2003; Law, Wong & Song, 2004; Day & Carroll, 2004; Millet, 2007; Rieck, 2008; Jacques, 2009). Although the effect of emotions on private sector businesses is acknowledged in the literature, the idea of EI in challenging environments like a family business has not yet been explicitly explored (Gómez-Betancourt et al., 2014; Labaki et al., 2013; Rafaeli, 2013).

Family businesses are one of those professional management arenas highly affected by the behavior and personality of their human capital, in managerial or non-managerial positions (Gómez-Betancourt et al., 2014; Brundin & Sharma, 2012; Newstrom & Davis, 2002; Ensley et al., 2007; Kellermans & Eddleston, 2007), The overlapping needs of the "family" and the "business" in the process of running a family business may lead to misunderstandings and conflicts, which could be avoided by mapping and understanding the factors determining shareholders' behavior and motivations (Woods et al., 2019; Newstrom & Davis, 2002; Ensley et al., 2007; Kellermans & Eddleston, 2007; Ramos et al., 2014; Pieper, 2010; French & Allen, 2020; Cooklin et al., 2016; Binz et al., 2017; Jaskiewicz & Dyer, 2017; Umans et al., 2020; Chrisman et al. 2005; Habbershon & Williams 1999).

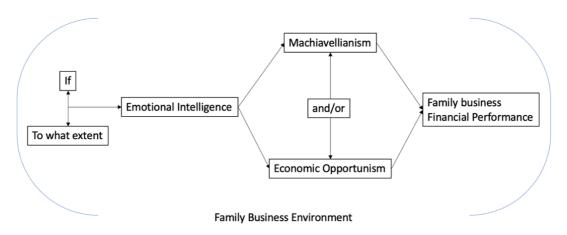
The uniqueness of the family business lies mostly in the family and personality factors that affect the dynamic system of family, ownership and management of the business and influence decision-making and effective use of limited resources (Astrachan et al., 2002; Feltham et al., 2005; Newbert & Craig, 2017; Debarliev & Janeska-Iliev, 2015; Mashavira et al., 2019; Poza, 2010). In parallel, giving the right job positions to the right people-family members of a family firm contributes to the avoidance of potential manipulative tactics (Jaskiewicz & Klein, 2007; Zettler, Friedrich, & Hilbig, 2011), like Machiavellianism, that may lead to opportunistic behaviors (Sakalaki et al., 2007). The main source of these opportunistic intra-business phenomena, a common challenge in family businesses, is the role that the firm's manager holds over his subordinates who are usually his relatives too (Leeson, 2011; Poza et al. 2004; Burkart et al., 1997; Vassiliadis & Vassiliadis, 2014; Paulhus & Williams, 2002; Baughman et al., 2012; Amernic & Craig, 2010; Galperin et al., 2010).

The empirical investigation of EI levels and personality traits like Machiavellianism and opportunistic behavior of the manager and the family firm's workforce, seems critical in understanding the role of emotions in family business dynamics and in drawing conclusions regarding their effects on the overall business performance (Winter et al., 2004; Dahling et al., 2009; Kessler et al., 2010; Kish Gephart et al., 2010; O'Boyle, et al., 2012; Cruz et al., 2010; Hamilton et al., 2017; Lingo & Elmes, 2019; De Vries et al., 2007; Berrone et al., 2012).

The interpersonal relations within the family and their influence on the general performance of those firms, have not been extensively examined utilizing modern tools for the observation, measurement and evaluation of the qualitative characteristics of

family business managers' behavior, (Chrisman et al., 2012; Chua et al., 2018; Basco, 2017; Madison et al., 2016; Williams et al., 2018). In the present thesis, this gap is to be filled by responding to the following central research question (Figure 5):

"If and to what extent the levels of emotional intelligence, Machiavellianism and economic opportunism of a family business manager, affect the performance of family businesses"



Source: Tsirimokou C., (2019), Emotional Intelligence in Family Business Management – An Empirical Study, Doctoral Thesis, Department of Economic and Regional Development, Panteion University of Social and Political Sciences, Athens *Figure 5: Visualization of the basic research question.*

4.2. Formulation of the research hypotheses

The role of family businesses, their associated peculiarities and the management and administrative challenges that derive from their ownership and operational status, have been the subject of research and policy planning for several years (Vassiliadis & Vassiliadis, 2014; Heck & Stafford, 2001; Poutziouris et al, 2008; Wright & Kellermans, 2011). The incorporation of the negative aspect of EI dimensions (Baughman et al., 2012; Linton et al., 2013; O'Boyle et al., 2012; Paulhus & Williams, 2002) and their link to non-collaborative behavioral strategies, such as Machiavellianism or economic opportunism, are at the core of this thesis, with the goal of investigating the effect of these behavioral strategies on the financial performance of the family business.

In contrast to the family businesses' role in any economy, regardless of its development status, the factors that determine their performance and competitiveness, especially those endogenous to the firm, have not attracted the interest of the academic and research community. Equally limited so far is the engagement with the

quantification and analysis of the effect of these characteristics and relationships on the performance of the administration and management of family businesses.

For these reasons, having reviewed the existing literature on the role of EI in family businesses, it became clear through theoretical frameworks of emotions and their critical role for outcomes such as job performance, turnovers, teamwork and decision making, that each family business stakeholder's EI could potentially affect the family business's operational process (Ashkanasy, 2003; Barsade & Gibson, 2007; Betancourt et al., 2014; Joseph & Newman, 2010; O'Boyle et al., 2011). In order to understand and analyze any potential relationship among the key terms of the central research question, a linear train of thought was followed. This line of thought led to the formulation of the research hypotheses, considering the "if" and to "what extent" EI, Machiavellianism and economic opportunism could potentially affect the family business performance.

According to the literature, EI seems to have a significant effect on business financial performance (Maul, 2012; Rossen & Kranzler, 2009; Siegling et al., 2017; Chamorro-Premuzic et al., 2017; Andrei et al., 2016; Sanchez-Ruiz et al., 2016; Di Fabio et al. al., 2016; Feher et al., 2019). People with high EI levels seem to be more persistent and focused in achieving their goals, and maintain good interpersonal relationships with colleagues, subordinates, and their superiors (Goleman, 1998; Mayer et al, 2000; Moghadam, Tehrani & Amin, 2011; Magnano et al., 2016). Furthermore, managers with high levels of EI usually have the necessary communication skills to motivate themselves and others, skills that can be extremely useful in the workplace (Beckerman & Zembylas, 2018; Minhas, 2017; Essop & Hoque, 2018).

Especially in the family business field, where emotions are high owing to the family system (Carlock & Ward, 2001; Fleming, 2000; Kepner, 1983; Whiteside & Brown, 1991; Dyer, 2003; Rogoff & Heck, 2003; Astrachan & Jaskiewicz, 2008; Melin et al., 2004; Van-den-Heuval et al., 2007), high EI levels seem to play a significant role in emotional ownership, family and business emotional cohesion (Bjornberg & Nicholson, 2008; Pieper, 2007; Astrachan & Jaskiewicz, 2008; Zellweger & Astrachan, 2008). As in the organizational behaviour field, emotions in the family business field have been mainly studied from the family point of view (Carlock & Ward, 2001), while the business is also a highly emotional arena. Consequently, the hypotheses formulated concerning the different types of stakeholders in the internal environment of the family business are the following:

⇒ **H1:** EI levels in family business ownership and management are positively correlated to family business financial performance.

Additionally, the potential significance of the second independent variable under examination, Machiavellianism, is usually found in senior executive positions (Paulhus & Williams, 2002; Baughman et al., 2012; Amernic & Craig, 2010; Galperin et al., 2010), especially expressed through bullying behaviors (Linton & Power, 2013). Also, Machiavellian behavior outcomes can be attributed to organizational commitment that is eventually reflected in the business performance (Zettler, Friedrich, & Hilbig, 2011). However, the urge to focus on maintaining power and the use of manipulative behaviors does not apply only top management positions (Kessler et al., 2010). Organizational research has focused on high Mach managers as they seem more likely to engage in unethical workplace behaviors with potential effects on the entire organization (Winter et al., 2004; Dahling et al., 2009; Kessler et al., 2010; Kish Gephart et al., 2010; O' Boyle, et al., 2012). Therefore, based on the above findings in the international literature, the following hypothesis was formulated:

⇒ **H2:** Machiavellianism levels in family business ownership and management are positively related to a better family business financial performance.

Last but not least, the importance of the relationship between EI and economic opportunism is also to be examined. Effective management of family and non-family stakeholders requires the adoption of optimum human capital management practices within the family business, by utilizing the right people (family or non-family members) in the mane of the family business's financial performance (de la Cruz Déniz-Déniz et al., 2012; Chrisman et al., 2011; Leeson 2011). Opportunistic behavior within a family business environment can include withholding or distorting information or failing to deliver on promises (Sakalaki et al. 2009; Grigoryeva & Grigoryeva, 2015). Individuals with opportunistic behavioral tendencies are more willing to manipulate financial statements to increase their personal profits, harming the overall financial performance of the family firm (Lee et al. 2006; Alessie et al., 2004; Teraji, 2003; Beav & Klimov, 2009). However, when growth and performance rates are high, the probability of opportunistic behavior is low, because profit rates are psychologically perceived as prerequisites for a comfortable life and business, revealing a statistically significant dependence of opportunistic behavior upon performance and growth

(Grigoryeva & Grigoryeva, 2015). As a result, the following hypothesis will be examined:

⇒ **H3:** Economic opportunism levels in family business ownership and management is positively correlated with family business financial performance.

Consequently, the identification of the relationship between EI and two non-cooperative behavioral strategies that occur, whether intentionally or not, contributes to providing answers to the "if" part of the main research question.

The majority of the published work on the relationship between EI and machiavellian behavior suggests a negative correlation between the two constructs, that is, when individuals score high in EI, they tend to score low in Machiavellianism, implying that a machiavellian person tends to have low EI (Austin et al., 2007; O'Boyle et al., 2012). In other words, EI is negatively related to Machiavellianism, showing that high Machs with the ability to recognize emotions do not outperform low Machs, but are less emotionally intelligent and socially competent in intimate situations or in cases of social exposure in a work environment (Pilch, 2008; Szabo & Bereczekei, 2017; Zhang et al., 2014; Sjoberg, 2003). The negative correlation between EI and Machiavellianism is also attributable to genetic and non-shared environmental factors (Petrides et al., 2011; Szijjarto & Bereczekei, 2014; O'Connor & Athota, 2013; Côté et al., 2011). As a result, the following hypothesis was proposed:

⇒ **H4:** EI levels in family business ownership and management are expected to be negatively correlated with Machiavellianism levels.

An important observation arising from the review of the literature concerning EI's relationship with the Dark Triad and other similar behavioral strategies is that there is not a single study, to our knowledge, that either describes or evaluates the potential relationship between EI and economic opportunism. However, a positive correlation of Machiavellianism with economic opportunism (Sakalaki et al., 2007; Sakalaki et al., 2009; Elias, 2013), led to the following hypotheses:

- ⇒ **H5:** EI levels in family business ownership and management are expected to negatively relate to economic opportunistic behavior.
- ⇒ **H6:** Machiavellianism levels in family business ownership and management are expected to positively relate to economic opportunistic behavior.

To examine further the significance of the non-cooperative behavioral strategies (Machiavellianism, economic opportunism) as moderators of the relationship between EI and family business the following hypotheses are to be investigated:

- ⇒ **H7:** *Machiavellianism mediates the relationship between family business ownership and management EI and family business financial performance.*
- ⇒ **H8:** Economic Opportunism mediates the relationship between family business ownership and management EI and family business financial performance.

The above hypotheses were formed as a result of the literature review concerning the variables under examination. Indeed, as EI levels in managerial positions are observed to be related to family business financial performance, and also there are studies that verify the correlation between the elements of this behavioral triad examined in the present thesis, it is crucial to examine if the non-cooperative behavioral strategies can work as moderators that affect the way an emotional intelligent manager, owner or employee of a family business acts, to lead to a high financial performance of the business (de la Cruz Déniz-Déniz et al., 2012; Chrisman et al., 2011; Leeson 2011; Paulhus & Williams, 2002; Baughman et al., 2012; Amernic & Craig, 2010; Galperin et al., 2010).

4.3.Model Specification of the hypotheses

4.3.1. Structural Equation Modelling

Structural Equation Models (SEM) is a statistical methodology that examines and tests theoretical assumptions in a multivariate analysis of a model. This statistical process not only calculates the estimates of the various variables (loads, variations, covariates of factors or other parameters), but also examines the goodness of fit to the data (Haenlein & Kaplan, 2004). SEM is proven to be one of the most valuable ways to perform causal analysis in social and behavioral sciences. Actually, the term SEM covers not only one single statistical technique, but a complete set of processes and statistical analyses like regression analysis, factor analysis, path diagrams, is addressed separately and in combination. Linear relationships between observed and latent variables are examined through theoretical models presented, estimated and analyzed with SEM methodology (Hair et al., 2014; Byrne, 2013).

In SEM, the relationships between a set of observable variables can be expressed by a linear equation. Also, SEMs can be thought of as an extension of regression and factor analysis, which simultaneously examines the relationships of one or more dependents and between two or more independent variables.

More specifically, each equation describes the dependence of one variable on the terms of another, and each equation contains a stochastic error term representing the effect of unobservable terms. The model also examines the assumptions of independence between pairs of error terms (Swami, 2012; Mishra & Min, 2010). A feature of the SEM that makes them even more successful and popular in the behavioral sciences is their simple causal representation. Specifically, the linear equation:

$$Y = \beta X + e$$

encodes two separate hypotheses: the possible existence of a (direct) causal influence of the variable X on Y and also the absence of a (direct) causal influence on Y from any other variable that does not appear on the right-hand side of the equation. The parameter β quantifies the (direct) causal effect of X on Y. That is, the equation implies that an increase of one unit in the value of X results in β units of increase of Y, assuming that everything else remains constant. Thus, the basic model in the convergence hypothesis is:

$$Data = Model + Error$$

The data represent the measurements of the measurable variables as derived from the individuals included in the survey sample.

The models developed previously in this chapter represent the hypothesis structure that connects latent to measurable variables. The remainder or error represents the difference between the hypothetical model and the data (Zampetakis, 2007). In the present thesis, this method was chosen because the selected variables are not non-measurable or latent constructs but composed of measurable indicators. In addition, this method makes it possible to simultaneously determine the effects of the examined factors on the dependent variable (Karametou, 2018). Also, in addition to the direct relationships of the independent variables to the dependent variable, the intermediate relationships between the factors are examined, which demonstrates the importance of using SEM in this case.

4.3.2. Model Specification

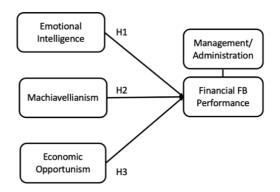
In the present empirical research, the confirmatory approach was used in the examination of the hypotheses, because of the extended theoretical framework upon which the research hypotheses are based. The main purpose is to examine <u>if</u> and <u>to</u> <u>what extent</u> the models have a good fit to the data, in correspondence with the main research question "if and to what extent the level of EI, Machiavellianism and opportunism of a family business owner or manager, affects the performance of family businesses". If the fit is satisfactory, then there is plausibility in the relationships between the variables. Otherwise, if no good fit is achieved, justification of this finding will be attempted. This method presupposes both latent and measurable variables (Karametou, 2018; Zampetakis, 2007).

More specifically, each equation describes the dependence of one variable on the terms of another, and each equation contains a stochastic error term representing the effect of unobservable terms. The model also explains the assumptions of independence between pairs of error terms (Swami, 2012; Mishra & Min, 2010). A feature of the SEM that makes them even more successful and popular in the behavioral sciences is their simple causal representation. Specifically, in the linear equation:

$$Y = f(X) + e_i \tag{1}$$

That is, reflecting the theoretical *a priori* relationships between the variables under examination in the present empirical research, the possible existence of a causal influence of emotional intelligence (variable X) and non-cooperative behavioral strategies like Machiavellianism (X₁) and economic opportunism (X₂) on financial performance of family businesses (variable Y) is examined, as previously stated in the literature (Mayer & Salovey, 1997; Bracket & Mayer, 2003; Fiori & Antonakis, 2011; Maul, 2012; Rossen & Kranzler, 2009; Goleman, 1995; Bar-On, 1997; Petrides & Furnham, 2001; Mikolajczak et al., 2006; Siegling et al., 2017; Davies et al., 1998; Chamorro-Premuzic et al., 2017; Andrei et al., 2016; Sanchez-Ruiz et al., 2016; Di Fabio et al. al., 2016; Feher et al., 2019).

In the first step towards a final model, the importance of EI and non-cooperative behavioral strategies (Machiavellianism, economic opportunism) in family business performance is examined. EI, Machiavellianism and Economic Opportunism stand as independent variables, while the Family Business Performance stands as a dependent variable.



Source: Tsirimokou C., (2019), Emotional Intelligence in Family Business Management – An Empirical Study, Doctoral Thesis, Department of Economic and Regional Development, Panteion University of Social and Political Sciences, Athens

Figure 6: Visualized hypotheses 1, 2 and 3

As presented in Figure 6 and according to the stated hypotheses, family business financial performance depends on the EI, Machiavellianism and economic opportunism of the family business managers. Algebraically, this could be expressed for each hypothesis as:

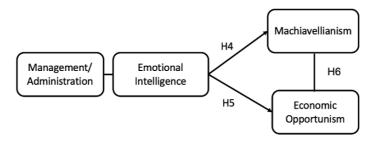
$$Y = f(X) \qquad (2)$$

H1: *EI levels in family business ownership and management are positively correlated to family business financial performance.*

H2: Machiavellianism levels in family business ownership and management are positively related to a better family business financial performance.

H3: Economic opportunism levels in family business ownership and management is positively correlated with family business financial performance.

The investigation of the relationship of the EI levels of family business ownership and management, with the non-cooperative behavioral strategies, Machiavellianism and Economic Opportunism is the second step for the final model specification. In this second step, the inter-relationship between the variables under examination is to be highlighted, apart from their potential effect to the family business performance.



Source: Tsirimokou C., (2019), Emotional Intelligence in Family Business Management – An Empirical Study, Doctoral Thesis, Department of Economic and Regional Development, Panteion University of Social and Political Sciences, Athens

Figure 7: Visualized hypotheses 4 and 5.

In conformity with the formulation of hypotheses 4, 5 and 6, where the relationship between EI and Machiavellianism and economic opportunism in pairs is expressed and argued according to the literature (Figure 7), the following functions are to be considered:

$$X = f(X_1) \tag{5}$$

H4: EI levels in family business ownership and management are expected to be negatively correlated with Machiavellianism levels.

$$X = f(X_2) \tag{6}$$

H5: *EI levels in family business ownership and management are expected to negatively relate to economic opportunistic behavior.*

$$X_1 = f(X_2) \qquad (7)$$

H6: Machiavellianism levels in family business ownership and management are expected to positively relate to economic opportunistic behavior.

On a basis set by the above hypotheses, more complex model will be formed, where causal relationships among the variables will be examined, along with the identification of potential moderating roles of these variables.

The relationship between EI, Machiavellianism and economic opportunism that has so far been approached independently and in pairs, appears to be dynamic rather than linear. More specifically, although as stated in the literature a family business's performance could be affected by emotionally intelligent management, this relationship is not unaffected by additional exogenous or endogenous factors. Family business performance, which is formed endogenously, is affected independently by the **estimated** levels of emotional intelligence (\widehat{K}) of the people that handle its operational

process, as these levels are previously moderated by personality and behavioral variables, like Machiavellianism (X_1) and economic opportunism (X_2) , that represent the latent variables of the structural model. That is, the function that describes the relationship of the exogenous variables has the following form, after taking into consideration functions (5) and (6):

$$\widehat{X} = f(X_1, X_2) \tag{8}$$

More specifically, as observed in the literature, there is a significantly negative relationship between Machiavellianism and emotional intelligence, showing that high Machs with the ability to recognize emotions do not outperform low Machs, but are less emotionally intelligent and socially competent in intimate situations or in cases of social exposure in a work environment (Pilch, 2008; Szabo & Bereczekei, 2017; Zhang et al., 2014; Sjoberg, 2003), As a result, to explain algebraically, it could be argued that family business performance depends on an estimated value of emotional intelligence and Machiavellianism, with a random error, leading to equation (8):

$$Y = f(\widehat{X}, M) + e_1$$
or
$$Y = a + a_1 X_1 + a_2 X_2 + e_1 \tag{9}$$

It is worth noting the fact that the personality variable (Machiavellianism-M) and the behavioral variable (economic opportunism-EO) seem not to be independent of each other. As stated in the literature, there is a positive relationship of high statistical significance between Machiavellianism and economic opportunism (Sakalaki et al., 2007; Sakalaki et al., 2009; Elias, 2013), meaning that people with Machiavellian attributes tend to choose to behave opportunistically in order to satisfy personal goals. The above relationship could be expressed as below:

$$M = f(EO)$$
or
$$X_2 = \beta + \beta_1 X_3 + e_1 \qquad (10)$$

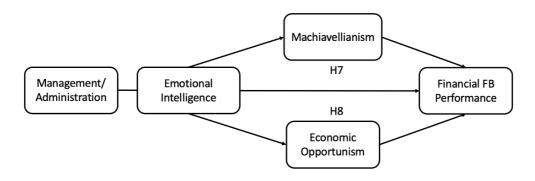
In order to include the dependence of Machiavellianism on opportunism in the equation that determines the relationship of the estimated EI and Machiavellianism with the family business financial performance, equation (10) is adapted as follows:

$$Y = a + a_1 X_1 + a_2 (\beta + \beta_1 X_3 + e_1) + e_1$$
 or
$$Y = a + a_1 X_1 + a_2 \hat{X}_2 + e_1$$
 (12)

In the final equation (11) that represents the relationships between the observed and the latent variables, is supported that financial business performance attributes to emotionally intelligent management, mediated from estimated personality and behavioral variables (Machiavellianism and economic opportunism). This relationship is expressed in the following hypotheses, also visualized in Figure 8:

H7: *Machiavellianism mediates the relationship between family business ownership and management EI and family business financial performance.*

H8: Economic Opportunism mediates the relationship between family business ownership and management EI and family business financial performance.



Source: Tsirimokou C., (2019), Emotional Intelligence in Family Business Management – An Empirical Study, Doctoral Thesis, Department of Economic and Regional Development, Panteion University of Social and Political Sciences, Athens

Figure 8: Visualization of hypotheses 7 and 8.

4.3.3. Validity of the Structural Equation Modelling

To ensure the appropriateness of the psychometric tools used in the primary research, Confirmatory Factor Analysis (CFA) was performed. Furthermore, the following values of the goodness of fit indices were evaluated for the same purpose: chi-square, degrees of freedom (df), ratio of the x^2 statistic to the degrees of freedom

(x²/df), Root Mean Squared Error of Estimation (RMSEA), Goodness of Fit Index (GFI), Normed Fit Index (NFI), Comparative Fit Index (CFI), Root Mean Square Residual (RMR) and Standardized Root Mean Square Residual (SRMR) (Zampetakis, 2007).

More specifically, as far as the ratio of x^2 to the degrees of freedom (x^2/df) goes, a large value means that there is a large discrepancy between data and fitted model. A small value indicates a high degree of fit of the model. For values less than 3 the model is acceptable (Kline, 2005).

Another indicator that leads to the acceptance or not of the hypothesized models is the RMSEA (Root Mean Square Error of Approximation). Its value expresses the deviation per degree of freedom, that would represent the total population, and not only with the sample used for the approach (Zampetakis, 2007). For the evaluation to be characterized as good, the index must be low. Therefore, a value with a maximum of 0.10 means that the model is considered acceptable (for RMSEA = 0: perfect fit, RMSEA <0.05: very good fit, 0.05 <RMSEA <0.08: good fit, between 0.08 <RMSEA <0.1: moderate fit, RMSEA values> 0.10: indicated poor fit) (Hu & Bentler, 1999).

Moreover, the Root Mean Square Residual (RMR) is an alternative indicator of the models' fit. The lower the value of RMR (<0.05), the higher the agreement between the data and the hypothesized model. Last but not least, the Goodness of Fit Index (GFI) represents an overall measure of fit without adjusting for the degrees of freedom., GFI needs to be above 0.09 (Byrne, 2010).

Apart from the above indicators, another set of indicators that compare the proposed model with a given model, which is also referred to as the null model (it is a model that all other models exceed (Zampetakis,2007). The Normed Fit Index (NFI) calculates the degree of improvement of fit of the model under examination in relation to the null model. And this indicator informs about the complexity or not of the model. Values greater than 0.90 are considered acceptable (Bentler & Bonnet, 1980). In addition, the CFI index calculates the latent variables as unrelated (null model) and compares the sample variance matrix with the corresponding matrix of the null model. The closer the CFI value is to one, the better the model fits, while perfect fit occurs when it reaches the value 1.0. Also, it does not present the risk of underestimating fit due to small sample size (Zampetakis, 2007; Hu & Bentler, 1999). In Table 1, the thresholds of the above-described indexes proposed in the literature are summarized.

Table 1:Validity indicators' thresholds, as proposed in the literature

Validity Indicators Category	Indicators	Thresholds	References
	X ² /df	2-5	Kline, 2005
Absolute Adiustment Indicators	RMSEA	0.05-0.10	Hu & Bentler, 1999
Absolute Adjustment Indicators	SRMR	< 0.08	Kline, 2005
	GFI	>0.90	Byrne, 2010
Incremental Adjustment Indicators	NFI	>0.90	Bentler & Bonnte, 1980
	CFI	>0.95	Hu & Bentler, 1999

4.4. Questionnaire design

To examine the above central hypothesis and sub-hypotheses formulated according to the literature, empirical quantitative research with questionnaires was adopted. The methodological approach of the present thesis was designed taking into account previous research in the field of organizational behavior where research results are extracted using questionnaires (Goleman, 1998; Koopmans et al., 2014). An anonymous 80-item questionnaire to conduct primary research was developed (Appendix 1). This specific questionnaire used in the present doctoral research consists of closed-ended items, and also items answered by the respondent's degree of agreement with different situations.

More specifically, the final questionnaire is divided in two sections. The first section contains sociodemographic items of the respondents, as well as items about the family business they are involved in, and also items concerning the management and decision-making processes performed in the family business, that reflect the financial performance of the family business. These items concern the following characteristics: gender, age, level of education, position in the company, years of employment in the company, experience in other jobs, percentage of family ownership and distribution to parents, children and other relatives, year of establishment, location of business, generation, legal form, sectors of activity, number of employees and how many are members of the family, number of managers, characteristics of business strategy planning, turnover and profit and loss rates of the last three years and percentage of sales in exports.

The socio-demographics and the items that compose the profile of family business executives are followed by the second section of the final questionnaire. It consists of EI, Machiavellianism and economic opportunism measurement tools as presented below, in order to collect the information needed to assess descriptive and inferential statistics in the context of hypotheses testing. Moreover, an evaluation of the

psychometric properties of these tests was carried out, to ensure the validity and reliability of their Greek version, as emerged after the back-translation process adopted, for use in Greek family businesses.

4.4.1. Measurement tools

In correspondence to the literature review regarding the evolution of EI and Machiavellianism conceptualization and measurement, a set of criteria such as, suitability for use in the organizational environment and use of results in human resource management practices, sound theoretical basis, brevity and ease of completion was made. According to these criteria, and also the validity and reliability reported in the literature so far, the Wong & Law Emotional Intelligence Scale (WLEIS: Wong & Law, 2002), Machiavellian Personality Scale (MPS: Dahling et al., 2009) and the Economic Opportunism Scale tool (EOS: Sakalaki & Fousiani, 2012) were selected for conducting the primary research.

In particular, the Wong and Law Emotional Intelligence Scale (WLEIS: Wong & Law, 2002) consists of 16 items that are each rated on a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree), with higher scores indicating higher levels of EI. No items need to be reversed, and to classify the scores of EI extracted from the data as high or low, the properties of Likert scales are used.

Table 2:WLEIS Likert scale EI score evaluation criteria for 7-scale.

Score Interval (mean)	Evaluation
1-1,85	Very low level
1,86 - 2,70	Low level
2,71 - 3,56	Low to medium level
3,57 - 4,42	Medium level
4,43 - 5,28	Medium to high level
5,29 - 6,13	High level
6,14 - 7	Very high level

For the classification to be made, the maximum response (7) is decreased by the minimum response (1) of the scale, and then divided by the maximum value: $7-1=6 \Rightarrow 6/7=0.86$. In Table 2, the evaluation criteria of EI scores are presented. Also, WLEIS is structured in four dimensions: self-emotions' appraisal, others' emotions appraisal, use of emotions and regulation of emotions.

The second psychometric test used in the primary research, Machiavellianism Personality Scale (MPS: Dahling et al., 2009) is comprised of four sub-dimensions: distrust of others, desire for status, desire for control and amorality, consists of 16 items. Each item is rated on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Accordingly, the scores are evaluated as above $(5-1=4 \rightarrow 4/5=0,80)$ and presented in Table 3. No items are reverse scored in this measurement tool either.

Table 3: MPS Likert scale Machiavellianism score evaluation criteria for 5-scale

Score Interval (mean)	Evaluation
1 - 1,79	Very low level
1,80 - 2,59	Low level
2,60 - 3,39	Medium level
3,40 - 4,19	High level
4,20 - 5	Very high level

Finally, the Economic Opportunism Scale (Sakalaki & Fousiani, 2010) includes 20 items, some of them reverse-scored. EOS scores of respondents are evaluated in the same way as WLEIS scores, as a 7-point Likert scale ranging from 1 (Strongly disagree) to 7 (Strongly agree) is also used. EOS is a one-dimension measurement tool, meaning that no sub-dimensions were identified to further describe the economic opportunism behavior of the respondents. EOS was provided and used in its original form (Appendix A), with reverse scored items indicated, in Greek, as it was originally developed (Sakalaki & Fousiani, 2010).

The relationship between the behavioral and personality variables and the identification of any potential causality with the economic-financial performance of the Greek family businesses is the main purpose of the present empirical research. Thus, it is important to be able to express the family business performance in a manner that can be used in a model, along with the scores of EI, Machiavellianism and economic opportunism. For that purpose and in order to utilize the data that will be collected from the final questionnaire in the best possible way, it is crucial to proactively design the process of coding and creating secondary variables

The items of the final questionnaire that refer to the financial performance of the family business concern:

• the annual turnovers of the family businesses for the years 2016-2017-2018,

- the annual outcomes in terms of profitability or loss for the years 2016-2017-2018.
- the percentages of the profits or losses on sales for the years 2016-2017-2018,
- the export activity percentages on sales for the years 2016-2017-2018.

This type of information is requested as approximate values, expressed in ranges (e.g annual turnover $\leq 2,000,000 \in$, % of sales or profits 0-10% or 10.01-20%), bearing in mind the willingness of the respondents to provide accurate financial data of their businesses.

Nevertheless, in order to evaluate the family businesses that participate in the empirical research according to their performance, it is important to create a variable that will represent their performance as a score on a scale, to be consistent with the behavioral and personality variables that are also calculated. To begin with, the annual turnovers of the family businesses for the years 2016, 2017 and 2017 along with the number of employees reported by each participant will give us information about the size of the family business, as business sizes are proposed by the regulations of EU. However, this variable might not be used further in the scaling process, as it is reported categorically, with no quantitative values.

On the other hand, items about profitability, losses and export activity as indicators of family business performance (Davidsson et al., 2009; Anderson et al., 218) are asked in intervals (0-10%, etc.). Interval data always take numerical values where the distance between two points on the scale is standardized and equal, and zero has an important role for the variable (Kaur, 2013; Kaliyadan & Kulkarni, 2019). More specifically, the difference between the two variables is meaningful and equal, and the presence of zero is subjective, while the measures used to calculate the distance between the variables are highly reliable (Kaliyadan & Kulkarni, 2019).

In order to construct a model that will examine the relationships between EI, Machiavellianism, economic opportunism and family business financial performance, it is crucial to have the appropriate data available. For that matter, according to the attributes of interval variables, a mini scale for the financial performance of the family businesses was constructed. More specifically, the answers about the ranges of profits, losses and exports of the family businesses, expressed as percentages of sales will be transformed to a 5-point performance scale, as follows in Table 4 and Table 5.

Table 4: Scaling of profit and loss ranges expressed as % on sales.

No profit	0-10%	10,01-20%	20,01-30%	30,01-40%	40,01-50%	>50%
	1	2	3	4	5	
Mod	erate	Almost satisfactory	Satisfactory	Very satisfactory	Exception	onal
No loss	0-10%	10,01-20%	20,01-30%	30,01-40%	40,01-50%	>50%
1	1	2	3	4	5	
Exce	otional	Very satisfactory	Satisfactory	Almost satisfactory	Modera	ite

Table 5: Scaling of export ranges expressed as % on sales

No exports	0-25%	25,01-50%	50,01-75%	>75%
1	2	3	4	5
Moderate	Almost satisfactory	Satisfactory	Very satisfactory	Exceptional

Secondary variables concerning the profitability, losses and export activity of the family businesses for the years 2016, 2017 and 2018 will be computed, creating secondary variables that will contribute to the evaluation of the family businesses' performance expressed in scores.

4.4.2. Back-translation process

The selection of the appropriate measurement tools, accompanied by the need to ensure a full understanding of the items by the respondents, led to the adoption and implementation of back-translation process, for a sound transfer of the content into the Greek language, since they will be addressed to Greek family business executives. According to this process, the items of the selected measurement scales for EI (WLEIS) and Machiavellianism (MPS) were subjected to a first translation into Greek (Appendices B and C). This translation was then evaluated by a psychiatrist-psychoanalytic therapist, as these are tools used in psychometric tests. The next step was for someone with a native English background who did not know the subject and had never seen the specific questions to translate them back into English to see if there was a convergence between this new translation and the original questions.

The final questionnaire (Appendix D) was checked on a convenience sample of family business executives. The purpose of this phase was to check the completeness of the questionnaire, and responsiveness to research hypotheses. During this process significant feedback on the items' comprehension was received, as well as further additions, especially to the first part of the questionnaire concerning the profile of the respondents and the family businesses in which they are occupied. More specifically,

the respondents reported their concerns about the confidentiality and use of their data. They actually refused to provide exact information concerning their profitability, losses, and annual turnovers, which led to the use of ranges as answers to these items.

4.5.Sample Description

4.5.1. Sampling method

The sampling method adopted for the present empirical research is simple random sampling. This sampling technique records data on a subset of individuals selected from a larger group or population to arrive at a response that represents the whole group. Simple random sampling is considered to be an unbiased approach to collecting responses from a large group. This is because the individuals to participate in the research process are randomly selected (Papageorgiou, 2015).

The sampling unit of the survey is the senior management human resources of the companies, i.e., each employee of the company who is a member of the Board of Directors¹⁶((executive or not), a member of the Management (managing directors, general managers) or a manager of an individual department of the company. It is important to mention that in many cases of Greek family businesses, the roles are not as clear as in larger companies. As a result, employees of any rank were included in the research, assessed according to their participation in the operational and decision-making processes.

For the collection of the necessary primary data in order to examine if and to what extent the variables, emotional intelligence, opportunism and Machiavellianism, explain the performance of administration and management and consequently the performance of family businesses, specified structured questionnaires were designed and distributed to the sample. Structured questionnaires have a strictly defined order of written questions, usually closed, and do not allow them to be answered in a different order (Zafeiropoulos, 2015).

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¹⁶ The Board of Directors (BoD) is a body of elected or appointed members who jointly oversee the activities of a company or an organization. In a voting body with members, the board of directors acts on its behalf and is subordinate to the plenary of the organization, which usually elects the members of the Board of Directors. In a joint stock company, the Board of Directors is elected by the shareholders and is the supreme authority in the management of the company. The Board of Directors appoints the CEO of the company and determines the overall strategic direction. In a non-joint stock company without a general vote of members, the Board of Directors is the supreme governing body of the institution, whose members are sometimes elected by the Board of Directors itself. (source: Robert, Henry M. (2011). Robert's Rules of Order Newly Revised. Philadelphia, PA: Da Capo Press, also available under "Board of Directors"

4.5.2. Population and sample characteristics

The population to which the questionnaire of the present thesis is addressed is the Greek family businesses of all sizes that operate within Greek borders. According to the EU, family-owned enterprises are those in which the indirect or direct majority of decision-making rights are held by the natural person(s) who established the business or the natural person(s) who have acquired or own the share capital of the business of the spouses, parents, children or direct heirs of the children. In addition, in these companies, at least one representative of the family or relative is formally involved in the management of the business, while listed companies meet the definition of a family business if the person who established or acquired the business (share capital) or their families or descendants hold 25% of the decision-making rights required by their share capital (European Commission, 2019¹⁷).

It is worth noting that within the EU, and therefore in the domestic environment, family businesses that meet the EU requirements to qualify as a small and medium-sized enterprise fall within the legal framework for small and medium-sized enterprises, as there is no separate family law. In large businesses, the noticeable difference between family and non-family businesses is the percentage of family rights in decision making, as described above. The geographical coverage of the quantitative research is the entire area within Greek borders, including the rural and island areas according to the division of the country into administrative divisions.

The final sample of the present doctoral thesis consists of 345 internal stakeholders of Greek family businesses. A total of 1555 questionnaires were distributed and 345 were returned, indicating a relatively low participation rate, about 22.1%. However, the sample size for the empirical study meets the statistical criteria, which suggest the necessity of a sample of at least 200 respondents in order to correctly perform the analysis of a Structural Equation Modeling (SEM) (Kline, 2005).

4.5.3. Psychometric properties of measurement tools

4.5.3.1. Validity and internal reliability

Psychometric measurement tools play an important role in behavioral research and mental health assessment. Studies on the quality of these instruments provide

¹⁷ For more information, please check: https://ec.europa.eu/growth/smes/promoting-entrepreneurship/wework-for/family-business en

evidence of how the measurement properties were assessed, helping in the identification of the appropriate tool to use. Reliability and validity are considered the main psychometric properties of such instruments that can be tested. Reliability is the ability to reproduce a result consistently in time and space, while validity refers to the property of an instrument to measure exactly what it is supposed to measure.

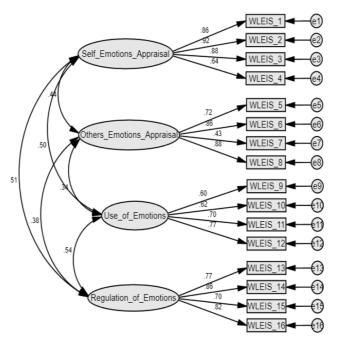
For the analysis of validity and reliability of the measurements, internal consistency using Cronbach's Alpha coefficient (a) was calculated (Table 6). A value over 0.7 means that the measurement is consistent, the measurement tools chosen are presumably fully usable and the results will be substantial (Cronbach, 1951). Furthermore, in the research models confirmatory factor analysis, construct reliability (CR) rates were examined to determine whether each set of measurements represented the specific latent variable. Finally, the factor loads of each measurement (items) for all the variables included in the research are presented.

Table 6: Cronbach's alpha reliability indicators for the measured variables

Variable	Cronbach's Alpha	Cronbach's Alpha based on Standardized items	N of items
Emotional Intelligence	0.877	0.881	16
Machiavellianism	0.881	0.882	16
Economic Opportunism	0.807	0.812	20
FB economic performance	0.714	0.705	9

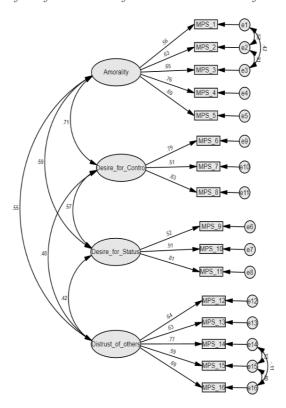
4.5.3.2. Confirmatory Factor Analysis (CFA) of the measurement tools

The confirmatory factor analysis of the Wong & Law Emotional Intelligence Scale (WLEIS), the Machiavellian Personality Scale (MPS) and the Economic Opportunism Scale (EOS) previously presented (see 4.4.1) was carried out to examine the particular factor structures that have been suggested by previous studies on the psychometric properties of these measurement tools. The models were fitted by maximum likelihood using IBM SPSS AMOS Version 26.0. For the validation of the versions of the WLEIS, MPS and EOS used in the present empirical research, maximum likelihood estimation was applied, in order to identify if the factor structure proposed for each one of the tools is supported.



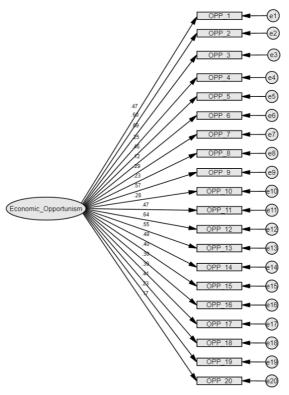
Source: Tsirimokou C., (2019), Emotional Intelligence in Family Business Management – An Empirical Study, Doctoral Thesis, Department of Economic and Regional Development, Panteion University of Social and Political Sciences, Athens

Figure 9: Estimates of the four-factor model fitted to the 16 items of the WLEIS questionnaire.



Source: Tsirimokou C., (2019), Emotional Intelligence in Family Business Management – An Empirical Study, Doctoral Thesis, Department of Economic and Regional Development, Panteion University of Social and Political Sciences, Athens

Figure 10: Estimates of the four-factor model fitted to the 16 items of the MPS questionnaire



Source: Tsirimokou C., (2019), Emotional Intelligence in Family Business Management – An Empirical Study, Doctoral Thesis, Department of Economic and Regional Development, Panteion University of Social and Political Sciences, Athens

Figure 11: Estimates of the four-factor model fitted to the 16 items of the EOS questionnaire

Table 7: Goodness of fit indices for the models fitted by maximum likelihood to the items of the WLEIS, MPS and EOS questionnaires.

M.Tool	Factor Structure	X ² /df	SRMR	NFI	RMR	GFI	CFI	RMSEA
								(95%CI)
WLEIS	four-factor	2.176	.046	.921	.061	.924	.953	.063
								(.052073)
								(95%CI)
MPS	four-factor	2.082	.563	.921	.074	.934	.957	.063
								(.052073)
								(95%CI)
EOS	single factor	5.712	.128	.473	.293	.687	.515	.117
								(.110124)

The estimates from fitting the specified four-factor model of WLEIS and MPS to the data are shown in Figure 9 and Figure 10, and for the single-factor model of EOS in Figure 11. The standardized loadings between the items and factors presented are above .4, indicating acceptable reliability for the measurement tool. Also, goodness of fit statistics for the three models are presented in Table 7.

According to thresholds proposed in the literature for values of the indices of goodness of fit (see Table 1), the two four-factor models of WLEIS and MPS seem to

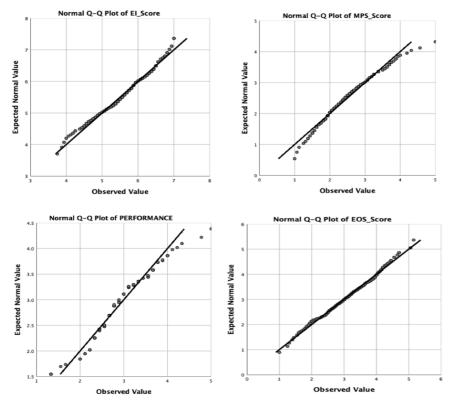
fit well in the proposed structure, while the single factor model of EOS suggest poor fit to the data. This means that there are possibly subscales that describe the measurement of economic opportunism, a point which could be investigated further.

4.5.3.3. Distribution of the data

To examine the normality of distributions in the sample, normality tests were performed. The Kolmogorov-Smirnov test for samples of size more than 50 cases (n >50) was used. The results of the normality tests presented in Table 8 indicate that for EI, MPS and FB Performance scores the null hypothesis of the sample being normally distributed is rejected (p<.005). The Q-Q plots of Figure 12 verify the normality test. On the other hand, economic opportunism scores are normally distributed for the sample that participated in the empirical research.

Table 8: Kolmogorov-Smirnov Normality test for the examined variables.

	Statistic	df	Sig.
EI_Score	.064	345	.002
MPS_Score	.071	345	.000
EOS_Score	.035	345	.200
FB performance	.155	345	.000



Source: Tsirimokou C., (2019), Emotional Intelligence in Family Business Management – An Empirical Study, Doctoral Thesis, Department of Economic and Regional Development, Panteion University of Social and Political Sciences, Athens

Figure 12: Q-Q plots for EI, MPS, EOS and Performance normality test

4.6.Data Collection Process

The Google Forms platform was chosen as the most appropriate means for the distribution of questionnaires in electronic form. The primary research was carried out by forwarding the questionnaire to a random sample of Greek companies in each production sector and each geographical region, utilizing the contact details from the annual financial business guide of ICAP, as mentioned previously, by e-mails and telephone communication (follow-up), to ensure a representative sample of at least 300 respondents.

The research was also announced on social media platforms such as Facebook and LinkedIn. Participation was voluntary and anonymous, while it was explained that there are no wrong or right answers except honest personal opinions with a statement of confidentiality. The use of the LinkedIn platform for the distribution of the questionnaire to the employees of family businesses seemed particularly useful, since by searching for keywords such as "family business", "family business manager", "family business owner", "family business Greece", etc., the platform yielded the results of potential respondents responding to the sample for the specific survey. Moreover, the information about the project to these people through personal messages on such a professional platform worked only positively, as this research became known to a large number of family businesses throughout Greece.

The use of Google Forms as the basic means of dissemination of the final questionnaire was evaluated as the most efficient way to collect the data needed for the present empirical research. Due to the structure and functions of Google forms, mass distribution to the population was enabled, without the need of sanity checking. Furthermore, automated registry of the data in spreadsheets provided by Google Forms minimized the marginal errors.

4.7. Data Analysis process

The quantitative data extracted from the questionnaires were processed using the software applications Microsoft Excel for Mac (Version 16.45) and SPSS (Statistical Package for Social Science) 26.0, which was used to calculate frequencies f and percentages for each different response in all the items included in the final questionnaire. Microsoft PowerBI was used for the visualization of the data. Also,

AMOS and R-Studio statistical software were used to perform Structural Equation Modeling and confirmatory factor analysis of the data collected.

The descriptive features used in the present study are the frequencies, the averages and the standard deviation. More specifically, mean values and standard deviations (SD) or median and interquartile range were used to describe the quantitative variables. Regarding the relationships between demographic factors and the examined variables (EI, Machiavellianism, economic opportunism, and the financial performance of family businesses) appropriate tests were performed.

The statistical testing of the hypotheses of the present thesis was performed using the Structural Equation Models (SEM), as described in the model specification (see 4.3). The developed model concerned the analysis of the intermediate relations between the variables under examination. The answers determine the factors that need to be taken into account in order to achieve more effective management and improve the operation of family businesses are determined through the data extracted from the questionnaire responses.

5. Empirical research on the effect of the behavioral triad on Greek family businesses – Data Analysis and Findings

The findings of the primary research regarding the behavioral triad variables that could potentially affect the financial performance of Greek family business are listed and analyzed in the present chapter. More specifically, the descriptive statistics of the sociodemographic information, the Greek family business characteristics, EI, Machiavellianism, economic opportunism and performance scores of the sample are presented. In particular, descriptive statistics, correlations and inferential statistics for the examined variables are calculated and evaluated. Important information extracted from the primary data are visualized, to create a general profile for the Greek family businesses. For Structural Equation Modeling (SEM), the results of Confirmatory Factor Analysis (CFA), validity and reliability analysis of measurements through construct reliability coefficients (CR) and goodness of fit indices are presented in detail.

5.1.Research Findings

Primary research was conducted for family businesses that operate within the Greek borders. The descriptive analysis performed on data collected in the primary research is presented below, following the final questionnaire design. The second part of the final questionnaire that consists of the EI, Machiavellianism and economic opportunism measurements is analyzed descriptively in combination with the rest of the variables, and also for the different groups of the family business stakeholders. Inferential statistics were performed to identify potential statistically significant differentiations among the data categories. Moreover, correlations of the behavioral triad scores with the characteristics that make up the family business profile is presented and evaluated.

5.1.1. Respondents' and family business' profile

Basic sociodemographic information of the sample was extracted from items 1-2-3 of the final questionnaire, regarding the gender, age and educational level of the respondents. From the total sample of 345 respondents, it is observed that the vast majority are men with a frequency of 255 and a percentage of 73.9%. Women correspond to a frequency of 90 and a rate of 26.1%. This disproportion may affect the levels of EI, Machiavellianism and economic opportunism to some extent, as women

are considered to have better management of their emotions, better interpersonal skills, and higher levels of empathy (Belias, 2013; Platsidou, 2008; Schauf et al., 2006).

To provide a representative picture of the educational level of the family business management stakeholders, the education levels were grouped into three groups, high school graduates, post-secondary and higher education graduates. The highest percentage are graduates of post-secondary education, with a frequency of 169 and a percentage of 46.1%. Graduates of higher education make up 43.2%, with a frequency of 149, while 2.9% that did not give their exact educational level.

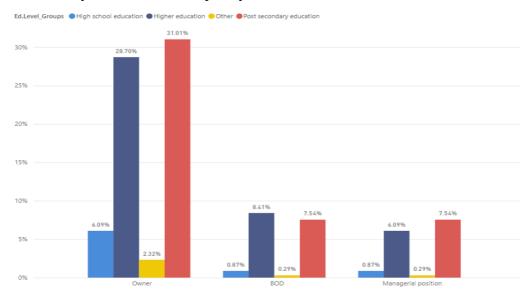
Moreover, most of the individuals in family business management positions hold a degree in post-secondary education. In essence, there is highly trained human resource occupied in the sample's businesses. High levels of education are expected to positively affect the behavioral traits examined in the present research (Parker et al., 2004). The largest percentage of participants is in the age group 35-44 (33.3%). Respondents in this age group, according to previous research, are expected to possess higher EI (Bar-On, 2000; Goleman, 2000) as well as a higher level of Machiavellianism (Götz et al., 2020).

Information about the respondent's role and position in the family business is provided by the data collected from items 4-5-6 of the questionnaire (Table 9). More specifically, these items concern data about the respondent's job position in the family business, about the years of employment and years of experience in other companies.

Table 9: Frequencies of the sample's basic sociodemographics

	Characteristic	n	%
N		345	100
	Owners	235	68.1
Job Position (4)	BOD	59	17.1
	Other managerial positions	51	14.7
	1 to 5	117	33.8
Years in the family business (5)	6 to 10	87	25.2
	11 to 15	52	15
	16 to 20	39	11.3
	21 to 25	26	7.5
	26 to 30	19	5.6
	More than 30	5	1.5
F	Yes	289	83.8
Former Experience (6)	No	56	16.2
	1950's	11	3.2
	1960's	12	3.6
	1970's	17	5.1
Foundation Year of the BF (9)	1980's	45	13
	1990's	54	15.6
	2000's	75	21.6
	2010's	131	38

Of the 345 respondents, 68.1% is represented by Greek family business owners, with a frequency of 235. To facilitate the research analysis in terms of comparison of the variables, the categorization of the job position in ownership, BOD positions and managerial positions is essential. Consequently, it is observed that 59 BOD representatives (17%) responded to the final questionnaire (15 chairmen, 7 members and 37 shareholders). Moreover, 14.7% of the respondents hold managerial positions in the family business, in a frequency of 51.

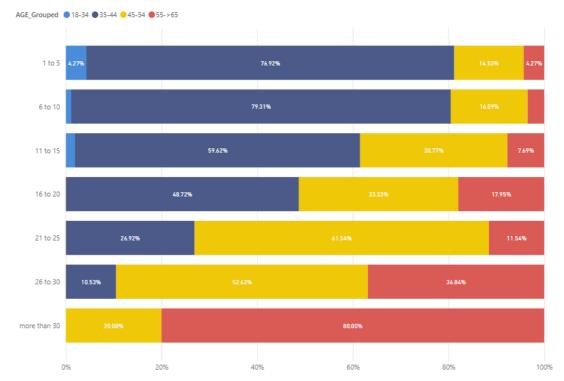


Source: Tsirimokou C., (2019), Emotional Intelligence in Family Business Management – An Empirical Study, Doctoral Thesis, Department of Economic and Regional Development, Panteion University of Social and Political Sciences, Athens

Graph 1:Educational level of respondents across the positions they hold in the family business.

Almost one third (31.0%) of the family business owners hold a post-secondary education degree. Moreover, according to Graph 1, members of the BODs of the family business hold higher education diplomas in a percentage of 8.4%, while most respondents in managerial positions have completed post-secondary education (7.5%). The percentages given in the graph concern the total sample.

All the respondents seem to be occupied in a family business. A percentage of 33.8% of the respondents has worked in the family business for up to five years, while only 14.6% have been working in the family business for more than 20 years (Table 9). It would be interesting to visualize this distribution in relationship with the age profile of the respondents, to get a clearer picture of the sample (Graph 2). Indeed, the respondents that have been occupied in the family business for more than 30 years are aged from 55 years old and above. Additionally, the majority of the respondents seem to have former working experience in job positions outside the family business, in a percentage of 83.8% (289), a fact that will be discussed further in the next section.



Source: Tsirimokou C., (2019), Emotional Intelligence in Family Business Management – An Empirical Study, Field work findings for Doctoral Thesis, Department of Economic and Regional Development, Panteion University of Social and Political Sciences, Athens

Graph 2: Years of experience in the family business across the age groups of the respondents.

The characteristics composing the Greek family business profile are provided by the responses collected from items 9-10-11-12-13-14-18-19 of the questionnaire (Table 10). In particular, these items concern information about the year of foundation of the family business (9), the family business location (10) and generation (11), legal form (12) and activity sector (13). Furthermore, the size of the family business is defined (small, medium, large), having taken into consideration the number of employees and the business' turnover. The Greek family business profile is completed by information about shareholders that are not occupied in the family business (18-19).

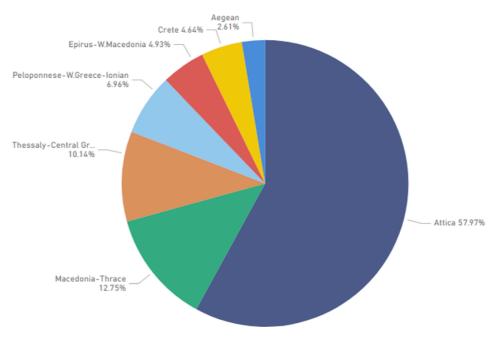
Of the 345 respondents, only 3.2% reported that their family business was founded before 1950, while most of the family businesses that participated in the sample were founded in the 2010's (38%). Low rates of foundation in the 1960's and 1970's correspond to the political situation in Greece at that time in comparison with the 2010's when entrepreneurship was promoted and supported financially.

Table 10: Frequency table of items about the respondent's role in the family business

	Characteristic	n	%
N		345	100
	1950's	11	3.2
Foundation (9)	1960's	12	3.6
	1970's	17	5.1

	1980's	45	13
	1990's	54	15.6
	2000's	75	21.6
	2010's	131	38
	Attica	200	58
	Macedonia-Thrace	44	12.8
	Epirus-Western Macedonia	17	5
	Thessaly-Central Greece	35	10
Location (10)	Peloponnese-Western Greece-		
	Ionian	24	7.1
	Crete	16	4.7
	Aegean	9	2.6
	1st	227	65.8
	2nd	91	26.4
Generation (11)	3rd	23	6.7
	Later	4	1.2
	Individual Business	107	31
	General Partnership (OE)	43	12.5
Legal Form (12)	Limited Liability Company (EU)	21	6.1
	Cooperative	1	0.3
	Societe Anonyme (SA)	62	18
	Private Capital Company (PC)	56	16.2
	Industrial Commercial SA	1	0.3
	Commercial Industrial SA	6	1.7
	Limited Liability Company (Ltd.)	46	13.3
	Other	2	0.6
	Food	39	11.3
	Drinks / Tobacco	2	0.6
	Textiles / Leather	3	0.9
	Clothing and Footwear	14	4.1
	Construction / Materials	26	7.5
	/Equipment	26	7.5
	Home / Professional Eq.	9	2.6
	Tourism	38	11
Activity sector (13)	Retail	49	14.2
	Transportation	8	2.3
	Telecommunications	24	7
	Financial services	11	3.2
	Education	17	4.9
	Means of transport	2	0.6
	Shipping	7	2
	Other industries	96	27.8
	Micro	225	65.2
FB Size Category	Small	86	24.9
FD Size Category	Medium	25	7.2
	Large	9	2.6
Shareholders occupied in the	Yes	36	10.4
family business (18)	No	309	89.6
	No answer	268	77.7
Ownership % of shareholders	0 %	42	12.2
that do not work in the family	1 to 10 %	8	2.4
business (19)	10 to 30 %	9	2.7
Dusiness (17)	30 to 50%	15	4.4
	Over 50%	3	0.9

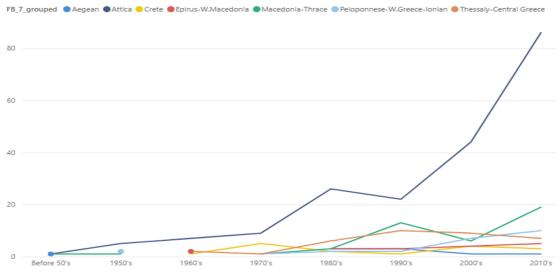
The location of the family businesses that participated in the present research are distributed across the decentralized administrations of Greece as presented in Graph 3. Most of the responses come from businesses located in Attica (58.0%), followed by Macedonia-Thrace (12.8%) and Thessaly and Central Greece (10.1%). This distribution among the regions is justified by the general population distribution of Greece, which follows the same pattern.



Source: Tsirimokou C., (2019), Emotional Intelligence in Family Business Management – An Empirical Study, Field work findings for Doctoral Thesis, Department of Economic and Regional Development, Panteion University of Social and Political Sciences, Athens

Graph 3: Sample distribution across decentralized administrations of Greece.

According to Graph 4, most family businesses of the sample were founded during the 2010s, (from 2010 to 2019), especially in the Attica region. Up to then, and mostly after the 1970's, there is an upward trend in starting-up new family businesses, in Attica and also in Macedonia and Thrace, in Thessaly and Central Greece.

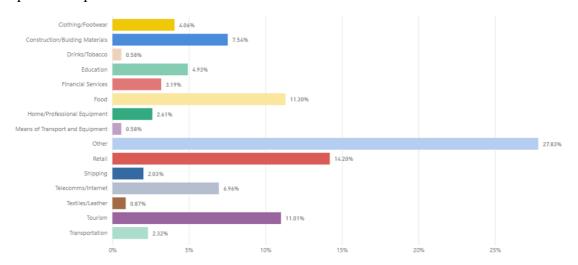


Source: Tsirimokou C., (2019), Emotional Intelligence in Family Business Management – An Empirical Study, Field work findings for Doctoral Thesis, Department of Economic and Regional Development, Panteion University of Social and Political Sciences, Athens

Graph 4: Family business foundation for each decentralized administration of Greece.

The majority of the family businesses of the sample are 1st generation family businesses (65.8%) with a frequency of 227. This is mostly attributed to the fact that,

according to the data, the family business owners are still at a productive age to offer their services to the family business and to the fact that they are not passing the baton to next generation as early as they should have done. In Graph 5 and Graph 6 the activity sectors of the family businesses of the sample and the legal forms under which they operate are presented.



Source: Tsirimokou C., (2019), Emotional Intelligence in Family Business Management – An Empirical Study, Field work findings for Doctoral Thesis, Department of Economic and Regional Development, Panteion University of Social and Political Sciences, Athens

Commercial Industrial SA (A.E.B.E.)

Cooperative

General Partnership (O.E.)

Individual business

Industrial Commercial SA (A.B.E.E.)

Limited Liability Company-Ltd. (E.F.E.)

Limited Partnership (EE)

Other

Other

Other

Other

Other

Osew

12.46%

13.33%

14.23%

16.23%

17.97%

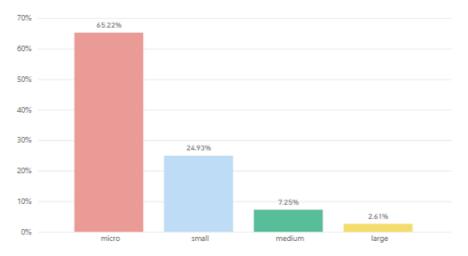
Graph 5: The sample's family businesses activity sector distribution.

Source: Tsirimokou C., (2019), Emotional Intelligence in Family Business Management – An Empirical Study, Field work findings for Doctoral Thesis, Department of Economic and Regional Development, Panteion University of Social and Political Sciences, Athens

Graph 6: Legal form of family businesses of the sample.

The majority of the respondents reported "Other" business activity sector (27.8%), which means that they do not classify their business in any of the other sectors. A good percentage of responses is derived from "Tourism" (11%), "Retail" (14.2%) and "Food" (11.3%) businesses, which, along with "Construction and Building Materials" (7.5%) are sectors that play a vital role in Greece's GDP.

As far as the size of the family businesses is concerned, according to the EU definition, businesses are classified into sizes according to their number of employees and their annual turnovers (see Chapter 4). As far as the human capital employed, large businesses have more than 250 employees in their human capital. The majority of the respondents work in micro-sized businesses with less than ten employees in total of human resources (Graph 7).



Source: Tsirimokou C., (2019), Emotional Intelligence in Family Business Management – An Empirical Study, Field work findings for Doctoral Thesis, Department of Economic and Regional Development, Panteion University of Social and Political Sciences, Athens

Graph 7: Size of family businesses of the sample

In the meantime, the distribution of owners, managers and members of BOD of the family businesses of the sample is more evenly distributed in small businesses with up to 50 employees (Graph 8).

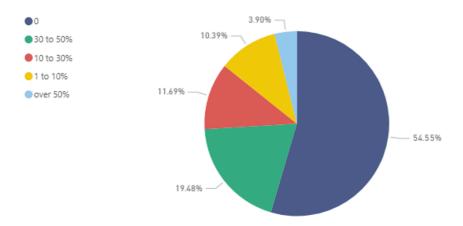


Source: Tsirimokou C., (2019), Emotional Intelligence in Family Business Management – An Empirical Study, Field work findings for Doctoral Thesis, Department of Economic and Regional Development, Panteion University of Social and Political Sciences, Athens

Graph 8: Family business owners, managers and members of BODs for each size of family business.

Most of the sample's family businesses, 89.6% (Table 10) have shareholders that are not active participants in the business, meaning that they receive part of the

profits without actually working in the family business. However, in cases where the respondents stated that there are shareholders who are absent from the family business but benefit from it that hold from 1% to 67% of the family business (Graph 9). This is quite interesting, as it might encrypt opportunistic behavior.



Source: Tsirimokou C., (2019), Emotional Intelligence in Family Business Management – An Empirical Study, Field work findings for Doctoral Thesis, Department of Economic and Regional Development, Panteion University of Social and Political Sciences, Athens

Graph 9: Percentage of ownership for shareholders that do not work in the family business

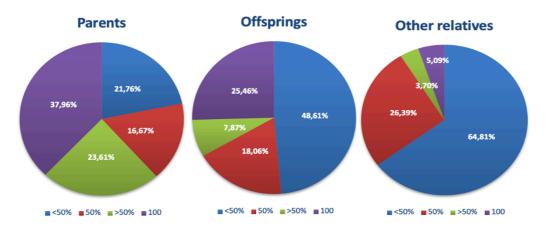
Therefore, the family members that receive benefits from the family business without participating in its operational process, somehow "exploit" it by raising their personal profits without putting effort in the business. Further investigation of this observation would be of interest, as it seems to be contradictory with the Greek family business values. Furthermore, in these cases, most of shareholders hold more than 50% of the family business, leading to questions about their role in decision making and general involvement, that will be discussed in the following sections.

A crucial issue that differentiates the family businesses from all the other businesses is the family's involvement in the firm's operational process (. Items 7-8-15-16-17 of the questionnaire (Table 11) provide information respectively on the percentage of family ownership (7) and how this is distributed among family members (8), how many of them actually work as employees (15) or in managerial positions (21) in the family business and their relationship with the family business owner (16). Furthermore, information about the payment of the family members is provided in item (17). The identification of the involvement of the family members in the business will at first give a picture of the current status in Greek family businesses, that later will be evaluated, taking into consideration the behavior and personality attributes of the sample.

As far as the ownership concerns, the 62.2 % of the sample stated that the 100% of the family business belongs to the family, while only 8.2% reported that their ownership into to the family business is less than 50% family owned. For cases of 100% complete family ownership, the distributions among parents, children and other relatives are presented in Graph 10. Furthermore, as observed in Graph 11, the majority of micro-sized family businesses of the sample are 100% family owned.

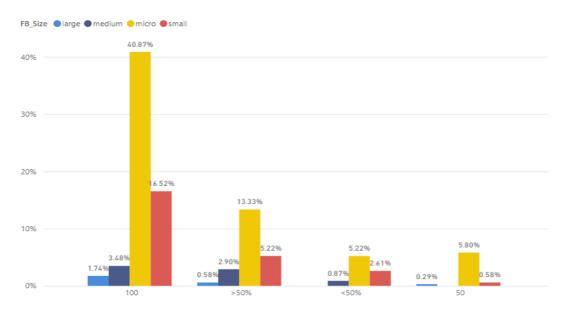
Table 11: Frequency table of variables concerning the family involvement in the business.

	Characteristic		n	%
N			345	100
	<50%		30	8.6
0/ CED 1: (7)	50%		23	6.6
% of FB ownership (7)	>50%		76	22.0
	100%		216	62.6
		<50%	97	28.1
	n .	50%	72	20.9
	Parents	>50%	87	25.2
		100%	89	25.8
		<50%	204	59.1
Family ownership distribution	Occ :	50%	58	16.8
(8)	Offspring	>50%	26	7.5
		100%	57	16.5
		<50%	239	69.3
	041 141	50%	81	23.5
	Other relatives	>50%	14	4,1
	100%		11	3,2
	0		7	2
	1		74	21.4
	2		123	35.7
HR family members (15)	3		85	24.6
	4		31	9
	5		14	4.1
	>5		11	3.2
	I am the official of	wner	234	67.8
	Offspring		75	21.7
	Grandchildren		3	0.9
Relationship with the family	Nephew-niece		4	1.2
business owner (16)	Spouse		7	2
	Sibling		9	2.6
	Sibling-in-law		6	1.6
	Other		7	2
	Yes, they are paid		168	48.7
	No, they are not paid		94	27.2
Family member's payment (17)	They are paid differently from other employees		15	4.3
ranny member's payment (17)	They are paid the same as other employees,			
	depending on their position		43	12.5
	They enjoy privileges		25	7.2



Source: Tsirimokou C., (2019), Emotional Intelligence in Family Business Management – An Empirical Study, Field work findings for Doctoral Thesis, Department of Economic and Regional Development, Panteion University of Social and Political Sciences, Athens

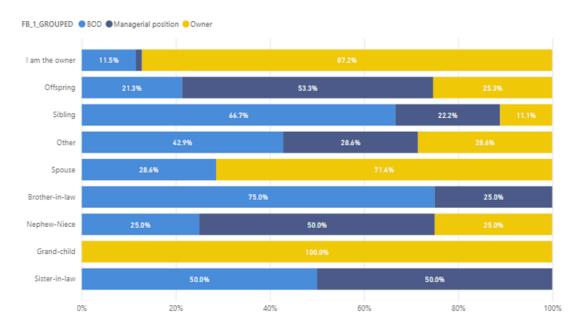
Graph 10: How ownership in 100% owned-by-the-family businesses is distributed among parents, children and other relatives.



Source: Tsirimokou C., (2019), Emotional Intelligence in Family Business Management – An Empirical Study, Field work findings for Doctoral Thesis, Department of Economic and Regional Development, Panteion University of Social and Political Sciences, Athens

Graph 11: Percentage of family ownership for each business size.

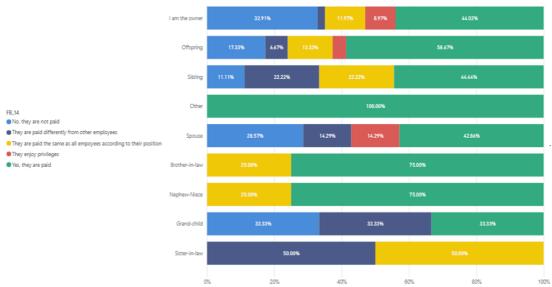
The relationship of each respondent with the family business owner is reported by the item 16 of the questionnaire. Overall, most responses (67.8%) come from the family business owners, 22.6% comes from children and grandchildren and only 2% from wives. A percentage of 7.4% comes from nephews and nieces (1.2%), siblings (2.6%) and siblings-in-law (1-6%).



Source: Tsirimokou C., (2019), Emotional Intelligence in Family Business Management – An Empirical Study, Field work findings for Doctoral Thesis, Department of Economic and Regional Development, Panteion University of Social and Political Sciences, Athens

Graph 12: Family relationships of the respondents with the official owner of the family business the work in.

The relationships of the respondents with the official owner of the family business, according to their management position in the family business, is presented in Graph 12, revealing the self-perception of the role each respondent have in the family business they occupy in. Similarly, in Graph 13, the payment strategy for the family members in the family business is presented.



Source: Tsirimokou C., (2019), Emotional Intelligence in Family Business Management – An Empirical Study, Field work findings for Doctoral Thesis, Department of Economic and Regional Development, Panteion University of Social and Political Sciences, Athens

Graph 13: Payment strategy of family members in the family business.

The answers to this item are worded so as they provide information on what seems more important for each respondent. Consequently, while for "other" relatives, the respondents limited their answers to be positive about their payment, for offsprings, siblings and relatives-in-law, they preferred to specify that they are paid depending on their position, not differently from non-family members. Also, privileges, in terms of extra bonuses and probably use of the products or services of the family business, is reported only for the owners, their spouses and their children. This information sets the boundaries of discussion concerning the importance of family involvement in the business.

Apart from the family involvement in the ownership status and the daily operations of the business, decision-making and management strategies play an important role in an effective and efficient family business operation. Items 20-21-22-23 of the questionnaire (Table 12) provide information on the "decisioner's" role in the family business in general or when conflicts arise.

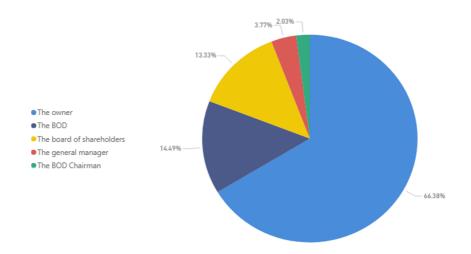
Table 12: Frequency table of the responses concerning decision-making and management in the family business

	Characteristic	n	%
N		345	100
Number of family business	0	32	9.3
managers (20)	1	191	55.4
	2	72	20.9
	3	24	7
	4	13	3.8
	5	4	1.2
	More than 5	9	2.7
Managers that are also family	0	130	37.7
members (21)	1	153	44.3
	2	49	14.2
	More than 2	13	3.8
Family business strategy planning	The owner	229	66.4
(22)	The shareholders' council	46	13.3
	The BOD	50	14.5
	The Chairman of the BOD	7	2
	The general manager	13	3.8
Prevailing view in case of conflict	The owner's	219	63.5
(23)	The shareholders' council	60	17.4
	The BOD's majority	50	14.5
	The BOD's chairman	4	1.2
	The general manager's	12	3.5

More specifically, these items concern data about the number of the family business managers (20) and how many of them are family members (21). Also, the person/people responsible for the strategy planning of the family business is reported (22), as well as in case of conflict, the prevailing opinion that is weighted as more

important (23). The above information will enhance the already built picture of the current status in Greek family businesses, that will be evaluated later, taking into consideration the behavior and personality attributes of the sample.

The majority of the responses indicate that the family businesses of the sample have only one family business manager in a percentage of 55.4% with a frequency of 191, while 9.3% reported that there is no family business manager in their firm. Only 153 stated that this one family business manager is also a family member (44.3%). The evaluation of this type of information extracted from all the items that refer to managers of the family business greatly depends on the perception of the respondents about who is or can be a manager, as these roles are not yet clear for all Greek businessmen.

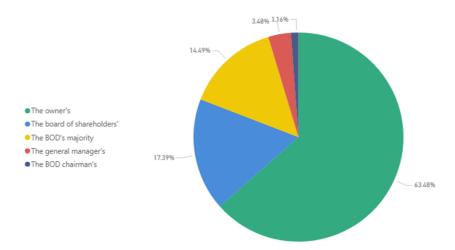


Source: Tsirimokou C., (2019), Emotional Intelligence in Family Business Management – An Empirical Study, Field work findings for Doctoral Thesis, Department of Economic and Regional Development, Panteion University of Social and Political Sciences, Athens

Graph 14: Responsibility for strategy planning in the family business.

According to Graph 14, the family business owners are mostly responsible about for planning the strategy of the family business with a percentage of 66.4%, followed by the BOD and the board of shareholders, 14.5% and 13.3% respectively. In the same context, for cases of non-consensus of decisions, the owners' opinion seems to be the most crucial (63.5%), followed by the majority of the board of the business's shareholders. The above findings indicate a tendency of centralization of responsibilities and decisions for the operation of the business to the owner. One possible reason for this concentration of decision power to the owner's role is the connection that the owner has with the business, which is something like a child for them. For this reason, lack of trust to the abilities of the other members that participate

in the decision-making process causes this imbalance among the family business managers.



Source: Tsirimokou C., (2019), Emotional Intelligence in Family Business Management – An Empirical Study, Field work findings for Doctoral Thesis, Department of Economic and Regional Development, Panteion University of Social and Political Sciences, Athens

Graph 15: Prevailing opinion in case of conflict.

To evaluate the performance of the family businesses that participated in the sample, items concerning the annual turnovers, profits, losses and exports for years 2016, 2017, 2018, were used, numbered 24-25-26-27-28 in the final questionnaire (Table 13). More specifically, the family business turnover is considered to be an important indicator of business performance (Abdirahman, 2019; Kandel et al., 2019) especially when combined with annual profit and loss rates for a specific time period, as happens in our case for 2016, 2017 and 2018. It is worth noticing that the responses to these items are given approximately as 4 "larger than ..." or "smaller than...", as Greek businesspeople tend to be quite suspicious when providing personal or business data, even for research purposes. This form of answering was adopted with success, as no missing values exist in these answers.

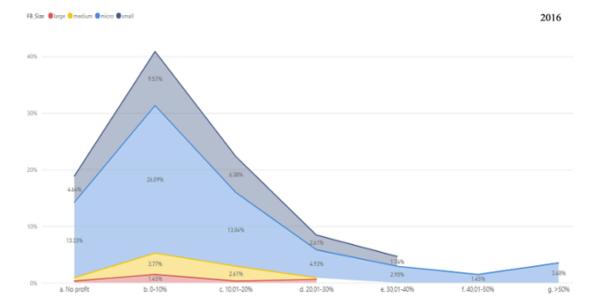
Table 13: Frequency table of responses concerning the financial performance of the family businesses

	Characteristic		n	%
N			345	100
	2016	≤ 2,000,000€	286	82.9
		≤ 10,000,000€	35	10.1
		≤ 50,000,000€	18	5.2
		≥ 50,000,000€	6	1.7
	2017	≤ 2,000,000€	280	81.2
Annual revenue (24)		≤ 10,000,000€	41	11.9
		≤ 50,000,000€	18	5.2
		≥ 50,000,000€	6	1.7
	2018	≤ 2,000,000€	274	79.4
		≤ 10,000,000€	48	13.9
		≤ 50,000,000€	17	4.9

		≥ 50,000,000€	6	1.7
	2016	Profit	249	72.2
	İ	Loss	96	27.8
0	2017	Profit	261	75.7
Outcome (25)		Loss	84	24.3
	2018	Profit	294	85.2
		Loss	51	14.8
	2016	0 -10%	141	40.9
		10.01-20%	77	22.3
		20.01-30%	29	8.4
		30.01-40%	16	4.6
		40.01-50%	5	1.4
		>50%	12	3.5
		No profit	65	18.8
	2017	0 -10%	135	39.1
		10.01-20%	85	24.6
		20.01-30%	37	10.7
% of profit on sales (26)		30.01-40%	17	4.9
		40.01-50%	6	1.7
		>50%	12	3.5
	25:5	No profit	53	15.4
	2018	0 -10%	139	40.3
		10.01-20%	96	27.8
		20.01-30%	37	10.7
		30.01-40%	21	6.1
		40.01-50%	6	1.7
		>50%	16	4.6 8.7
	2016	No profit 0 -10%	30 154	44.6
	2010	10.01-20%	19	5.5
		20.01-30%	12	3.5
		30.01-40%	8	2.3
		40.01-50%	1	0.3
		>50%	4	1.2
	i	No loss	147	42.6
	2017	0 -10%	152	44.1
		10.01-20%	14	4.1
		20.01-30%	13	3.8
% of loss on sales (27)		30.01-40%	4	1.2
		40.01-50%	3	0.9
	İ	>50%	4	1.2
		No loss	155	44.9
	2018	0 -10%	143	41.4
	İ	10.01-20%	7	2
	İ	20.01-30%	8	2.3
	İ	30.01-40%	5	1.4
		40.01-50%	1	0.3
	İ	>50%	4	1.2
		No loss	177	51.3
	2016	0 -10%	200	58
	İ	25.01-50%	17	4.9
% of exports on sales (28)	İ	50.01-75%	7	2
		75.01-100%	17	4.9
	İ	No exports	104	30.1
	2017	0 -10%	194	56.2
	İ	25.01-50%	23	6.8
	ļ	50.01-75%	10	2.9
		75.01-100%	18	5.2
	<u> </u>	No exports	100	28.9
	2018	0 -10%	196	56.8
		25.01-50%	24	7
	ļ	50.01-75%	9	2.6
	ļ	75.01-100%	22	6.4
	1	No exports	94	27.2

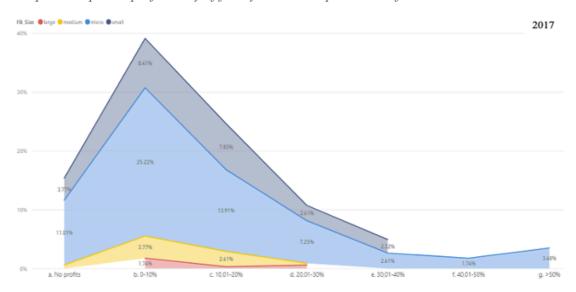
According to the responses, the majority of the family businesses reported turnovers less than 2 million euros for year 2016, while family business that reported greater turnovers are far fewer. According to EU, the annual turnover of a business and the number of its employees can determine the size of the business.

Furthermore, most of the sample's family businesses reported that they were profitable in the years 2016, 2017 and 2018, in percentages of 72.2%, 75.7% and 85.2% respectively. More specifically, profitability according to the respondent's answers for the years 2016, 2017 and 2018 are presented in Graph 18, Graph 17, Graph 18.



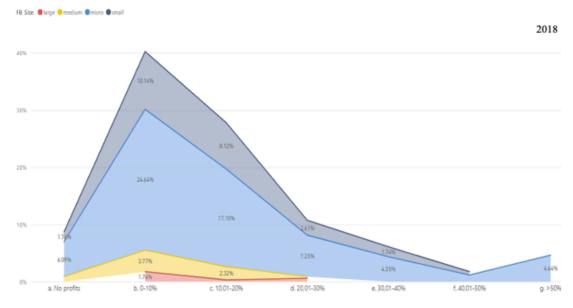
Source: Tsirimokou C., (2019), Emotional Intelligence in Family Business Management – An Empirical Study, Field work findings for Doctoral Thesis, Department of Economic and Regional Development, Panteion University of Social and Political Sciences, Athens

Graph 16: Reported profitability of family businesses per FB size for 2016.



Source: Tsirimokou C., (2019), Emotional Intelligence in Family Business Management – An Empirical Study, Field work findings for Doctoral Thesis, Department of Economic and Regional Development, Panteion University of Social and Political Sciences, Athens

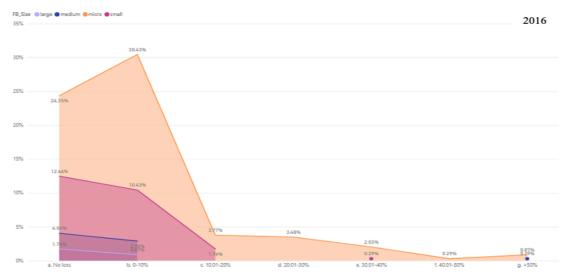
Graph 17: Reported profitability of family businesses per FB size for 2017.



Source: Tsirimokou C., (2019), Emotional Intelligence in Family Business Management – An Empirical Study, Field work findings for Doctoral Thesis, Department of Economic and Regional Development, Panteion University of Social and Political Sciences, Athens

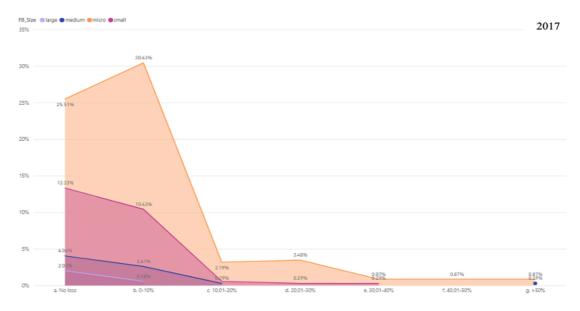
Graph 18:Reported profitability of family businesses per FB size for 2018.

Indeed, the micro, small, medium and large family businesses of the sample that reported profitability evaluated it as from 0 to 10% of annual sales. Reported losses range at the same levels from 0 to 10% on annual sales, also for all family business sizes. In a family business, the impact of profits and losses are seen and felt daily by those involved in the business, as well as those affected by the business' performance. A good turnover means extra lessons for an owner's child, or a new home for a family member. Reported losses of the respondents' family businesses are presented in , Graph 19, Graph 20 and Graph 21.



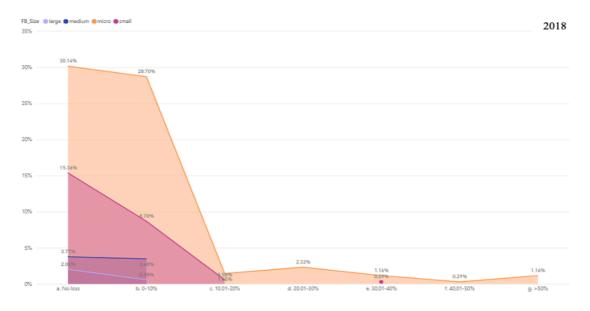
Source: Tsirimokou C., (2019), Emotional Intelligence in Family Business Management – An Empirical Study, Field work findings for Doctoral Thesis, Department of Economic and Regional Development, Panteion University of Social and Political Sciences, Athens

Graph 19:Reported losses of family businesses per FB size for 2016.



Source: Tsirimokou C., (2019), Emotional Intelligence in Family Business Management – An Empirical Study, Field work findings for Doctoral Thesis, Department of Economic and Regional Development, Panteion University of Social and Political Sciences, Athens

Graph 20: Reported losses of family businesses per FB size for 2017.



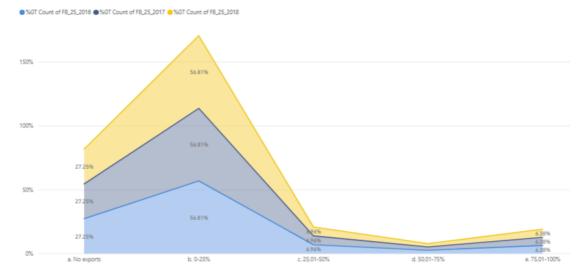
Source: Tsirimokou C., (2019), Emotional Intelligence in Family Business Management – An Empirical Study, Field work findings for Doctoral Thesis, Department of Economic and Regional Development, Panteion University of Social and Political Sciences, Athens

Graph 21:Reported losses of family businesses per FB size for 2018.

Profitability is a crucial issue for family businesses. Profit is simply the state or condition of yielding a financial gain in an enterprise after all of the expenses are paid. However, in a family business, profit is much more than that. It is the fuel for growth and the necessary ingredient for liquidity. It is also intensely personal, as profit may be the source of a year-end bonus for an executive, a new machine for the production team, or payment for a daughter's education when distributed to a shareholder. Once again,

the answers about profitability and loss have a subjective character, and this is the reason that the data are again in approximate values.

The last variable of the first part of the final questionnaire concerning the family business's approximate financial performance is the percentage of exports to the sales, as internationalization of the family business could also be a performance indicator, although this is not to imply that when a family business does not export products or services it does not perform well. It is stated in the literature that family businesses export less in proportion to other small and medium firms; however, when they do, they act as very active and committed exporters (Okoroafo & Perry, 2010; Okoroafo, 1999), as confirmed from the responses' consistency for the three years (Graph 22). According to the frequency statistics, more than half of the family businesses of the sample reported export activity for the years 2016, 2017 and 2018. The rate of exports for these cases mostly represents exports from 0 to 25% of the sales of these years respectively.



Source: Tsirimokou C., (2019), Emotional Intelligence in Family Business Management – An Empirical Study, Field work findings for Doctoral Thesis, Department of Economic and Regional Development, Panteion University of Social and Political Sciences, Athens

Graph 22: Approximate percentage of family business's exports for the years 2016, 2017, 2018

After checking for significant dependencies among the sociodemographic categorical data that were extracted from the final questionnaire by performing crosstabulation x^2 tests, it is concluded that non-significant relationships between the pairs tested exist. In cases where a statistically significant relationship is observed, it cannot be accepted because of insufficient cases, although grouping was performed for each of the categories (Table 14).

Table 14: X2 crosstab tests of categorical variables.

V1	V2	X2 value	df	P	Null Hypothesis*
Gender	Age	4.785	3	.188	accepted
	Job position	2.218	2	.330	accepted
	Ed. Level	.298	3	.960	accepted
	Former Experience	1.272	1	.259	accepted
Age	Job Position	7.764	6	.256	accepted**
	Ed. Level	20.953	9	.013	rejected**
	Former Experience	2.929	3	.403	accepted
	Years in the FB	110.271	18	.000	rejected**
Ed. Level	Job position	5.296	14	.981	accepted**
	Former experience	9.297	3	.026	rejected**
	Years in the FB	48.408	18	.000	rejected**
Job Position	Years in the FB	9.691	12	.643	accepted**

^{*}The null hypothesis is that variable 1 (V1) and variable 2 (V2) are independent.

5.1.2. Behavioral triad findings

5.1.2.1. EI in Greek family businesses

Self-reported measurement of the levels of emotionally intelligent behaviors in work environment was achieved through the use of the Wong & Law Emotional Intelligence Scale self-report questionnaire (Annex B) (Wong & Law, 2002). In Table 15, the average EI scores and standard deviations are given, for the total sample, the family business owners, the BOD members and the respondents that hold managerial positions.

Table 15:EI total and subscales mean scores of the total sample of Greek family business owners, BOD and managers

	Total Sample		FB Own	ners	FB BOD		FB Managers	
Variable	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Overall Emotional Intelligence	5.67	0.67	5.71	0.67	5.61	0.72	5.54	0.63
Sub-Scales								
Self-emotions appraisal	5.98	0.89	6.02	0.92	5.96	0.89	5.83	0.71
Others' emotions appraisal	5.42	0.90	5.43	0.95	5.33	0.86	5.37	0.78
Use of emotions	5.95	0.83	5.99	0.89	5.84	0.84	5.88	0.71
Regulation of emotions	5.34	1.06	5.41	1.05	5.32	1.07	5.07	1.13
Valid N(listwise)	345		235		59		51	

More specifically, in terms of overall EI scores, it is apparent that the average respondents' EI level is 5.67 with a standard deviation of 0.67. In family business owners, the average EI score is 5.71 with a standard deviation of 0.67, while for members of BOD it is 5.61 with a standard deviation of 0.72, and for family business managers 5.54 and 0.63 respectively. Mean scores were interpreted on a scale from 1 "totally disagree" to 7 "totally agree". The minimum value is observed at 1.0 and the maximum value at 7.0. Therefore, all four mean scores for the total sample and the sub-

^{**} Not reliable estimation.

groups under examination are considered to have a satisfactory level of emotional skills.

The dimension of self-emotions appraisal holds the highest average of the EI sub-scales on the total sample, with a value of 5.98, which means that the respondents have sufficient knowledge of their emotions as well as the causes that trigger them. Considerably high in self-emotions appraisal seem to be the family business owners, with a mean score of 6.02 in this subscale. In addition, the dimension of Other's emotions appraisal in family business owners, BOD and people on managerial positions show a high average, with scores of 5.43, 5.33 and 5.37 respectively. That is, all three occupational categories appear to have the ability to understand and acknowledge the emotional state of others. Furthermore, it seems that use of emotion in all three subgroups is at more than satisfactory levels (5.99 owners, 5.84 for the BOD and 5.37 for the respondents in the managerial positions), meaning that the respondents are capable of effectively using their emotions by directing them toward constructive activities and personal performance. Finally, it becomes clear that regulation of emotion is the EI subscale where the scores had the lowest (although still high) values. More specifically, family business owners (5.41) seem to have a greater ability to manage their own emotions than BOD members (5.32) and other managers (5.07). Furthermore, in the family business environment, owners, BOD and other managers appear to have significant emotionally intelligent skills and abilities at work, with family business owners displaying higher levels of emotional competence than the other two subgroups.

Performing descriptive statistics was valuable to extract information about the immediate group of the data represented by the sample. To make estimations about the general population of family businesspeople, inferential statistics were used, through estimation of parameters and testing for statistical hypotheses concerning statistical differences between the quantitative and qualitative variables of the final questionnaire. Therefore, according to the distribution that the data follow for each variable category, T-tests, Man-Whitney, ANOVA and Kruskal-Wallis tests were performed. More specifically, the tests executed for each variable of the first part of the final questionnaire and EI are listed in Table 16.

Table 16: Analysis of variance tests performed among the categorical and quantitative data (EI).

	Analysis of Variance test
Gender	Man-Whitney
Former Experience	Man-Whitney
Reported FB outcome	Man-Whitney
Age	Kruskal-Wallis
Ed. Level	Kruskal-Wallis
Years in the FB	Kruskal-Wallis
Job position	Kruskal-Wallis
Foundation	Kruskal-Wallis
Location	Kruskal-Wallis
Generation	ANOVA
Legal form	Kruskal-Wallis
Activity sector	Kruskal-Wallis
Family member type	Kruskal-Wallis
FB strategy planning	Kruskal-Wallis
Prevailing view in conflicts	Kruskal-Wallis
% of FB ownership	Kruskal-Wallis
FB size category	ANOVA
FB member's payment	Kruskal-Wallis

According to the tests performed as described in Table 16 and presented in Table 17, statistically significant differentiations of EI levels, were observed only among the decades that the family businesses were founded, among the legal form under which they operate and also among the type of family member each respondent is.

Table 17:Test statistics for differentiations among the variables' categories (EI).

	EI	P
Gender	MW U = 10369	.174
Former Experience	MW U = 7163.5	.174
Reported outcome	MW U = 5418	.620
Age	H(3) = .836	.841
Ed. Level	H(3) = 2.949	.400
Years in the FB	H(6) = 3.018	.807
Job position	H(2) = 4.108	.128
Foundation	H(7) = 21.414	.003
Location	H(6) = 3.023	.806
Generation	F(2, 432) = .801	.450**
Legal form	H(10) = 20.618	.024
Activity sector	H (14) = 7.171	.928
Family member type	H(8) = 22.190	.005
Strategy planning	H(4) = 1.233	.873
View in conflicts	H(4) = 2.278	.685
% of FB ownership	H(3) = 5.966	.113
FB size category	F(3, 341) = 1.115	.343
FB members pay	H(4) = 2.720	.606

*T-test, **ANOVA

Note: Red colored cells indicate that there is statistical significance.

5.1.2.2. Machiavellianism rates in the family business environment

The Machiavellian Personality Scale self-report questionnaire (Dahling et al., 2009), was used to measure the levels of machiavellian behavior in the greek family

business environment. The findings reported represent the machiavellian behavior levels of the family business managers, calculated in accordance with the degree of agreement to specific statements.

The mean scores and standard deviations of the evaluation of the Machiavellianism level of the total sample and its sub-groups is presented in Table 18. According to the overall Machiavellianism score, it is clear that the average respondents' machiavellian behavior is 2.49 with a standard deviation of 0.67. Family business owners also scored 2.49 on average with a standard deviation of 0.68, while the average for members of BOD is 2.58 with a standard deviation of 0.65, and for family business managers 2.36 and 0.64 respectively. These mean scores were interpreted on a Lickert scale from 1 "totally disagree" to 5 "totally agree", where the minimum value is observed at 1.0 and the maximum value at 5.0. As a consequence, all four mean scores for the total sample and the sub-groups under examination are considered to have a low level of machiavellian behavior (see Chapter 4 for the classification of the scores).

Table 18: Machiavellianism total and subscales mean scores of the total sample of Greek family business owners, BOD and managers

	Total Sample		FB Own	ners	FB BO	D	FB Managers	
Variable	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Overall Machiavellianism Score	2.49	0.67	2.49	0.68	2.58	0.65	2.36	0.64
Sub-Scales								
Amorality	1.71	0.77	1.69	0.78	1.82	0.75	1.69	0.79
Desire for control	2.93	0.95	2.95	0.97	3.04	0.78	2.74	0.98
Desire for status	3.08	0.98	3.11	0.99	3.10	0.88	2.88	1.01
Distrust of others	2.65	0.89	2.65	0.91	2.76	0.94	2.51	0.75
Valid N (listwise)	345		235		59		51	

It is noted that the dimension of amorality holds the lowest average of the Machiavellianism sub-scales on the total sample, with a value of 1.71, which means that the respondents show low willingness to disregard standards of moral ethics in order to commit manipulative behavior towards their colleagues. On the contrary, raised scores that indicate a medium level of the need to exercise dominance over interpersonal situations to minimize the risk of losing the leading position are represented under the sub-scale of desire for control. More specifically, the total sample score (2.93 with standard deviation 0.95), and the 3 subgroups of owners (2.96, with standard deviation 0.97), BOD (3.04 with standard deviation 0.78) and other managers (2.74 with standard deviation 0.98) indicate that they view external others as potential

threats, especially as far as the BOD is concerned. In addition, the dimension of desire for status in family business owners, BOD and people on managerial positions show also a medium average, with scores of 3.11, 3.10 and 2.88 respectively. That is, all three management categories appear to share the perception of measuring success through extrinsic goals like wealth, power and status, rather than personal development or self-love. Furthermore, it seems that distrust of others is at medium levels for the subgroups of owners and BOD members (2.65 owners, 2.76 for the BOD). Respondents that hold other managerial positions indicated low levels in this sub-scale, with a score of 2.51, meaning that they maintain a less cynical outlook on others' motivations and intentions, with a concern for the negative implications that those intentions might have on them. Therefore, in the family business environment, owners, BOD and other managers appear to perform organizationally machiavellian from very low to medium levels, with respondents that hold managerial positions different than ownership and BOD displaying the lowest levels of Machiavellianism in comparison to the other two sub-groups.

In order to extract information about the immediate group of the data represented by the sample, estimation of parameters and testing for statistical hypotheses concerning statistical differences between the quantitative and qualitative variables of the final questionnaire were used..

Table 19: Analysis of variance tests performed among the categorical and quantitative data (Machiavellianism).

	Analysis of Variance Test
Gender	Man-Whitney
Former Experience	Man-Whitney
Reported FB outcome	Man-Whitney
Age	Kruskal-Wallis
Ed. Level	Kruskal-Wallis
Years in the FB	Kruskal-Wallis
Job position	Kruskal-Wallis
Foundation	Kruskal-Wallis
Location	Kruskal-Wallis
Generation	Kruskal-Wallis
Legal form	Kruskal-Wallis
Activity sector	Kruskal-Wallis
Family member type	Kruskal-Wallis
FB strategy planning	Kruskal-Wallis
Prevailing view in conflicts	Kruskal-Wallis
% of FB ownership	ANOVA
FB size category	Kruskal-Wallis
FB member's payment	Kruskal-Wallis

Therefore, according to the distribution that the data follow for each variable category, T-tests, Man-Whitney, ANOVA and Kruskal-Wallis tests were performed. More specifically, the tests executed for each variable of the first part of the final questionnaire and EI are listed in Table 19.

Statistically significant differentiations of Machiavellianism levels among the educational level of the respondents were observed. Furthermore, statistically significantly different are the Machiavellianism levels among the family member type of the respondents and also among the decision-making roles in the family businesses.

Table 20: Test statistics for differentiations among the variables' categories (Machiavellianism).

	Machiavellianism	P
Gender	MW U = 12329	.294
Former Experience	MW U =7403	.313
Reported outcome	MW U = 5140	.988
Age	H(3) = 5.613	.132
Ed. Level	H(3) = 16.480	.001
Years in the FB	H(6) = 3.786	.693
Job position	H(2) = 3.610	.165
Foundation	H(7) = 13.366	.987
Location	H(6) = 6.278	.393
Generation	H(2) = 2.919	.232
Legal form	H(10) = 17.384	.066
Activity sector	H (14) = 9.786	.778
Family member type	H(8) = 24.165	.002
Strategy planning	H(4) = 10.507	.033
View in conflicts	H(2) = 2.698	.610
% of FB ownership	F (3, 341) = 1.885	.137**
FB size category	H(3) = .183	.980
FB members pay	H(4) = .157	.997

*T-test, **ANOVA

Note: Red colored cells indicate that there is statistical significance.

5.1.2.3.Economic opportunism of family businesses' management stakeholders

Responses from the Economic Opportunism Scale self-report questionnaire (Sakalaki & Fousiani, 2010), which was designed to measure the levels of opportunistic behavior, in accordance with the degree of agreement to specific statements, led to the following findings.

Table 21:Economic opportunism mean score in the total sample, and among Greek family business owners, BOD and managers

	Total Sample		FB Owners		FB BOI)	FB Managers		
Variable	Mean SD		Mean	SD	Mean	SD	Mean	SD	
Overall Economic Opportunism	3.13	0.77	3.05	0.74	3.33	0.75	3.25	0.87	
Score									
Valid (listwise)	345		235		59		51		

The mean scores and standard deviations for the evaluation of the economic opportunism level of the total sample and the aforementioned subgroups are reported in Table 21. According to the overall economic opportunism score, it is clear that the average respondents' opportunistic behavior is reported to be in low to medium levels, with a total score of 3.13 with a standard deviation of 0.77. Family business owners scored 3.05 on average with a standard deviation of 0.74, while the average for members of BOD is 3.33 with a standard deviation of 0.75, and for family business managers 3.25 and 0.87 respectively. These mean scores were interpreted on a Lickert scale from 1 "totally disagree" to 7 "totally agree", where the minimum value is observed at 1.0 and the maximum value at 7.0.

According to the distribution that the data follow for each variable category, T-tests, Man-Whitney, ANOVA and Kruskal-Wallis tests were performed, to extract information about the immediate group of the data represented by the sample. For that matter, estimation of parameters and testing for statistical hypotheses concerning statistical differences between the quantitative and qualitative variables of the final questionnaire were used. The tests executed for each variable of the first part of the final questionnaire and economic opportunism are listed in Table 22Table 19.

Table 22:Analysis of variance tests performed among the categorical and quantitative data (Machiavellianism).

	Ec. Opportunism
Gender	t-test
Former Experience	t-test
Reported FB outcome	t-test
Age	ANOVA
Ed. Level	ANOVA
Years in the FB	Kruskal-Wallis
Job position	Kruskal-Wallis
Foundation	ANOVA
Location	Kruskal-Wallis
Generation	ANOVA
Legal form	Kruskal-Wallis
Activity sector	ANOVA
Family member type	Kruskal-Wallis
FB strategy planning	Kruskal-Wallis
Prevailing view in conflicts	ANOVA
% of FB ownership	ANOVA
FB size category	ANOVA
FB member's payment	ANOVA

Statistically significant differentiations of economic opportunism levels among the owners, BOD members and managers were observed (Table 23). Furthermore,

statistically significantly different are the economic opportunism levels among respondents according to the foundation year of the family business and its legal form. Moreover, statistically significant difference of the levels of economically opportunistic behavior was observed among the family businesses of different generations. As indicated in tests for EI and Machiavellianism relationships with the variables of the respondents and the family business profile, statistically significant differences among economic opportunism levels are observed among the different relationship with the owner (family member type) reported by the respondents.

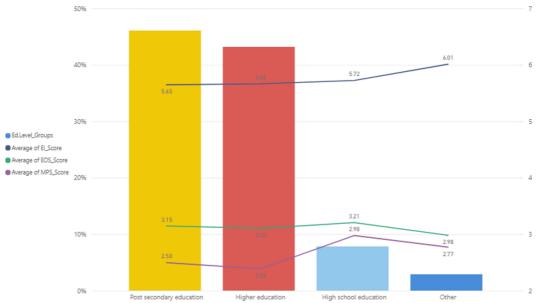
Table 23: Test statistics for differentiations among the variables' categories.

	Ec. Opportunism	P
Gender	t(343) = .377	.707*
Former Experience	t(343) = .044	.965*
Reported outcome	t(343) =273	.785*
Age	F (3,341) = 1.933	.124**
Ed. Level	F (3,431) = .296	.029**
Years in the FB	H(6) = 6.591	.360
Job position	H(2) = 8.073	.018
Foundation	F (7, 337) = 1.449	.128**
Location	H(6) = 8.121	.229
Generation	F(2, 432) = 3.984	.019**
Legal form	H(10) = 22.695	.012
Activity sector	F (14, 330) = .815	.652**
Family member type	H(8) = 24.671	.002
Strategy planning	H(4) = 9.184	.057
View in conflicts	F (4,340) = .857	.490**
% of FB ownership	F(3, 341) = .335	.785**
FB size category	F(3, 341) = .476	.699**
FB members pay	F (4, 340) =1.132	.341**

*T-test, **ANOVA

Note: Red colored cells indicate that there is statistical significance.

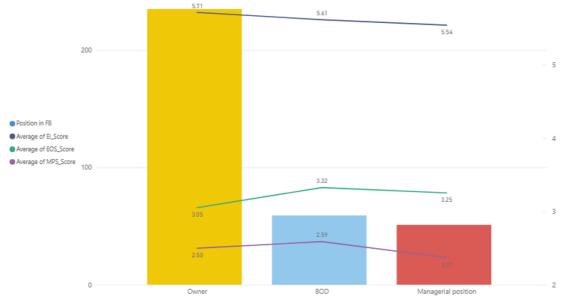
For a better understanding of the previously mentioned findings, the EI, Machiavellianism and economic opportunism scores in the categories of family business profile variables were visualized. As depicted in Graph 23, the statistically significant differentiation among the Machiavellianism scores across the different educational levels (p<0.05). However, as the sample does not follow normal distribution for the educational level categories, the Kruskal-Wallis test performed does not give the opportunity to identify among which categories this statistical significance is observed.



Source: Tsirimokou C., (2019), Emotional Intelligence in Family Business Management – An Empirical Study, Field work findings for Doctoral Thesis, Department of Economic and Regional Development, Panteion University of Social and Political Sciences, Athens

Graph 23:EI, Machiavellianism and economic opportunism scores among educational levels.

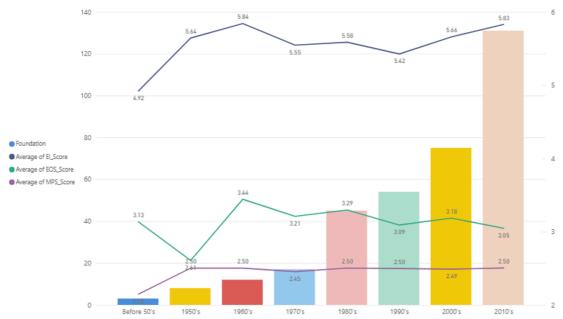
Furthermore, the statistically significant differentiation among the management positions in the family business, concerning the economic opportunism scores (p<.05) that range from 2.50 to 2.37 which is an overall low score (Graph 24). No statistically significant differentiations were observed for EI and Machiavellianism among these categories.



Source: Tsirimokou C., (2019), Emotional Intelligence in Family Business Management – An Empirical Study, Field work findings for Doctoral Thesis, Department of Economic and Regional Development, Panteion University of Social and Political Sciences, Athens Graph 24:EI, Machiavellianism and economic opportunism scores among the job positions.

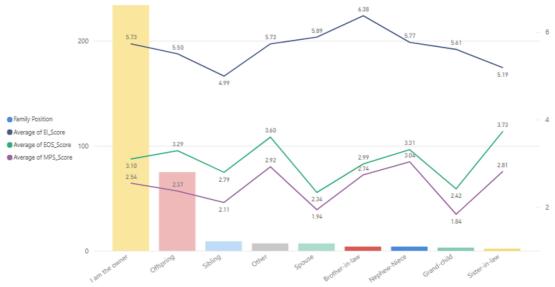
On the contrary, a statistically significant difference seems to exist among the EI scores of the respondents that reported the decade that their family business.

Therefore, by the 1990's, where EI theory emerged, and afterwards, up to nowadays, the average scores of EI have an upward trend (Graph 25).



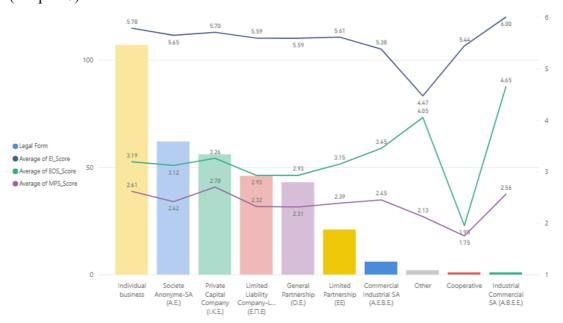
Source: Tsirimokou C., (2019), Emotional Intelligence in Family Business Management – An Empirical Study, Field work findings for Doctoral Thesis, Department of Economic and Regional Development, Panteion University of Social and Political Sciences, Athens Graph 25:EI, Machiavellianism and economic opportunism scores among the decades of foundation of the family businesses.

Moreover, after the performance of Kruskal-Wallis nonparametric tests due to absence of normality in the sample distribution, EI, Machiavellianism and economic opportunism scores appear to be statistically significantly differentiated among the different family members (Graph 26).



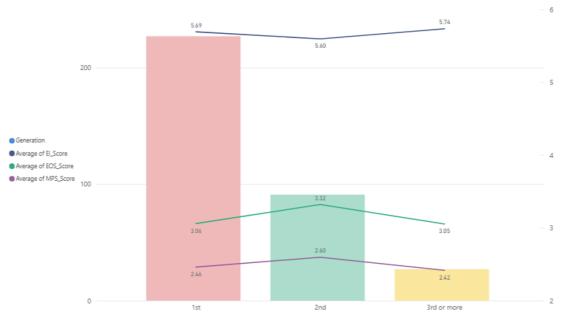
Source: Tsirimokou C., (2019), Emotional Intelligence in Family Business Management – An Empirical Study, Field work findings for Doctoral Thesis, Department of Economic and Regional Development, Panteion University of Social and Political Sciences, Athens Graph 26: EI, Machiavellianism and economic opportunism scores among the family position.

More specifically, the respondents were asked about their relationship with the owner of the family business they occupy in. In most cases, the responses were given by the owners, but there are also answers from children, spouses, siblings, siblings-in-law, grand-children and other relatives. However, the absence of normal distribution of the responses for each sub-category does not allow to specify among which categories the differences exist, as post-hoc test cannot be performed. On the same context, statistically significant differentiations of the EI and economic opportunism levels also occur among the legal forms of the family businesses reported by the respondents (Graph 27).



Source: Tsirimokou C., (2019), Emotional Intelligence in Family Business Management – An Empirical Study, Field work findings for Doctoral Thesis, Department of Economic and Regional Development, Panteion University of Social and Political Sciences, Athens Graph 27:EI, Machiavellianism and economic opportunism scores among the family business legal forms.

Furthermore, a statistically significant difference among the economic opportunism scores occurs, concerning the generation of the family business reported by the respondents (Graph 28). Indeed, family businesses that thrive and succeed across generations are good at balancing the intimacy and attentiveness characteristic of a family-run organization with standard operating procedures and codified processes. For that matter, the rise of opportunistic behavior that affect the inner family and business harmony should be furtherly noticed and



Source: Tsirimokou C., (2019), Emotional Intelligence in Family Business Management – An Empirical Study, Field work findings for Doctoral Thesis, Department of Economic and Regional Development, Panteion University of Social and Political Sciences, Athens Graph 28: EI, Machiavellianism and economic opportunism scores among the family business generations.

To summarize all the above information concerning the sample's descriptives and get an even clearer picture on the variance of the EI, Machiavellianism, economic opportunism and performance scores among the different subgroups, Table 24 was built.

Table 24: Sociodemographic and family business profile of the respondents and mean EI-MPS-EOS-PERF score in each category.

	Characteristic		%	EI sco	ore	MPS	score	EOS	score	PER	F score
		n	70	M	SD	M	SD	M	SD	M	SD
N		345	100	5.66	.67	2.49	.67	3.12	.76	2.85	.52
C	Male	255	73.9	5.69	.68	2.47	.68	3.13	.77	2.87	.53
Gender	Female	90	26.1	5.59	.65	2.54	.64	3.10	.76	2.80	.49
	18-25	7	2.0	5.66	.80	3.00	.86	3.77	.42	3.01	.92
	26-34	103	29.9	5.55	.70	2.48	.72	3.25	.83	2.90	.49
A ===	35-44	115	33.3	5.77	.62	2.44	.63	3.01	.77	2.84	.57
Age	45-54	87	25.2	5.68	.69	2.56	.67	3.12	.68	2.84	.45
	55-64	31	9.0	5.62	.64	2.35	.46	2.98	.62	2.76	.51
	65+	2	0.6	5.03	.75	2.84	.92	3.42	1.59	2.33	.00
	Higher Ed.	149	43.2	5.72	.77	2.60	.72	3.20	.96	2.74	.45
Ed. Level	Post-Secondary Ed.	159	46.1	5.64	.65	2.37	.64	3.14	.64	2.80	.50
Ea. Levei	High School	27	7.9	5.77	.77	2.97	.89	3.20	.96	2.74	.45
	Other	10	2.9	6.01	.50	2.76	.34	2.98	.52	2.77	.39
	1 to 5	117	33.8	5.64	.69	2.48	.71	3.21	.81	2.85	.56
	6 to 10	87	25.2	5.75	.64	2.49	.67	3.07	.81	2.93	.51
Years in the	11 to 15	52	15	5.61	.71	2.48	.65	3.13	.70	2.78	.52
family	16 to 20	39	11.3	5.66	.60	2.46	.62	3.10	.63	2.72	.53
business	21 to 25	26	7.5	5.52	.78	2.68	.71	3.20	.75	2.98	.47
business	26 to 30	19	5.6	5.73	.66	2.43	.49	2.80	.77	2.84	.34
	More than 30	5	1.5	5.85	.25	2.12	.44	2.88	.19	2.71	.25
	Owners	235	68.1	5.71	.67	2.49	.67	3.05	.74	2.87	.55
Job Position	BOD	59	17.1	5.61	.71	2.58	.64	3.32	.74	2.83	.44
	Other managerial positions	51	14.7	5.53	.63	2.36	.64	3.25	.87	2.79	.44
Former	Yes	289	83.8	5.69	.68	2.51	.68	3.12	.77	2.86	.53
Experience	No	56	16.2	5.55	.64	2.39	.60	3.12	.73	2.82	.45
	1950's	11	3.2	5.44	.83	2.40	.54	2.75	.93	2.74	.20
	1960's	12	3.6	5.83	.68	2.50	.58	3.44	.77	2.84	.33
	1970's	17	5.1	5.54	.72	2.45	.66	3.20	.79	2.84	.35
Foundation	1980's	45	13	5.58	.72	2.50	.66	3.29	.65	2.94	.43
	1990's	54	15.6	5.42	.61	2.49	.60	3.08	.75	2.87	.47
	2000's	75	21.6	5.65	.63	2.48	.69	3.18	.72	2.76	.51
	2010's	131	38	5.82	.65	2.50	.71	3.04	.80	2.88	.61
T42	Attica	200	58	5.66	.69	2.42	.62	3.06	.77	2.86	.48
Location	Macedonia-Thrace	44	12.8	5.68	.69	2.59	.70	3.19	.74	2.80	.68

	Epirus-Western Macedonia	17	5	5.62	.74	2.47	.90	3.33	.74	3.11	.65
	Thessaly-Central Greece	35	10	5.82	.65	2.70	.84	3.28	.81	2.78	.44
	Peloponnese-Western Greece-	24	7.1	5.59	.56	2.55	.63	3.15	.85	2.76	.57
	Ionian										
	Crete	16 9	4.7 2.6	5.56 5.60	.54 .77	2.42	.45 .64	2.99 3.27	.71 .49	2.97 2.83	.49
	Aegean 1st	227	65.8	5.69	.66	2.03	.68	3.05	.78	2.86	.54
~ .	2nd	91	26.4	5.59	.71	2.59	.67	3.32	.62	2.88	.46
Generation	3rd	23	6.7	5.70	.70	2.41	.58	3.02	1.00	2.77	.51
	Later	4	1.2	5.92	.27	2.42	.41	3.23	.66	2.36	.22
	Individual Business	107	31	5.78	.74	2.61	.76	3.18	.75	2.83	.54
	General Partnership (OE)	43	12.5	5.58	.54	2.31	.53	2.92	.82	2.91	.53
	Limited Liability Company (EU)	21	6.1	5.61	.51	2.38	.57	3.14	.70	3.02	.61
	Cooperative	1	0.3	5.43		1.75		1.95		3.66	
Legal Form	Societe Anonyme (SA)	62	18 16.2	5.64 5.70	.74 .59	2.41 2.69	.60 .72	3.11	.77	2.80	.43
Ü	Private Capital Company (PC) Industrial Commercial SA	56	0.3	6.00	.39	2.69	.12	3.25 4.65	.80	2.44	.39
	Commercial Industrial SA	6	1.7	5.37	.21	2.44	.50	3.45	.64	2.81	.25
	Limited Liability Company (Ltd.)	46	13.3	5.58	.68	2.31	.54	2.92	.65	2.79	.46
	Other	2	0.6	4.46	.83	2.12	.97	4.05	.07	2.55	.15
	Food	39	11.3	5.64	.65	2.46	.62	3.16	.79	2.88	.48
	Drinks / Tobacco	2	0.6	5.40	.39	2.03	.13	3.07	.45	2.66	.00
	Textiles / Leather	3	0.9	6.35	.77	2.04	.56	3.06	.68	2.92	.16
	Clothing and Footwear	14	4.1	5.75	.55	2.58	.76	3.09	.81	2.70	.36
	Construction / Mat. /Eq.	26	7.5	5.67	.69	2.58	.65	3.13	.61	2.95	.50
	Home / Professional Eq. Tourism	9	2.6	5.73 5.79	.58	2.44	.38	2.90 3.31	.36	2.61	.26
Activity	Retail	49	14.2	5.60	.72	2.62	.75	3.22	.78	2.75	.56
sector	Transportation	8	2.3	5.82	.63	2.62	.73	2.87	.80	2.73	.58
	Telecommunications	24	7	5.63	.64	2.55	.89	3.36	.86	3.05	.70
	Financial services	11	3.2	5.52	.69	2.52	.62	2.92	.86	2.83	.42
	Education	17	4.9	5.78	.75	2.50	.84	3.15	.71	2.88	.70
	Means of transport	2	0.6	5.62	1.14	2.15	.83	2.50	1.06	2.72	.54
	Shipping	7	2	5.59	.54	2.43	.51	3.05	.90	2.95	.46
	Other industries	96	27.8	5.62	.70	2.37	.57	3.01	.75	2.86	.45
	I am the official owner	234	67.8	5.73	.65	2.54	.65	3.10	.73	2.86	.55
	Offsprings	75	21.7	5.50	.68	2.36	.63	3.29	.86	2.84	.44
Relationship	Grandchildren Nephew-niece	3	0.9 1.2	5.60 5.88	.14	1.83	.18	2.41	.18	3.22 2.79	.48
with the	Spouse	7	2	4.99	.65	2.10	.40	2.33	.48	2.86	.39
owner	Sibling	9	2.6	5.76	.75	3.03	1.5	3.31	.94	2.80	.47
	Sibling-in-law	6	1.6	5.77	.45	2.77	.68	3.35	.43	251	.37
	Other	7	2	5.73	.92	2.91	.63	3.60	.58	2.87	.49
Family	The owner	229	66.4	5.67	.67	2.49	.65	3.09	.81	2.86	.55
business	The shareholders' council	46	13.3	5.75	.67	2.71	.73	3.34	.61	2.87	.50
strategy	The BOD	50	14.5	5.62	.65	2.42	.66	3.18	.70	2.81	.38
0.0	The Chairman of the BOD	7	2	5.47	.91	2.16	.47	2.85	.62	2.95	.59
planning	The general manager	13	3.8	5.61	.79	2.11	.52	2.82	.66	2.79	.56
Prevailing	The owner's The shareholders' council	219 60	63.5 17.4	5.65 5.73	.67 .61	2.51	.66	3.14	.81	2.85 2.84	.55
view in case	The BOD's majority	50	14.5	5.71	.68	2.34	.60	3.17	.62	2.84	.47
of conflict	The BOD's chairman	4	1.2	5.20	.83	2.41	1.1	3.55	.64	3.00	.63
or commer	The general manager's	12	3.5	5.51	.86	2.23	.84	2.82	.81	2.83	.44
	<50%	30	8.6	5.89	.61	2.52	.67	3.20	.82	2.80	.63
% of FB	50%	23	6.6	5.46	.64	2.80	.76	3.25	.79	2.88	.65
ownership	>50%	76	22.0	5.76	.70	2.47	.72	3.12	.81	2.92	.60
•	100%	216	62.6	5.65	.67	2.45	.67	3.10	.74	2.83	.46
ED C!-	Micro	225	65.2	5.68	.68	2.49	.67	3.09	.77	2.83	.57
FB Size	Small	86	24.9	5.69	.62	2.50	.71	3.20	.74	2.92	.40
Category	Medium	25 9	7.2	5.46	.75	2.45	.59	3.18	.74	2.88	.44
	Large Paid	168	2.6 48.7	5.47 5.66	.81	2.43	.69	3.10	.85 .79	2.81	.45
Family	Not paid	94	27.2	5.69	.70	2.50	.64	3.14	.80	2.87	.60
member's	Paid differently from others	15	4.3	5.43	.68	2.44	.63	3.39	.70	2.77	.39
payment	Paid depending on position	43	12.5	5.75	.53	2.44	.66	3.16	.65	2.85	.64
payment	Privileges	25	7.2	5.62	.71	2.42	.67	2.89	.61	2.55	.41
Reported FB	Profit	312	90.4	5.66	.69	2.49	.67	3.12	.77	2.90	.49
					.52	2.51	1	3.16	.75	2.41	.61

5.1.3. Associations between EI, Machiavellianism, economic opportunism and family business financial performance

As previously mentioned, although there is high attribution of emotions and behavior to the family business system, such studies do not examine emotional and behavioral factors from the business aspect but only approach them through the family (Carlock & Ward, 2001; Fleming, 2000; Dyer, 2003; Rogoff & Heck, 2003; Astrachan & Jaskiewicz, 2008; Van-den-Heuval et al., 2007; Carlock & Ward, 2001). In order to measure the strength of the linear association between the behavioral and emotional

variables examined in the present research, Pearson correlation coefficient analysis will be performed. Pearson's correlation coefficient is the test statistics that measures the statistical relationship, or association, between two continuous variables (Boslaugh & Watters, 2008). Pearson's correlation is a method of measuring the association between variables of interest because it is based on the method of covariance. It gives information about the magnitude of the association, or correlation, as well as the direction of the relationship, thus if it is positive or negative.

5.1.3.1.Hypothesis testing

The correlations between the EI scores calculated for the evaluation of emotionally intelligent behavior, and the scores of Machiavellianism, economic opportunism and family business financial performance are presented in Table 25. More specifically, these correlations concern the total sample and sub-groups of family business owners, BOD members and other managers.

Table 25:Pearson's correlation matrix of the EI, Machiavellianism, economic opportunism and family business performance of the total sample, fb owners, BOD members and other managers.

		MPS_Score	EI_Score	EOS_Score
	MPS_Score	1	Į.	
For n=345	EI_Score	.044	1	
sample)	EOS_Score	.610**	181**	1
	FB_PERF	.074	.058	015
	MPS_Score	1		
For n=235 (FB owners)	EI_Score	.075	1	
	EOS_Score	.600**	156*	1
	FB_PERF	.072	.050	.018
For n=345 (Total sample) EI_Score	MPS_Score	1		
	EOS_Score	.615**	026	1
	FB_PERF	.095	.118	136
(Other	MPS_Score	1		
	EI_Score	329*	1	
	EOS_Score	.709**	401**	1
	FB_PERF	.046	015	004

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

As far as the total sample is concerned, EI levels are positively related to family business financial performance for the total sample (r=.058) family business owners (r=.050) and BOD members (r=.118) although correlations are very close to zero.

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

Family business performance does not seem to correlate positively for respondents occupied in managerial positions other than BOD or ownership (r=-.015). However, as the p value does not support the statistical significance, the above findings indicate that the first hypothesis, where it is argued that the EI levels in family business ownership and management are positively correlated with family business financial performance, is partially accepted.

The significant effect of EI levels on business financial performance reported in the literature, does not totally correspond to what emerges from the present research (Maul, 2012; Siegling et al., 2017; Chamorro-Premuzic et al., 2017; Andrei et al., 2016; Sanchez-Ruiz et al., 2016; Feher et al., 2019). As a result, while the Greek emotionally intelligent managers seem to be more persistent and focused in achieving their goals, this does not seem to strongly correlate with the overall financial performance of the family firm (Goleman, 1998; Mayer et al., 2000; Moghadam, Tehrani & Amin, 2011; Magnano et al., 2016). Furthermore, the communication skills of Greek managers to motivate themselves and others because of their high EI levels, although extremely useful in the workplace, probably do not play an important role in the family firm's financial performance (Beckerman & Zembylas, 2018; Minhas, 2017; Essop & Hoque, 2018; Astrachan & Jaskiewicz, 2008; Melin et al., 2004; Van-den-Heuval et al., 2007; Zellweger & Astrachan, 2008).

Furthermore, Machiavellianism levels in family business ownership and management seem to be positively correlated with family business financial performance, leading to satisfaction of the second hypothesis, where Machiavellianism levels in family business ownership and management are argued to relate positively to family business financial performance. More specifically, for the total sample (r=.074), ownership (r=.072), BOD members (r=.075) and any other managers (r=.046), Pearson's correlation is positive, although very close to zero, something that will be of concern in the discussion section of the present thesis. Indeed, Machiavellianism levels in ownership and managerial positions confirms the findings of literature in organizational research where high Mach managers seem more likely to engage in unethical workplace behaviors with potentially negative effects on the entire organization (Winter et al., 2004; Dahling et al., 2009; Kessler et al., 2010; Kish Gephart et al., 2010; O' Boyle, et al., 2012).

Following the hypotheses previously formulated, the relationship between EI and economic opportunism of the Greek family managers was also examined, according to

the behavioral scores extracted from the completion of valid psychometric tools. As proven by the literature, effective management requires the adoption of optimum human capital management practices within the family business, by utilizing the right people in the name of the family business's financial performance (de la Cruz Déniz-Déniz et al., 2012; Chrisman et al., 2011; Leeson 2011). Individuals with opportunistic behavioral tendencies are more willing to manipulate financial statements to increase their personal profits, harming the overall financial performance of the family firm (Lee et al., 2006; Alessie et al., 2004; Teraji, 2003; Beav & Klimov, 2009; Grigoryeva & Grigoryeva, 2015). According to the findings of the correlation analysis, *the third hypothesis where the potential positive relationship between the opportunistic tendencies of the respondents and the evaluated family business performance levels is argued, is partially satisfied*. More specifically, very weak negative correlations among the economic opportunism mean scores of the total sample (r=-.015), sub-groups BOD members (r=-.136), other managers (r=-.004) and family business evaluated performance are observed. Therefore, for these groups the third hypothesis is rejected.

Furthermore, a negative statistical correlation between EI and the Dark Triad traits is observed in the literature (Walker et al., 2019; Czarna et al., 2016; Nagler et al., 2014; Jonason, Li, Webster, & Schmitt, 2009; Jonason & Kavanagh, 2010; Spurk, Keller & Hirschi, 2015). Under the statement of this relationship and given that every behavior is driven by emotions, it is assumed that the existence of Dark Triad traits in one's behavior can lead to the use of manipulative tactics with others. The negative correlation of EI with Machiavellianism observed in the literature (Pilch, 2008; Szabo & Bereczekei, 2017; Zhang et al., 2014; Sjoberg, 2003; Austin et al., 2007; O'Boyle et al., 2012) led to the formulation of the fourth research hypothesis of the present doctoral thesis, which is also partially accepted. More specifically, a negative and statistically significant negative correlation between EI and Machiavellianism levels exists only for the subgroup of other managers (r=-.329, p<.01), showing that they have the ability to recognize their emotions, but are less emotionally intelligent and socially competent in intimate situations or in cases of social exposure in a work environment than their emotionally intelligent colleagues. It is worth noticing that the negative correlation between EI and Machiavellianism confirms that EI can potentially occur in a dark side (Austin et al., 2007; Jauk et al., 2016; Austin et al., 2014; Vonk et al., 2015, Malhotra, 2016; Nagler et al., 2014; Bacon & Regan, 2016; Ali et al., 2009a; Plouffe et al., 2017). More specifically the established negative correlation between EI and Machiavellian

behavior of the family business "other managers" means that there probably is a significant role in the strengthened association between the trait of moral identity, in the meaning of the importance of morality to someone's self-perception, as previously confirmed by the literature (Côté et al., 2011).

As a consequence of the negative relationship between EI and Machiavellianism, the fifth hypothesis was formulated, expressing the potential negative relationship between EI and economically opportunistic behavior. This fifth hypothesis is totally accepted for the total sample and also for the owners, BOD members and other managers of the Greek family businesses that responded to the questionnaire. More specifically, a statistically significant negative relationship was observed between the EI and economic opportunism mean scores of the total sample (r=-.181, p<.01), and also for the family business owners (r=-.156, p<.05). For the other sub-groups, BOD members and other managers, while a negative relationship was also observed (r=-.026 and r=-.401 respectively) no statistical significance was reported. Accepting the fifth research hypothesis implies that there is a meaningful relationship concerning EI and organizational behaviors like economic opportunism (Cote & Miners, 2006; Solan, 2008). Therefore, a family business manager's EI, although it has an influence on his organizational behavior, does not seem to influence his or her behavior towards personal goals (Nguyen et al., 2020). Greek family business manager's opportunistic behaviors seem also to have a serious impact on factors like motivation, that undoubtedly affect the firm's overall goal too (Nguyen et al., 2020)

Intercorrelations among the personality and behavioral variables evaluated for the present sample were also hypothesized with the sixth hypothesis. *The correlation of Machiavellian personality with the economic opportunistic behavior of the respondents is positive, as expected, confirming the sixth hypothesis.* More specifically, not only the total sample's (r=.610 p<.01) but also the subgroups of owners' (r=.600 p<.01), BOD members' (r=.615 p<.01) and other managers' (r=.709 p<.01) Machiavellianism scores are positively statistically significantly correlated with economic opportunism scores. This is a very important finding, as it also confirms the literature's findings concerning the relationship between Machiavellianism and economic opportunism. More specifically, the association of personality features with economic behavior has revealed significant differences in individuals' economic thinking, depending on behavioral patterns that determine economic thinking and behavior (Sakalaki, Richardson, & Bastounis, 2005). In the case of Greek family businessmen, one could

say that Williamson's theory (1985) is confirmed, as the concept of opportunism seems to be anticipated by Machiavellian behaviors. Indeed, in the Greek environment, being an opportunist presupposes the adoption of a specifically economic strategy, if it is accepted that the economy has come to dominate over politics, religion, and other fields.

To test the seventh and eighth hypothesis where causalities among the examined variables are expressed, it is necessary to perform path mediation analysis. According to the hypothesis formulated previously based on the literature, Machiavellianism mediates the relationship between family business ownership and management's EI and family business evaluated performance. The role of mediator here belongs to Machiavellian behavior, an endogenous variable that depends on the exogenous variable of EI. Furthermore, the mediator is thought to reveal more insight concerning how the independent variable (EI) impacts the dependent variable (family business performance).

More specifically, H7 and H8 are based on the existing literature concerning the role of personality and behavioral traits in family businesses that suggests that Machiavellianism and economic opportunism would play a mediating role in the correlation between emotionally intelligent behavior and family business financial performance. To test if this hypothesis is satisfied by the data of the present study, structural equation models and path mediation analysis were used, as described in the model specification. In mediation analysis, an intermediate variable, called the mediator (in H7 Machiavellianism and in H8 economic opportunism), is considered to help explain how or why an independent variable (EI) influences an outcome (family business performance) (Gunzler et al., 2013).

As presented in Figure 13 and Table 26, H7 is partially accepted for the total sample and the subgroups of family business owners, BOD members and other managers, meaning that Machiavellianism seem to have a mediating role in the relationship of EI levels with the family business's performance. It is worth mentioning that for the total sample and the subgroups of family business owners and BOD members, both direct and indirect effects reveal weak positive relationships either after taking into consideration Machiavellianism as a mediator or not. However, this does not happen for the subgroup of other managers, where the indirect effect of Machiavellianism on the family business financial performance is negative and greater than the direct effect of EI on family business performance. The negative direction of

the indirect effect is caused by the negative relationship between EI and Machiavellianism that occurs for this subgroup, which also corresponds to the previously cited literature.

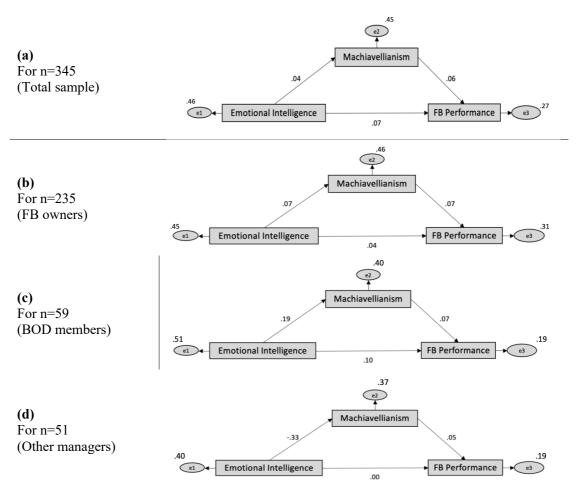


Figure 13:Path analysis for H7, for total sample and sub-groups.

Table 26: Calculated direct and indirect effects for H7.

	DIRECT EFFECT	INDIRECT EFFECT
	.070	.002
For n=235 (FB owners)	.040	.004
For n=59 (BOD members)	.100	.013
For n=51 (other managers)	.000	016

Accordingly, the same process was held to test the eighth hypothesis, which, as presented in Figure 14 and Table 27, is partially satisfied for the total sample and the subgroups, although the values are very close to zero. In particularly, it is indicated that the EI effect on family business performance in the total sample is slightly mediated by the respondents' economically opportunistic behavior in a negative way. Moreover, economic opportunism seems to act as a mediator similarly for the family business owners. On the other hand, this does not happen for the subgroup of other managers,

where the indirect effect of economic opportunism on the family business financial performance is positive, although also very close to zero.

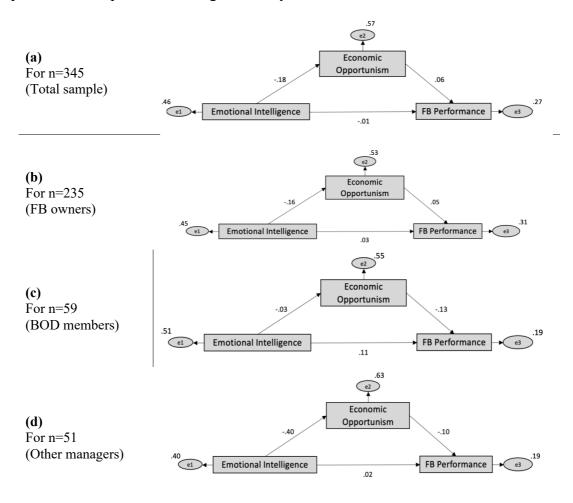


Figure 14: Path analysis for H8, for total sample and sub-groups.

Table 27: Calculated direct and indirect effects for H8.

	DIRECT EFFECT	INDIRECT EFFECT
For n=345 (total sample)	010	018
For n=235 (FB owners)	.030	080
For n=59 (BOD members)	.110	.039
For n=51 (other managers)	.020	.040

After testing the mediation roles of Machiavellianism and economic opportunism, structural equation modeling was used to test the indirect effects of both mediators (Machiavellianism and economic opportunism) in comparison to the direct effect the independent variable (EI) has on family business financial performance for the total sample and the subgroups under examination. The structural model presented in Figure 15 is an attempt to answer the main research question of the present thesis.

Figure 15: Structural Equation Model with mediators fitted to the total sample.

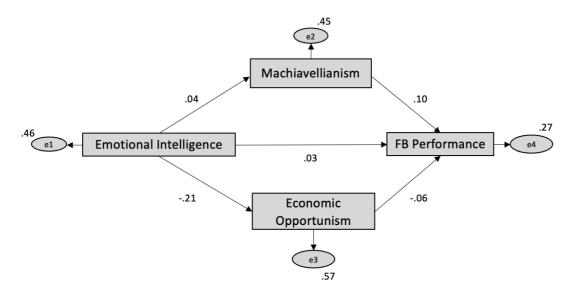


Table 28: Goodness of fit indices for the structural equation model.

	X ² /df	SRMR	NFI	RMR	GFI	CFI	RMSEA
For n=345							(95%CI)
(Total sample)	173.856	.198	.087	.101	.835	.062	.708
							(.621, .798)
	X ² /df	SRMR	NFI	RMR	GFI	CFI	RMSEA
For n=235							(95%CI)
(FB owners)	114.371	.194	.072	.097	.797	.034	.695
							(.590, .805)
	X ² /df	SRMR	NFI	RMR	GFI	CFI	RMSEA
For n=59							(95%CI)
(BOD members)	30.083	.214	.181	.097	.791	.054	.702
							(.500, .928)
	X ² /df	SRMR	NFI	RMR	GFI	CFI	RMSEA
For n=51							(95%CI)
(Other managers)	30.038	.184	.333	.101	.751	.257	.755
							(.537, .998)

More specifically, the direct and indirect effect of EI on family business performance appears to be negative when mediated by both Machiavellianism and economic opportunism, not confirming the literature findings about the relationship between performance and EI, as EI seems to have a close to zero negative effect on performance according to the model. However, despite the literature confirming covariances given by the structural equation model, the model cannot be accepted as

the goodness of fit indices suggest poor fit (Table 28), according to the thresholds recommended by the literature. For that reason, an alternative model is proposed in the following.

5.1.3.2. Alternative model

As observed, the confirmatory modeling methodology used to test if the relationship between EI and financial family business performance could be mediated by Machiavellianism and economic opportunism, cannot be supported due to lack of goodness of fit. Alternatively, a family business's performance could be affected by machiavellian management. Family business financial performance, which is formed endogenously, could be affected independently by the estimated levels of emotional intelligence of the people that handle its operational process, along with their potential economically opportunistic behavior, which mediate their behavior already formed by their machiavellian personality, as described in the following equation:

$$Y = a + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + e_1$$
 (1)

In the above equation, Y stands for the exogenous variable of family business financial performance, while Machiavellianism is expressed by $\beta_1 X_1$, EI by $\beta_2 X_2$, while economic opportunism is represented by $\beta_3 X_3$ and the residuals by e_1 .

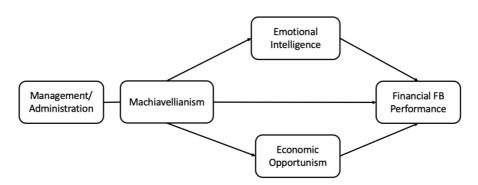


Figure 16: Alternative hypothesis

Considering that Machiavellians are strategic individuals whose actions are mostly driven by their desire to achieve their personal goals, and the nature of Machiavellianism itself, it could be argued that the basis of human behaviour is attributable to the individual's personality (Wilson et al., 1998; Bereczkei et al., 2010). Due to the Machiavellian's lack of emotional attachment, and shallow experience of emotions, there may be little that holds these individuals back from harming others in

order to achieve their goals. It is reported in the literature that those who score high in EI apparently have the potential to use their emotional capabilities in exploitative, self-serving and manipulative (e.g., Machiavellian) ways (O'Connor & Athota, 2013) that are formed exogenously. In other words, EI could play a mediating role in affecting behavior and actions of Machiavellians. This assumption could be described in the following equation:

$$X_2 = \beta_1 X_1 + e_2 \qquad (2)$$

In the same line of thought, Machiavellianism can also be characterized by opportunism; individuals high in Machiavellianism are usually concerned with maximizing their own profit, without concern for the interest of their exchange-partners (Bereczkei & Czibor, 2014; Sakalaki, Richardson, & Thépaut, 2007).

$$X_3 = \beta_1 X_1 + e_3$$
 (3)

Family business financial performance (Y), which is formed endogenously, could be affected independently by the estimated levels of EI (\hat{X}_2) of the people that handle its operational process, along with their potential economically opportunistic behavior (\hat{X}_3) , which mediate their behavior already formed by their machiavellian personality (b_1X_1) . The e_1 , e_2 , e_3 and e_4 are the residuals. From (1), (2), and (3), the following equation is derived:

$$Y = a + \beta_1 X_1 + b_2(\beta_1 X_1 + e_2) + b_3(\beta_1 X_1 + e_3) + e_4$$
 or (4)

$$Y = a + \beta_1 X_1 + b_2 \widehat{X}_2 + b_3 \widehat{X}_3 + e_4 \tag{5}$$

The structural equation model was run (Figure 17) to test the alternative hypothesis. The indirect effects of both mediators, EI and economic opportunism, on comparison to the direct effect the independent variable (Machiavellianism) has to family business financial performance for the total sample and the subgroups under examination are reported. Both the direct and indirect effect of Machiavellianism to family business performance appears to be positive when mediated by EI.

Emotional Intelligence

.04

Machiavellianism

.10

FB Performance

e4

Opportunism

Figure 17: Alternative Structural Equation Model with mediators.

Table 29: Goodness of fit indices for the alternative structural equation model.

	X ² /df	SRMR	NFI	RMR	GFI	CFI	RMSEA
For n=345							(95%CI)
(Total sample)	24.756	.066	.870	.034	.961	.871	.262
							(.179, .356)
4)	X ² /df	SRMR	NFI	RMR	GFI	CFI	RMSEA
(b) For n=235							(95%CI)
(FB owners)	15.433	.064	.875	.032	.964	.877	.248
(======================================							(.149, .364)
()	X ² /df	SRMR	NFI	RMR	GFI	CFI	RMSEA
(c) For n=59							(95%CI)
(BOD members)	2.033	.047	.945	.024	.982	.966	.132
							(.000, .400)
	X ² /df	SRMR	NFI	RMR	GFI	CFI	RMSEA
(d) For n=51							(95%CI)
(Other managers)	3.362	.053	.925	.029	.969	.940	.215

However, as presented in Table 29, the value of the indirect effect (.033) indicates that EI does not mediate the relationship between Machiavellianism and family business performance. On the other hand, according to the indirect effect (-.568) economic opportunism seems to negatively mediate the effects the machiavellian personality of a family business manager might have on family business performance. Furthermore, the findings derived from the structural equation model are statistically accepted, as the goodness of fit indices suggest good fit, according to the thresholds

recommended by the literature, except from the RMSEA, the index that assesses how far a hypothesized model is from a perfect model. According to the literature, a higher than the accepted threshold RMSEA could be attributed to the sample size and the degrees of freedom (df). More specifically, most previous work on the RMSEA and its confidence interval has focused on models with a large df. According to researchers, when the cutoff values are used to assess the fit of the properly specified models with small df and small sample size, the RMSEA too often falsely indicates a poor fitting model (Kenny et al., 2014).

6. Discussion

Family businesses have been the subject of research and strategic policy making for several years. However, while the Greek business landscape is highly dependent on family businesses, the endogenous factors that determine their performance and competitiveness have been of little concern to academia, the research community and the policy making. The utilization of modern psychometric tools for observing, measuring and evaluating the qualitative characteristics of human behavior of family business managers is nowadays essential for the understanding and enhancement of management principles and techniques concerning the operational process of a family business. Furthermore, human relationships within the family and among management executives seem to play a significant role in management performance. Consequently, the quantification and analysis of the impact of behavioral, personality and interrelationship factors within the family businesses, and therefore their impact on the performance of these companies, are the points where a significant research gap is identified. This research gap led to the research question that constitutes the main hypothesis of the present research: "If and to what extent emotional intelligence along with two non-cooperative strategies like Machiavellianism and economic opportunism, contribute to administration and management and ultimately to the performance of family businesses". The methodological approach for a substantiated answer to the question involved the adoption of contemporary psychometric tools for the conduct of primary research with questionnaires in a nationwide sample of family businesses, the creation of a database and its statistical and econometric analysis.

An extensive literature review was carried out with continuous updates to achieve the optimal presentation of the processed material, to formulate the research question and the extracted research hypotheses. More specifically, there was a focus on the theoretical evolution of the concepts under research, EI and Machiavellianism, while emphasis was given to the delimitation of the context of family businesses, to which this research applies. The family business endogenous environment was approached in the light of the psychodynamic nature of the family business, as it emerges from the interactions of the family system with the business system, to highlight the need for dynamic human resource management through psychomanagement, in contrast to traditional management approaches. In this line of reasoning, which aims to highlight the identified research gap and provide answers to the research question that arises, the reader was led to the formulation and analysis of

the hypotheses derived from the literature review. The research hypotheses reflect the possible a-priori theoretical relationships between the variables to be investigated. In addition, the statistical and econometric models that express the hypotheses to be investigated were specified. At the same time, the methodology adopted in the present doctoral thesis was recorded in detail. More specifically, the process of designing the final questionnaire is presented, in order to ensure the collection of the necessary quantitative and qualitative information for the investigation of the questions and hypotheses raised. After extensive research, valid and eligible measurement tools were adopted to assess EI, Machiavellianism, and economic opportunism. These tools were translated into Greek with a back-translation process.

Furthermore, a confirmatory factor analysis was performed to ensure the validity and reliability of the final questionnaire, which included 80 questions. The questionnaire included items from scales of evaluation of Machiavellianism, EI and economic opportunism, questions of socio-demographic interest, as well as questions concerning the profile of family businesses. More specifically, the questions concerned the family relationships between the members of the management and their participation in taking responsibility and the decision-making process. In addition, it was made clear to the respondents that there are no wrong or right answers but only honest personal opinions. The method of sampling and forwarding the questionnaires to the random sample of Greek companies in each production sector and each geographical region was conducted via Google Forms and social media platforms. The contact details from the annual financial guide of ICAP were utilized, by e-mails and telephone communication (follow-up) with the companies, providing a sample of 345 respondents.

The coding and analysis of the quantitative and qualitative data followed the completion of the primary research. Descriptive and inferential statistics were applied to test the a priori core hypotheses. Among the statistical and econometric tools used for the data analysis, Structural Equations Models were utilized. This methodology was chosen due to the increased rigor in the use of causal inference in the behavioral sciences, to which this research belongs. More specifically, through the specified and estimated models, it became possible to analyze the factors that determine the relationships between observable and latent variables resulting from the used psychometric tools. In addition, path analysis was performed to examine whether emotional intelligence can act as a mediator to increase the performance of family

businesses. In parallel, an alternative structural equation model was developed to assess and analyze simultaneously the effect of behavioral variables (EI-economic opportunism) on the personality trait variable (Machiavellianism). The descriptive and inferential statistical analysis of the data led to interesting findings, the interpretation of which in turn led to remarkable conclusions for policy and strategy makers, administration and family business mentors. For an efficient operation and performance of domestic family businesses, but also in summary, the research confirmed the need to adopt and apply modern psychomanagement practices, which are based on the use of emotional intelligence in the management and administration of family businesses.

The analysis of the data collected from the sample of Greek family businesses, confirms the assumptions based on the international literature with the aid of econometric and statistical methods of analysis, highlighting the importance of filling the research gap for management and administration. Indeed, the levels of behavioral variables and personality traits examined in the sample by Greek family businesses indicate an important emotional and value background, which can be appropriately exploited to cultivate healthy communication between family members and to resolve conflicts that arise from the overlapping roles between family and business. More specifically, the subject of the present research "marries" two sub-branches of the social sciences, those of Psychology and Economics. By studying the part of individual and social behavior and action that is related to the management of the material and psychological requirements of the individual within the environment of the family business, the potential impact that they have on its performance is evaluated.

6.1.Implications of the findings in the Greek environment

The purpose of the present doctoral thesis was to establish statistically robust correlations between the EI, Machiavellianism and economic opportunism of Greek family business managers, as well their effects on the financial performance of the Greek family businesses. In addition, a main aim was to identify if there were significant differences among the different management roles and ownership. It was considered necessary to explore the examined relationships in order to create solutions that will improve the family business operational process and ensure their resilience and longevity.

First, it is important to note that, although there is a significant body of research examining EI and dark personality traits including Machiavellianism, there has been no

international or domestic research examining the above factors in relation to other behavioral features or business performance, at the same time in a model, concerning a specific type of businesses. In addition, there is a significant research gap in the international and domestic literature, regarding the comparative overview of the above examined factors between owners and managers of family businesses.

The limited research on Greek family businesses is confirmed by the fact that the Greek family business profile is formed and conceptualized mostly through informative reports based on surveys conducted by independent institutions. According to such reports and references from the international literature (Vassiliadis & Vassiliadis, 2014), it is stated that many Greek firms are family businesses or thought to be such. Furthermore, there is an assumption concerning the size of family businesses, as it is thought that Greek family firms are small and very small firms. Although this is true to some extent, it does not reflect reality, as there are also large Greek businesses with high export rates and listed on the stock exchange which happen to be family businesses (e.g., TITAN, ION, Sklavenitis, etc.). However, the sample of the present thesis confirms the above assumption, since it consists of mostly small and micro businesses, which is acceptable as the 98% of total Greek businesses employs one to ten employees.

Given the substantial role of the family business on the national economy, it is surprising that little emphasis is given to training and operational planning for Greek family businesses. This lack of education on the structural peculiarities of the family businesses that make them unique among all other forms of businesses has led to dilemmas that a family business manager must face concerning the future of the business that need efficient decision-making. For example, a significant issue of decision-making for a family business manager is the passing of the business on to the next generation. Not appraising each family members' personal characteristics could lead to ineffective decisions on the succession and even the longevity of the family business, as the family business manager would probably think to pass the management of his or her business to a non-family member – or even an extended-family member (e.g. in-law relatives), with all that implies in terms of the manifestation of noncooperative behaviors on the part of this external management. This is confirmed by the fact that the highest Machiavellianism and economic opportunism levels of the sample belongs to respondents that reported in-law family relationship with the ownership of the family business. On the other hand, first degree relatives of the owners

of family business managers, especially their children, prefer to gain experience in other working environments, safe in the knowledge that the family business will one day be under their surveillance. This could be interpreted as a wish from the ownership (parents) for the potential successors to be trained in an external working environment, different from the family business where no emotional strings exist. Children gaining working experience outside the family business environment could be also an excuse for the delay in their occupation of the family business, as the fact that the parents-owners want to keep control of the family business for as long as possible is very common in Greece.

Maintaining control and delaying the transition of the company to the next generation is a common phenomenon for the Greek family businesses that one could assume is due to the identification of the role of manager-owner with the role of father-creator of the family. This identification may reveal the paternalistic culture of the Greek family business, where the founder and main manager of the business keeps the right to make decisions, both in strategic planning and in urgent cases, or emergencies, or cases of disagreement, as confirmed also by the respondents in the present research.

The family business culture could be considered as a micrography of the nuclear family type that mostly represents the Greek society because of the dominant role of the founder's personal values and incentives as key factors of the configuration of the business culture. This is further supported by the fact that in our sample there is not a single case of a woman's family business ownership, where her spouse holds a lower professional position. Consequently, concern arises from the centralization of decision-making rights and management duties to one person, that is, the family business owner who in most cases in our sample happens to be also the owner. Indeed, one cannot but focus on the possible effects that this centralization might have on the operational process of the family business.

As mentioned in the literature review, an emotionally intelligent family business manager has to play a coordinating and supportive role towards his or her subordinates and set boundaries as far each one's responsibilities are concerned. Although the family business managers that responded to the questionnaire of the present thesis reported high EI scores in their EI assessment, they seem to be quite centralizing as far as their duties and responsibilities are concerned. Indeed, the mental health of a centralized family business manager will sooner or later be affected, also causing problems in the operational process of the family business. When the accumulated responsibilities are

increased and the family business manager thinks that none of his subordinates/relatives have the abilities or skills to complete everyday tasks, they end up looking down on their colleagues, showing behavior that could be misunderstood.

More specifically, it is sometimes impossible for the family business managers to realize the share of responsibility that they bear and to recognize the need to change, something that will be beneficial both for them and for their professional and family relationships. The tension the family business manager experiences is also transferred into personal and family life, resulting in conflicts with the people close to them. It is equally possible that the family business manager needs to set boundaries between the business and family, tending to isolate themselves from the friendly and family environment. Finally, let us not forget that persons who concentrate all the work on themselves hide a deep difficulty in expressing feelings and needs and in creative communication, which also blocks their ability to trust those around them.

Moreover, although distrust of others is a dimension of Machiavellian personality, low scores on this personality trait were reported by the sample. Indeed, working in a team does not seem to be an obstacle for Greek managers to thrive in management, as they tend to believe that there is mutual trust among all team members, also cultivated from the strong family ethics that characterize Greek family culture.

Strong family ethics is a key characteristic for Greek family businesses. More specifically, the strong sense of values and the family firm's purpose is the noticeable difference from other types of businesses, and the key to their resilience during adverse conditions like crises. One such crisis which could not be omitted from discussion in the present chapter is the Covid-19 pandemic, that undoubtedly affected family businesses, along with all the other forms of businesses. The high EI levels of the Greek family business managers and the mere use of soft skills necessary for intensified communication would be a benefit for effective family business management during the pandemic crisis.

The clear sense of firm and family values is clearly revealed by the economic opportunism scores of the family business managers and owners that participated in the primary research. Lying and dishonesty are unacceptable among family business managers and their subordinates, even if the financial well-being of the family business is at stake. Furthermore, according to Greek culture, when one gives their word to a financial agreement it is like "signing a contract", which is also highly supported by the sample. Indeed, the above statement also reveals a common mistake made by family

business managers, which is failure to keep written minutes of the meetings or even of the family business values and mission. Not having the issues under discussion articulated in written form mostly happens because of the feeling that the levels of trust, transparency and communication are quite high among family members.

However, the feeling of transparency among family members does not ensure family alignment on the company's direction. This gap is further highlighted by the lack of formalized governance policies, meaning that although most of the family business managers are negative regarding the use of cunning to achieve financial benefits, even if one does so to defend the family business' own interests, they omit to formalize and document governance policies, mission and business values, and of course, meeting proceedings as part of corporate governance. Strong family and company governance policies will be key in the coming years, especially as the family business owners intend to continue to be involved in the control of their companies and are interested in their longevity and success.

Finally, it would be of great importance for the family business management and ownership to ensure the protection of the business as the greatest financial asset of the present and future family generations. The overlaps of the family, ownership, and management circles, discussed in the thesis, described the family business model. Indeed, the misalignment of the roles of the family members as owners, managers or board of directors' members can cause conflicts that potentially jeopardize the resilience and longevity of the family business, by preventing the drawing up of an agreed, robust and well-documented succession plan. It is encouraging, though, that more and more family businesses seem to be willing to discuss conflict resolution openly with the family business stakeholders and even engage third party consultancy in order to adopt valid and reliable mechanisms of resolution, like psychomanagement techniques.

6.2.Limitations

The present study is subject to several limitations that may affect the generalization of its conclusions. To begin with, the sample may not be as representative, as we could wish, of all Greek regions, due to lack of responses. Future research could aim to apply the methodology of the present study and extend it to different geographical areas to confirm the present findings. Another limitation is

related to the fact that the research mostly includes family business managers occupied in micro and small family businesses, although it is well-known that some of the largest businesses in Greece share the characteristics of family business.

Another limitation is that self-report method measurement tools were used for the analysis of the examined factors, without the presence of the researcher. The family business managers evaluated the questions and stated whether they agree or disagreed with each proposal. This may have led to bias in the responses and possibly affected the quality of the survey results. Future research could modify the methodology of the present study and focus on different methods of examining factors, such as interviews or 360° reports. This restriction is due to the nature of the research design and does not concern any omission in the research design. Moreover, what should be kept under consideration as a limitation is the way profitability is reported and evaluated. The family business managers were unwilling to provide the exact amounts of their businesses' turnovers, profits, and losses on sales. Hence, approximate values were used and evaluated in a scale. Instead, calculated key performance indicators could be more representative in a future study.

6.3. Proposals for further research

The science of management and administration, in the context of which the present doctoral thesis was conducted, considers the business as a "living organism" that is constantly evolving, integrating, and developing any invention that could serve its purposes. Consequently, psychomanagement, which is nothing more than the evolution of management integrating EI into its theories and methods, comes to the forefront.

The appraisal and adoption of psychomanagement principles and techniques (Palaskas, Tsirimokou, Lountzis, 2019) could be valuable to business entrepreneurship and innovation, which form the basis for family businesses. Indeed, both aspects increase the discretion of the products and services produced by the family business and, therefore, enhance its profitability.

Emphasis should be placed on the effect of the characteristics of the entrepreneur and manager, such as level of education, age or even personality traits, on the performance of the family business. It is necessary, however, to study further factors of the family system such as power distribution, the feeling of "family", intra-family and intra-business conflicts, and their interaction with the business system (e.g.

leadership, management, organizational commitment), to better understand the dynamics of business psychomanagement. Issues such as the interaction between the family business life cycle and innovation, the impact of the family on innovation, or the application of innovation in family businesses require further investigation.

Another of the equally important challenges facing family businesses, that require further scientific investigation, is the effective supervision of non-family managers. Attracting skilled non-family employees, collaborating with them and promoting behavior that aligns with the family and its business value system at the same time can be important factors in the success or failure of family businesses. Good knowledge of best human resource management practices in the family business environment is enhanced by exploring differences by industry or ways of developing and utilizing organizational skills. Future research should also examine the impact of family influence on workplace behaviors, attitudes, and human resource management practices, considering agent and steward variables such as level of performance (comparison of high-end family companies) and low efficiency or the management team and the composition of the family business board.

Furthermore, bearing in mind the recent research interest in the effects of gender and ethnicity has increased in the study of family businesses, the interaction of gender and management practices and its impact on the performance of the family business, the impact of the family on strategic management, and female entrepreneurship, are topics that have occupied the international literature, highlighting key social aspects of the specific environment, and harmonizing the findings with current events. The quantitative methodology applied to these studies in large samples of companies representing different industries confirms the importance of gender and nationality in the management of the family business. However, further research is needed to identify gender and nationality as a dimension to reveal and analyze the full range of management practices and strategic decisions in family businesses.

Cultural appropriation through psychomanagement is another important dimension that could affect the family business operational process and should be studied further. The role of the founder in creating an organizational culture in harmony with family culture and family values seems to be extremely important, as it proves its effect on efficiency or performance. In the context of corporate and family social responsibility, family values are diffused into corporate values, and influence them accordingly. Indeed, while family businesses seem less likely to take positive social

initiatives than non-family businesses, they avoid actions that would make them socially irresponsible. Therefore, avoiding negative publicity would undermine their reputation, possibly costing them their place in a supportive community and community and in local and regional economic development.

The above proposals indicate the differences of families in family business studies. Indeed, research is increasingly being conducted on the level of the business rather than the family, showing little attention to the unidirectional effects of how families influence firms. By understanding differences among families within and across societies, the heterogeneity of family businesses and the different outcomes that business families strive for and achieve will be better understood.

Finally, a new challenge that family businesses, as well as all businesses and organizations worldwide, must face is the coronavirus pandemic and the effects it has on their operating process. Due to the rapid developments and the unclear picture of medical science regarding COVID-19, it is important to note, with some reservations as there is not yet sufficient literature to confirm this view, that these effects are mainly found in the issue of succession, due to increased vulnerability of parents-owners of businesses, and the adoption of new technologies (e.g. immediate renewal of corporate image and creation of e-shops, hiring or outsourcing of distributors, etc.), which are business moves to immediately upgrade the total capital of the family harmonizing the family business with the new environment and ensuring its survival. To conclude, further research is needed to understand how family businesses can individually or collectively develop unique resources and opportunities to create competitive advantage.

6.4. Conclusions

To conclude, the interpretation and evaluation of the findings of the empirical research highlight the importance of personality and behavioral elements in financial results, and consequently in the financial performance of a family business. In particular, statistically supported correlations that emerged between the behavioral elements of managers and the evaluated performance of family businesses indicate the occasional positive or negative relationship between them, as shaped by the nature of each behavioral and personality feature. More specifically, it is observed that the managers of family businesses with quite high levels of EI tend to show high performance in their businesses, which indicates effective management of resources

and human resources. However, there is always the possibility that the supposed emotionally sensible behavior of these managers could be a consequence of a covered Machiavellian aspect of their personality, based on which the conditions are cultivated for the manager to choose to behave opportunistically for personal financial benefit to the detriment of the family business. Furthermore, it should be borne in mind that the results of the research are based on self-reported data that represent what the managers think about themselves and the way they manage the business and family, ignoring the impact that this may have on relatives-colleagues and ultimately on the performance of the family business. To this extend, the clarification of the relationship between the elements of behavior and personality of the individual as a member of the family and as a manager of the family business with its performance aims at interpreting or even resolving key issues that hinder the smooth conduct of business, which, as argued, can be achieved through the psychomanagement approach.

7. References

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APPENDIX

A. Original Greek version of Economic Opportunism Scale (EOS) by Sakalaki & Fousiani, 2010

Economic Opportunism Scale							
RS	Ite	ms					
	1.	Είναι φυσικό κάποιος που ψάχνει να βρει δουλειά να δείχνει τα προσόντα του και να					
		αποσιωπά τις αδυναμίες του.					
	2.	Σε οικονομικά θέματα οι άνθρωποι πρέπει πριν από όλα να σκέφτονται το δικό τους συμφέρον.					
	3.	Προκειμένου να υπερασπίσουν τα περιουσιακά συμφέροντα των δικών τους, οι άνθρωποι έχουν το δικαίωμα να λένε ορισμένα ψέματα.					
√	4.	Κάποιος που θέλει να πουλήσει το μεταχειρισμένο αυτοκίνητό του, είναι υποχρεωμένος να ενημερώσει τον αγοραστή για τα ελαττώματα του αυτοκινήτου του.					
	5.	Κάποιος που θέλει μια ασφαλιστική κάλυψη δεν είναι κακό, κατά τη συνέντευξη με τον ασφαλιστή, να αποσιωπήσει ορισμένες ασθένειές του για να μην αυξηθούν τα ασφάλιστρα.					
\	6.	Οι διαφημίσεις που υπογραμμίζουν μόνο τα προσόντα και αποσιωπούν τα ελαττώματα των εμπορευμάτων είναι ανέντιμες.					
√	7.	Ο καλός χειρισμός οικονομικών συναλλαγών προϋποθέτει ειλικρίνεια και αξιοπιστία.					
>	8.	Είναι άχρηστο να καταφεύγει κανείς στην πονηριά για να επιτύχει οικονομικά οφέλη, ακόμη και αν το κάνει για να υπερασπιστεί τα συμφέροντα των δικών του.					
	9.	Είναι φυσικό οι άνθρωποι να είναι πιο συμφεροντολόγοι με κάποιον με τον οποίο συναλλάσσονται μία μόνο φορά και που δεν θα τον ξανασυναντήσουν ποτέ στο μέλλον.					
√	10.	Στις εργασιακές σχέσεις είναι καλύτερο να μοιράζεται κανείς με τους άλλους τις χρήσιμες πληροφορίες που έχει.					
	11.	Στη ζωή δεν μπορούμε να διατηρούμε μακρόχρονες σχέσεις με όλους όσους γνωρίζουμε. Είναι λογικό να διατηρούμε σχέσεις με όσους μας είναι πιο χρήσιμοι.					
	12.	Συχνά το οικονομικό συμφέρον επιβάλλει να μην λέμε όλη την αλήθεια.					
	13.	Αυτοί που ξέρουν να κρύβουν τις σκέψεις και τις γνώσεις τους έχουν περισσότερες πιθανότητες να πλουτίσουν.					
	14.	Καλό είναι να επιδιώκει κανείς σχέσεις με ανθρώπους που θα μπορούσαν να του είναι χρήσιμοι.					
✓	15.	Είναι προτιμότερο να είσαι ειλικρινής ακόμα και όταν έτσι κινδυνεύουν τα συμφέροντά σου.					
√	16.	Οι φιλίες των ανθρώπων οφείλονται στη συμφωνία χαρακτήρων και απόψεων και όχι στο συμφέρον ή σε σκοπιμότητες.					
√	17.	Στις οικονομικές συναλλαγές είναι δυνατόν να είναι κανείς πάντα έντιμος.					
	18.	Είναι μαγκιά να ξέρεις να πουλήσεις κάτι σε κάποιον που δεν το χρειάζεται.					
✓	19.	Όταν δίνει κανείς το λόγο του σε μια οικονομική συμφωνία δεν μπορεί να τον αθετήσει. Το					
V		να δίνεις το λόγο σου είναι σαν να έχεις υπογράψει συμβόλαιο.					
\	20.	Είναι προτιμότερο να λέει κανείς αυτό που σκέφτεται, ακόμα και αν αυτό μπορεί να βλάψει το συμφέρον του.					

B. Wong & Law Emotional Intelligence Scale (WLEIS, Wong & Law, 2002) greek version.

<u>Dimension</u>	<u>Item</u>					
Εκτίμηση των ίδιων συναισθημάτων (Self-emotions' appraisal)	 Τις περισσότερες φορές έχω καλή αίσθηση (κατανόηση) των λόγων που έχω συγκεκριμένα συναισθήματα Κατανοώ καλά τα αισθήματα μου. Αντιλαμβάνομαι πραγματικά τι νιώθω. Γνωρίζω πάντα αν είμαι χαρούμενος/η ή όχι. 					
Εκτίμηση των συναισθημάτων των άλλων (Other's emotions appraisal)	 Γνωρίζω πάντα τα αισθήματα των φίλων μου από τη συμπεριφορά τους. Είμαι καλός παρατηρητής των αισθημάτων των άλλων. Είμαι ευαίσθητος στα συναισθήματα και τα αισθήματα των άλλων. Κατανοώ καλά τα αισθήματα των ανθρώπων γύρω μου. 					
Χρήση των συναισθημάτων (Use of emotions)	9. Θέτω πάντα στόχους και στη συνέχεια δίνω τον καλύτερο εαυτό μου για να τους πετύχω. 10. Λέω πάντα στον εαυτό μου ότι είμαι ικανό άτομο. 11. Είμαι ένα αυτοπαρακινούμενο άτομο. 12. Πάντα θα ενθάρρυνα τον εαυτό μου να προσπαθεί για το καλύτερο δυνατό.					
Pύθμιση των συναισθημάτων (Regulation of emotions)	13. Είμαι ικανός να ελέγχω τη διάθεση μου ώστε να διαχειρίζομαι λογικά τις δυσκολίες. 14. Είμαι αρκετά ικανός στο να ελέγχω τα αισθήματα μου. 15. Μπορώ πάντα να ηρεμώ γρήγορα όταν είμαι πολύ θυμωμένος. 16. Έχω καλό έλεγχο των αισθημάτων μου.					

C. Machiavellian Personality Scale (MPS-Dahling et al., 2009) greek version.

Machiavellian Personality Scale							
<u>Dimension</u>	<u>Item</u>						
Ανηθικότητα	1. Είμαι διατεθειμένος να συμπεριφερθώ ανήθικα αν πιστεύω ότι αυτό						
(Amorality)	θα με βοηθήσει να πετύχω.						
• /	2. Είμαι διατεθειμένος να υπονομεύσω τις προσπάθειες των άλλων αν						
	απειλούν τους στόχους μου.						
	3. Θα εξαπατούσα τους άλλους αν υπήρχε μικρή πιθανότητα να με						
	πιάσουν.						
	4. Πιστεύω ότι το ψέμα είναι απαραίτητο στη διατήρηση συγκριτικο						
	πλεονεκτήματος έναντι των άλλων.						
	5. Μιλάω στους άλλους κυρίως για να αντλήσω πληροφορίες που θα						
	μπορούσα να χρησιμοποιήσω για δικό μου όφελος.						
Επιθυμία για έλεγχο	6. Μου αρέσει να δίνω εντολές στις διαπροσωπικές μου σχέσεις.						
(Desire for control)	7. Μου αρέσει να έχω την ικανότητα να ελέγχω τις καταστάσεις.						
	8. Μου αρέσει να ελέγχω τους άλλους ανθρώπους.						
Επιθυμία για κύρος	9. Το κύρος είναι ένας καλός δείκτης επιτυχίας στη ζωή.						
(Desire for status)	10.Η συσσώρευση πλούτου είναι σημαντικός στόχος για μένα						
	11. Θέλω να γίνω πλούσιος και ισχυρός κάποια μέρα.						
	12. Οι άνθρωποι παρακινούνται μόνο από το προσωπικό τους κέρδος.						

Δυσπιστία προς τους	13.	Δε μου αρέσει να δένομαι με ομάδες γιατί δεν εμπιστεύομαι τους						
άλλους		άλλους.						
(Distrust of others)	14.	Τα μέλη μιας ομάδας «αλληλομαχαιρώνονται πισώπλατα» για να						
(Distrust of others)		αναδειχθούν.						
	15. Αν δείξω οποιαδήποτε αδυναμία στον εργασιακό χώρο , οι άλλ							
		το εκμεταλλευτούν.						
	16.	Οι άλλοι πάντα σχεδιάζουν τρόπους να επωφεληθούν μιας						
		κατάστασης σε βάρος μου.						

D. Final Questionnaire

απέδου που μπεριφοράς οθύνεται σε

				ο Διδακτορικής Έρευνας			
διεξι και	άγεται από το λήψης αποφ	ο Πάντειο Πανεπι	στήμιο και : βάλλον της	ι εντάσσεται σε μια έρευνα διδακτορικού επι που αφορά τον τρόπο σκέψης σε ζητήματα συμ ελληνικής οικογενειακής επιχείρησης. Απευ Μέρος 1ο			
1.	Φύλο		i	<u> тароц то</u>			
☐ A	νδρας	Γυναίκα	□ Άλλο				
2.	Ηλικία						
<u> </u>	26-34	35-44 45-54	<u> 55-64</u>	65+			
3.	Επίπεδο Ε	κπαίδευσης					
	Δεν τελείωσα τ	ο Δημοτικό		Απόφοιτος ΤΕΙ			
	Απόφοιτος Δημ	οτικού	🗌 Απόφοιτος ΙΕΚ				
	Απόφοιτος Γυμν	νασίου		🗌 Κάτοχος Μεταπτυχιακού Τίτλου			
	Απόφοιτος Λυκ	είου		□ Κάτοχος Διδακτορικού Τίτλου			
	Απόφοιτος ΑΕΙ			Αλλο			
4.	Θέση στην	επιχείρηση:					
□ I	διοκτήτης			🔲 Διευθυντής τμήματος			
	Μέτοχος			Στέλεχος			
	Πρόεδρος ΔΣ			🗌 Μέλος ΔΣ			
I	Γενικός Διευθυν	ντής					
5.	Έτη απασχ	(όλησης στην επι	χείρηση (α	ριθμός)			
		·····					
6.	Έχετε εμπε	ειρία από άλλες θ	θέσεις εργα	σίας πλην της οικογενειακής επιχείρησης;			
□ No	χι	□Όχι					
7.	Τι ποσοστά	ό ιδιοκτησίας της	ς επιχείρησ	ης ανήκει στην οικογένεια;			
	50%	<u>50%</u>	S50%	<u> </u>			

8.	Πώς κατανέμεται α	υτό το ποσοστό σε γοι						
Г	ονείς	< 50%	50% >	50% 100% \[\] \[\]				
	αιδιά λλους συγγενείς							
А	moog ooyyeveig							
9.	Πότε ιδρύθηκε η επ	αχείρηση σας ;						
10.	 Που βρίσκεται η επ	ιχείρηση σας;						
] Ν. Αττικής	🗌 Ν. Δωδεκανήσου	🗌 Ν. Θεσσαλονίκης	🗌 Ν. Κορινθίας				
] Ν. Αιτωλοακαρνανίας	□ Ν. Έβρου	🗌 Ν. Ιωαννίνων	🗌 Ν. Κυκλάδων				
] Ν. Αργολίδας	🗌 Ν. Ευβοίας	🗌 Ν. Καβάλας	🗌 Ν. Λακωνίας				
] Ν. Άρτας	🗌 Ν. Ευρυτανίας	🗌 Ν. Καρδίτσας	🗌 Ν. Λάρισας				
] Ν. Αρκαδίας	🗌 Ν. Ζακύνθου	🗌 Ν. Καστοριάς	🗌 Ν. Λασιθίου				
] Ν. Αχαΐας	□ Ν. Ηλείας	🗌 Ν. Κέρκυρας	🗌 Ν. Λέσβου				
] Ν. Βοιωτίας	🗌 Ν. Ημαθίας	🗌 Ν. Κεφαλληνίας	🗌 Ν. Λευκάδας				
] Ν. Γρεβενών	🗌 Ν. Ηρακλείου	🗌 Ν. Κιλκίς	🗌 Ν. Μαγνησίας				
] Ν. Δράμας	🗌 Ν. Θεσπρωτίας	🗌 Ν. Κοζάνης	🗌 Ν. Μεσσηνίας				
] Ν. Πέλλας	🗌 Ν. Πιερίας	🗌 Ν. Πρέβεζας	🗌 Ν. Ξάνθης				
] Ν. Τρικάλων	□ Ν. Χαλκιδικής	🗌 Ν. Χανίων	🗌 Ν. Ροδόπης				
] Ν. Φλώρινας	🗌 Ν. Σερρών	🗌 Ν. Χίου					
11.	Τι γενιάς είναι η επ	ιχείρηση σας;						
1η	5	Μεταγενέστερη						
12.	Τι νομική μορφή έχ Ατομική Επιχείρηση	ει η επιχείρηση σας;	Νεοφυής Επιχείρηση (S	Start-Up)				
	Ομόρρυθμη Εταιρεία (Ο.Ε)		🗌 Ανώνυμη Βιομηχανική	Εμπορική Εταιρεία (Α.Β.Ε.Ε.)				
	Ετερόρρυθμη Επιχείρηση (Ι	E.E)	🗌 Ανώνυμη ναυτιλιακή ετ	ταιρεία (Α.Ν.Ε.)				
	Συνεταιρισμός		🗌 Ανώνυμη Εμπορική Βισ	ομηχανική Εταιρεία (Α.Ε.Β.Ε.)				
	Ανώνυμη Εταιρεία (Α.Ε)		Εταιρεία Περιορισμένης Ευθύνης (Ε.Π.Ε.)					
	[διωτική Κεφαλαιουχική Ετ	ταιρεία (Ι.Κ.Ε.)	Αλλο					
13.	Σε ποιους κλάδους	δοαστηριοποιείται η α	emusionan aus (Snu	είωστε όλες όσες ισχύουν)				
_	- 2ε ποίους κλάσους (Γρόφιμα	opao i ilpionoistiat il s	Μεταφορές					
	Ποτά/Καπνός Κλωστοϋφαντουργία/Δέρμα	χ	□ Τηλεπικοινωνίες κ □ Χρηματοπιστωτικέ					
_	Ενδυση/Υπόδηση Κατασκενές/Λομικά Υλικά/	Έξοπλισμός Κτιοίων	🔲 Εκπαίδευση					
Κατασκευές/Δομικά Υλικά/Εξοπλισμός ΚτιρίωνΟικιακός/Επαγγελματικός εξοπλισμόςΝαυτιλία								
	Γουρισμός Λιανικό εμπόριο		□ Λοιποί κλάδοι					
14.	Ο αριθμός των απα	σχολούμενων στην επ	ιχείρηση είναι:					
_<1	0 απασχολούμενοι	απασχολούμενοι [<250 απασχολούμενοι	≥250 απασχολούμενοι				
15.	15. Εκ των οποίων, μέλη της οικογένειας είναι:							

16. Ποια η Εγώ είμαι ο Τέκνο Εγγόνι Σύζυγος Αδερφός		ιε τον ιδιοκτ Ανιψιός Γαμπρός Νύφη Αλλο Καμία	ήτη της επιχ	είρησης;		
□ Ναι, αμείβον □ Όχι, δεν αμεί □ Αμείβονται δ	ται βονται σιαφορετικά από ομοια με τους υπ		ς εργαζόμενους		χείρηση αμείβο [:] [:]	νται;
18. Υπάρχο Ναι	ουν μέτοχοι : □Όχι	που δεν εργά	ζονται στην	επιχείρησι	η αλλά αμείβον	ται;
19. Αν ναι,	τι ποσοστό	της επιχείρη	σης κατέχου	v;		
20. Πόσους	ς διευθυντές	έχει η επιχεί	ρηση;			
21 . Πόσοι ο	 από αυτούς :	είναι μέλη τη	ις οικογένειο	ıç		
🔲 Ο ιδιοκτήτης	ο των Μετόχων Συμβούλιο ου ΔΣ	στρατηγική	της επιχείρι	ισης;		
Του ιδιοκτήτη Της πλειοψηφ	 νίας του συμβουλ νίας του διοικητικ υ του ΔΣ	. ,.	ι άποψη επιι	κρατεί;		
24. Ο τζίρο	ος της επιχεί	ρησης σας τι	ην τελευταί σ	τριετία		
	≤	2.000.000€	≤ 10.000.00	00€	≤ 50.000.000€	≥ 50.000.000€
2016			[
2017			L			
201825. Η επιχε	είρηση σας τ	⊔ ην τελευταίο Κέρδη		οουσίασε: Ζημιές		
2016						
2017						
2018						
26. Στην π κάθε χρ	-	ερδών, σε τι	ποσοστό ήτ	αν ως προ	ς τις συνολικέ	ς σας πωλήσεις για την
	0 -10%	10,01-20%	20,01-30%	30,01-40%	40,01-50%	>50% Δεν είχε κέρδη

2016								
2017								
2018								
27. Στην	περίπτωση ζημ	ιών, σε τι πο	οσοστό ήτ	αν ως πρ	ος τις συν	ολικές σα	ς πωλήσει	ς για την
κάθε χ	χρονιά;		_			-		
	0 -10%	10,01-20%	20,01-30%	30,01-40	% 40,01-5	50% >	-50%	Δεν είχε ζημιές
2016		П						
2010								
2018								
	_	_	_	_	_		_	
28 Σεσιά	ποσοστό επί των	ι πωλήσεων	évave ezar	ιωνές n e	πινείουση	σας την τ	ελ ευταία τ	oictía:
20. 26 11 1		nomioeov	ckuve eşu	to tes it s	πιχειρηση	ous tilv t	exectutu t	pieriu,
	0-259	% 25	5,01-50%	50,01-	75%	75,01-100%		, έκανε ιγωγές
2016]		- 3-	
2017				L] 1			
2018	Ц		Ш	L	J	Ш		
			Μέρο					
	άσετε προσεκτι							
	που εκφράζει πε							
	ρόταση. Δεν υπο σας άποψη, βάσ					ινιας ενο	ιαφερει η ε	ειλικρινης
		., .,						
-	ερισσότερες φορ	ές έχω καλ	ή αίσθηση	(κατανό	ηση) των λ	ώγων ποι	ο έχω συγκ	εκριμένα
συναι	σθήματα							
			. ,			,		
Δεν συμφωνώ καθόλου	Δεν συμφωνώ	Μάλλον δεν συμφων		χω γνώμη	Μάλλον συ	τφωνώ	Συμφωνώ	Συμφωνώ απόλυτα
20 1/		0.4						
30. Κατα	νοώ καλά τα αισ	σθηματα μου).					
		☐ N ((2))				,		
Δεν συμφωνώ καθόλου	Δεν συμφωνώ	Μάλλον δεν συμφων		χω γνώμη	Μάλλον συ	ιφωνω	Συμφωνώ	Συμφωνώ απόλυτα
24 4 2	0.7	,						
31. Αντιλ	αμβάνομαι πραγ	γματικα τι νι	ւաθω.					
,			. ,			,		
Δεν συμφωνώ καθόλου	Δεν συμφωνώ	Μάλλον δεν συμφων		χω γνώμη	Μάλλον συ	τφωνω	Συμφωνώ	Συμφωνώ απόλυτα
		• •						
		_						
32. Γνωρί	ίζω πάντα αν είμ	ιαι χαρούμεν	νος/η ή όχι	•				
Δεν συμφωνώ καθόλου	Δεν συμφωνώ	Μάλλον δεν συμφων		χω γνώμη	Μάλλον συμ	ιφωνώ	Συμφωνώ	Συμφωνώ απόλυτα
Radondo		ουν συμφων	w					ane no ta
–								
33. Γνωρί	ίζω πάντα τα αι	σθήματα τω	ν φίλων μο	ου από τη	συμπεριφ	ορά τους.		
						,		
Δεν συμφωνώ καθόλου	Δεν συμφωνώ	Μάλλον δεν συμφων		χω γνώμη	Μάλλον συμ	ιφωνώ	Συμφωνώ	Συμφωνώ απόλυτα

34. Είμαι	καλός παρατηρ	ητής των αισθη	μάτων των άλλ	ωv.		
□ Δεν συμφωνώ καθόλου	□ Δεν συμφωνώ	□ Μάλλον δεν συμφωνώ	□ Δεν έχω γνώμη	□ Μάλλον συμφωνώ	□ Συμφωνώ	□ Συμφωνώ απόλυτα
35. Είμαι	ευαίσθητος στα	συναισθήματα	και τα αισθήμα	τα των άλλων.		
□ Δεν συμφωνώ καθόλου	□ Δεν συμφωνώ	□ Μάλλον δεν συμφωνώ	□ Δεν έχω γνώμη	□ Μάλλον συμφωνώ	□ Συμφωνώ	□ Συμφωνώ απόλυτα
36. Κατα	νοώ καλά τα αισ	θήματα των αν	θρώπων γύρω μ	ov.		
□ Δεν συμφωνώ καθόλου	□ Δεν συμφωνώ	□ Μάλλον δεν συμφωνώ	□ Δεν έχω γνώμη	□ Μάλλον συμφωνώ	□ Συμφωνώ	□ Συμφωνώ απόλυτα
37. Θέτω	πάντα στόχους ι	και στη συνέχει	α δίνω τον καλί	ότερο εαυτό μου γ	να να τους πε	τύχω.
□ Δεν συμφωνώ καθόλου	□ Δεν συμφωνώ	□ Μάλλον δεν συμφωνώ	□ Δεν έχω γνώμη	□ Μάλλον συμφωνώ	□ Συμφωνώ	□ Συμφωνώ απόλυτα
38. Λέω τ	τάντα στον εαυτο	ό μου ότι είμαι ι	κανό άτομο.			
□ Δεν συμφωνώ καθόλου	□ Δεν συμφωνώ	□ Μάλλον δεν συμφωνώ	□ Δεν έχω γνώμη	□ Μάλλον συμφωνώ	□ Συμφωνώ	□ Συμφωνώ απόλυτα
39. Είμαι	ένα αυτοπαρακι	ινούμενο άτομο.				
□ Δεν συμφωνώ καθόλου	□ Δεν συμφωνώ	□ Μάλλον δεν συμφωνώ	□ Δεν έχω γνώμη	□ Μάλλον συμφωνώ	□ Συμφωνώ	□ Συμφωνώ απόλυτα
40. Πάντο	α θα ενθάρρυνα -	τον εαυτό μου ν	α προσπαθεί για	α το καλύτερο δυ	νατό.	
□ Δεν συμφωνώ καθόλου	□ Δεν συμφωνώ	□ Μάλλον δεν συμφωνώ	□ Δεν έχω γνώμη	□ Μάλλον συμφωνώ	□ Συμφωνώ	□ Συμφωνώ απόλυτα
41. Είμαι	ικανός να ελέγχ	ω τη διάθεση μ	ου ώστε να διαχ	ειρίζομαι λογικά	τις δυσκολίες	
□ Δεν συμφωνώ καθόλου	□ Δεν συμφωνώ	□ Μάλλον δεν συμφωνώ	□ Δεν έχω γνώμη	□ Μάλλον συμφωνώ	□ Συμφωνώ	□ Συμφωνώ απόλυτα
42. Είμαι	αρκετά ικανός ο	στο να ελέγχω τ	α αισθήματα μο	ν.		
□ Δεν συμφωνώ καθόλου	□ Δεν συμφωνώ	□ Μάλλον δεν συμφωνώ	□ Δεν έχω γνώμη	□ Μάλλον συμφωνώ	□ Συμφωνώ	□ Συμφωνώ απόλυτα

43.	Μπορώ πο	άντα να ηρεμ	ώ γρήγορα ότ	ταν είμαι πολ	մ θυμωμέ	voς.		
□ Δεν συμ καθό	ιφωνώ Δ	□ εν συμφωνώ	□ Μάλλον δεν συμφωνώ	□ Δεν έχω γνο	όμη Μάλ λ	□ λον συμφωνώ	□ Συμφωνώ	□ Συμφωνώ απόλυτα
44.	Έχω καλό	ο έλεγχο των ο	αισθημάτων μ	110 0.				
Δεν συμ καθό	ιφωνώ Δ	εν συμφωνώ	Μάλλον δεν συμφωνώ	Δεν έχω γνο	όμη Μάλ λ	- λον συμφωνώ	Συμφωνώ	Συμφωνώ απόλυτα
45.	Είμαι δια πετύχω.	τεθειμένος ν	α συμπεριφε	ρθώ ανήθικο	ι αν πιστε	εύω ότι αυτ	ό θα με βοηθ	θήσει να
	□ Δεν συμφ καθόλ		□ συμφωνώ Δε	□ ν έχω γνώμη	□ Συμφωνώ		□ ό απόλυτα	
46.	Είμαι δια μου.	τεθειμένος νο	ι υπονομεύσο	ο τις προσπά	θειες των	άλλων αν α	πειλούν τους	στόχους
	□ Δεν συμφωνώ καθόλου	□ Δεν συμφα	□ ονώ Δεν έχω		□ μφωνώ	□ Συμφωνώ από∂	ωτα	
47.	Θα εξαπα	τούσα τους ά	λλους αν υπή	ρχε μικρή πι	θανότητα	να με πιάσοι	v.	
	□ Δεν συμφωνώ καθόλου	□ Δεν συμφο	□ ονώ Δεν έχω		□ μφωνώ	□ Συμφωνώ από∂	ιντα	
48.	Πιστεύω ο των άλλω		ίναι απαραίτ	ητο στη διατ	ήρηση συ	γκριτικού πλ	εονεκτήματο	ς έναντι
	□ Δεν συμφωνώ καθόλου	□ Δεν συμφο	□ ονώ Δεν έχω		□ μφωνώ	□ Συμφωνώ από∂	ωτα	
49.		στους άλλους οιήσω για δικ			ίσω πλημ	οοφορίες πο	υ θα μπορο	νύσα να
	χρηστ μ ολί □			· □				
	Δεν συμφωνώ καθόλου			ν έχω γνώμη	Συμφων	ώ Συμφ	οωνώ απόλυτα	
50.	Μου αρέσ	ει να δίνω εν	τολές στις διι	υπροσωπικές	μου σχέσ	દાદુ.		
	□ Δεν συμφωνώ καθόλου	□ Δεν συμφο	□ ονώ Δεν έχω		□ μφωνώ	□ Συμφωνώ από∂	ωτα	
51.	Μου αρέσ	ει να έχω την	ικανότητα ν	α ελέγχω τις	καταστάσ	દદાદુ.		
	□ Δεν συμφωνώ καθόλου	□ Δεν συμφο	□ ονώ Δεν έχω		□ μφωνώ	□ Συμφωνώ από∂	ωτα	

52. Μου αρέσει να ελέγχω τους άλλους ανθρώπους.

	Δεν συμφωνώ καθόλου	Δεν συμφωνώ	Δεν έχω γνώμη	Συμφωνώ	Συμφωνώ απόλυτα	
53.	. Το κύρος είν	ναι ένας καλός δ	δείκτης επιτυχίο	ς στη ζωή.		
	Δεν συμφωνώ καθόλου	Δεν συμφωνώ	Δεν έχω γνώμη	Συμφωνώ	Συμφωνώ απόλυτα	
54.	. Η συσσώρει	υση πλούτου είν	αι σημαντικός ο	στόχος για μέ	wa.	
	Δεν συμφωνώ καθόλου	Δεν συμφωνώ	Δεν έχω γνώμη	Συμφωνώ	Συμφωνώ απόλυτα	
55.	. Θέλω να γίν	ω πλούσιος και	ισχυρός κάποιο	μέρα.		
	Δεν συμφωνώ καθόλου	Δεν συμφωνώ	Δεν έχω γνώμη	Συμφωνώ	Συμφωνώ απόλυτα	
56.	. Οι άνθρωπο	οι παρακινούντα	α μόνο από το π	οοσωπικό το	υς κέρδος.	
	Δεν συμφωνώ καθόλου	Δεν συμφωνώ	Δεν έχω γνώμη	Συμφωνώ	Συμφωνώ απόλυτα	
57.	. Δε μου αρέσ	ει να δένομαι μ	ε ομάδες γιατί δ	εν εμπιστεύο	ρμαι τους άλλους.	
	Δεν συμφωνώ καθόλου	Δεν συμφωνώ	Δεν έχω γνώμη	Συμφωνώ	Συμφωνώ απόλυτα	
58.	. Τα μέλη μισ	ις ομάδας «αλλτ	ι λομαχαιρώνοντ	αι πισώπλατ	α» για να αναδειχθο	ύν.
	Δεν συμφωνώ καθόλου	Δεν συμφωνώ	Δεν έχω γνώμη	Συμφωνώ	Συμφωνώ απόλυτα	
59.	. Αν δείξω οπ	οιαδήποτε αδυν	ναμία στον εργα	σιακό χώρο ,	οι άλλοι θα το εκμε	ταλλευτούν.
	Δεν συμφωνώ καθόλου	Δεν συμφωνώ	Δεν έχω γνώμη	Συμφωνώ	Συμφωνώ απόλυτα	
60.	. Οι άλλοι πά	ντα σχεδιάζουν	τρόπους να επο	οφεληθούν μι	ιας κατάστασης σε [βάρος μου.
	Δεν συμφωνώ καθόλου	Δεν συμφωνώ	Δεν έχω γνώμη	Συμφωνώ	Συμφωνώ απόλυτα	
61.	. Είναι φυσικ τις αδυναμία		άχνει να βρει δο	υλειά να δείχ	νει τα προσόντα του	και να αποσιωπά
		εν Μάλλο ν		Μάλλον		υνώ απόλυτα
		ρωνώ δεν συμφα		συμφωνώ	_ σμφο	

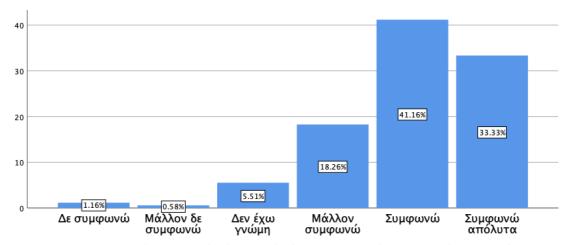
□ Δεν συμφωνώ καθόλου	□ Δεν συμφωνώ	□ Μάλλον δεν συμφωνώ	□ Δεν έχω γνώμη	□ Μάλλον συμφωνώ	□ Συμφωνώ	□ Συμφωνώ απόλυτα
	υ να υπερασπίσ αίωμα να λένε ο	-		τα των δικών τοι	ος, οι άνθρωτ	เดเ
П	П		П			
Δεν συμφωνώ καθόλου	Δεν συμφωνώ	Μάλλον δεν συμφωνώ	Δεν έχω γνώμη	Μάλλον συμφωνώ	Συμφωνώ	Συμφωνώ απόλυτα
-	υ θέλει να πουλι τον αγοραστή γι Δεν συμφωνώ			ίνητό του, είναι υα ήτου του. □ Μάλλον συμφωνώ	τοχρεωμένος	να
καθόλου	Δεν συμφωνω	δεν συμφωνώ	Δεν εχω γνωμη	νιαλλον συμφωνω	20μφωνω	απόλυτα
□ Δεν συμφωνώ καθόλου 6. Οι διαφημί ο	□ Δεν συμφωνώ σεις που υπογρα	□ Μάλλον δεν συμφωνώ μμίζουν μόνο το	□ Δεν έχω γνώμη α προσόντα και	Π Μάλλον συμφωνώ αποσιωπούν τα ε	□ Συμφωνώ λαττώματα το	□ Συμφωνο απόλυτα
	ων είναι ανέντιμ		•		•	
Δεν συμφωνώ καθόλου	Δεν συμφωνώ	Μάλλον δεν συμφωνώ	Δεν έχω γνώμη	Μάλλον συμφωνώ	Συμφωνώ	Συμφωνώ απόλυτα
7. Ο καλός χει	ρισμός οικονομι	κών συναλλαγά	ον προϋποθέτει :	ειλικρίνεια και αξι	οπιστία.	
Δεν συμφωνώ καθόλου	Δεν συμφωνώ	Μάλλον δεν συμφωνώ	Δεν έχω γνώμη	Μάλλον συμφωνώ	Συμφωνώ	Συμφωνώ απόλυτα
				πιτύχει οικονομικ	ά οφέλη, ακό	μη
	ίνει για να υπερο	ισπιστει τα συμ	ψεροντα των οι	κων του.		
□ Δεν συμφωνώ καθόλου	□ Δεν συμφωνώ	□ Μάλλον δεν συμφωνώ	□ Δεν έχω γνώμη	□ Μάλλον συμφωνώ	□ Συμφωνώ	□ Συμφωνώ απόλυτα
-	=			όγοι με κάποιον ναντήσουν ποτέ στ	-	οίο

Δ	εν συμφωνώ καθόλου	Δεν συμφο		ιλον μφωνώ	Δεν έχω	γνώμη	Μάλλον συμο	ρωνώ	Συμφωνώ		Συμφωνώ απόλυτα
			εις είναι καλί	τερο να	μοιράζε	ται κα	νείς με του	ς άλλους	τις χρή	σιμες	
	πληροφομ	οίες που έχει.									
Δ	□ εν συμφωνώ καθόλου	□ Δεν συμφο	ωνώ Μά] Ιλον μφωνώ	□ Δεν έχω	γνώμη	□ Μάλλον συμο	ρωνώ	□ Συμφωνώ		□ Συμφωνώ απόλυτα
			να διατηρού μ σχέσεις με όσ			-		ους γνωρ	ίζουμε.	Είναι	
			[]							
Δ	εν συμφωνώ καθόλου	Δεν συμφο		ιλον μφωνώ	Δεν έχω	γνώμη	Μάλλον συμο	ρωνώ	Συμφωνώ		Συμφωνά απόλυτα
/2.	Συχνά το	οικονομικό σ	υμφέρον επιβ	άλλει νο	ι μην λέμ	ε όλη 1	την αλήθεια	•			
			[
Δ	Εν συμφωνώ καθόλου	Δεν συμφο	ωνώ Μά	_ \λον μφωνώ	Δεν έχω	γνώμη	Μάλλον συμο	ρωνώ	Συμφωνώ		Συμφωνό απόλυτα
		τες να πλουτί Δεν συμφο] ωνώ Μά] Ιλον μφωνώ	Δεν έχω		□ Μάλλον συμο		□ Συμφωνώ	2	□ Συμφωνώ απόλυτα
	Καλό είνο χρήσιμοι.		κει κανείς σ	χέσεις μ	ιε ανθρώ	πους :	που θα μπο	ρούσαν	να του	είναι	
			Г]							
Δ	εν συμφωνώ καθόλου	Δεν συμφο	ονό Μά	_ \λον μφωνώ	Δεν έχω	γνώμη	Μάλλον συμο	ρωνώ	Συμφωνώ		Συμφωνά απόλυτα
75.	Είναι προ	τιμότερο να ε	είσαι ειλικριν	ής ακόμ	α και ότο	ιν έτσι	κινδυνεύου	ν τα συμο	φέροντά	σου.	
Δ	εν συμφωνώ καθόλου	Δεν συμφο		ιλον μφωνώ	Δεν έχω	γνώμη	Μάλλον συμο	ρωνώ	Συμφωνώ		Συμφωνώ απόλυτα
		των ανθρώπ ή σε σκοπιμο	των οφείλοντο ότητες.	αι στη σ	υμφωνία	χαραι	κτήρων και	απόψεω	ν και όχ	μ στο	
συμφ αθόλο		ω συμφωνώ	Μάλλον δεν συμφωνώ	Δεν έ	χω γνώμη	Μάλλ	ον συμφωνώ	Συμφων	rώ	Συμφωνο απόλυτο	
77.	Στις οικο	ονομικές συνο	ιλλαγές είναι	δυνατόν	να είναι	κανείς	πάντα έντι	μος.			
	-										
συμφα ιθόλοι		εν συμφωνώ	Μάλλον δεν συμφωνώ		ω ω γνώμη	Μάλλο	ν συμφωνώ	Συμφωνο	ó	Συμφωνι απόλυτο	

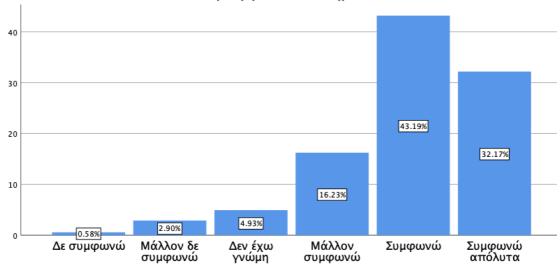
78. Eívo	αι μαγκιά να ξέρε	ις να πουλήσεις	κάτι σε κάποιο	ν που δεν το χρειό	ζεται.	
	П	П	П	П		
Δεν συμφωνώ καθόλου	Δεν συμφωνώ	Μάλλον δεν συμφωνώ	Δεν έχω γνώμη	Μάλλον συμφωνώ	Συμφωνώ	Συμφων απόλυτ
	ν δίνει κανείς το ίνεις το λόγο σου			μφωνία δεν μπορ υμβόλαιο.	εί να τον αθετ	ήσει. Το
□ Δεν συμφωνώ καθόλου	□ Δεν συμφωνώ	□ Μάλλον δεν συμφωνώ	□ Δεν έχω γνώμη	□ Μάλλον συμφωνώ	□ Συμφωνώ	□ Συμφων απόλυτ
	α προτιμότερο να υμφέρον του.	ι λέει κανείς αυτ	τό που σκέφτετο	αι, ακόμα και αν ο	αυτό μπορεί νο	ι βλάψει
□ Δεν συμφωνώ καθόλου	□ Δεν συμφωνώ	□ Μάλλον δεν συμφωνώ	□ Δεν έχω γνώμη	□ Μάλλον συμφωνώ	□ Συμφωνώ	□ Συμφων απόλυτ
είναι ανών να αποκαλ εμπιστευτ θα χρησιμ ή/και ποι φυσικό πρ συμμετεχά αλλά και μ	νυμα και δεν περι λυφθεί με οποιοδή ικές και μόνο τα μ ιοποιηθούν αποκλ οτικής επεξεργασ ιόσωπο δεν θα δημ όντων και το προσ μετά το πέρας αυτ	έχουν προσωπικό ποτε τρόπο η ται ιέλη της ερευνητ ειστικά για ερευν ίας συνολικά. Κι ισσιευθεί, παρά μωπικό απόρρητο ής, και δεσμεύει	ά στοιχεία φυσικ υτότητα των συμ εικής ομάδας θα νητικούς σκοποί ταμία μεμονωμέ όνο τα τελικά απ θα τηρηθεί στο τα μέλη της ερει		ο τα οποία θα μ ταντήσεις είναι τε αυτές. Οι απ να θα τύχουν πο χετικά με οποι υευνας. Η ανων τη διάρκεια της	πορούσε απόλυτα αντήσεις οσοτικής ιοδήποτε υμία των ξέρευνας
Ταμείο) με Διά Βίου Ι	έσω του Επιχειρης Μάθηση», στο πλο	τιακού Προγράμμ χίσιο της Πράξης	ιατος «Ανάπτυξι ; «Ενίσχυση του	ορωπαϊκή Ένωση η Ανθρώπινου Δυνι ανθρώπινου ερευν υλοποιεί το Ίδρυμα	αμικού, Εκπαίδ ητικού δυναμικ	ευση και τού μέσω
* * * * * * * * * * * * * *		Ανάπτυξη Α Εκπαίδευσι	ησιακό Πρόγρο νθρώπινου Δι η και Διά Βίου τηση της Ελλάδας και τ	υναμικού,	201α ανάπτυξη - εργασί	4-2020 (α-αλληλεγγύη

Ευχαριστούμε πολύ για το χρόνο σας!

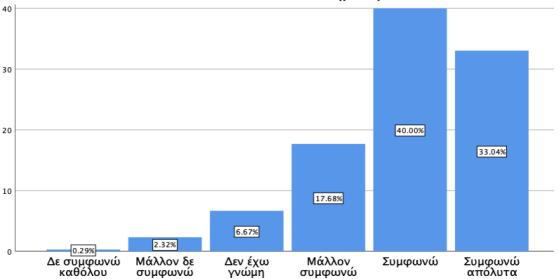
E. Distribution of answers to the Wong & Law Emotional Intelligence Scale items



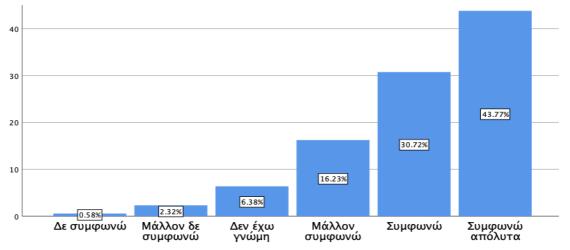
29. Τις περισσότερες φορές έχω καλή αίσθηση (κατανόηση) των λόγων που έχω συγκεκριμένα συναισθήματα.



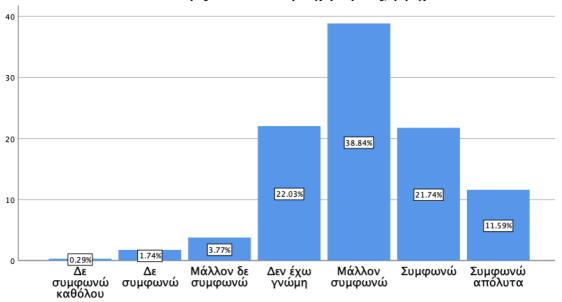
30. Κατανοώ καλά τα αισθήματα μου.



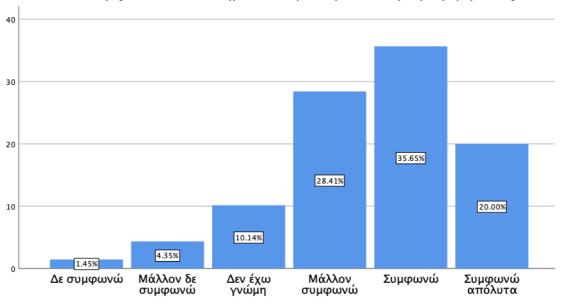
31. Αντιλαμβάνομαι πραγματικά τι νιώθω.



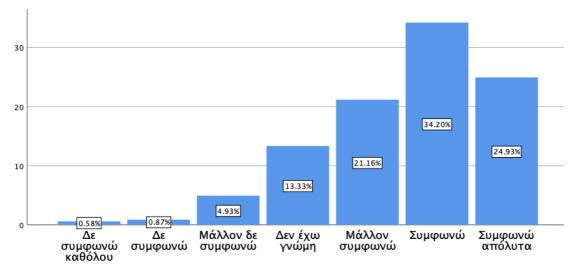
32. Γνωρίζω πάντα αν είμαι χαρούμενος/η ή όχι.



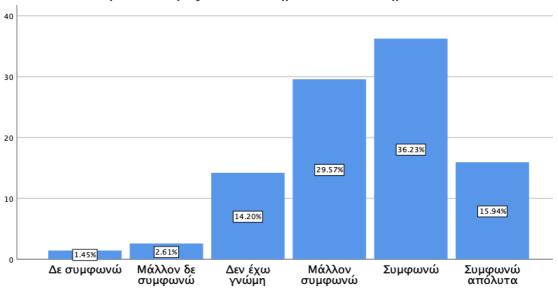
33. Γνωρίζω πάντα τα αισθήματα των φίλων μου από τη συμπεριφορά τους.



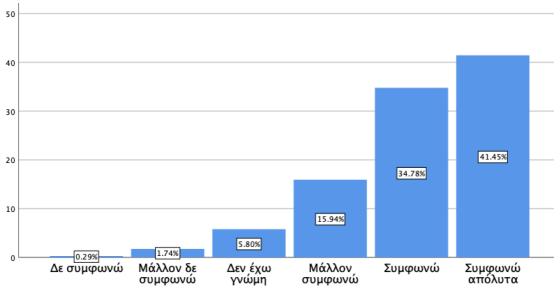
34. Είμαι καλός παρατηρητής των αισθημάτων των άλλων.



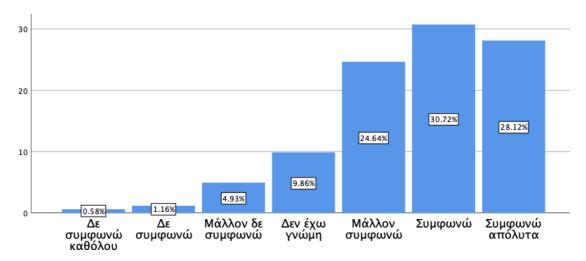
35. Είμαι ευαίσθητος στα συναισθήματα και τα αισθήματα των άλλων.



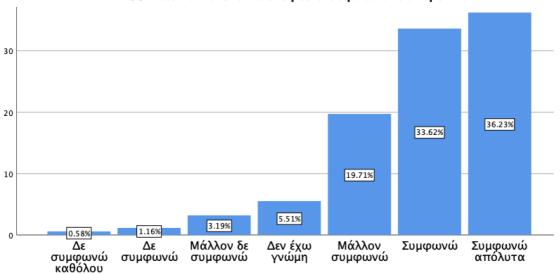
36. Κατανοώ καλά τα αισθήματα των ανθρώπων γύρω μου.



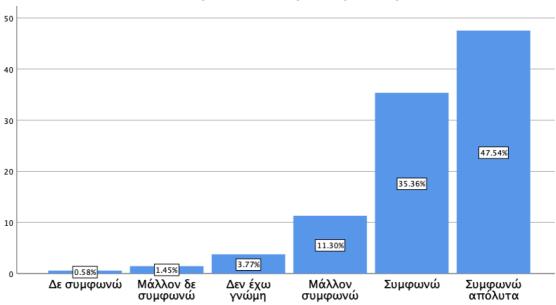
37. Θέτω πάντα στόχους και στη συνέχεια δίνω τον καλύτερο εαυτό μου για να τους πετύχω.



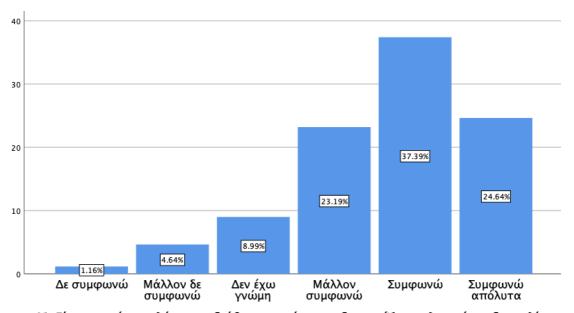
38. Λέω πάντα στον εαυτό μου ότι είμαι ικανό άτομο.



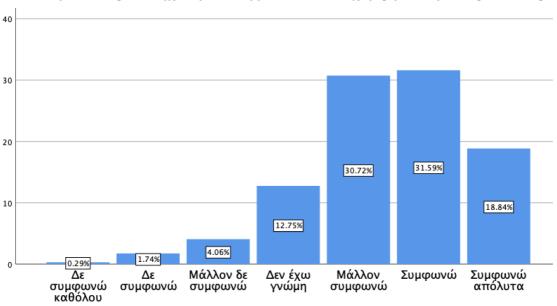
39. Είμαι ένα αυτοπαρακινούμενο άτομο.



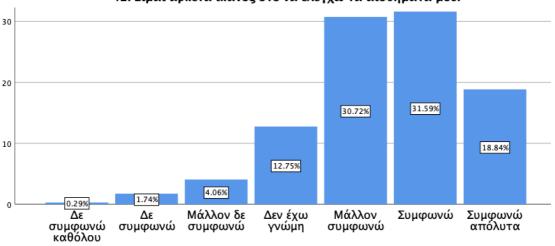
40. Πάντα θα ενθάρρυνα τον εαυτό μου να προσπαθεί για το καλύτερο δυνατό.



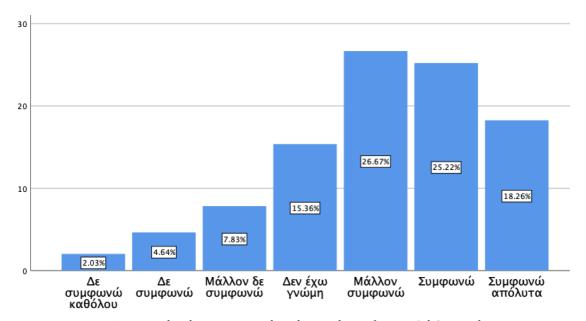
41. Είμαι ικανός να ελέγχω τη διάθεση μου ώστε να διαχειρίζομαι λογικά τις δυσκολίες.



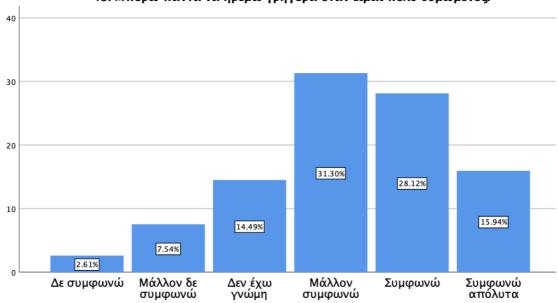
42. Είμαι αρκετά ικανός στο να ελέγχω τα αισθήματα μου.



42. Είμαι αρκετά ικανός στο να ελέγχω τα αισθήματα μου.



43. Μπορώ πάντα να ηρεμώ γρήγορα όταν είμαι πολύ θυμωμένος.

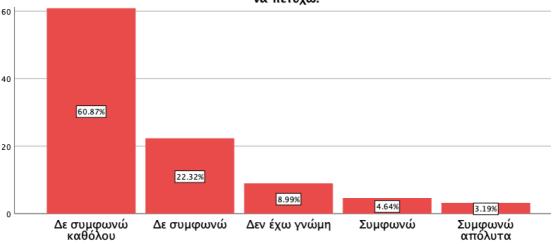


44. Έχω καλό έλεγχο των αισθημάτων μου.

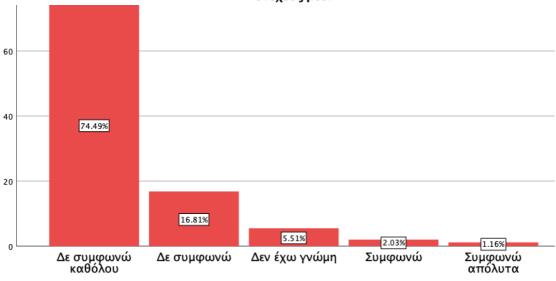
F. Distribution of answers to the Machiavellian Personality Scale items



45. Είμαι διατεθειμένος να συμπεριφερθώ ανήθικα αν πιστεύω ότι αυτό θα με βοηθήσει να πετύχω.



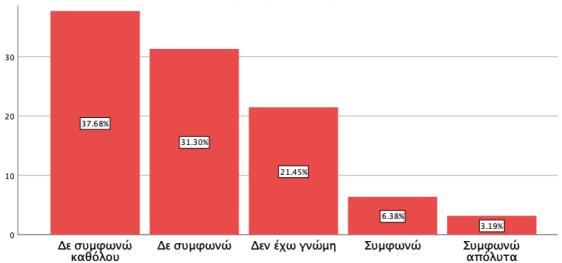
46. Είμαι διατεθειμένος να υπονομεύσω τις προσπάθειες των άλλων αν απειλούν τους στόχους μου.



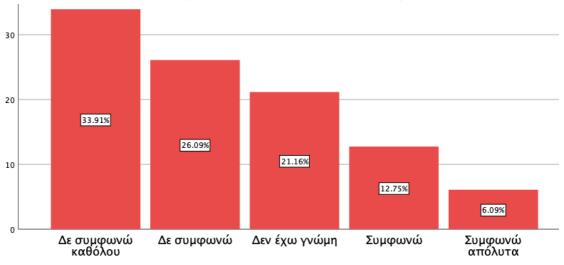
47. Θα εξαπατούσα τους άλλους αν υπήρχε μικρή πιθανότητα να με πιάσουν.



48. Πιστεύω ότι το ψέμα είναι απαραίτητο στη διατήρηση συγκριτικού πλεονεκτήματος έναντι των άλλων.



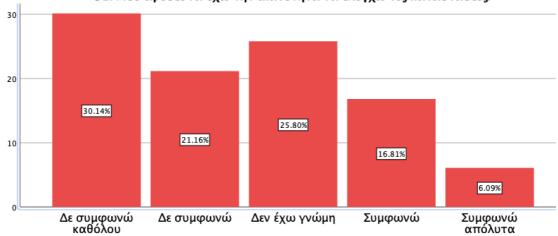
49. Μιλάω στους άλλους κυρίως για να αντλήσω πληροφορίες που θα μπορούσα να χρησιμοποιήσω για δικό μου όφελος.



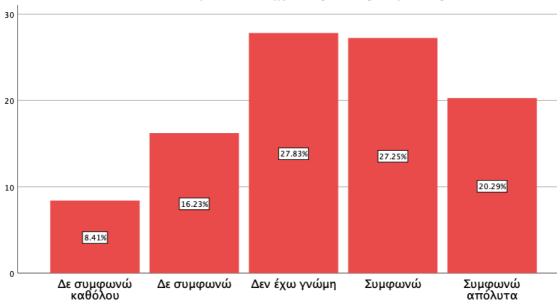
50. Μου αρέσει να δίνω εντολές στις διαπροσωπικές μου σχέσεις.



51. Μου αρέσει να έχω την ικανότητα να ελέγχω τις καταστάσεις.



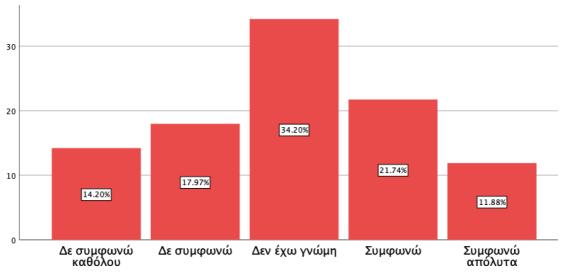
52. Μου αρέσει να ελέγχω τους άλλους ανθρώπους.



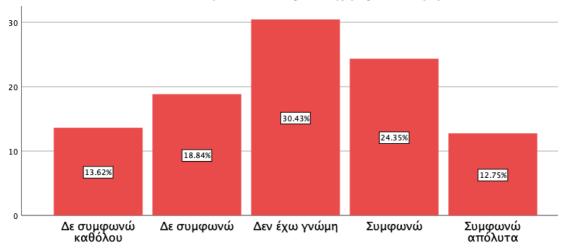
53. Το κύρος είναι ένας καλός δείκτης επιτυχίας στη ζωή.



54. Η συσσώρευση πλούτου είναι σημαντικός στόχος για μένα.



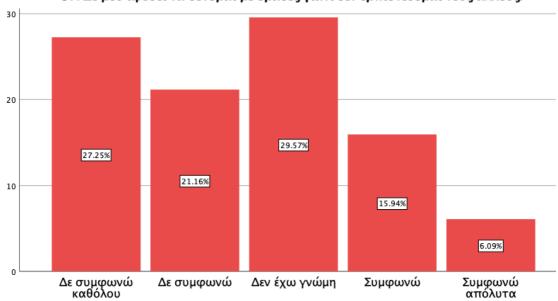
55. Θέλω να γίνω πλούσιος και ισχυρός κάποια μέρα.



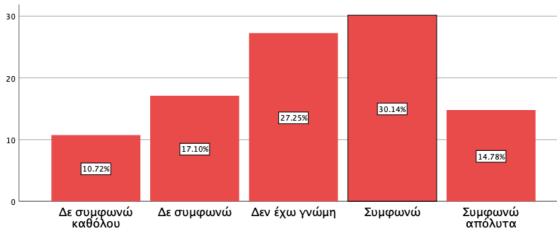
56. Οι άνθρωποι παρακινούνται μόνο από το προσωπικό τους κέρδος.



57. Δε μου αρέσει να δένομαι με ομάδες γιατί δεν εμπιστεύομαι τους άλλους.



58. Τα μέλη μιας ομάδας «αλληλομαχαιρώνονται πισώπλατα» για να αναδειχθούν.

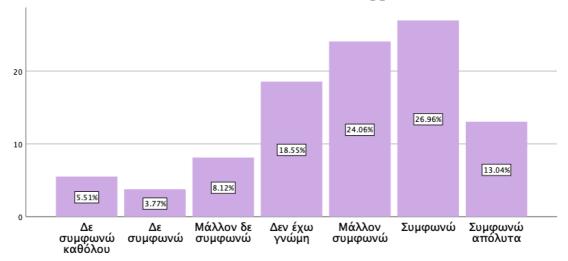


59. Αν δείξω οποιαδήποτε αδυναμία στον εργασιακό χώρο , οι άλλοι θα το εκμεταλλευτούν.

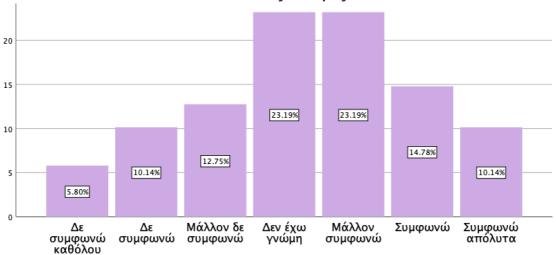


60. Οι άλλοι πάντα σχεδιάζουν τρόπους να επωφεληθούν μιας κατάστασης σε βάρος μου.

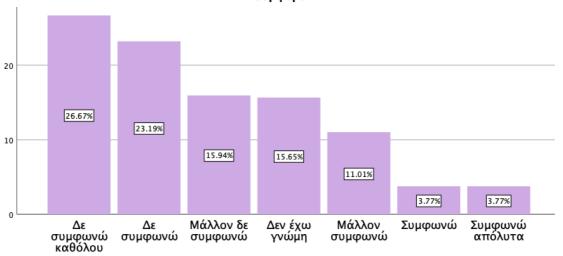
G. Distribution of answers to the Economic Opportunism Scale items



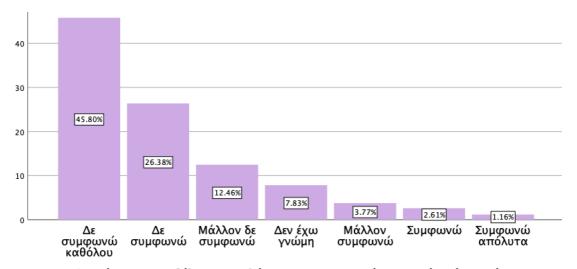
61. Είναι φυσικό κάποιος που ψάχνει να βρει δουλειά να δείχνει τα προσόντα του και να αποσιωπά τις αδυναμίες του.



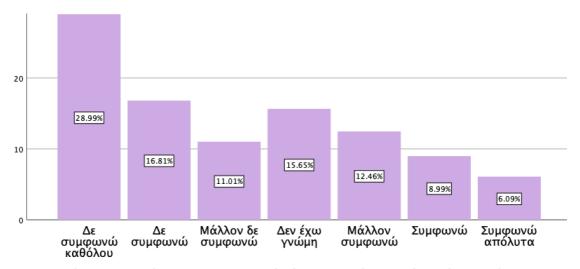
62. Σε οικονομικά θέματα οι άνθρωποι πρέπει πριν από όλα να σκέφτονται το δικό τους συμφέρον.



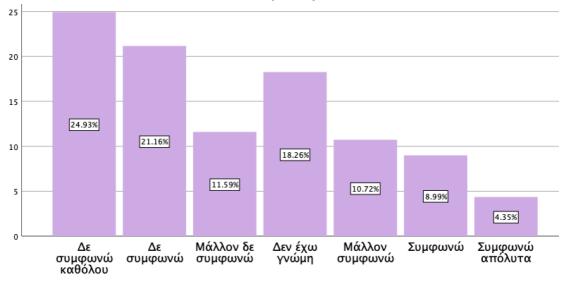
63. Προκειμένου να υπερασπίσουν τα περιουσιακά συμφέροντα των δικών τους, οι άνθρωποι έχουν το δικαίωμα να λένε ορισμένα ψέματα.



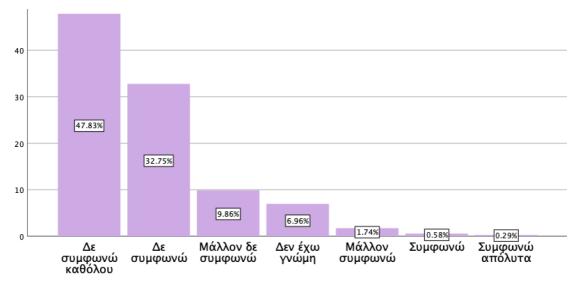
64. Κάποιος που θέλει να πουλήσει το μεταχειρισμένο αυτοκίνητό του, είναι υποχρεωμένος να ενημερώσει τον αγοραστή για τα ελαττώματα του αυτοκινήτου του.



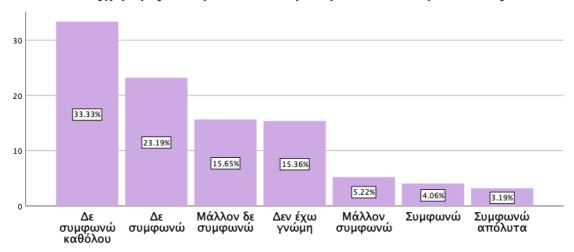
65. Κάποιος που θέλει μια ασφαλιστική κάλυψη δεν είναι κακό, κατά τη συνέντευξη με τον ασφαλιστή, να αποσιωπήσει ορισμένες ασθένειές του για να μην αυξηθούν τα ασφάλιστρα.



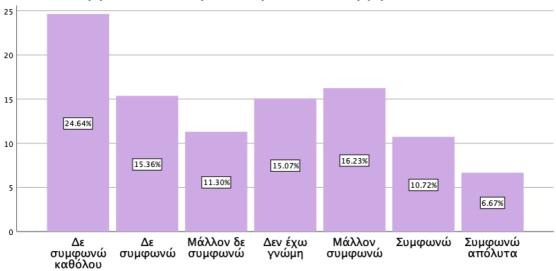
66. Οι διαφημίσεις που υπογραμμίζουν μόνο τα προσόντα και αποσιωπούν τα ελαττώματα των εμπορευμάτων είναι ανέντιμες.



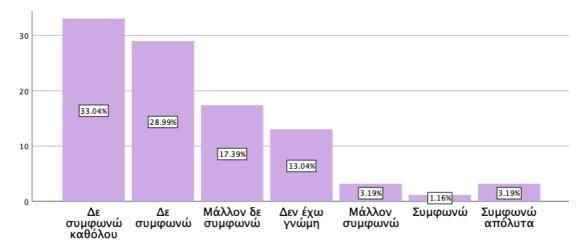
67. Ο καλός χειρισμός οικονομικών συναλλαγών προϋποθέτει ειλικρίνεια και αξιοπιστία.



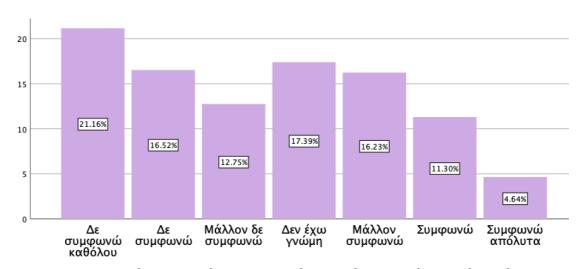
68. Είναι άχρηστο να καταφεύγει κανείς στην πονηριά για να επιτύχει οικονομικά οφέλη, ακόμη και αν το κάνει για να υπερασπιστεί τα συμφέροντα των δικών του.



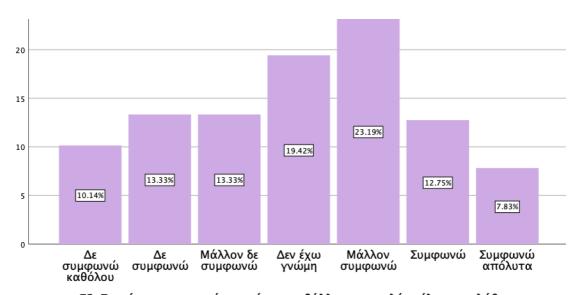
69. Είναι φυσικό οι άνθρωποι να είναι πιο συμφεροντολόγοι με κάποιον με τον οποίο συναλλάσσονται μία μόνο φορά και που δεν θα τον ξανασυναντήσουν ποτέ στο μέλλον.



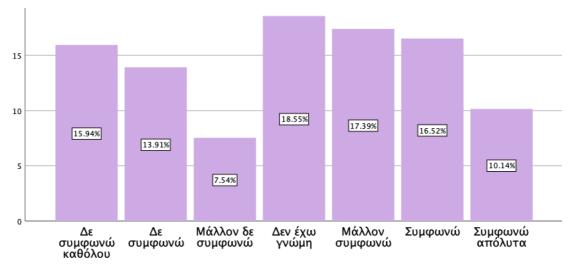
70. Στις εργασιακές σχέσεις είναι καλύτερο να μοιράζεται κανείς με τους άλλους τις χρήσιμες πληροφορίες που έχει.



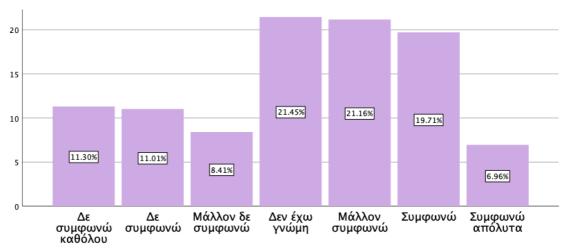
71. Στη ζωή δεν μπορούμε να διατηρούμε μακρόχρονες σχέσεις με όλους όσους γνωρίζουμε. Είναι λογικό να διατηρούμε σχέσεις με όσους μας είναι πιο χρήσιμοι.



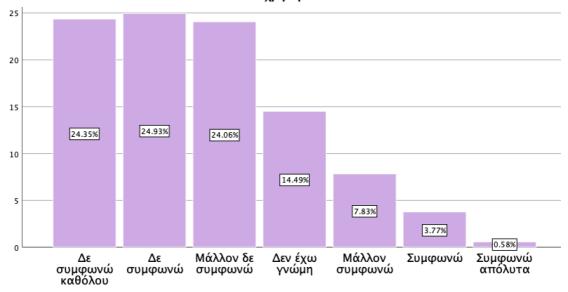
72. Συχνά το οικονομικό συμφέρον επιβάλλει να μην λέμε όλη την αλήθεια.



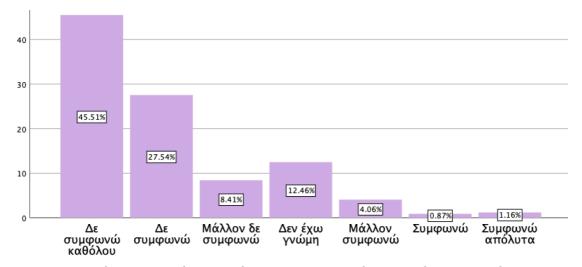
73. Αυτοί που ξέρουν να κρύβουν τις σκέψεις και τις γνώσεις τους έχουν περισσότερες πιθανότητες να πλουτίσουν.



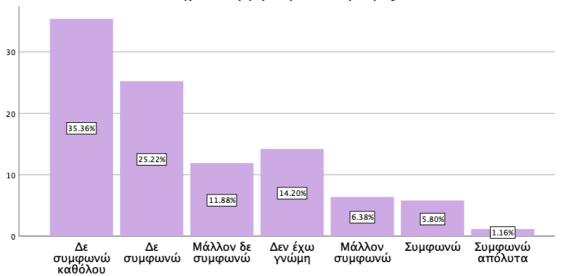
74. Καλό είναι να επιδιώκει κανείς σχέσεις με ανθρώπους που θα μπορούσαν να του είναι χρήσιμοι.



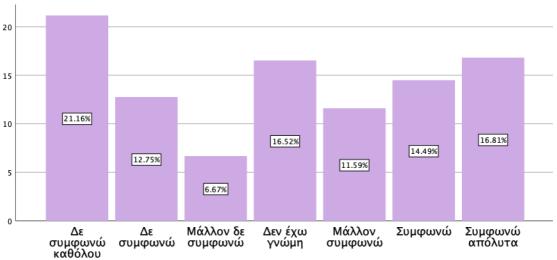
75. Είναι προτιμότερο να είσαι ειλικρινής ακόμα και όταν έτσι κινδυνεύουν τα συμφέροντά σου.



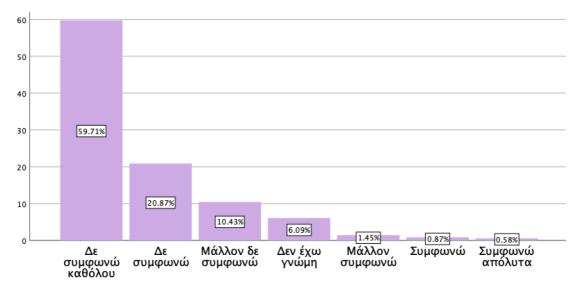
 76. Οι φιλίες των ανθρώπων οφείλονται στη συμφωνία χαρακτήρων και απόψεων και όχι στο συμφέρον ή σε σκοπιμότητες.



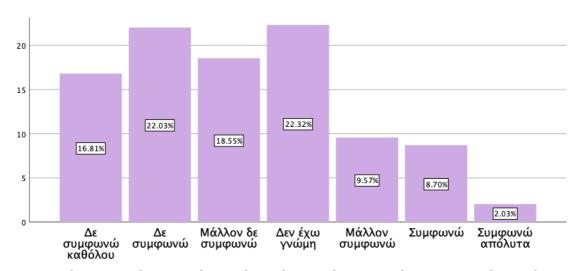
77. Στις οικονομικές συναλλαγές είναι δυνατόν να είναι κανείς πάντα έντιμος.



78. Είναι μαγκιά να ξέρεις να πουλήσεις κάτι σε κάποιον που δεν το χρειάζεται.



79. Όταν δίνει κανείς το λόγο του σε μια οικονομική συμφωνία δεν μπορεί να τον αθετήσει. Το να δίνεις το λόγο σου είναι σαν να έχεις υπογράψει συμβόλαιο.



80. Είναι προτιμότερο να λέει κανείς αυτό που σκέφτεται, ακόμα και αν αυτό μπορεί να βλάψει το συμφέρον του.