

# **EFFECTS OF TOP TURKISH MANAGERS' EMOTIONAL AND SPIRITUAL INTELLIGENCES ON THEIR ORGANIZATIONS' FINANCIAL PERFORMANCE**

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## **Abstract**

This study proposed and tested a model that included the possible effects of top Turkish managers' spiritual and emotional intelligences on their organizations' financial performance. Two instruments, the short versions of the Emotional Quotient Inventory (EQ-i:S) and the Integrated Spiritual Intelligence Scale (ISIS), were selected to measure these two forms of intelligence among top managers selected from organizations in the organized industrial zones of Istanbul. It was difficult to retrieve the financial data directly; thus, the top managers were required to rate their organizations' financial performance relative to that of their competitors. The results indicated that some relationships existed among factors related to emotional and spiritual intelligences but that there was not a mixture of these two intelligences. In other words, there was not a common factor that included some of the items of these two forms of intelligence together. Additionally, each of spiritual intelligence factors affected financial performance very weakly, whereas most factors of emotional intelligence did not have any statistically significant effect on the performance. The model showed that the two forms of intelligence combined failed to positively affect financial performance.

## Introduction

Top managers play vital roles in determining the fate of their organizations, and they can create many organizational outcomes using their decision-making power. When it is necessary to monitor an organization and anticipate the outcomes of organizational issues, top managers also step in. In other words, top managers are those who give, create and assess organizational outcomes. There are many studies regarding the factors that affect top managers' decision-making, their perceptions about organizational events and their ideas about or assessments of organizational outcomes. However, there seem to be very few studies intended to explore the roles of top managers' emotional and spiritual intelligences in the performance of their organizations. This study is designed to close that gap by exploring the possible effects of top Turkish managers' emotional and spiritual intelligences on their organizations' financial performance.

This study adds to the body of research that has already considered emotional and spiritual intelligences but distinguishes itself from prior studies by considering emotional and spiritual intelligences in the work environment *together*, attempting to ascertain whether there are identifiable mixes of emotional and spiritual intelligences and considering the distinct and combined effects of these two forms of intelligence on financial performance. This study also provides some insight into the Turkish work context in this regard.

## Emotional Intelligence: Definitions and Measurement

This section provides a short literature review that indicates the definitions, factors,

models and assessment instruments used to consider emotional intelligence.

The phrase *emotional intelligence* was first used by Payne (1985) and was considered to indicate a person's ability to relate to fear, pain and desire. Five years after Payne (1985), Salovey and Mayer (1990) proposed the Four-Branch Model. This time, emotional intelligence was defined as a type of social intelligence that included a person's ability to analyze his/her own and others' emotions and use these analyses to guide his/her actions (Salovey and Mayer, 1990). As the name "Four-Branch" suggests, there were four types of capacities that were considered to form emotional intelligence (Salovey and Mayer, 1990): the use of emotions to enrich thinking, perceptions of emotions, emotional management and understanding of emotional meanings.

Although Salovey and Mayer (1990) defined and modeled emotional intelligence, they did not suggest a specific measurement instrument. This gap was later filled by Mayer et al. (2002), who used the Four-Branch Model to form the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT).

Bar-On, also concerned with the issue of assessing emotional intelligence, developed the Emotional Quotient Inventory (EQ-i) (Bar-On, 1997) in response. Bar-On defined emotional intelligence as a group of non-cognitive capabilities, competencies and skills that could be used to cope with environmental changes or pressures (Bar-On, 1997).

On the other hand, Goleman (1995) formed a far less complex and shorter description of emotional intelligence: the ability to manage and regulate one's own emotions. Goleman (1995) also expanded the Four-Branch Model to include five emotional capacities: managing one's own emotional states; understanding, being sensitive to, and influencing other

people's emotions; identifying one's own emotional states and distinguishing among them; forming and sustaining satisfactory social relationships; and finally, entering into certain emotional states on purpose to facilitate success.

There are also some scholars who have preferred to define emotional intelligence rather than offering specific models. Examples include Martinez (1997), who defined emotional intelligence as the ability to produce and use accurate reasoning about emotions and the ability to use emotions to enrich thoughts, and Chapman (2001), who defined emotional intelligence pragmatically as workers' delivery of corporate values, positive feelings about themselves and others and sincere passion about selling products.

It is clear from this body of work that some scholars have asserted the presence of multiple factors in creating definitions and/or models of emotional intelligence. However, there are also some scholars who focus entirely on a specific emotional ability instead of combining multiple factors.

One of these abilities is known as *emotional perception*. Some scholars (e.g., Elfenbein et al., 2006; Nowicki and Duke, 1994) claim that emotional perception is the key to emotional intelligence. There are, of course, some instruments that can be used to test these claims. Examples include the *Diagnostic Analysis of Nonverbal Accuracy Scale (DANVA)* (Nowicki and Duke, 1994) and the *Japanese and Caucasian Brief Effect Recognition Test (JACBART)* (Matsumoto et al., 2000).

Another distinct emotional ability is *the use of emotions in the thinking process*. Scholars claim that emotions can both help (Averill and Nunley, 1992; Lyubomirsky et al., 2005) and hinder (Parrott, 2002) the thinking process. An instrument that is widely used to assess the use of emotions

in the thinking process was developed by Richards et al. (1992) and is known as the *Emotional Stroop Test*.

According to some researchers, *emotional appraisal* is the basis for emotional intelligence. This ability resembles emotional perception in the sense that one must understand others' emotions. However, the two abilities are different in that emotional perception mainly considers how a person perceives others' emotions. The actions taken in the wake of such perceptions are not the main issue. On the other hand, emotional appraisal involves matching appropriate emotions to situations and evaluating the effect of emotions on people's reactions (Scherer et al., 2001). Another difference is that emotional appraisal, unlike emotional perception, includes generalized conclusions about how one ought to feel in different situations based on matching (Innes-Ker and Niedenthal, 2002). An example of an instrument used to evaluate emotional appraisal is the *Levels of Emotional Awareness Scale (LEAS)* (Lane et al., 1990).

*Emotion management* has also been given a fair amount of attention in the emotional intelligence literature. Interestingly, the research on this specific emotional ability dates back to the beginning of the 1980s (e.g., Beck et al., 1979), which suggests that this ability was considered before the concept of emotional intelligence was introduced. Most of the studies in this field insist that emotion management actually has to do with emotional self-control and the regulation of one's own emotions. Examples of such studies include work by Denham et al. (2003) and Eisenberg (2000), who analyzed children's emotion management, and the early study of Hochschild (1983), which suggested that people exerted more control over their emotions in work and social environments.

## Spiritual Intelligence: Definitions and Measurement

In terms of intelligence, this study has two pillars. One of them, emotional intelligence, was discussed briefly in the previous section. This section presents the other pillar, spiritual intelligence. The focus, again, is on definitions and assessments.

The author believes that *workplace spirituality* should be considered before spiritual intelligence. This concept flourished in the 1990s (Conlin, 1999; Mitroff and Denton, 1999), and although spirituality is expected to evoke the idea of God/a divine creator, this is not always the case. The meaning of the word is somehow different when the word *workplace* is added to it. Some studies on this subject do not address the idea of a divine being or religion in the workplace (Briskin, 1998; Lee and Zemke, 1993), some directly refer to the use of prayers and meditation as being related to success in the business context (Trott, 1996), and some recommend using a combination of religion and psychology in the workplace (Sutcliffe and Bowman, 2000). Different studies have described workplace spirituality as a positive spiritual condition (or mood) (Shaw, 1999), as a set of values (Wheaton and Baird, 2002) or as a possible new aspect of personality (Mohamed et al., 2004).

Emmons (2000) has tried to answer the question of whether spirituality should be thought of as a type of human intelligence. His answer is “yes”. Emmons examined the meaning of *intelligence* and concluded that intelligence should not be thought of as the ability to cope with daily problems; it is more than just a set of abilities. Turning to spirituality, Emmons characterizes it as a knowledge base (as if thinking of religion as an emotion-based rule system) that also includes abilities, implying that spirituality is actually a form of intelligence (Emmons,

2000). Having decided that spirituality is a form of intelligence, Emmons suggested that spiritual intelligence represents the combination of many factors: the capacity for mysticism and transcendence and the ability to cultivate a high level of spiritual consciousness, recognize the sacred being in everyday activities, use spiritual resources to solve problems and be virtuous (Emmons, 2000).

Spiritual intelligence may also be thought of as the root of other types of intelligence for two reasons. This form of intelligence involves pondering the reasons for *existence* and can be related to different types of intelligence (Zohar and Marshall, 2000). It may also be thought of as the ability to form and maintain a relationship with the *main source of all beings* and to determine the meaning of life (Vaughan, 2002).

Understanding spiritual intelligence seems to be more difficult than understanding emotional intelligence. Fortunately, Bozdag (2005) provides a concise explanation of the differences between intellectual, emotional and spiritual intelligence:

- Intellectual and emotional intelligences have definite goals, whereas spiritual intelligence focuses on the progress of consciousness rather than accomplishing tasks.
- Intellectual intelligence depends on information and logic, emotional intelligence depends on emotions and the process of managing emotions to achieve goals, and spiritual intelligence depends on all of these elements and on consciousness about the universe as a whole.

Spiritual intelligence seems to be an ambiguous concept; therefore, the way in which spiritual intelligence is measured is a

big question. Some scholars (e.g., Emmons, 2000; Zohar and Marshall, 2000) claim that this type of intelligence cannot be quantified in the way that emotional intelligence or the traditional intelligence quotient (IQ) can be. There are, however, instruments used to assess spiritual intelligence. Examples include the *Psycho-Matrix Spirituality Inventory (PSI)* (Wolman, 2001), the *Expressive Spirituality Index* (MacDonald, 2000), the *Spiritual Intelligence Scale (SIS)* (Nasel, 2004), and the *Integrated Spiritual Intelligence Scale (ISIS)* (Amram and Dryer, 2008).

### **The Relationships between Emotional and Spiritual Intelligences and Work Performance**

This section identifies the main concerns of this study. The research into the connections between spiritual and emotional intelligence and work performance are summarized. The general phrase *work performance* is used so as not to limit the scope of this section.

The relationship between emotional intelligence and work performance: Emotional intelligence has been found out to affect work performance in general. An early example is the study by Kelley and Caplan (1993) that focused on the research teams at Bell Laboratories. It was found that emotional intelligence could be used to explain the variations in performance between high- and low-performance workers (Kelley and Caplan, 1993). Other similar studies (e.g., Martinez, 1997) also favor the same idea by asserting that people's ability to understand each other's emotions (or moods) and interact according to these emotions will lead to greater personal or group performance in a business environment.

A very parallel understanding emerges when the concern is *organizational performance*. According to Harrison (1997), emotional intelligence is a core competency that can facilitate outstanding performance in an *organization*. Studies performed by Fineman (1997) and Höpfl and Linstead (1997) indicate that emotions are also a part of the organizational learning process that can affect organizational performance. Other studies claiming that emotional intelligence affects organizational performance include Downing (1997), and Cooper and Sawaf (1997).

In fact, the international literature includes a great deal of evidence that emotional intelligence is beneficial for work performance (e.g., Dulewicz and Higgs, 2000; Hayward, 2005; Heffernan et al., 2008; Higgs, 2004; Sosik and Megerian, 1999; Weinberger, 2003). Because this study focuses on the Turkish context, however, relevant Turkish studies should be mentioned as well. The author also keeps these studies in mind when commenting on this study's results.

Most of the relevant Turkish studies have related emotional intelligence to workplace leadership and found that this type of intelligence plays an important role in leadership effectiveness (e.g., Acar, 2001; Aysel, 2006; Gursoy, 2005; Sahinkaya, 2006; Tikir, 2005). In Akin's (2004) study, the effects of managers' emotional intelligence on the conflicts between managers and subordinates are analyzed, and managers are found to have some problems understanding subordinates' emotions. Pamukoglu (2004) revealed that there is a strong and positive relationship between managers' emotional intelligence and their management effectiveness, but managers in the study show some deficiencies in terms of empathy. Canbulat (2007) took workers' and managers' emotional intelligence into

consideration and found that intelligence and work satisfaction have a strong, positive relationship.

Although numerous consulting companies in Turkey claim to teach the use of emotional intelligence to increase work performance, there are very few scientific studies that have attempted to uncover the connections between emotional intelligence and work performance. One example includes a study by Ural (2001) that considered three components of emotional intelligence: emotional consciousness, expressing emotions and perceiving other people's emotions. The researcher found that Turkish managers in the hospitality industry had difficulty reaching high levels of emotional consciousness, which in turn led to wrong business decisions and low firm performances. Yuksel (2006) presented many interesting findings associated with a study of multiple private businesses: he found an insignificant relationship between managers' emotional intelligence and workers' performance, and the demographic characteristics of workers and business sectors emerged as moderators of this relationship. Acar's (2007) study, which examined the largest 500 businesses in Turkey, indicates the existence of some relationships between emotional intelligence and work performance. The results suggest that the demographic characteristics of managers do not have any effect on managers' emotional intelligence, whereas managers' work satisfaction can be affected by emotional intelligence. There is also a positive relationship between managers' emotional intelligence and their eagerness to increase organizational effectiveness (Acar, 2007).

Regarding the relationship between workplace spirituality, spiritual intelligence and work performance, we should note that it is generally accepted that workplace

spirituality increases performance. For workers, spirituality in the form of prayers and meditation increases workers' productivity and work satisfaction (Alexander et al., 1993; Egan, 1999). Workers who are in a positive spiritual place (mood) exhibit higher-level work performances (Isen and Baron, 1991; Shaw, 1999). Workplace spirituality is also essential for organizational learning (Bolman and Deal, 2001; Kunde, 2000).

If organizational success is considered rather than personal performance, we can examine numerous studies. It is suggested that workplace spirituality can be used to increase organizational competitiveness (Overell, 2003), performance (Brown and Ryan, 2003; Fry, 2003) and profitability (Milliman et al., 2003). Some scholars claim that workplace spirituality is directly connected to organizational activities and therefore to results (Marques et al., 2005). There also seems to be a tendency to relate spiritual intelligence with performance via leadership in the literature. Studies have indicated that some components of spiritual intelligence contribute positively to leadership effectiveness (Amram, 2009; Sternberg, 2007) and that some components of spiritual intelligence can cause leaders to exhibit better financial performance (Collins, 2001; Tischler et al., 2002).

It is indeed interesting that there do not seem to be any studies that *directly* relate managers' spiritual intelligence to the financial performance of their organizations.

Turkish studies that focus on spirituality and/or spiritual intelligence in work contexts are even more rare than those that consider emotional intelligence. Bekis (2006) examined the relationship between spiritual intelligence and leadership but did not consider spiritual leadership. Instead, Bekis analyzed the possible connections between managers' spiritual intelligence and their leadership types. According to the

results, managers' spiritual intelligence has a significant relationship with charismatic, transformational, visionary and team leadership, but the relationship between spiritual intelligence and team leadership is the strongest (Bekis, 2006). Dogan and Sahin (2009) considered spirituality, spiritual intelligence and transformational leadership in workplace settings and found that both spiritual intelligence and spirituality can affect transformational leadership. Aydin and Ceylan (2009) performed research on metalworking firms in Turkey and used the concept of *spiritual leadership* in their model. The results indicate that metalworking firms are finance-focused and that spiritualism and spiritual leadership do not have a very large effect on organizational learning capacity.

Regarding the relationship between spiritual and emotional intelligence and work performance, Tischler et al. (2002) argued that these two types of intelligence are thought to be separate areas but cannot be used in various different models *together*. After reviewing the literature that includes spiritual and emotional intelligences along with performance, the authors concluded that the role of these two intelligences in workplace performance should be considered separately, in a combined way or as intervening variables (Tischler et al., 2002). Martin and Hafer (2009) tested Tischler et al.'s (2002) models with a sample of junior- and senior-level business administration students and measured success based on students' grades. Unfortunately, none of the proposed models fit the data.

In summary, there seem to be only two studies that consider the two types of intelligence and performance *together*. Moreover, these studies do not cover any financial issues for firms using quantitative data. This study attempts to fill these gaps.

## Method

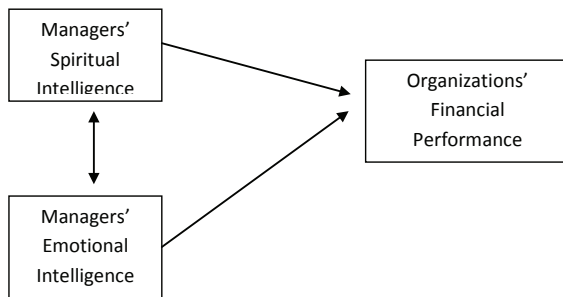
### *Research model*

The author presumed that the components of top Turkish managers' spiritual and emotional intelligence, which were expected to interact with each other, would also affect the organizations' financial performances. The basis of this assumption was the literature summarized in previous sections. The author analyzed the statistical structures of the two forms of intelligence and financial performance to reach this conclusion. The author intended to use popular instruments to evaluate intelligence and performance, but it was unknown whether these instruments would be a perfect fit for the Turkish context.

In this case, there were two questions to answer:

1. What are the statistical structures of spiritual intelligence, emotional intelligence and financial performance?
2. When a model that includes the components of these two forms of intelligence and financial performance is considered,
  - Are there any relationships between the components of spiritual and emotional intelligence?
  - Do the components of spiritual and emotional intelligences affect financial performance?

Figure 1. The proposed research model (in closed form)



The research model in Figure 1 is presented in a closed form because the author did not initially know the statistical structures of the two forms of intelligence and performance. In other words, the components (factors) of the two types of intelligence and performance had to be determined to include them in the model.

The literature indicates that there are connections between the different forms of intelligence; thus, the same was expected in this study:

*H<sub>a</sub>: Some of the components of top managers' emotional and spiritual intelligences have significant relationships.*

There is evidence in the literature that emotional intelligence has positive effects on work performance. If this is the case, the components of emotional intelligence should encourage financial performance.

*H<sub>b</sub>: All components of top managers' emotional intelligence positively affect financial performance.*

Likewise, the literature points out that spiritual intelligence increases performance in business contexts.

*H<sub>c</sub>: All components of top managers' spiritual intelligence positively affect financial performance.*

Finally, if all of the components of the two forms of intelligence are expected to affect financial performance, this means that the two forms of intelligence, with *all* of their components considered, must also affect financial performance. These two forms of intelligence should also encourage financial performance given that the literature generally claims that these types of intelligence provide benefits in terms of performance in business contexts.

*H<sub>d</sub>: Top managers' spiritual and emotional intelligences increase financial performance.*

## Data collection, samples and measures

The top managers who participated in this research were from organized industrial zones (OIZs). Because OIZs include many organizations, it was much easier to reach multiple businesses quickly this way. The author focused on the OIZs in Istanbul for many reasons. Istanbul is the biggest city in Turkey in terms of economic activity, and the questionnaires prepared by the author were to be distributed by a professional consulting firm. Thus, physical distance, time and cost were anticipated to be the limitations of this research.

Based on the above statements, the population of this research was defined as the top managers of the organizations that were present in all of the OIZs in Istanbul as of January 15, 2010. As shown, this definition involves the date on which the data gathering process started. Table 1 includes the number of organizations in the population that satisfied the criteria. Because only one manager, the top manager, was to participate from each business, the number of organizations was equal to the number of top managers. In Table 1, some organization numbers do not have references because

some OIZs do not have web pages. The author contacted the management of such OIZs to learn the number of organizations included.

*Table 1. The number of organizations in OIZs of Istanbul as of January 15, 2010*

Name of the Organized Industrial Zone (OIZ)	Number of Organizations	
İkitelli OIZ	12,054	(İlosb, 2010)
İstanbul Deri OIZ	44	(İderiosb, 2010)
Tuzla Mermerciler OIZ	119	(Tmosb, 2010)
İstanbul Dudullu OIZ	137	(İdosb, 2010)
İstanbul Tuzla OIZ	70	(İtosb, 2010)
İstanbul Beylikdüzü OIZ	690	(İbosb, 2010)
İstanbul Tuzla Kimya Sanayicileri OIZ	170	
İstanbul Tuzla Boya ve Vernik OIZ	50	
<b>TOTAL</b>	<b>13,334</b>	

According to Table 1, the population consisted of 13,334 organizations in eight different OIZs. Under the assumption of a 5% margin of error and a 95% confidence level, the sample size was calculated to be 374. These eight OIZs varied significantly in terms of their size, and this variation needed to be reflected in the sample. For this reason, the quota sampling method, which is based on the ratio of each OIZ's number of organizations to the total number of organizations, was used.

Quota sampling was used to distribute the questionnaires to the OIZs, and simple random sampling was used to distribute the questionnaires among the organizations *within* each OIZ. To ensure proper application of the questionnaires by the consulting firm, a list of participating organizations was obtained from the firm, and the author called these organizations at the end of the data-gathering process. The data-gathering

process started on January 15, 2010, and the deadline was March 15, 2010.

Each questionnaire had to be filled out by the top manager at each organization, as was explained to the consulting firm and written on the questionnaires.

The questionnaires included three main parts: scales to measure the spiritual and emotional intelligences of top managers and the respective organizations' financial performances. The details of the questionnaires are as follows:

- **Spiritual intelligence scale:** Although there are different scales, the ISIS was preferred. The ISIS was developed by Amram and Dryer (2008), and there are long and short versions of this tool. The short version, which comprises 44 items (Amram and Dryer, 2008), was used in this study.
- **Emotional intelligence scale:** Bar-On's (1997) EQ-i (Emotional Quotient Inventory) was used to assess the emotional intelligence of the participants. There are many different versions of the EQ-i. The EQ-i:S, which is the short version of the EQ-i and includes 51 items (MHS, 2010), was used here.
- **Financial performance:** A series of items was compiled from studies by Westhead and Howorth (2006) and Ahmad (2007), and financial performance was related to net profit, operational profit, sales volume (amount), return on investment, cash flows, short-term debts, reductions in total debts and sales revenue.
- Performance had to cover a particular time period. The participants were asked to think about *the last three years*.

- The author recognized that there might be organizations within the sample group that had been in existence for fewer than three years. Thus, the questionnaire explained that if the firm was less than three years old, the participants could comment on the time period between the organizations' founding date and the current date.
- It was presumed that it would be very challenging to gather organizations' financial data directly, so the author decided to collect the performance information from the participants. It also seemed possible that some participants would be unwilling to reveal their organizations' financial figures. If this were the case, it would be impossible to continue the research. This is why the author requested that each participant *rate* his/her own organization's financial condition relative to that of the firm's competitors. The participants used a five-point Likert scale to rate each financial performance item as follows:
  1. Worse than all competitors
  2. Worse than most competitors
  3. Average performance
  4. Better than most competitors
  5. Better than all competitors
- Turkish by a professional translation company.
- The Turkish items were inspected by eight different Turkish language instructors, and some minor changes were made.
- The Turkish items were translated back into English by *another* professional translation company.
- Finally, the original and back-translated English items were compared to determine whether the meanings of the items had been preserved. After the comparison, it was decided that the meanings were almost the same with some minor changes, and therefore, the Turkish items were added to the questionnaire.
- The EQ-i:S includes 51 items, and the short version of the ISIS includes 44 items, making the overall item total 95. It was perceived that this might be a problem because the questionnaire seemed as though it might be too long to be filled in quickly but carefully, especially with the other items to be added.
- To overcome this problem, a pilot study was performed. This pilot study included the short version of the ISIS and the EQ-i:S and the items reflecting financial performance. There were 100 respondents, all of whom were the top managers of different organizations that are part of Istanbul's OIZs. Obscure items and groups of items that did not have Cronbach's alpha values greater than 0.5 (and that were thus indicated to have low reliability) were omitted. This gave the questionnaire fewer items: 39

## Content validity

The short versions of the ISIS and EQ-i:S are in English, and the questionnaires were distributed in Turkish. To provide content validity, the following steps were taken:

- The items from the short versions of the ISIS and EQ-i:S were translated into

items from the EQ-i:S and 24 items from the short version of the ISIS. In short, the pilot study revealed that the EQ-i:S and the short version of the ISIS, in their original forms, were not suitable for this research.

- There was no problem with the content validity of the indicators of financial performance. The items were originally in Turkish, and the meanings and reliability of the items were sound.

The names of the organizations that participated in the pilot study were noted because they would not be included in any further steps in the research.

## Results

### ***Statistical structures and reliability of spiritual and emotional intelligences and financial performance***

At the end of the data-gathering process, there were 374 questionnaires, but 43 of them had missing values for 6%-15% of the items. For each variable, the missing values were filled in using the mean for that variable.

The research process began with the short version of the ISIS and the EQ-i:S, but the pilot study omitted some of these items. Because of this, it was impossible to say that the original components of the short version of the ISIS and the EQ-i:S could be used. There could also be joint components, those that could include some items from

the short versions of both the ISIS and the EQ-i:S. In other words, it was expected that the items from the short version of the ISIS and the EQ-i:S would form new and/or joint components.

Thus, an exploratory factor analysis was performed. Exploratory factor analysis can be used to determine how variables are grouped according to what they include (Field, 2005). Before the exploratory factor analysis, the correlations among the items were analyzed to make sure that there were no issues with multicollinearity or singularity. Some items were omitted at this stage, leaving a total of 52 items for spiritual and emotional intelligences. However, the items for financial performance were not adjusted.

The exploratory factor analysis was performed using the following criteria: the extraction method utilized principle component analysis; the correlation matrix of the items was analyzed; components with eigenvalues greater than one were extracted; the varimax rotation method was used and factor loadings with absolute values less than 0.4 were suppressed.

The Kaiser-Meyer-Olkin (KMO) measure was 0.752, and the results of Bartlett's test were significant, suggesting that the data used were suitable for factor analysis. There were 11 components (factors) formed, and these components were able to explain 73% of the total variance. The author named these 11 components, which can be found in Table 2 together with their respective items; the components are described after Table 2 is presented.

Table 2. Results of the exploratory factor analysis

Rotated Component Matrix <sup>a</sup>	
	Component
	Adaptability Stress Management Higher Consciousness Self-Consciousness Challenge Mood Interpersonal-Empathy Interpersonal-Relationships Holistic View Intrapersonal-Emotions Intrapersonal-Self Acceptance
My approach to cope with difficulties is to move step by step.	0.910
It is easy for me to adapt to new conditions.	0.887
When solving a problem, I inspect every possibility, then decide the best.	0.886
It is hard for me to change my style.	0.854
I can pull away from my dreams rapidly and turn to the reality of the situation easily.	0.822
I can change my old habits.	.0820
When faced with a hard situation, I want to gather as much information as I can about the subject.	0.804
I can resist stress.	0.912
I know how I can tackle annoying problems.	0.873
Although situations get harder gradually, I usually have the motivation to continue.	0.864
I can cope with stress without getting angry much.	0.818
I know how to keep my cool in difficult situations.	0.780
It is hard for me to face bitter events.	-0.740
It is hard for me to control my anger.	-0.488
I am aware of a wise- or higher-self in me that I listen to for guidance.	0.886
In my day-to-day tasks, I pay attention to that which cannot be put into words, such as indescribable sensual or spiritual experiences.	0.852
I listen to my gut feeling or intuition in making important choices.	0.820
I listen deeply to both what is being said and what is not being said.	0.796
I derive meaning from the pain and suffering in my life.	0.780
I notice and appreciate the sensuality and beauty of my daily life.	0.661
My goals and purpose extend beyond the material world.	0.603
I look for and try to discover my blind spots.	0.954
I find ways to express my true self creatively.	0.903
Being right is important to me.	0.879
I am mindful of my body's five senses during my daily tasks.	0.870
I restrict myself.	0.850
I have daily and weekly times set aside for self-reflection and rejuvenation.	0.871

Rotated Component Matrix <sup>a</sup>											
Component											
	Adaptability	Stress Management	Higher Consciousness	Self-Consciousness	Challenge	Mood	Interpersonal-Empathy	Interpersonal-Relationships	Holistic View	Intrapersonal-Emotions	Intrapersonal-Self Acceptance
Even when things are upsetting and chaotic around me, I remain centered and peaceful inside.					0.861						
I have a daily spiritual practice - such as meditation or prayer - that I draw on to address life challenges.					0.828						
I have faith and confidence that things will work out for the best.					0.812						
In difficult moments, I tap into and draw on a storehouse of stories, quotes, teachings, or other forms of time-proven wisdom.					0.810						
I am a worried person.						0.944					
I am an impatient person.						0.925					
I am a bad-tempered person.						0.925					
I feel bad very often.						0.890					
I care not to hurt other people's emotions.							0.882				
I can be aware of people suffering.							0.879				
I easily notice others' emotional needs.							0.787				
I respect other people.							0.778				
I understand the emotions of others very well even if they don't express them directly.							0.587				
When I don't agree with someone, I can tell this to him/her.								0.920			
When I am angry with others, I can tell this to them.								0.911			
I can tell people what I think easily.								0.769			
I strive for the integration or wholeness of all things.									0.899		
To gain insights into daily problems, I take a wide view or holistic perspective.									0.880		
In my daily life, I feel my work is in service to the larger whole.									0.811		
I know what I feel.										0.909	
I am self-confident in most situations.										0.821	
When I feel bad, I know what upsets me.										0.818	
I am happy with my physical appearance.											0.883
It is hard for me to accept myself as who I am.											0.713
I am happy with my personality.											0.665
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.											
a. Rotation converged in six iterations.											

***Components that were formed from the items of the short version of the ISIS (components of spiritual intelligence):***

- Higher Consciousness: Items include sensual or spiritual experiences, wisdom, gut feelings, one's interpretation of pain and suffering, and sensing or

understanding what is beyond the material world.

- Self-Consciousness: Items include finding out one's own weaknesses, expressing oneself, one's awareness of the five senses, restricting oneself and being right.
- Challenge: Items include how one regenerates when facing challenges and to what extent one can keep calm and maintain optimism.
- Holistic View: Items include a connection with nature, the ability to see problems as a whole, and the recognition that everything is integrated.

***Components that are also items from the EQ-i:S (components of emotional intelligence):***

- Adaptability: Items include how one copes with problems, the extent to which one can change and how much one can adapt to new situations.
- Stress Management: Items include stress resistance, motivation to continue when faced with difficult situations, keeping cool, and anger management.
- Mood: Items include the extent to which one worries, is impatient, is bad-tempered and generally feels bad.
- Interpersonal-Empathy: Items include caring about and understanding other people's emotions and respecting people.
- Interpersonal-Relationships: Items include telling one's own thoughts to other people and showing anger to others.

- Intrapersonal-Emotions: Items include identifying one's own emotions, identifying sources of sadness and self-confidence.
- Intrapersonal-Self Acceptance: Items include how much one accepts oneself, one's physical appearance and one's personality.

It is important that these items were communicated in Turkish and refined via the pilot study, creating the possibility of minor differences between these items and the original items in the short versions of the ISIS and EQ-i:S.

The reliability tests were performed using Cronbach's alpha, and the results are shown in Table 3. It seems that there are no issues with reliability for the two types of intelligence.

*Table 3. Results of the reliability analyses*

<b>Spiritual Intelligence Components</b>	<b>Cronbach's Alpha</b>
Higher Consciousness	0.889
Self-Consciousness	0.935
Challenge	0.876
Holistic View	0.832
<b>All Items Related to spiritual intelligence</b>	<b>0.765</b>
<b>Emotional Intelligence Components</b>	
Adaptability	0.931
Stress Management	0.563
Mood	0.943
Interpersonal-Empathy	0.854
Interpersonal-Relationships	0.867
Intrapersonal-Emotions	0.849
Intrapersonal-Self Acceptance	0.656
<b>All Items Related to emotional intelligence</b>	<b>0.703</b>
<b>All of the items</b>	<b>0.725</b>

There are noteworthy results in terms of the statistical structures of the components of these two types of intelligence:

- The items for spiritual and emotional intelligences did not mix with each other. In other words, there were no common components of these two forms of intelligence.
- The statistical structures of the two forms of intelligence were devised exclusively for this research; almost all of the components of the two types were different from the original ones.

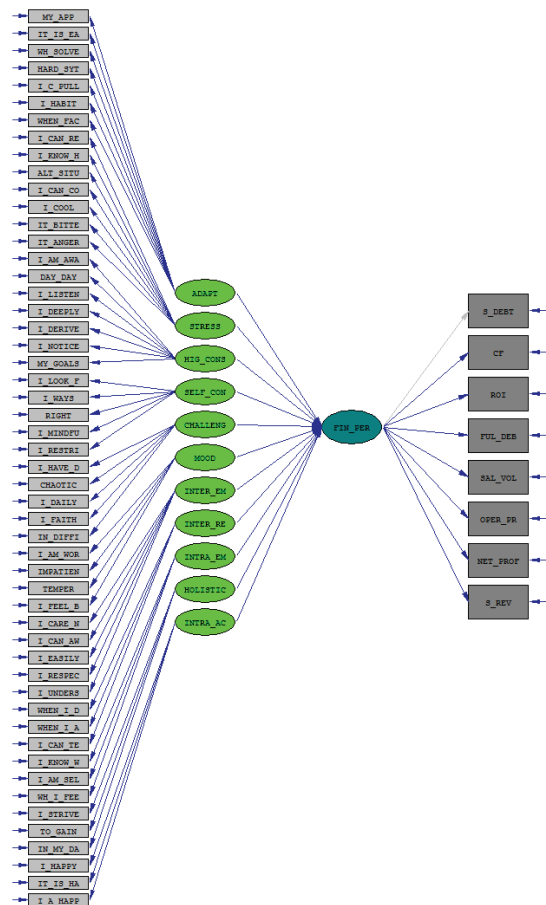
On the other hand, an exploratory factor analysis of the items for financial performance using the same criteria returned only one factor. The KMO value was 0.874, and the results of Bartlett's test were significant. The one isolated factor explained 50.6% of the total variance, and all eight of the items were preserved.

The analysis of the reliability of the items for financial performance yielded a Cronbach's alpha of 0.859. Thus, the items had a good reliability level.

### ***The relationship between spiritual and emotional intelligences and financial performance***

In this section, the four components of spiritual intelligence, the seven components of emotional intelligence and the one component of financial performance were examined, and their relationships were evaluated using structural equation modeling (SEM). The proposed research model, previously presented in Figure 1 in closed form, is also shown in Figure 2 in open form with the components (factors) and their respective items.

Figure 2. The proposed research model (in open form).



*ADAPT: adaptability; STRESS: stress management; HIG\_CONS: higher consciousness; SELF\_CON: self-consciousness; CHALLENG: challenge; MOOD: mood; INTER\_EM: interpersonal empathy; INTER\_RE: interpersonal relationships; INTRA\_EM: intrapersonal emotions; HOLISTIC: holistic view; INTRA\_AC: intrapersonal self-acceptance; FIN\_PER: financial performance*

The model's validity should be determined first, and for this purpose, the fit indices are disclosed in Table 4.

Table 4. Fit indices of the research model

Goodness of Fit Index (GFI) = 0.96; Adjusted Goodness of Fit Index (AGFI) = 0.95; Parsimony Goodness of Fit Index (PGFI) = 0.86
Normed Fit Index (NFI) = 0.91; Non-Normed Fit Index (NNFI) = 0.99; Parsimony Normed Fit Index (PNFI) = 0.85
Comparative Fit Index (CFI) = 0.99; Incremental Fit Index (IFI) = 0.99; Relative Fit Index (RFI) = 0.90
Root Mean Square Error of Approximation (RMSEA) = 0.058; Root Mean Square Residual (RMR) = 0.053; Standardized RMR = 0.049
Expected Cross-Validation Index (ECVI) = 11.18; ECVI for Saturated Model = 10.17; ECVI for Independence Model = 58.71

When the model's fit indices are compared to the limits mentioned in the literature (Schermelleh-Engel et al., 2003), the model seems to be very realistic. The model can explain the data very well, and it is appropriate to look into the model.

There are sixty items that constitute the 12 components according to Figure 2. The relationships between the items and their respective components (factors) are all significant ( $p < 0.05$ ).

Table 5 shows how the components of spiritual and emotional intelligences are related. Because all of these components are independent, their relationships are indicated using correlation coefficients.

Table 5. Relationships between the components of spiritual and emotional intelligences

	Adaptability	Stress Man.	Higher Cons.	Self Cons.	Challenge	Mood	Interpers. Empathy	Interpers. Relationships	Intrapers. Emotions	Holistic View	Intrapers. Self Acceptance
Adaptability	1										
Stress Man.	0.06*	1									
Higher Cons.	0.01	0.09*	1								
Self Cons.	0.01	-0.02	0.02*	1							
Challenge	0.08*	-0.08*	0.11*	0.13*	1						
Mood	-0.06*	-0.03*	-0.04*	-0.18*	-0.02	1					
Interpers. Empathy	0.02	0.02	0.09*	0.06*	-0.01	-0.03*	1				
Interpers. Relationships	0.04*	-0.17*	0.08*	0.08*	0.07*	0.10*	0.08*	1			
Intrapers. Emotions	0.07*	0.06*	0.01	0.05*	-0.01	-0.06*	0.15*	0.05*	1		
Holistic View	-0.13*	0.06*	0.03*	0.09*	-0.09*	0.02	0.07*	0.04	0.11*	1	
Intrapers. Self Acceptance	-0.03	-0.01	0.04	0.05*	0.01	-0.02	0.06*	0.19*	0.43*	0.00	1

### The relationships between the components of emotional intelligence

The “introverted” components (intrapersonal emotions and self-acceptance) have the most powerful relationship, but the relationship between the “extroverted” components (interpersonal empathy and relationships) is much weaker. There might

be various reasons for these results; for example, some respondents might have exaggerated their degree of self-acceptance, may believe that they have very good self-awareness (emotions, assuredness...) or may have tried to hide how “open” they are to other people. There are significant and positive relationships between introversion and extroversion components. Managers' self-awareness and acceptance

(intrapersonal emotions and self-acceptance) are linked with how they understand others and express themselves. In other words, the internal character of managers affects or is affected by their social qualities.

Managers' adaptability, stress management and mood are linked with managers' capacities for social expression and ability to identify their own emotions. Coping with problems and adapting to new situations may require social interaction. Also, the person should be self-confident and be aware of his/her emotions. This may be the reason for the positive relationship between adaptability, interpersonal relationships and intrapersonal emotions. The negative relationship between stress management and interpersonal relationships may exist because stress management includes anger management, and one quality of interpersonal relationships is showing anger to other people. Stress management also includes motivation to continue and keep cool, which should require control over one's emotions. This control could require a person to identify his/her emotions, a quality included in the component of intrapersonal emotions. This seems to be a possible explanation for the positive relationship between stress management and intrapersonal emotions. Better stress management is also associated with a greater capacity for adaptation. This relationship may exist because the process of adaptation can be difficult, and, because of this difficulty, motivation and emotional control may be required.

Mood is different from the other components because it includes negative aspects. Managers who had higher scores for mood agreed that they were more worried, impatient, bad-tempered and unhappy people. These characteristics may be the reason why mood has a negative relationship with all of the components of emotional intelligence except interpersonal

relationships. Because these participants are top managers, their negativity might have a tendency to influence others in the workplace. In other words, less happy managers may have a greater ability to express how they feel to others.

### **The relationship between the components of spiritual intelligence**

Despite other relationships between the components of spiritual intelligence, the only negative relationship is between responses to challenges and having a holistic viewpoint. Responses to challenges include problem-solving, rejuvenation and hope, whereas having a holistic view means seeing everything as being integrated and viewing problems as a whole. It should be remembered that people can cope with problems in a step-by-step manner while resting from time to time. If someone sees all of his/her problems as integrated rather than as individual issues to confront, this step-by-step strategy may not be expected to work well. People may not find the time to regenerate, and this constant problem-solving may weaken their hope that things will improve. In other words, seeing problems as integrated may require people to ceaselessly battle their issues, making them tired, hopeless, and weaker.

On the other hand, one's approach to challenges has a stronger and more positive relationship with higher and self-consciousness. As mentioned before, confronting challenges includes hoping for betterment, rejuvenation and keeping calm. Self-consciousness includes being aware of oneself and insisting on being right. A state of higher consciousness involves sensing or being aware of things that do not exist in the material world. There are a few potential reasons for these positive relationships:

rejuvenation and calmness may be directly linked with self-awareness (understanding when personal limits have been reached and a break is needed, knowing what to do to rest and to regenerate), and rejuvenation, calmness and hope may also be directly related to the belief in a higher being (people may use prayers or meditation to regenerate, keep calm and hope that a higher being will provide help for them).

Having a holistic view is positively related with higher and self-consciousness, and this is expected. People who think that they are aware of themselves and are also aware of immaterial beings may tend to think that they are connected with nature and that there are connections between everything.

The weakest relationship is between higher and self-consciousness. This may be the result of the differences between the items for these two; all of the items for self-consciousness have to do with characteristics of the respondents, whereas the items for higher consciousness are not directly focused on the respondents; they are about respondents' experiences, thoughts about wisdom, gut feelings, interpretations of pain and suffering and awareness about higher beings. Thus, the two types of consciousness contain two different sets of item, one related to the respondent and the other to the ideas of the respondent about his/her immaterial environment.

### ***The relationship between the components of spiritual and emotional intelligences***

Higher consciousness is positively related to interpersonal relationships and interpersonal empathy, whereas it is negatively related to mood. Based on these relationships, a manager who is more inclined to be aware of what is beyond the material world is also able to express his/her

thoughts and anger to others, can understand others' emotions and respect others more, is less worried, impatient, and bad-tempered and feels bad less frequently. Higher consciousness is also positively related to stress management, suggesting that the manager who avoids stress also feels closer to what is beyond the material world.

Self-consciousness is related to many components of emotional intelligence: mood, interpersonal empathy, interpersonal relationships, intrapersonal emotions and intrapersonal self-acceptance. A manager who is more self-conscious has a greater tendency to express his/her thoughts and anger to others; has a better understanding of others' emotions and respects others more; can identify his/her emotions better and is more self-confident; is more willing to accept himself/herself as he/she is; is less worried, bad-tempered, and impatient and feels bad less regularly.

Facing challenges and interpersonal relationships are directly related. The better a manager faces challenges, the more he/she is willing to express his/her thoughts and anger to other people. Facing challenges is also positively related to adaptability but negatively related to stress management. A manager, who is more inclined to challenge, has a better adaptive capability but is more vulnerable to stress.

Having a holistic view is inversely proportional to adaptability and positively related to stress management, interpersonal empathy and intrapersonal emotions. Seeing everything as a whole means that one may have a harder time adapting to one's environment (and vice versa). When a manager can understand others' emotions, respect others, understand his/her emotions, and has better stress resistance, then it is expected that he/she is more keen on seeing everything as being integrated.

The first hypothesis of this study has to do with the relationships between the components of emotional and spiritual intelligences. Table 5 points out that such significant relationships do indeed exist. The relationships are explained above, and

the first hypothesis is **accepted** according to the data provided in Table 5.

Finally, Table 6 shows the effects of the components of spiritual and emotional intelligences on financial performance.

Table 6. Effects of the components of spiritual and emotional intelligences on financial performance

	Adaptability	Stress Man.	Higher Cons.	Self Cons.	Challenge	Mood	Interpers. Empathy	Interpers. Relationships	Intrapers. Emotions	Holistic View	Intrapers. Self Acceptance
Financial Performance	0.02	0.02	0.09*	-0.04*	0.04*	0.11*	0.01	-0.03	0.05*	0.13*	-0.02

\* significant for  $p < 0.05$

The coefficient of determination ( $R^2$ ) is 0.02, which indicates that the combined effects of spiritual and emotional intelligences on financial performance are very weak.

According to Table 6:

- All the components of spiritual intelligence have statistically significant effects on financial performance.
- However, some components of emotional intelligence (adaptability, stress management, interpersonal empathy, interpersonal relationships and intrapersonal self-acceptance) do not have significant effects on financial performance.
- Mood and a holistic view have the strongest effects on financial

performance, whereas self-consciousness and willingness to face challenges have the weakest effects.

- Of all of the components examined, the only one with a negative effect is self-consciousness. The organizations with more self-conscious managers have poorer financial performance than their competitors.
- Financial performance is positively affected by a higher consciousness, willingness to face challenges, mood, intrapersonal emotions and having a holistic view.

The rest of the hypotheses were tested using the data in Table 6. The results are presented in Table 7.

Table 7. Test results of the hypotheses about the effects of different forms of intelligences on financial performance

Hypothesis	Effect of the component on financial performance	Effect of the component on financial performance
$H_5$ : All the components of top managers' emotional intelligence positively affect financial performance.	Adaptability : 0.02	NO
	Stress management: 0.02	NO
	Mood: 0.11	YES
	Interpersonal empathy: 0.01	NO
	Interpersonal relationships: -0.03	NO
	Intrapersonal emotions: 0.05	YES
	Intrapersonal self-acceptance: -0.02	NO
Result	Some components of emotional intelligence don't significantly affect financial performance. <b>Therefore <math>H_5</math> is rejected.</b>	
$H_6$ : All the components of top managers' spiritual intelligence positively affect financial performance.	Higher consciousness: 0.09	YES
	Self-consciousness: -0.04	YES
	Challenge: 0.04	YES
	Holistic view: 0.13	YES
Result	All the components of spiritual intelligence affect financial performance significantly, but self-consciousness negatively affects the performance. In this case, it is not possible to claim that all the components of spiritual intelligence positively affect the performance. <b><math>H_6</math> is rejected.</b>	
$H_4$ : Top managers' spiritual and emotional intelligences increase financial performance.	Model's coefficient of determination ( $R^2$ ) is 0.02, indicating that the effects of the emotional and spiritual intelligences on financial performance are very weak altogether, so it is very convenient to refuse these effects. Also, some components of emotional intelligence don't have any significant effects on the performance; and among the components with significant effects, self-consciousness adversely affects financial performance. Because of these reasons, <b><math>H_4</math> is rejected.</b>	

## Discussion and Conclusions

This study examined the spiritual and emotional intelligences of top Turkish managers, testing the idea that these forms of intelligence play some role in their organizations' financial performances. It was also expected that the instruments used to measure spiritual and emotional intelligences would need to be tailored to top Turkish managers. This second expectation

was addressed using the pilot study and the exploratory factor analysis.

Spiritual intelligence has to do with consciousness, willingness to face challenges and seeing everything as integrated, whereas emotional intelligence has to do with interpersonal and intra-personal qualities, adaptation, stress management and mood. *An important finding was that the items for spiritual and emotional intelligences did not overlap. In other words, spiritual and emotional intelligences were found to be two distinct concepts with no common components.*

*The second important finding was that there were significant relationships between some of the components of spiritual and emotional intelligences.* Because some studies claim that different types of human intelligence are related to each other, these results seem to be in line with the literature. Contrary to expectations, some components of emotional intelligence were not significantly related. Empathy and self-acceptance were among the components with insignificant relationships, and in fact, these results seem parallel to those of some Turkish studies (as explained in previous sections).

This study also indicated the effects of components of spiritual and emotional intelligence on financial performance. *It emerged that spiritual and emotional intelligences failed to affect financial performance together.* When considered one by one, organizations' financial performances were shown to not be correlated with managers' self-acceptance, their capacity to understand others' emotions or their tendency to express their thoughts and anger to others. The rest of the components of emotional intelligence had significant but very weak effects. On the other hand, all of the components of spiritual intelligence

affected financial performance (again, very weakly). *The model tests also indicated that even if all of the components of the two forms of intelligence were not considered, it would still be impossible to say that all components with significant effects encouraged financial performance.*

In summary, this research has shown that top Turkish managers' emotional and spiritual intelligences fail to strengthen their organizations' financial performance. This leads the author to think that there may be some other reasons for the results obtained.

The author believes that one possible reason for these results is *potentiality*. The literature generally suggests intelligence to be a set of capabilities or abilities. It may thus be appropriate to think of intelligence as potential and that a person's cognitive or physical actions are in fact the results of intelligence. Furthermore, there may be agents that mediate the relationship between intelligence and its results. In other words, it may be naïve to expect intelligence to always appear *as is*. These agents might include demographic characteristics, other types of intelligence, organizational issues and macro-economic considerations. More specifically, this research reveals that some components of top managers' emotional and spiritual intelligences do not have an effect on financial performance. The age, gender or income of the participants may prevent them from using their emotional and spiritual potential sufficiently to have an effect on the finances of the firm in question. Of course, there may be many other agents as well.

Another possible reason for the results may be *logicalness*. Emotionality and spirituality may be seen as soft-core issues and the use of logical criteria may have a higher priority to perform business tasks. In this sense, a serious business issue like financial performance may require more

emphasis on managers' logical properties than their emotionality and spirituality.

Finally, some factors may have partly canceled out the effects of emotional and spiritual intelligences. Financial performance was taken into consideration in this study, and economic events may also have affected it. A very good example of this would be the economic crisis that was very much a factor when this study was being conducted. Nevertheless, it is important to recall that the author did not use absolute financial data (numerical facts and figures). Instead, the top managers rated their own businesses in comparison with their competitors. This suggests that economic events should not have been a significant factor in diluting the effects of the two types of intelligence because these events should have had similar effects on each business and its rivals (especially when businesses in the same organized industrial zone are considered). In this case, relativity may have been the reason why the effects of the two types of intelligence did not appear significant. The top managers may have assessed the effects of economic events, and each top manager may have concluded that these events reflected differently on their own and competitors' businesses. These differences may also have been reflected in their answers and thus may explain the insignificant results derived using the model presented in this research.

Future studies should consider the above-mentioned agents, examining the existence of mediating or moderating factors when analyzing the relationship between emotional and spiritual intelligences and financial performance. It may also be interesting to consider the possibility that these agent act as *filters*. Businesses and their managers are under pressure from internal and external factors. Therefore, some

manager characteristics (e.g., demographic properties, income, and culture) may act as filters and affect the way managers show their emotional and spiritual capabilities. This effect may also have some specific implications for particular business issues.

Another recommendation has to do with what business issues to consider. Instead of considering hard-core issues (e.g., financial issues, managerial issues), future studies might emphasize soft-core issues as they attempt to find connections between emotional and spiritual intelligence and firm success. Organizational culture would be a very promising issue to consider in this sense.

A very interesting consideration may be the effects of business on managers' or workers' emotional and spiritual intelligences. Future studies should conduct longitudinal research to see whether working in the same business changes the emotional and spiritual capabilities of people over time.

There seems to be very little combined research regarding the relationship between emotional and spiritual intelligences and business issues. Thus, more research is recommended.

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