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## **Job satisfaction of economists: Trends in engagement and burnout**

**Athanasios G. Saligkos<sup>\*</sup>, Eirini I. Nikolopoulou<sup>†</sup>, George S. Androulakis<sup>‡</sup>**

### **Abstract**

Even though there are many references in the global literature regarding job satisfaction in fields such as education, healthcare, and safety professions, there is limited research on job satisfaction among economists, who seek to interpret its structural elements and unique characteristics. In this study, we examine the relationship between job satisfaction among economists and trends in work engagement and professional burnout, as well as the influence of gender and working hours on their structural components. To achieve this objective, an analysis and objectification were conducted using Item Response Theory on 206 responses from economists/accountants across various economic sectors in Greece. As revealed by this study, despite the general job satisfaction of economists being close to the population average, there is lower overall job satisfaction among the female gender. Focusing on the two genders, significant statistical differences are observed, with a higher degree of burnout among women. All structural components of work engagement seem to be influenced by the duration of work, and, finally, female economists are significantly emotionally affected compared to the average emotional intelligence of both genders.

**JEL classifications:** M12, M14, M51, M54

**Keywords:** Job satisfaction, work engagement, burnout, emotional intelligence, item response theory

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## **1. Introduction**

In recent years, especially after the economic crisis in Greece during the years 2009 to 2018, which effectively ended in September 2019 with the lifting of capital controls imposed on our country, and subsequently with the healthcare crisis of the Covid-19 pandemic, which affected the country from spring 2020 until 2022, numerous significant laws were passed in the Hellenic Parliament to address these crises. The memorandum laws aimed at supporting and rescuing the Greek economy began with Law 3845/2010 (National Printing Office, 2010) and the first memorandum, continued with the approval of the second memorandum and Law 4046/2012 (National Printing Office, 2012) and concluded with the establishment of the third memorandum in August 2015 with Law 4336/2015 (National Printing Office, 2015).

All these laws contained provisions and measures to reduce expenses, such as the elimination of the 13th and 14th salaries in the public sector, tax increases like the VAT, reduction of minimum wages in the private sector, public sector job cuts, as well as privatizations and reforms in the insurance and tax legislation. The enactment of these laws resulted in the signing and implementation of dozens of ministerial decisions and hundreds of implementation circulars. At the beginning of 2020, a new wave of laws, Legislative Acts, ministerial decisions, and implementation circulars emerged, focusing on addressing the Covid-19 pandemic. This led to the passage and implementation of a complex legislative framework involving multiple government ministries and various sectors of the country's economic life.

The Covid-19 pandemic prompted the government at the time to seize the opportunity to implement electronic and digital governance reforms, which had several positive aspects and included the creation of the digital portal Gov.gr, offering thousands of services, involving 19 ministries, 78 agencies and organizations, independent authorities, regions, municipalities, and other services. The result of implementing digital governance was essentially the transfer of a significant portion of the responsibilities of all the aforementioned entities, which primarily served citizens, to the citizens themselves, and consequently, to economists/accountants, as many citizens lacked the necessary knowledge, equipment, and perhaps the willingness to handle their own affairs.

In summary, a significant portion of the implementation of the memorandum laws, as well as the almost entirely implemented laws related to the pandemic, has been carried out by economists/accountants. This has added a massive workload and additional reporting obligations to their already heavily deadline-driven schedules. However, what has further burdened economists/accountants, both physically and psychologically, is the implementation of digital governance, which continues to expand to more government entities and services, provided to citizens. The complex and demanding legislation, its implementation, and the handling of hundreds of obligations by economists/accountants have affected their job satisfaction. This situation has either led to lower levels of work engagement or higher rates of burnout among them.

## **2.1 Literature review**

### **2.1.1. Job satisfaction**

One of the most significant roles in a person's life is played by work, which covers the majority of one's day compared to any other activity (Koustelios, 2001) while Job satisfaction is the fundamental component of work, which has been studied, and interpreted by various experts (Koustelios, 2001). Many researchers agree that Job satisfaction is a multidimensional concept (Shouksmith et al., 1990). The definition that appears most frequently is that of Locke (1976, p. 1300), who defines Job satisfaction as 'a pleasant or positive emotional state resulting from the assessment of one's work or work experience.' According to research, the measurement of job satisfaction is categorized into two major groups: extrinsic and intrinsic factors (Herzberg et al., 1959; Hauber & Bruininks, 1986). Job satisfaction measurement, according to Smith et al. (1969), initially considered five dimensions of work: pay, the nature of work, relationships with colleagues, supervision by superiors, and opportunities for advancement. Later, four more dimensions were added: working conditions, relationships with management, the employing organization, and job recognition (Locke, 1976).

Job satisfaction is influenced by factors such as workload, role conflict, and role ambiguity (Rizzo et al., 1970), employee rewards (Rusbult, 1983), salespeople's perceptions of a positive ethical climate at work (Schwepker, 2001), workplace relationships (Cottrell, 2001), and factors related to work arrangements, specific job aspects, and the individuals involved (Greenberg & Baron, 1986) and are a combination of positive or negative emotions expressed by employees about their work (Davis & Nestrom, 1985). Women report significantly higher levels of job satisfaction (Clark, 1997), while psychological empowerment has been a determining factor in job satisfaction (Spence-Laschinger et al., 2001). Furthermore, it has been observed that job performance and job satisfaction have a positive correlation for jobs with high motivational potential (Hackman & Oldham, 1976). According to Aziri (2011), job satisfaction affects various aspects of people's work, such as productivity, dedication, and employees' withdrawal from their work.

### **2.1.2. Burnout**

The concept of professional burnout emerged in the 1970s and continues to be a subject of research to this day. Researchers studying the phenomenon of professional burnout initially seek to identify the conditions and causes that lead to it (Bakker & Costa, 2014). Subsequently, they aim to understand and find ways to prevent and combat it (Schaufeli et al., 2009). The concept of professional burnout is described as the depletion of one's emotional and physical resilience, coupled with a sense of depersonalization, decreased personal accomplishment, and reduced self-esteem due to the work environment and job conditions that an individual experiences (Maslach et al., 2001). There are numerous endogenous and exogenous factors that influence professional burnout. Notable factors include individuals' expectations, goals, personality, and motivations, as well as interpersonal

relationships. At the organizational level, factors like workload and the employment surrounding play a significant role (Demerouti et al., 2001; Shirom, 2003; Swider & Zimmerman, 2010). Organizational factors, including bureaucracy (Adera & Bullock, 2010), also have a considerable impact.

Women appear to exhibit high rates of burnout, while men tend to experience lower levels of emotional exhaustion and higher levels of cynicism (Purvanova & Muros, 2010). Younger individuals tend to report higher rates of professional burnout (Kantas & Vassilaki 1997; Zabel & Zabel, 2001), while older individuals may experience lower levels due to their adaptability in the workplace (Cordes & Dougherty, 1993). Additionally, pessimistic individuals are positively associated with the occurrence of professional burnout (Riulli & Savicki, 2003), as well as unmarried or divorced employees (Maslach et al., 2001), in contrast to married workers (Maslach, 2003). The impact of professional burnout on the physical, mental, and spiritual health of employees is significant (Jones & Bright, 2001). Studies show that employees who feel professionally burned out tend to have low levels of job satisfaction, absenteeism, or a tendency to leave their jobs prematurely. They also exhibit reduced productivity, negative work behaviors, and early retirement (Iverson et al., 1998; Fisher & Ashkanasy, 2000; Bakker et al., 2002; Maslach & Goldberg, 1998).

### **2.1.3. Work engagement**

The term "commitment," both in business contexts and in the academic field, is referred to as "work engagement" (Schaufeli, 2012). In the context of businesses, it is a desired work-related state since it has the potential to improve employees' efficiency (Bakker & Demerouti, 2008) and can also serve as the primary parameter by which a business fulfills its tasks and goals (Christian et al., 2011). One of the most prevalent definitions states that work engagement is a mental state that is positively associated with an individual's work and is distinguished by vigor, dedication, and absorption (Schaufeli et al., 2002a, 2002b; Schaufeli & Bakker, 2004). Maslach & Leiter (1997) assert that work engagement is the opposite pole of professional burnout, where low indications of emotional exhaustion and cynicism, combined with high levels of professional efficacy, are considered pointers of work engagement (Maslach et al., 2001; Schaufeli & Bakker, 2003).

The term "work resources and working conditions" (Hobfoll, 2002; Bakker, et al., 2011) as well as organizational culture has a significant impact on work engagement (Schaufeli & Bakker, 2004; Salanova et al., 2005). Additionally, personal characteristics (Hobfoll et al., 2003) such as autonomy (Schaufeli & Salanova, 2006; Bakker & Demerouti, 2007), psychology (Kahn, 1990), self-esteem, and optimism (May et al., 2004), an individual's personality (May et al., 2004; Langelaan et al., 2006), as well as one's perception of how the work environment influences them (Buchanan & Huczynski, 2004) all play a significant role in work engagement. Demographic characteristics of employees, such as gender (Schaufeli & Bakker, 2003) also contribute. Older workers appear to be more committed to their work than younger employees (Schaufeli et al., 2006), as do individuals with more experience

(Meesala, 2011). Finally, it seems that committed employees are more active, enthusiastic (May et al., 2004), and productive (Bakker et al., 2004; Schaufeli et al., 2006). Moreover, work engagement has a positive impact on employees' health (Demerouti et al., 2001) and is positively correlated with work capability (Hakanen et al., 2006).

#### **2.1.4. Emotional intelligence**

Emotional intelligence is a term that encompasses conflicting and often contradictory concepts. It involves the recognition that individuals differ in how they pay attention to, manage, and use emotional information both within themselves and in their interactions with others (Petrides & Furnham, 2003). It pertains to people's beliefs about their emotions (Petrides & Mavroveli, 2018) and is a cascade of emotional perceptions assessed through questionnaires and rating scales (Petrides et al., 2007). Mayer & Salovey (1997) support that emotional intelligence is the ability individuals has to effectively manage emotional information by recognizing and regulating both their own and others' emotions.

An individual's temperament has the potential to influence the development of key components of emotional intelligence, such as self-control (Halberstadt et al., 2002). Additionally, the impact of IQ and emotional intelligence on determining successful performance outcomes is significant (Salovey & Mayer, 1990). A positive relationship exists between emotional intelligence and happiness and personality traits (Petrides & Furnham, 2003), with women appearing to have higher emotional intelligence regarding their social abilities and skills (Petrides et al., 2004) and interpersonal relationships (Bar-On, 2000; Schutte et al., 2007). However, studies suggest that there are no significant differences in emotional intelligence between the two genders (Mayer et al., 1999).

Furthermore, studies show that emotions are positively related to job satisfaction and work engagement, as well as positive behaviors in the workplace (Judge et al., 2001) while being negatively correlated with counterproductive behaviors (Day & Bedeian, 1995). Age also appears to influence emotional intelligence, as it has been found that it is not predetermined by an individual's birth but develops over time (Bar-On, 2000). Finally, there is a positive correlation between emotional intelligence and people's health (Johnson et al., 2009). Individuals with high levels of emotional intelligence are more likely to lead a healthy lifestyle with proper nutrition and regular physical exercise.

#### **2.1.5 Aims and hypotheses**

From this perspective and in accordance with what has been discussed above, this study aims to examine the relationship between job satisfaction, combined with professional burnout, work engagement, and the influence of gender and working hours on the structural elements of the aforementioned constructs. As a result, the following research questions arise:

1. How does job satisfaction influenced at the level of its structural elements by gender and working hours?
2. How does professional burnout influenced at the level of its structural elements by gender and working hours?
3. How does work engagement influenced at the level of its structural elements by gender and working hours?
4. How does emotional intelligence influenced at the level of its structural elements by gender and working hours?

### 3. Methodology

The current study took place between January 2020 and January 2022, focusing on professionals working in economics, specifically economists and accountants throughout Greece. Data collection involved sending emails to around 2000 economists affiliated with the Economic Chamber of Greece, yielding 206 responses. The questionnaires provided the study's objectives along with assurances of confidentiality and anonymity for respondents. Table 1 displays the gender distribution, Table 2 presents the age distribution, and Table 3 illustrates the working hours of the sample.

**Table 1: Gender of the sample**

Gender					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	112	54.4	54.4	54.4
	Female	94	45.6	45.6	100.0
	Total	206	100.0	100.0	

**Table 2: Age of the sample**

Age					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	20-24	3	1.5	1.5	1.5
	25-29	11	5.3	5.3	6.8
	30-34	26	12.6	12.6	19.4

	35-39	36	17.5	17.5	36.9
	40-44	31	15.0	15.0	51.9
	45-49	42	20.4	20.4	72.3
	50-54	37	18.0	18.0	90.3
	55-59	13	6.3	6.3	96.6
	60-64	5	2.4	2.4	99.0
	65+	2	1.0	1.0	100.0
	Total	206	100.0	100.0	
	1				

**Table 3: Working hours of the sample**

Working hours					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	<4	1	0.5	0.5	0.5
	4-8	41	20.0	20.0	20.5
	8-12	146	71.2	71.2	91.7
	>12	17	8.3	8.3	100
	Total	205	100.0	100.0	

Regarding the questionnaire structure, it includes the following sections:

- ❖ Demographic Information (gender, age, education, marital status).
- ❖ Information about economic status, satisfaction with basic needs, and recognition, as well as other elements like recognizability and social class.
- ❖ Employment Status (profession, position at work, supervisory or coordination role, experience, economic sector, average daily working hours).

**Job Satisfaction.** To gauge job satisfaction, the study employed the abbreviated version of the Minnesota Job Satisfaction Questionnaire (MSQsf), devised by Weiss et al. in 1967. This questionnaire evaluates respondents' contentment or discontentment with their work. The MSQsf



appraises intrinsic and extrinsic job satisfaction dimensions as well as overall satisfaction. It comprises 20 questions rated on a 5-point scale, ranging from 1 "very dissatisfied" to 5 "very satisfied". Specifically, the Extrinsic Job Satisfaction section (consisting of 6 questions) primarily evaluates external factors like working conditions, organizational policies, relationships with colleagues and management, benefits, rewards, and recognition. On the other hand, the Intrinsic Job Satisfaction segment (comprising 12 questions) assesses intrinsic aspects such as the nature of the job, opportunities for growth, recognition, adherence to ethical values, personal achievements, and feelings of autonomy and creativity. Additionally, two questions are dedicated to gauging general satisfaction.

**Burnout.** The Maslach Burnout Inventory (MBI), developed by Maslach et al. in 1986 and Maslach & Jackson in 1981, is structured to evaluate professional burnout levels using a 7-point scale, ranging from 0 "never" to 6 "daily". Specifically, the Maslach Burnout Inventory Human Services Survey (MBI-HSS) comprises 22 questions that assess three components: 1. Emotional Exhaustion: Assessed through 9 questions. 2. Loss of Personal Accomplishment: Evaluated via 8 questions. 3. Depersonalization/Cynicism: Examined through 5 questions. When high scores for emotional exhaustion and depersonalization are coupled with low scores in the loss of personal accomplishment component, it indicates indications of professional burnout. The scores for the loss of personal accomplishment component are inverted to calculate the burnout score exclusively.

**Work Engagement.** The Utrecht Work Engagement Scale (UWES17), developed by Schaufeli et al. (2002) and Schaufeli & Bakker (2004b), is utilized for measuring work engagement. It consists of 17 questions rated on a 7-point scale, ranging from 0 "never" to 6 "always". The questions within UWES17 are divided into three components, representing the three dimensions of work engagement: 1) Vigor: Assessed through 6 questions. 2) Dedication: Evaluated via 5 questions. 3) Absorption: Examined through 6 questions. Elevated scores in vigor, dedication, and absorption indicate heightened levels of work engagement.

**Emotional Intelligence.** The Trait Emotional Intelligence Questionnaires - Short Form (TEIQue-SF) is utilized to evaluate emotional intelligence in individuals. Developed by K.V. Petrides in 2009, it comprises 30 questions. Respondents rate their answers on a 7-point scale, ranging from 1 "Strongly Disagree" to 7 "Strongly Agree". This questionnaire assesses 15 personality traits associated with emotional intelligence, categorized into four primary components: 1) Well-being (encompassing Happiness, Optimism, Self-esteem), 2) Sociability (comprising Emotional management, Assertiveness, Social Awareness), 3) Emotionality (including Empathy, Emotional Perception, Emotional Expression, Relationships), 4) Self-control (encompassing Emotion Regulation, Stress management, Impulsiveness). Additionally, two other traits, Self-motivation, and Adaptability, may be observed independently in certain cases (Petrides, 2009).

**Objectification of Variables using Item Response Theory.** The scores on the questionnaires of Job satisfaction, Occupational burnout, work engagement, and emotional intelligence, including their

structural parts, usually, they are computed by adding up the scores of their individual items and then dividing the total by the number of items. Thus, they are based on and follow the rules of Classical Test Theory (CTT), although this approach has certain drawbacks (Embretson & Reise, 2013; Zanon et al., 2016). By applying Item Response Theory (IRT), these disadvantages can be addressed (Kamata & Bauer, 2008; De Ayala, 2013), particularly when IRT is applied to Likert scale data (Ligtvoet et al., 2010).

The three main characteristics of Item Response Theory (IRT) are the **Item Response Function** (IRF), which relates the latent trait to the probability of answering an item, the **Item Information Function** (IIF), which assesses the quality of an item, i.e., the ability of the item to differentiate respondents, and **Invariance**, which is a crucial property of IRT because the levels of the latent trait for the individual taking the test are not influenced by the specific questions they receive, and similarly, the parameters of the items are also independent of a specific sample (Reise, 2014). The characteristic of invariance allows different measurement scales of the same trait to be effectively linked, and respondents to be compared even when they have completed not the same questionnaires (Embretson & Reise, 2013; Bortolotti et al., 2013; Zanon et al., 2016). For these rationales and the objectives of this research, all computations of the assessed structural indices have been calculated using IRT. Furthermore, path analysis was employed as it is considered the core of structural equation modeling based on the concept of causality (Kline, 2015; Kamata & Bauer, 2008).

For the present study, the following abbreviations were used to represent the structural elements examined: (SAT) Job satisfaction, (sINT) Intrinsic job satisfaction, (sEXT) Extrinsic job satisfaction, (BU) Professional burnout, (bEE) Emotional exhaustion, (bPA) Loss of personal accomplishment, (bCY) Depersonalization/cynicism, (ENG) Work engagement, (eVI) Vigor, (eDE) Dedication, (eAB) Absorption, (EI) Emotional intelligence, (emWB) Well-being, (emSO) Sociability, (emEM) Emotionality, (emSC) Self-control.

#### **4. Numerical results**

The statistical software R was used for data processing (R Core Team, 2021). Table 4 presents the basic statistical indicators using IRT.

Table 5 presents the correlations of job satisfaction, burnout and work engagement and their structural components respectively. We notice that there is a direct relationship between job satisfaction and work engagement, while there exists an inverse relationship between job satisfaction and burnout.

**Table 4: Descriptive statistics of the constructs' structural elements**

Structural element	n	mean	sd	skewness	kurtosis
SAT	206	45.558	25.016	-0.144	-0.979
BU	206	51.111	13.623	0.105	-0.155
ENG	206	50.487	30.918	-0.105	-1.398
EI	206	49.805	20.258	-0.126	-0.832

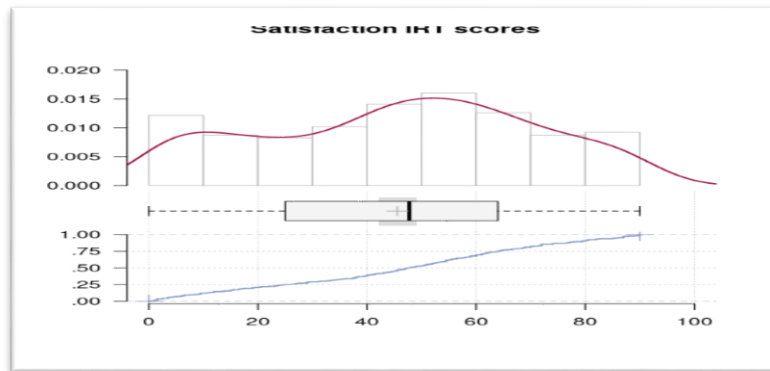
**Table 5: Correlations of Job Satisfaction, Burnout and Engagement and their structural Elements**

Satisfaction.irt	0.93***	0.93***	-0.36***	-0.22**	-0.34***	0.043	0.59***	0.44***	0.63***	0.54***
Intrinsic.irt		0.73***	-0.37***	-0.19**	-0.38***	0.058	0.59***	0.46***	0.63***	0.54***
Extrinsic.irt			-0.32***	-0.22**	-0.26***	0.022	0.50***	0.36***	0.54***	0.46***
Bournout.irt				0.63***	0.49***	0.45***	-0.42***	-0.29***	-0.44***	-0.43***
Bournout.ee.irt					-0.11	0.23***	-0.14*	-0.0025	-0.18**	-0.17*
Bournout.pa.irt						-0.35***	-0.51***	-0.43***	-0.47***	-0.51***
Bournout.cy.irt							0.079	0.071	0.043	0.11
Engagement.irt								0.89***	0.95***	0.94***
Absorption.irt									0.76***	0.77***
Dedication.irt										0.83***
Vigor.irt										

#### 4.1. Job satisfaction

The job satisfaction levels among economists, depicted in Figure 1, closely resemble the average of the population, averaging at 45.558. Nonetheless, there is a minority, approximately 15%, of economists experiencing notably low job satisfaction.

**Figure 1: Job satisfaction IRT scores density plot**

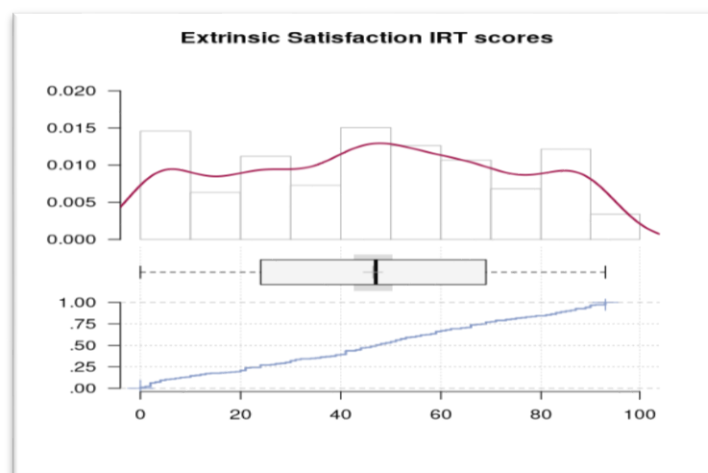


When examining the two foundational components contributing to satisfaction, it becomes apparent that intrinsic satisfaction (as illustrated in Table 6 and Figure 3) is accountable for the diminished levels of satisfaction evident within a segment of the overall population. The proportion of individuals reporting low intrinsic job satisfaction surpasses 15% among economists.

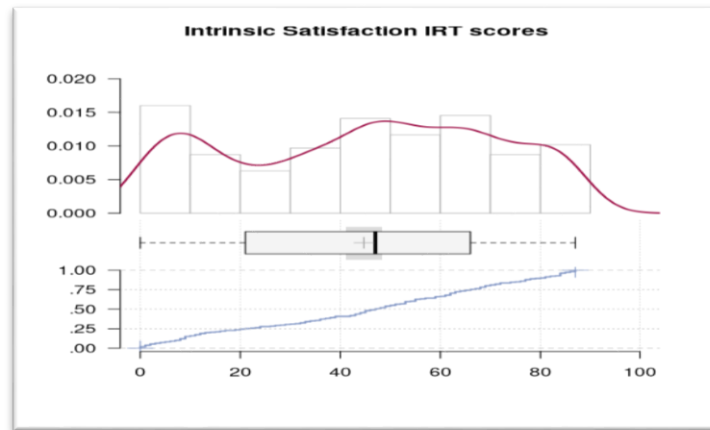
**Table 6: Correlations of Job Satisfaction and its structural elements**

Satisfaction.irt	0.93 <sup>***</sup>	0.93 <sup>***</sup>
	Intrinsic.irt	0.73 <sup>***</sup>
		Extrinsic.irt

**Figure 2: Extrinsic Job satisfaction IRT scores density plot**

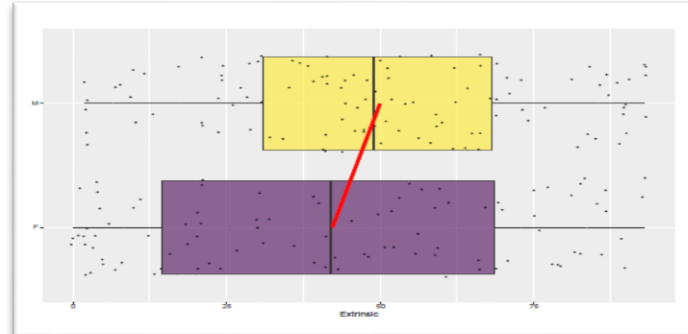


**Figure 3: Intrinsic Job satisfaction IRT scores density plot**

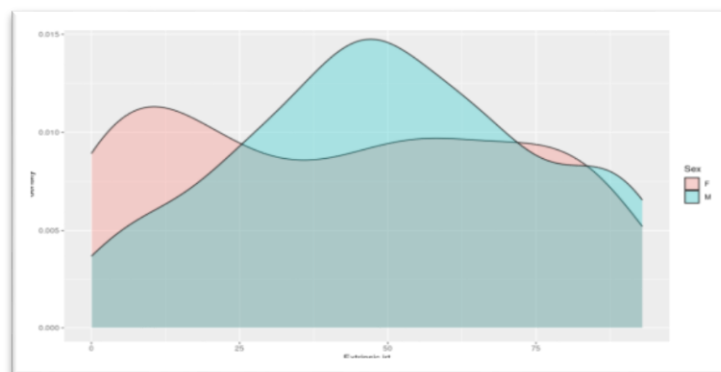


When examining gender disparities, although there are no statistically significant variances in the average, discrepancies between men and women primarily stem from external satisfaction (depicted in Figures 4 and 5), where the most notable distinctions arise. Male economists report job satisfaction levels very near the population average, whereas women indicate satisfaction levels approximately 10% lower than the average. External satisfaction and gender:  $t=-2.0056$ ,  $df=183.87$ ,  $p\text{-value}=0.04637$ .

**Figure 4: Extrinsic Job satisfaction Thecogram by gender**



**Figure 5: Extrinsic Job satisfaction Density plot by gender**

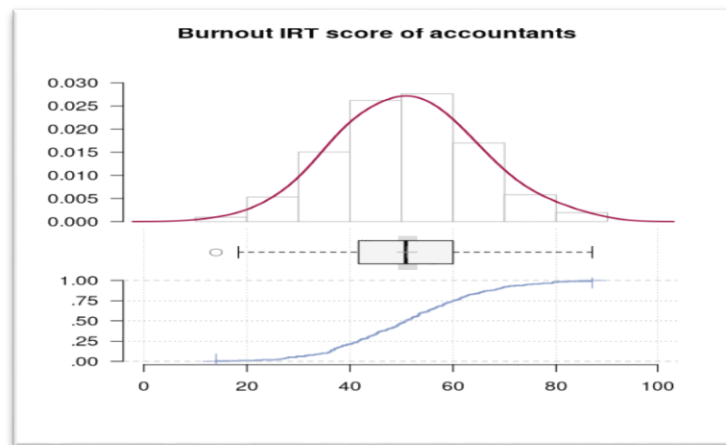


The results are corroborated by a study on female accountants in Queensland, Australia, which found lower levels of satisfaction compared to their male colleagues (Herbohn, 2005). In another study by Moyes et al. (2006), it was found that younger women face less gender-related discrimination than older women, a fact that aligns with the present research. Another alignment with the findings of this research is evident in the results of the study by Moyes et al. (2008), who found that job satisfaction among professional accountants was significantly affected by gender discrimination. Furthermore, a study revealed significant gender differences in job satisfaction, with age being one of the key variables (Kara et al., 2011). Finally, in a study by Andrade et al. (2019), it was found that women's external rewards were significantly lower than those of men, which aligns with the results of our study.

#### 4.2. Burnout

Reviewing the IRT score (as illustrated in Figure 6) within the economist community, we note a typical distribution akin to the general population. Notably, there is an absence of professional burnout as the average falls within the range of [49.24 – 52.98], approximately around 50, aligning with the average level of burnout observed in the population.

**Figure 6: Burnout IRT scores density plot**



**Table 7: Correlations of Burnout and its structural elements**

Bournout.irt	0.63 <sup>***</sup>	0.49 <sup>***</sup>	0.45 <sup>***</sup>
	Bournout.ee.irt	-0.11	0.23 <sup>***</sup>
		Bournout.pa.irt	-0.35 <sup>***</sup>
			Bournout.cy.irt

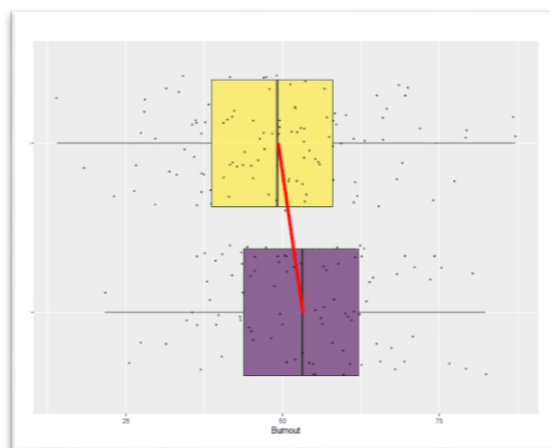
As indicated in Table 8, there are statistically significant variances when comparing data based on gender. Female economists report feeling burned out by their work at an average rate of 53.241%, contrasting with their male counterparts who exhibit a lower rate of burnout at 49.324%.

**Table 8: Burnout IRT scores: differences between Females-Males**

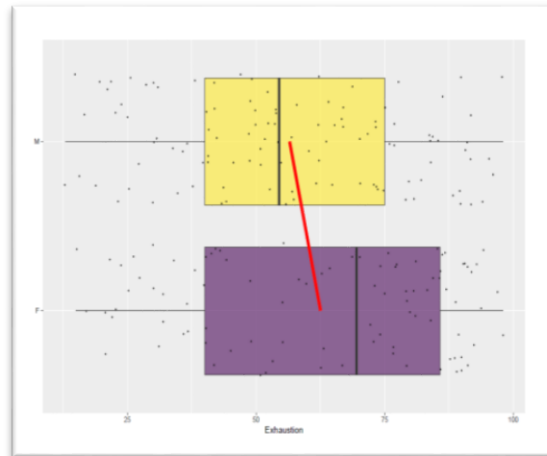
Burnout IRT scores: differences between Females-Males		
Summary: n pairs: 206, valid: 206 (100.0%), missings: 0 (0.0%), groups: 2		
	F	M
mean	53.241	49.324
median	53.167	49.167
sd	12.737	14.135
n	94	112
np	45.631%	54.369%
NAs	0	0
Os	0	0
Kruskal-Wallis rank sum test:		
Kruskal-Wallis chi-squared = 4.5804, df = 1, p-value = 0.03234		

Figure 7 provides a clear visual representation of the disparity between genders, as depicted in Table 8. The statistics for Burnout and gender are:  $t = 2.0907$ ,  $df = 202.95$ ,  $p\text{-value} = 0.0378$ . Furthermore, delving deeper into gender discrepancies and the underlying factors contributing to burnout (as shown in Figure 8), we observe that women experience emotional exhaustion at a rate of 62.542%, while men, though close, exceed the average slightly at 56.526%. This discrepancy in emotional exhaustion ultimately accounts for the differentiation in overall burnout levels between the two genders. Statistical analysis reveals that the statistics for Emotional Exhaustion concerning gender are as follows:  $t = 1.8072$ ,  $df = 191.89$ , and a  $p\text{-value}$  of 0.0723.

**Figure 7: Burnout Thecogram by gender**

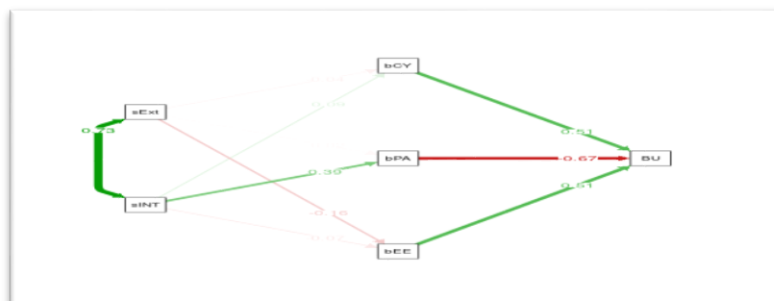


**Figure 8: Burnout Thecogram by emotional exhaustion**



In Figure 9, the influence of intrinsic and extrinsic job satisfaction on burnout is illustrated through the latest structural elements. Here, intrinsic job satisfaction demonstrates a positive impact on burnout primarily via personal accomplishment, where the negative coefficient (-0.67) suggests a positive effect on overall burnout. Conversely, extrinsic job satisfaction seems to establish a negative correlation with all burnout constructs, particularly with emotional exhaustion.

**Figure 9: Model of internal and external Job satisfaction with Burnout via its structural elements**



The findings of the present study contrast with research on academic accountants and professionals in the financial sector, which showed that the majority experienced a high level of professional disempowerment regarding personal achievements (Byrne et al., 2013), and with a study conducted on public sector accountants in the United States, where women reported significantly lower levels of personal accomplishments compared to men with similar duties (Guthrie & Jones, 2012).

### 4.3. Work engagement

Concerning work engagement, while the average within the profession remains close to the population mean, it's notable that approximately 15% of the workforce demonstrates high levels of



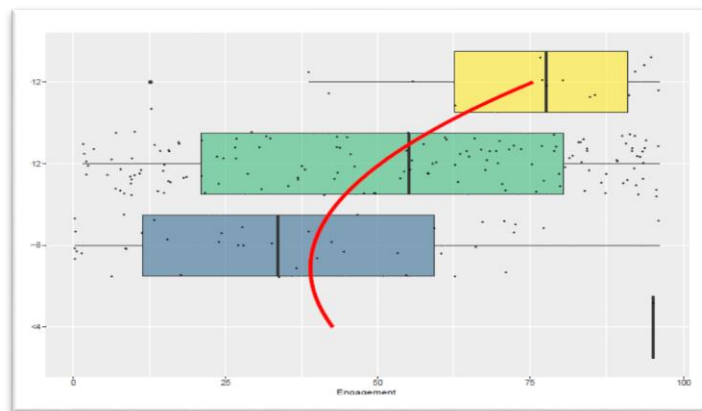
engagement, while another segment comprising around 12% exhibits notably low levels of engagement, as illustrated in Figure 10.

**Figure 10: Work engagement IRT scores density plot**



The varying levels of work engagement, as discernible across all structural elements (vigor, dedication, absorption), are notably impacted by the working hours of economists, as depicted in Figure 11. Specifically, economists working between 4 to 8 hours tend to exhibit low levels of work engagement, approximately around 40%, whereas those working 12 hours or more demonstrate significantly higher levels of work engagement, exceeding 75%.

**Figure 11: Work engagement Thecogram by working hours**



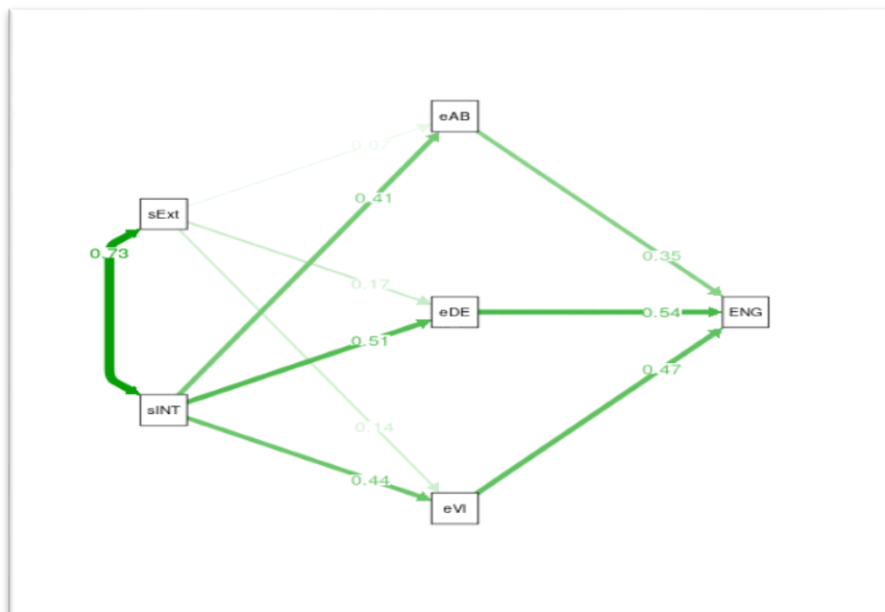
Engagement and working hours: Df=3, F value 7.4025, Pr(>F) 9.959e-05\*\*\*, Residuals 201. Vigor and working hours: Df=3, F value 6.2397, Pr(>F) 0.0004521\*\*\*, Residuals 201. Dedication and working hours: Df=3, F value 4.7876, Pr(>F) 0.003035\*\*, Residuals 201. Absorption and working hours: Df=3, F value 9.206, Pr(>F) 9.809e-06\*\*\*, Residuals 201.

**Table 9: Correlations of Work Engagement and its structural elements**

EAngagement.irt	0,89***	0,95***	0,94***
	Absorption.irt	0,76***	0,77***
		Dedication.irt	0,83***
			Vigor.irt

Figure 12 shows the effect of intrinsic and extrinsic job satisfaction to work engagement via the structural elements of the work engagement. In particular, it is shows that in terms of the work engagement’s structural elements, dedication shows the greatest positive (0.54) effect, followed by vigor (0.47) and lastly by absorption (0.35). In addition, examining how intrinsic job satisfaction positively mediates the effect on work engagement’s structural elements, it emerges that the greatest effect is exerted mainly via dedication (0.51) and vigor (0.44) and then via absorption (0.41). It is also observed that extrinsic job satisfaction does not exert a statistically significant influence on the structural elements of work engagement.

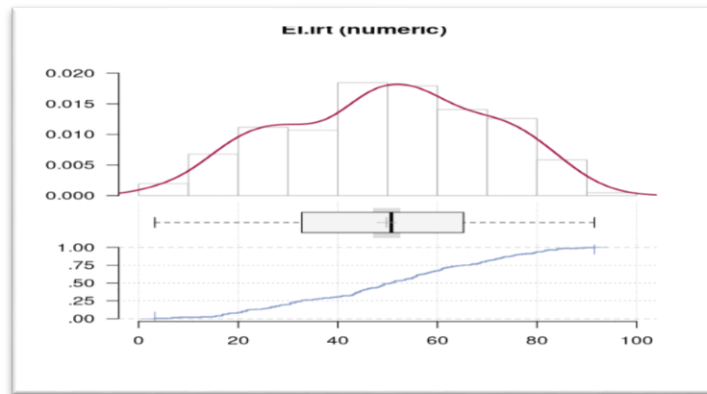
**Figure 12: Model of internal and external Job satisfaction with Work engagement via its structural elements**



#### 4.4. Emotional intelligence

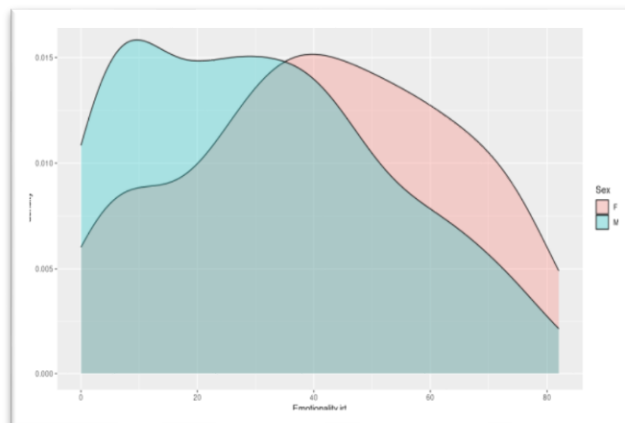
Regarding emotional intelligence, as shown in Figure 13, there are no statistically significant differences in the means of the two genders, but there are some qualitative differences in the distributions of the two genders.

**Figure 13: Emotional intelligence IRT scores density plot**

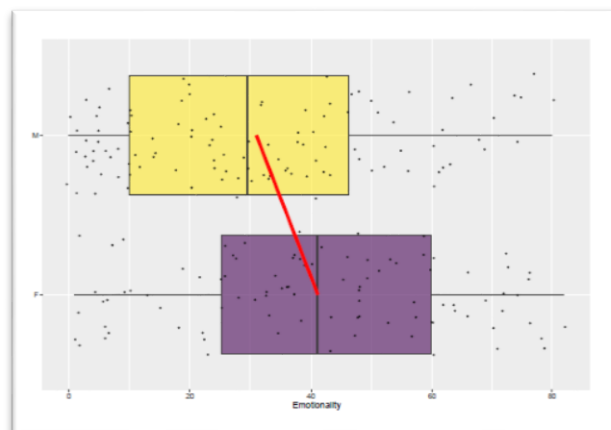


These differences are more pronounced in the components of emotional intelligence, specifically self-control and sociability, less visible in well-being, while in the emotional dimension, there are statistically significant differences in the mean between the two genders, especially for working women (Figures 14-15). Emotionality and gender:  $t= 3.31$ ,  $df = 195.12$ ,  $p\text{-value} = 0.001111$ .

**Figure 14: Emotionality Density plot by gender**



**Figure 15: Emotionality Thecogram by gender**



For all other structural elements of the questionnaires related to gender and working hours, a statistical test was performed, and no statistically significant results were found.

## **5. Discussion**

The purpose of this study was to examine the relationship between job satisfaction among economists and the trends that emerge in terms of job engagement and professional burnout. Additionally, this study focused on the impact of the structural elements of the above constructs on gender and working hours. Regarding the research question, "How is job satisfaction influenced at the level of its structural elements by gender and working hours?" the results of the research revealed that internal satisfaction is responsible for the presence of low levels of job satisfaction in part of the general population. Furthermore, when focusing on gender differences, it was observed that the differences between men and women are primarily due to external satisfaction, where the most significant differences between them are found, especially concerning women's lower professional satisfaction. These findings contrast with research conducted by Kim in 2005 on government public servants, which found that gender is the only significant predictor of job satisfaction among demographic variables, with women reporting higher satisfaction than men, who also seemed to emphasize external rewards, while women emphasized internal rewards (Kim, 2005). In another study of female accountants in Queensland, Australia, lower levels of satisfaction were found compared to their male colleagues, which were generally attributed to their job, promotion opportunities, job type, colleagues, and supervision quality (Herbohn, 2005). This partially aligns with the current study's findings. In addition, a study by Moyes et al. (2006) found that younger female professional accountants perceive better treatment and support from supervisors compared to younger males. They also face less gender-related discriminations than older women (Moyes et al., 2006) that are we see an identification of these views with the present research. The present study contrasts with a 2006 study of Hispanic professional accountants, which found that demographic variables such as gender and age do not statistically affect the level of job satisfaction (Moyes et al., 2006).

Similar to the results of our study, Moyes et al. (2008) found, in a study conducted among professional accountants, that their Job satisfaction was significantly affected by gender-related discrimination by their supervisors, both during various tasks and due to exclusion from various group projects (Moyes et al., 2008). Additionally, a study conducted among five-star hotel employees in Turkey revealed significant differences between genders in job satisfaction, with key variables being age, marital status, monthly income, education, job position, and experience in both the tourism sector and the employing organization (Kara et al., 2011). Andrade et al. in a study, observed that, overall, there were no differences in Job satisfaction between women and men. However, women's external rewards were found to be significantly lower than those of men (Andrade et al., 2019), which aligns with the results of our study. In contrast, research conducted in 2012 on the Job satisfaction of Certified Public Accountants in Tanzania showed that most were satisfied with their work but

dissatisfied with compensation and promotion prospects. Age and gender did not significantly influence their job satisfaction (Mpeka, 2012).

In response to the research question, "how is professional burnout influenced at the level of its structural elements by gender and working hours?" the results of our study indicate that overall burnout is around the mean of the general population of economists. Additionally, statistically significant differences are observed when comparing data by gender. Specifically, women feel more burned out compared to their male colleagues due to higher levels recorded in the emotional exhaustion component. These findings contrast with research conducted in Ireland on academic accountants and finance professionals, which showed that the majority experienced low to moderate burnout in terms of emotional exhaustion and depersonalization but faced a high degree of burnout concerning personal accomplishment (Byrne et al., 2013). Similarly, a study conducted on public sector accountants in the United States found that women in auditing and tax responsibilities reported significantly lower levels of personal accomplishment compared to men with the same duties (Guthrie & Jones, 2012).

Regarding the research question, "how is job engagement influenced at the level of its structural elements by gender and working hours?" our study's results indicate that the industry's average is around the population mean. However, we observe that a segment of workers exhibits high levels of engagement, while another shows low levels. These values appear across all structural elements of engagement (vigor, dedication, absorption) and seem to be influenced by the working hours of economists. For fewer working hours, the engagement rate at work is low, and it is high when employees work more than twelve hours per day. In response to the research question, "how is emotional intelligence influenced at the level of its structural elements by gender and working hours?" our study's results reveal some qualitative differences in the distributions of the two genders. These differences are more pronounced in the components of emotional intelligence such as self-control and sociability, less visible in well-being, while statistically significant differences are observed in the emotional intelligence dimension concerning the mean value between the two genders, especially for women who appear to be more emotionally affected than their male colleagues.

## **6. Conclusions**

The main conclusions drawn from this study can be summarized as follows: Regarding the Job satisfaction of economists, it appears that internal satisfaction is responsible for the low levels of satisfaction in a small portion of the general population, while external satisfaction is responsible for the lower Job satisfaction of women. The study's results showed that overall burnout is around the population mean primarily. Furthermore, women tend to feel more burned out compared to their male colleagues. The survey data is revealing that all structural elements of job engagement, including vigor, dedication, and absorption, a portion of workers exhibit high levels of engagement while another segment shows low levels. This is mainly influenced by the working hours of economists.

Finally, regarding emotional intelligence, it is clear from the results of the study that female economists are significantly more emotionally affected than their male colleagues.

Acknowledging that achieving a perfect research process is difficult and aiming to improve future findings, we will mention some of the limitations we have identified in this particular research. The primary limitation is that the research was based on questionnaire completion without the presence of the researcher, where respondents indicated whether they agree or disagree with the questionnaire propositions. Thus, the answers given may have been biased and could have negatively impacted the quality of the results. This negative impact is mitigated by using the Theory of Question Response, which initially allows us to dissociate from the measurement scale and then generalize the findings to similar populations. A second limitation lies in the sample size. With a larger sample, we might have had even more reliable results. A proposal for future research would be to change the methodology and design of the research using the method of interviews to identify any differences from the findings of the present research.

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