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Are you motivated enough to stay?

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Masters in Organizational and Social Psychology

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PhD, Jorge Sinval, Invited Assistant Professor,  
Iscte — University Institute of Lisbon

October, 2022

Departamento de Psicologia Social e das Organizações

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## Resumo

Turnover é um fenómeno que cada vez mais acontece e o “trabalho para a vida”, que costumava ser tão comum, já não existe. Queremos compreender as implicações e o que tem mais impacto na intenção de saída e no desempenho dos colaboradores.

Com uma amostra de 319 participantes, o nosso objetivo era compreender se a motivação, o burnout e o work engagement têm alguma influência nas intenções de saída. Além disso, queríamos investigar se estas três variáveis têm algum efeito sobre a perceção de desempenho dos colaboradores.

O presente estudo procura ainda contribuir para o aprofundamento destes temas através da adaptação do instrumento Schattke-Locke-Scale seguindo as directrizes da Comissão Internacional de Testes.

Os resultados mais interessantes que obtivemos foram as relações positivas entre burnout e intenção de saída, achievement motivation e performance e work engagement e performance. As associações negativas entre performance e burnout e entre extrinsic motivation and intention to quit também foram muito interessantes.

**Palavras-chaves:** Burnout; Motivação; Work Engagement; Intenção de Saída; Desempenho.

## **Abstract**

Turnover is happening more and more and the lifelong work that used to be so common no longer exists. We want to understand the implications and what has more impact on the intention of employees to leave and on their performance.

With a 319 sample, our purpose was to understand if motivation, burnout and work engagement have any influences in quitting intentions. Also, we wanted to investigate if these three variables had any effect on employee's perceived performance.

Furthermore, the present project seeks to contribute to the deepening of these themes also through the adaptation of Schattke-Locke-Scale scale following the guidelines of the International Test Commission.

The most interesting results were the positive relationships between burnout and intention to quit, achievement motivation and performance, and work engagement and performance. The negative associations between performance and burnout and between extrinsic motivation and intention to quit were also very interesting.

**Keywords:** Burnout; Motivation; Work Engagement; Intention to Quit; Performance.

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## Introduction

The purpose of this study is to understand how burnout, motivation and work engagement are related to employees' intention to quit and their performance.

First, it is important to understand each construct. Burnout is the response to prolonged work stressors (Maslach et al., 2001). Work engagement is a mental state in which the individual is 100% engaged with the task and enthusiastic about their work (Bakker and Leiter, 2017). The motivation construct was divided into three, according to Locke and Schattke (2019): extrinsic motivation, intrinsic motivation and achievement motivation. Extrinsic motivation is doing something to gain something in the future, intrinsic motivation is liking or enjoying an activity on its own and achievement motivation is a persistent concern for a standard of excellence. Intention to quit is the manifestation of the desire to leave, leading, quite possibly to turnover (Elangovan, 2001). And performance is what individuals do and the steps they take to accomplish the goals of the company (Campbell and Wiernik, 2015).

Turnover has never happened as much as it does today, and it would be important to understand what might cause it. The first cause of turnover is the intention to quit. And what can cause employees quitting intentions? Past studies have shown that there is a positive relationship between burnout and the intention to quit. And we also wanted to understand what might decrease employees' intention to leave. The negative relationship between work engagement and turnover intention has also been studied. There was also interest in understanding whether motivation could decrease the quitting intentions. The big novelty is the fact that motivation is tested as a trichotomy in this study. Organizations need to be able to retain talent, and for this, work engagement and motivation are undoubtedly important - they are what *drive* organizations.

For organizations to be driven by these variables and to be competitive, it matters that they are productive. This is achieved through the good performance of employees and, consequently, of organizations. For this, the purpose of this study was also to understand how burnout, motivation and work engagement affect the perception of performance. These relationships are also proven by past studies. Again, the big breakthrough is the three dimensions of motivation.



## Chapter I – Literature Review

### Job Demands Resources Model

There are situational and individual factors that can predict burnout and work engagement. In a study by Bakker et al. (2014), burnout had more significant outcomes related to health, and work engagement appears to be more strongly associated with motivational outcomes.

According to Demerouti et al. (2001), job demands are the physical, social, or organizational aspects of work that require any mental or physical effort and may have both physiological and psychological costs. An example of job demand is exhaustion. The efforts and costs are related – the greater the effort, the greater the costs (physiological).

Several studies show that job resources can decrease the impact of job demands on strain, i.e. when employees have many resources available to them, they are more likely to cope better with job demands. Some examples of job resources are performance feedback and social support. Job demands can be emotional demands and work pressure (Bakker et al., 2014). On the other hand, it is proven that when job demands are increased, job resources have more positive effects on work engagement and motivation. In a study of by Hu et al. (2017), when demands increased, burnout also increased, and when resources were low, burnout increased and work engagement decreased.

In short: high demands and low resources at work can be the cause of burnout. Work engagement, on the other hand, is the cause of high resources at work.

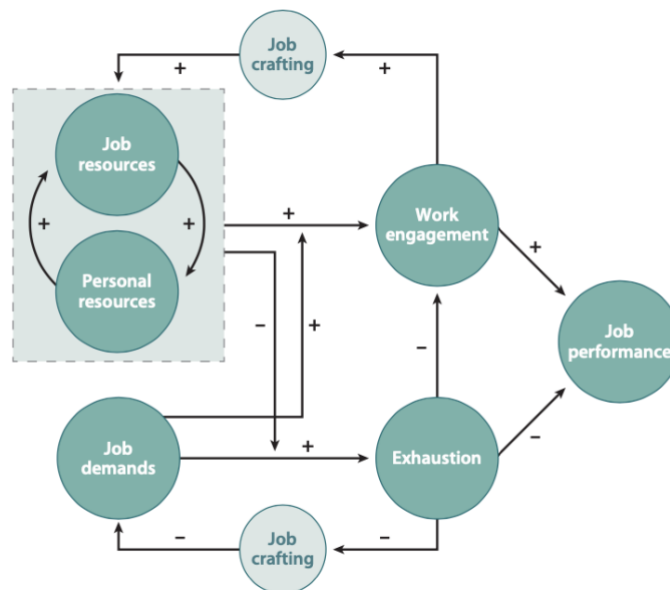


Figure 1.1.1: The job demands-resources model of occupational well-being (retrieved from Bakker et al., 2014).

Exhaustion, as a component of Burnout, is closely linked to job demands, while lack of resources is related to disengagement (Demerouti et al., 2001). According to the JDR model, there are two possible processes of the development of burnout: one in which exhaustion is the result of work overload from the most demanding aspects of the job. The other is caused by a lack of resources, which leads to greater dissatisfaction with work demands and, consequently, to withdrawal behavior. The interaction between demands and resources is what most causes the development of burnout, thus bringing together exhaustion and withdrawal from work (Demerouti et al., 2001).

The authors suggested that job demands are positively related to exhaustion and that job resources are negatively related to work disengagement and suggested that the development of burnout is caused by a set of working conditions. Thus, when job demands are high, the only occurring change is exhaustion levels, which increase. When job resources are limited, disengagement tends to increase (this does not influence exhaustion). When an individual has a job where the demands are high and the resources are limited, both exhaustion and disengagement are experienced by employees — contributing to the development of burnout (Demerouti et al., 2001).

Meaningful work has a positive relationship with job resources (skill variety, task diversity, and task importance). Intention to stay is indirectly correlated with job resources through meaningful work and work engagement. Job resources start a motivating process that makes work more interesting and meaningful and leads to a desire to stay in the position. (Sánchez-Cardona et al., 2021). Results from a study by Fernet et al. (2010), expanded prior burnout models by showing that job motivation can interact with demands and resources to prevent burnout.

## **Burnout**

A lot of literature has been written on burnout, leading to a very consensual definition. Maslach et al. (2001) define burnout as the response to prolonged work stressors. They also explain that the most frequent manifestation of this term occurred in the United States in the 1970s. But even before that, some authors described identical symptoms, such as extreme fatigue and lack of interest in work.

According to Maslach and Leiter (2017), experiencing burnout can damage not only employees as individuals (causing diseases, such as coronary heart disease) but also their social life (causing, for example, disability pensions) and the organization (burnout causes

dissatisfaction at work, bad performance and absenteeism). Some people who suffer from burnout may quit their jobs, while others will do the least possible, instead of their best.

A syndrome that causes inability and reluctance to exert oneself in work tasks, which is reflected by an energetic and motivational component, respectively (De Beer et al., 2020). Maslach and Leiter (2017) describe three dimensions of burnout: exhaustion (lack of energy, fatigue), cynicism (inappropriate attitudes, irritability and withdrawal) and professional inefficacy (low productivity and failure to cope). Exhaustion is its main characteristic and the one that manifests itself in the most obvious way (De Beer et al., 2020). According to Schaufeli et al. (2020), burnout consists of 4 core dimensions: exhaustion, emotional impairment, cognitive impairment and mental distance. In addition to these symptoms, there are also secondary symptoms: psychosomatic complaints and psychological distress.

People who are experiencing burnout can have a negative impact on their co-workers, both causing greater personal conflict and disrupting work tasks. Thus, burnout can be "contagious" and perpetuate itself through informal interactions at work. There is also some evidence that burnout has a negative spillover effect on people's home lives (Burke & Greenglass, 2001).

According to the Burnout Assessment Tool (BAT), burnout is a syndrome that is evaluated by two kinds of symptoms: the core symptoms — exhaustion, mental distance, cognitive and emotional impairment — and secondary symptoms — psychosomatic complaints and psychological distress. The last ones may be linked to depressed mood and other comorbidities. The authors argue that burnout functions as a syndrome, with its four first-order components (exhaustion, mental distance, cognitive impairment and emotional impairment) that are interrelated and comprised into one structure — burnout (second-order latent variable).

Burnout has been associated with various forms of absenteeism, intention to quit, and turnover. However, for people who remain at work, burnout leads to lower productivity and effectiveness at work. Consequently, it is associated with decreased job satisfaction and reduced commitment to the job or organization (Sinval et al., 2021).

### **Burnout and Intention to Quit**

Several studies suggest a positive relationship between the employee's level of burnout and the level of intention to quit (Weisberg, 1994). Maslach et al. (2001) also showed that several forms of job withdrawal, such as absenteeism, intention to quit and turnover have been related to burnout. Weisberg (1994) also suggests that burnout has an influence not only on workers'

motivation but also on their productivity and intention to leave. Lazaro et al. (1984) discovered a connection between burnout and job performance and turnover.

### **Burnout and Performance**

There is a reduction in commitment and job satisfaction caused by the low productivity and effectiveness that burnout implies (Maslach et al., 2001). Wright and Bonett (1997) suggest that emotional exhaustion predicts work performance. Supervisor-assessed, self-assessed, and objectively measured job performance all had varying relationships with burnout (Shirom, 2003). Also, performance (in-role and extra-role) was substantially correlated with the two burnout aspects of exhaustion and disengagement (Bakker et al., 2004). In another study by Garden (1991), a perceived or experienced drop in performance was found to be linked with burnout. Shirom (2003) stated that burnout had a negative relationship with subjectively perceived performance but not a significant relationship with objectively measured performance.

### **Motivation**

A highly motivated workforce is necessary for businesses to increase profits; profits will rise if workers' productivity is high. Employee productivity declines as a result of low work motivation. Together, compensation and motivation have an impact on employees' level of productivity. The pay compensation that employees receive has a significant impact on their level of job satisfaction and motivation, as well as their productivity and/or work results. High motivation also increases commitment to the organization, which in turn increases individual or group work productivity (Priatna, Indriyani & Roswinna, 2020).

A study by Putra et al. (2017) suggested that both extrinsic and intrinsic motivation enhance employees' vigor, devotion, and absorption. This implies that employees with greater extrinsic and intrinsic motivation drive likely to be more engaged with their work.

For some time now, motivation has only been divided into two types: intrinsic motivation and extrinsic motivation, and it is therefore common sense. Locke and Schattke (2019) suggest a trichotomy which includes not only intrinsic and extrinsic motivation but also achievement motivation. The authors define motivation as the desire to avoid or obtain something.

On one side, extrinsic motivation is defined as essential for happiness and survival and involves the means and ends of a relationship. The authors exclude money itself as a motivation

factor, for being a lifeless substance and an exchange instrument, saying that it is the meaning of the value of money that gives people motivation. The authors define extrinsic motivation as what one does to obtain something in the future, that is, the relationship between means and ends. It is about the value of the objectives of a particular task, which are aimed at improving performance.

Smith (2003) noted that, for a person to get the tangible commodities they need to survive, they must have money. Additionally, money buys time, allowing one to forgo activities they enjoy less and spend more time engaging in those they prefer. Money promotes autonomy because it gives people more options in life. Life is less unstable when one has money. Options are widened by money. Money provides the resources needed to engage in trade and build prosperity.

Regarding intrinsic motivation, Locke and Schattke (2019) say, concerning the work environment, that it includes enjoying a particular job or task, feeling delighted and enjoying and having fun with the experience. Intrinsic motivation does not imply improving skills. It is liking what one does, and the exclusive pleasure obtained from some activity or task, without considering other factors and the outcomes. This pleasure can be either passive (for example, contemplating a work of art or watching a film) or active (for example, walking and cooking - at work: enjoying one's work or particular tasks, such as selling or managing). Throughout life, people may have different likes. The authors' definition holds that the aim of intrinsic motivation is the pleasure obtained from the experience or task — the well-being, joy and happiness that the activity brings. If there are more than these goals from the activity, the motivation is not exclusively intrinsic. Not always enjoying doing something means being good at it – of course, doing the same thing many times can make us better. But the point of intrinsic motivation is purely to do things for the fun of it, not to be better at it. The motivation needed to be better at any activity is achievement motivation, which has been commonly mistaken for intrinsic motivation.

Hence, according to Locke and Schattke (2019), achievement motivation relates to competition, either conscious or unconscious. Meaning, when an individual intends to do well or to improve skills. One may enjoy doing an activity, even not caring if it is well performed. On the other hand, one can endeavor to do well, even not enjoying the activity. Achievement motivation is not about the activity itself or enjoying it. It is about doing well and achieving excellence. Achieving excellence or an improvement may be fulfilling and the activity itself may not be.

The authors also defend that given that individuals tend to enjoy the activities they are good at, intrinsic motivation can lead to increased achievement motivation (and vice versa). That

is, when you enjoy an activity, there is a tendency to do it more often, which can lead to competence development. Activities carried out with intrinsic motivation, can spark ideas for any business that generates money.

In short, Locke and Schattke (2019) defend that intrinsic motivation is “liking or wanting an activity for its own sake”, achievement motivation is “recurrent concern for a standard of excellence” and extrinsic motivation is “doing something to get some future value”. In a study by Luo (1999), people with extrinsic motivations were more severely affected by job quality, while people with intrinsic motivations were more heavily affected by a lack of subjective control at work.

### **Motivation and Intention to Quit**

There is evidence to support that intrinsic motivation has a direct impact on job satisfaction and a mediated impact on affective organizational commitment and turnover intent (Thatcher et al., 2006). Tzeng (2002) states that motivation was a significant predictor of the intention to quit.

### **Motivation and Performance**

Employee motivation is typically crucial for the viability and success of a firm. This demonstrates the significance of managers and companies developing strategies to encourage workers to improve their job performance and, as a result, raise organizational performance. Since it enables managers to ensure the growth and development of an organization, employee motivation serves as one of the most crucial tools in HR management. The many sources of motivation can be applied effectively and efficiently, which allows managers to track consistent, gratifying growth inside an organization. To ensure that maximum staff productivity is obtained and enhanced organizational performance, managers use both cash and non-cash incentive variables. The scoping study has amply demonstrated that employee motivation has a big impact on how well a business performs. To assure or maintain a competitive corporate environment that is sustainable, organizations should develop the best employee incentive tactics (Kalogiannidis, 2021).

If employees are given the proper motivational tools at the appropriate times, their confidence and morale rise, which has a direct effect both on individual and organizational performance (Sekhar et al., 2013). Paais and Pattiruhu (2020) showed that motivation has a positive and significant effect on performance. Employee performance is significantly and positively impacted by motivation, according to a study by Kuswati (2020).



## **Work Engagement**

Organizations increasingly depend on the skills and abilities of their workforce in today's extremely competitive business environment. Engaged employees have high degrees of activity, commitment, and integration and are needed by modern firms if they want to remain competitive. Employees that are engaged in their work are excited about it, fully involved in it, and resilient when faced with obstacles (Bakker and Leiter, 2017).

Bakker and Leiter (2017, p. 67) defined work engagement as “a mental state in which a person performing a work activity is fully immersed in the activity, feeling full of energy and enthusiasm about the work”. Engaged employees have a sense of connection and identification with their work, they can ignore stress and perceived demands and perceive work as a positive challenge (Bakker, Demerouti & Sanz-Vergel, 2014). Work Engagement is defined by Schaufeli et al. (2002) as a positive and fulfilling state of mind related to work.

Bakker et al. (2014) define work engagement as a state of strong will, commitment and absorption regarding positive motivation. According to Kahn (1990), psychological meaningfulness is a feeling that the individual has concerning an investment made, which has a return, be it on a physical, cognitive, or emotional level. “We define work engagement as an independent, persistent, pervasive, positive and fulfilling work-related affective–cognitive and motivational–psychological state” (Yalabik et al., 2013, p 6).

### **Work Engagement and Intention to Quit**

Work engagement is the main factor that influences job performance and quitting intentions in relation to satisfaction and commitment. Although there is a direct relationship between job satisfaction and the intention to quit, there is also a sizeable indirect relationship between quitting intentions and work engagement (Zeynep et al., 2013).

A study by Tetteh et al. (2021) showed that when work is enjoyable, employees may decide to remain in their jobs through work engagement. Çankır and Arıkan (2019) proved there was a negative correlation between work engagement and intention to quit.

Work engagement relates positively to innovative work behavior and negatively to turnover intentions (Agarwal et al., 2012).

## **Work Engagement and Performance**

Employees who are truly involved in their jobs have greater performance, due to the increase in the cognitive, physical and emotional personal presence (Bakker & Leiter, 2017). According to a study by Çankır and Arıkan (2019), work engagement is positively related to performance.

In a Reijseger et al. (2017) study, work engagement was positively correlated with both in-role and extra-role performance. Through work engagement, job performance and quitting intention are affected by the satisfaction and commitment of employees (Zeynep et al., 2013).

## **Intention to Quit**

Turnover is something that is ultimately inevitable in the course of any organization and can be defined by the departure of workers, including demographic, organizational, job characteristics and labor market factors. These factors explain a worker's decision to leave his or her job. The biggest monetary and non-monetary cost is when an efficient worker decides to leave his or her job voluntarily (Weisberg, 1994). According to Elangovan (2001), withdrawal intention is a manifestation of the behavioral decision to quit.

A study by Le Ng et al. (2016) revealed a negative relationship between leadership and employees' intention to quit, showing that leadership can reduce the intention to quit. There are several factors that determine someone's departure from a company, such as biodemographic factors, organizational factors, the characteristics of the job itself and the labor market (Weisberg, 1994).

## **Performance**

High-performance HR practices are linked to employee engagement, productivity, growth, innovation, survival, and firm-level performance, according to Bakker and Leiter (2017).

Performance can be defined as what people do and the actions they take that contribute to the organization's objectives (Campbell and Wiernik, 2015). In-role performance is described as those formally necessary outcomes and actions that primarily provide the objectives of the organization (Motowidlo & Van Scotter, 1994). In-role performance highlights how individual performance is crucial to achieving corporate goals (Demerouti et al., 2010).

MacKenzie et al. (1991) define extra-role or contextual performance as employee decisions that are thought to directly advance the efficient operation of a company without necessarily having an impact on an employee's productivity. Specific actions are included in

performance (e.g., sales conversations with customers). The focus of the work performance's result component is on how an individual's behavior manifests itself. However, additional outside circumstances may have an impact on the performance's outcome dimension. Therefore, there should be a variety of approaches taken to address work performance (Çankır & Arıkan, 2019).

### Proposed Model

After reviewing the literature, the following hypotheses and model are proposed:

H1: Burnout is positively associated with intention to quit.

H2: Burnout is negatively associated with performance.

H3: Motivation is negatively associated with intention to quit.

H4: Motivation is positively associated with performance.

H5: Work engagement is negatively associated with intention to quit.

H6: Work engagement is positively associated with performance.

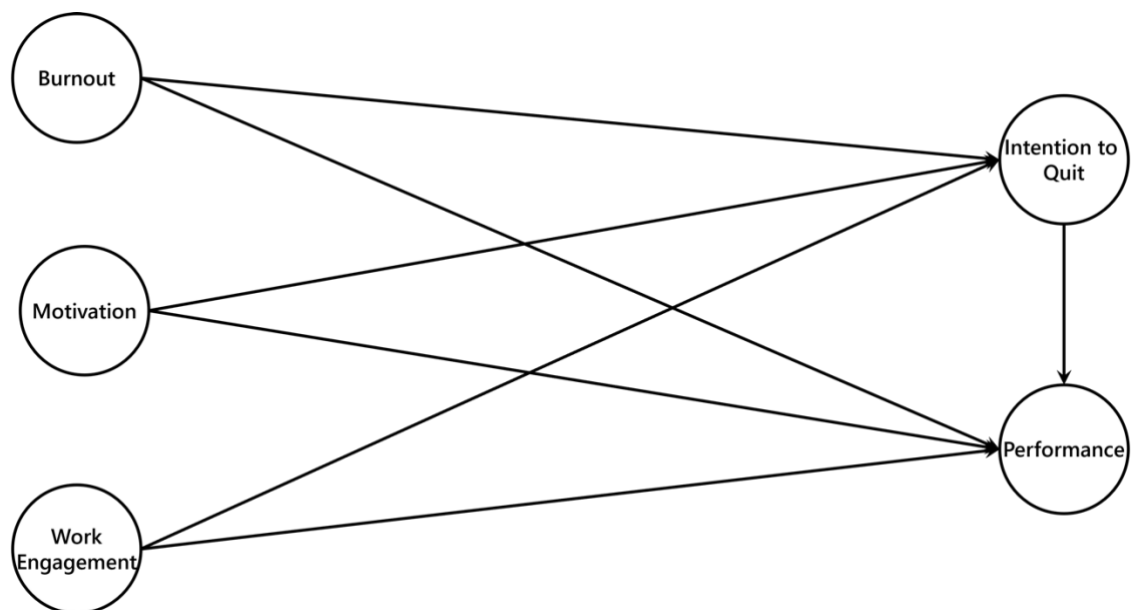


Figure 2.1.1: Structural Model



## CHAPTER II – Method

### Sample

This is a cross-sectional study where the selected type of sampling was non-probability of convenience, where the participants who are more conveniently available are contacted. This type of sampling strategy does not eradicate selection bias, however, it is the one that seems to potentiate the achievement of the desired sample size to test the intended structural model.

### Procedure

The study was approved by the Ethics Committee of ISCTE-IUL (process 75/2022) (Appendix 1) and written informed consent was obtained from all research participants (Appendix 2). To collect the data, we used the LimeSurvey platform. The questionnaire consisted of six psychometric instruments, in order to measure the constructs to be studied: burnout, work engagement, motivation, intention to quit and performance. Sociodemographic questions were also included, such as administrative region, age, marital status, number of children, academic level, seniority in the current organization and occupational group.

Firstly, a pilot test was carried out with 10 people to see if everything was as it was supposed to be, if there were any mistakes and if the items were understandable. At the beginning of the questionnaire, informed consent was presented, which had to be accepted by each participant to proceed. The consent form explains who is coordinating the study and that participation is confidential and voluntary. Contact details of the researchers were placed on the informed consent, noting that they would be willing to clarify any questions and receive feedback. The data collection lasted for 3 months.

### Instruments

In this study, there were five psychometric instruments: Burnout Assessment Tool (BAT), Utrecht Work Engagement Scale (UWES-9), Schattke-Locke-Scales (SLS), Intention to Quit Scale (IQS) and Health and Performance Questionnaire (HPQ).

### **Burnout Assessment Tool (BAT)**

The most common measure for burnout since the 1980s has been the Maslach Burnout Inventory (MBI). The concept and the measurement are so linked that created a dependency relationship, meaning that burnout is inevitably what the MBI measures. MBI has been criticized on several levels, allowing another investigation to be done, creating an alternative self-report tool — Burnout Assessment Tool (BAT). The conceptual basis of this instrument relies on the investigation of Schaufeli and Taris (2005), who argued that work fatigue stands for both the incapacity and the lack of willingness to expend effort on job assignments, which is echoed in an energetic and motivational dimension, respectively (De Beer et al., 2020). Sinval et al. (2022) adapted this instrument for Portuguese, concerning not only the population from Portugal but also from Brazil, with a joint sample of 3103 participants.

In this study, a short version of 12 items of the self-reported psychometric instrument BAT was used (Sinval et al., 2022). This is a Likert-type scale, answered with a five-point rating scale (1 — “Never”; 2 — “Rarely”; 3 — “Sometimes”; 4 — “Often”; 5 — “Always”) (Sinval et al., 2022). Here are examples of some items: “At work, I feel mentally exhausted”, “I am cynical about what my work means to others” and “At work, I feel unable to control my emotions”.

### **Utrecht Work Engagement Scale (UWES-9)**

To measure Work Engagement, the instrument used was the Likert-type Utrecht Work Engagement Scale, the short version with 9 items (UWES-9) (Sinval et al., 2018). To answer the items a seven-point ordinal rating scale is used (0 — “Never”; 1 — “Almost Never”; 2 — “Rarely”; 3 — “Sometimes”; 4 — “Often”; 5 — “Very Often”; 6 — “Always”). Some examples of items from the UWES-9: “In my work I feel full of energy”, “I feel happy when I am working hard” and “I am enthusiastic about my work”.

### **Schattke-Locke-Scale (SLS)**

The Schattke-Locke-Scales (Locke and Schattke, 2019) was translated for Portuguese by a company of translations and transcriptions — Verónica Brito Unipessoal, Lda. After the translation, a back-translation was made, to make sure everything was correct. With Locke’s approval, authorization to release the scale was given. We used the short version with 19 items. The items were answered using a Likert scale: 1 — “Disagree” until 7 — “Agree”. Here are some

examples: “My job allows me to work on things that I love doing”, “I am a constantly able to improve my skills when I work” and “My job gives me financial security”.

### **Intention to Quit Scale**

To measure Intention to Quit, a 5-item Likert-type scale was used: Intention to Quit Scale (IQS) (Wayne et al., 1997) that is answered on a scale from 1 — “Strongly Disagree” to 7 — “Strongly Agree”. Some examples of items are: “As soon as I get a better job, I will leave this company/institution”, “I am seriously thinking of quitting my job” and “I think I will be working in this company/institution in five years time”.

### **Health and Performance Questionnaire (HPQ)**

After several unsuccessful attempts to obtain objective performance data, the need arose to evaluate performance subjectively. So, performance was measured by the self-perceived Health and Performance Questionnaire (HPQ) (Kessler et al., 2003). For the propose of the current study, only the section of employees’ performance perception was used. Employees were asked to rate (on a 10-point Likert scale, where 1 is "worst performance" and 10 is "best performance") how most employees would perform in a job similar to the participant's, how they would rate their performance over the past 1 to 2 years, and how they would rate their overall performance over the past 4 weeks.

### **Data Analysis**

The statistical programming language *R* (R Core Team, 2022) via the integrated development environment, *RStudio* (RStudio Team, 2022) considering an  $\alpha = .05$ . The descriptive statistics were conducted using the following packages: *skimr* (McNamara et al., 2021), *PerformanceAnalytics* (Peterson, & Carl, 2020), and *table1* (Rich, 2021).

The dimensionality of the psychometric instruments and the structural model were assessed using confirmatory factor analysis (CFA) and full structural equation modeling respectively. The structural equation modeling technique was used via the *lavaan* package (Rosseel, 2012) with WLSMV estimator.

The goodness-of-fit indices used were the *NFI* (Normed Fit Index), *TLI* (Tucker Lewis Index),  $\chi^2_{(df)}$  (chi-square), *CFI* (Comparative Fit Index), the *SRMR* (Standardized Root Mean Square Residual) and the *RMSEA* (root mean square error of approximation). The *CFI*, *NFI*, *TLI*, *RMSEA*

and  $\chi^2_{(df)}$  were used with their scaled versions. Values of *NFI*, *CFI*, and *TLI* >.95, and values of *RMSEA* and *SRMR* < .08 were considered as indicative of a good fit of the model to the data good (Marôco, 2021). All paths (total, direct and indirect effects) had their effects reported with 95% confidence interval.

The Cronbach's ordinal  $\alpha$  was used as an indicator of reliability in terms of internal consistency for first-order constructs. The estimates were obtained via the *semTools* package (Jorgensen et al., 2021).



## CHAPTER III Results

### Sample Descriptive Statistics

It was found that there were responses from 16 administrative regions in Portugal, with the highest number of responses observed in Lisbon (202 responses), Viseu (21 responses), Porto (10 responses), Coimbra (8 responses) and Setúbal (7 responses). From the studied sample ( $n = 319$ ), most participants were female ( $n = 214$ ; 67.1%) and the remaining were male ( $n = 105$ ; 32.9%). The mean age of the female and male respondents was, respectively, 36.3 (SD = 13.9) and 36.6 (SD = 13.3). Of all participants, 53.9% never married; 61.8% had no children; 43.6% had completed their graduation. Participants have been with the company for an average of 6.54 years (Female SD = 10.3; Male SD = 7.92) and 52% are in the Professionals occupational group.

Table 3.1 — Sample's sociodemographic characteristics ( $n = 319$ )

Administrative Region	$n_i$	$f_i$ (%)
Açores	3	0.94
Aveiro	1	0.31
Beja	4	1.25
Braga	1	0.31
Coimbra	15	4.69
Évora	4	1.25
Faro	5	1.56
Leiria	1	0.31
Lisboa	220	68.75
Madeira	1	0.31
Portalegre	1	0.31
Porto	10	3.12
Santarém	4	1.25
Setúbal	9	2.81
Viana do Castelo	1	0.31
Viseu	40	12.50

Table 3.2 – Participants' sociodemographic and professional characteristics

	<b>Female (n = 214)</b>	<b>Male (n = 105)</b>
<b>Age (years)</b>		
Mean (SD)	36.3 (13.9)	36.6 (13.3)
Median [Min, Max]	30.5 [20.0, 71.0]	30.0 [22.0, 66.0]
<b>Marital status</b>		
Married or Cohabiting	72 (33.6%)	36 (34.3%)
Divorced	24 (11.2%)	6 (5.7%)
Separated	4 (1.9%)	0 (0%)
Never Married	109 (50.9%)	63 (60.0%)
Widowed	5 (2.3%)	0 (0%)
<b>Number of children</b>		
None	130 (60.7%)	67 (63.8%)
One	17 (7.9%)	5 (4.8%)
Two	51 (23.8%)	23 (21.9%)
Three	14 (6.5%)	3 (2.9%)
Four or more	2 (0.9%)	7 (6.7%)
<b>Academic level</b>		
High school, vocational education or lower	24 (11.2%)	12 (11.4%)
Unfinished graduation	9 (4.2%)	6 (5.7%)
Graduation	99 (46.3%)	40 (38.1%)
Post-graduation (not master neither Ph. D.)	14 (6.5%)	4 (3.8%)
Master	64 (29.9%)	40 (38.1%)
Ph. D.	4 (1.9%)	3 (2.9%)
<b>Seniority in the current organization (years)</b>		
Mean (SD)	7.61 (10.3)	5.47 (7.92)
Median [Min, Max]	2.00 [0, 45.0]	2.00 [0, 37.0]
<b>Occupational group (ISCO-08)</b>		
Armed Forces Occupations	1 (0.5%)	1 (1.0%)
Clerical Support Workers	51 (23.8%)	5 (4.8%)
Craft and Related Trades Workers	1 (0.5%)	2 (1.9%)
Elementary Occupations	2 (0.9%)	0 (0%)
Managers	25 (11.7%)	29 (27.6%)
Plant and Machine Operators and Assemblers	0 (0%)	1 (1.0%)

	<b>Female (n = 214)</b>	<b>Male (n = 105)</b>
Professionals	72 (33.6%)	34 (32.4%)
Services and Sales Workers	39 (18.2%)	20 (19.0%)
Skilled Agricultural, Forestry and Fishery Workers	2 (0.9%)	3 (2.9%)
Technicians and Associate Professionals	21 (9.8%)	10 (9.5%)

## Measurement Model

### Items' Distributional Properties

In terms of items' distributional properties, none of the items presented *sk* or *ku* values that suggested severe univariate normality violations (Marôco, 2021). Since there were no absolute values of *sk* above 3 or *ku* absolute values above 7.

In the Schattke-Locke-Scale, the minimum and maximum scores in all items were, respectively, 1 and 7. In the BAT instrument, in all items, the minimum was 1 and the maximum was 5. There was a minimum of 0 and a maximum of 6 on the UWES-9 scale. On the IQS-5 scale, the minimum was 1 and the maximum 7. The only scale where something different occurred was the HPQ performance scale, where the minimum of the items was 0, 3 and 1 and the maximum was 10 in all items.

Table 3.3 – Items' distributional properties

Item	<i>M</i>	<i>SD</i>	<i>Min</i>	<i>P</i> <sub>25</sub>	<i>Mdn</i>	<i>P</i> <sub>75</sub>	<i>Max</i>	Histogram	<i>SEM</i>	<i>CV</i>	<i>Mode</i>	<i>sk</i>	<i>ku</i>
<b>SLS</b>													
Item 1	5.54	1.45	1	5.00	6.0	7.0	7		0.07	0.26	7	-1.04	0.73
Item 2	4.96	1.60	1	4.00	5.0	6.0	7		0.08	0.32	5	-0.74	0.03
Item 4	5.39	1.35	1	5.00	6.0	6.0	7		0.07	0.25	6	-0.92	0.77
Item 6	5.43	1.44	1	5.00	6.0	7.0	7		0.07	0.26	6	-1.05	0.88
Item 8	4.08	2.03	1	2.00	4.0	6.0	7		0.10	0.50	4	-0.10	-1.19
Item 10	6.03	1.20	1	5.25	6.0	7.0	7		0.06	0.20	7	-1.58	2.88
Item 11	5.89	1.12	1	5.00	6.0	7.0	7		0.06	0.19	7	-0.98	0.91
Item 14	5.45	1.41	1	5.00	6.0	7.0	7		0.07	0.26	5	-1.09	1.14

Item	<i>M</i>	<i>SD</i>	<i>Min</i>	<i>P</i> <sub>25</sub>	<i>Mdn</i>	<i>P</i> <sub>75</sub>	<i>Max</i>	Histogram	<i>SEM</i>	<i>CV</i>	<i>Mode</i>	<i>sk</i>	<i>ku</i>
Item 15	5.84	1.16	1	5.00	6.0	7.0	7		0.06	0.20	7	-1.09	1.43
Item 16	5.42	1.31	1	5.00	6.0	6.0	7		0.07	0.24	5	-1.06	1.61
Item 20	4.55	2.01	1	3.00	5.0	6.0	7		0.10	0.44	7	-0.37	-0.98
Item 21	5.32	1.85	1	4.00	6.0	7.0	7		0.09	0.35	7	-0.94	-0.15
Item 22	4.84	1.79	1	4.00	5.0	6.0	7		0.09	0.37	7	-0.59	-0.49
Item 23	4.71	1.91	1	4.00	5.0	6.0	7		0.10	0.40	7	-0.54	-0.72
Item 24	5.10	1.72	1	4.00	5.5	7.0	7		0.09	0.34	7	-0.73	-0.36
Item 25	4.79	1.80	1	4.00	5.0	6.0	7		0.09	0.38	6	-0.54	-0.66
Item 26	5.26	1.73	1	4.00	6.0	7.0	7		0.09	0.33	7	-0.89	-0.13
Item 35	5.57	1.59	1	5.00	6.0	7.0	7		0.08	0.28	7	-1.05	0.33
Item 36	5.57	1.49	1	5.00	6.0	7.0	7		0.07	0.27	7	-0.97	0.36

**BAT-12**

Item 1	2.98	0.82	1	2.00	3.0	3.0	5		0.04	0.27	3	0.16	0.05
Item 2	2.88	0.93	1	2.00	3.0	3.0	5		0.05	0.32	3	0.27	-0.19
Item 3	2.66	0.90	1	2.00	3.0	3.0	5		0.05	0.34	3	0.14	-0.19
Item 4	2.39	0.94	1	2.00	2.0	3.0	5		0.05	0.39	2	0.46	-0.16
Item 5	2.31	0.94	1	2.00	2.0	3.0	5		0.05	0.41	2	0.55	0.11
Item 6	1.91	0.99	1	1.00	2.0	2.0	5		0.05	0.52	1	1.10	0.90
Item 7	2.37	0.74	1	2.00	2.0	3.0	5		0.04	0.31	2	0.47	0.46
Item 8	2.37	0.73	1	2.00	2.0	3.0	5		0.04	0.31	2	0.53	0.79
Item 9	2.26	0.73	1	2.00	2.0	3.0	5		0.04	0.32	2	0.38	0.55
Item 10	2.10	0.89	1	1.00	2.0	3.0	5		0.05	0.42	2	0.70	0.49
Item 11	1.76	0.85	1	1.00	2.0	2.0	5		0.04	0.48	1	1.27	1.90
Item 12	1.97	0.80	1	1.00	2.0	2.0	5		0.04	0.41	2	0.70	0.78

**UWES-9**

Item 1	4.11	1.27	0	3.00	5.0	5.0	6		0.07	0.31	5	-0.90	0.05
Item 2	4.10	1.25	0	3.00	5.0	5.0	6		0.07	0.31	5	-0.75	-0.17
Item 3	4.24	1.38	0	3.00	5.0	5.0	6		0.07	0.33	5	-0.71	-0.31
Item 4	3.86	1.57	0	3.00	4.0	5.0	6		0.08	0.41	5	-0.40	-0.80

Item	<i>M</i>	<i>SD</i>	<i>Min</i>	<i>P</i> <sub>25</sub>	<i>Mdn</i>	<i>P</i> <sub>75</sub>	<i>Max</i>	Histogram	<i>SEM</i>	<i>CV</i>	<i>Mode</i>	<i>sk</i>	<i>ku</i>
Item 5	3.71	1.60	0	2.75	4.0	5.0	6		0.09	0.43	5	-0.47	-0.78
Item 6	4.38	1.42	0	3.00	5.0	5.0	6		0.08	0.32	5	-0.71	-0.44
Item 7	4.68	1.33	0	4.00	5.0	6.0	6		0.07	0.28	5	-0.99	0.26
Item 8	4.18	1.45	0	3.00	5.0	5.0	6		0.08	0.35	5	-0.72	-0.19
Item 9	3.54	1.59	0	2.00	4.0	5.0	6		0.09	0.45	5	-0.25	-1.06
<b>IQS</b>													
Item 1	3.70	2.19	1	2.00	4.0	6.0	7		0.12	0.59	1	0.22	-1.39
Item 2	2.56	2.00	1	1.00	2.0	4.0	7		0.11	0.78	1	1.12	-0.09
Item 3	2.67	2.08	1	1.00	2.0	4.0	7		0.11	0.78	1	1.02	-0.41
Item 4	2.86	2.07	1	1.00	2.0	4.0	7		0.11	0.72	1	0.85	-0.68
Item 5	4.05	2.13	1	2.00	4.0	6.0	7		0.12	0.53	7	0.01	-1.30
<b>HPQ (Performance)</b>													
Item 1	6.81	1.96	0	6.00	7.0	8.0	10		0.11	0.29	7	-0.68	0.43
Item 2	7.87	1.44	3	7.00	8.0	9.0	10		0.08	0.18	8	-0.78	0.81
Item 3	7.63	1.60	1	7.00	8.0	9.0	10		0.09	0.21	8	-0.75	0.65

### Dimensionality

The measurement model revealed an acceptable fit to the data ( $\chi^2_{(1049)} = 2268.842$ ;  $p < .001$ ;  $n = 330$ ;  $CFI = .937$ ;  $NFI = .900$ ;  $TLI = .932$ ;  $SRMR = .082$ ;  $RMSEA = .069$ ;  $P(RMSEA) \leq .05 < .001$ ; 90% CI [.065; .072]). None of the instruments' items were removed. Slight modifications were included in terms of residual correlations: among UWES' items 8 and 9 ( $r = .513$ ;  $p < .001$ ), and items 1 and 2 ( $r = .695$ ;  $p < .001$ ); and for HPQ's items B14 and B15 ( $r = .620$ ;  $p < .001$ ). The disturbance of BAT-12's mental distance first-order factor was constrained to .01 to avoid negative values.

## Latent correlations and shared variances

Table 3.4 – Variables related correlations and shared variances

	Burnout	Work Engagement	Intrinsic	Achievement	Extrinsic	Performance	Intention to Quit
Burnout							
Work Engagement	.48						
Intrinsic	.34	.64					
Achievement	.22	.49	.59				
Extrinsic	.21	.42	.39	.56			
Performance	.42	.60	.37	.67	.39		
Intention to Quit	.23	.27	.21	.12	.30	.08	

Note — The lower triangle contains the shared variance, while the upper triangle presents the latent correlations.

All latent factors provided satisfactory validity evidence regarding the reliability of the scores (in terms of internal consistency):  $\alpha_{intr} = .92$ ;  $\alpha_{achi} = .86$ ;  $\alpha_{fina} = .93$ ;  $\alpha_{reco} = .93$ ;  $\alpha_{affi} = .89$ ;  $\alpha_{ex} = .87$ ;  $\alpha_{md} = .69$ ;  $\alpha_{ci} = .85$ ;  $\alpha_{ei} = .84$ ;  $\alpha_{vig} = .92$ ;  $\alpha_{ded} = .91$ ;  $\alpha_{abs} = .81$ ;  $\alpha_p = .68$ ;  $\alpha_{IQ} = .93$ .

The most meaningful correlations, with larger effect size, were between work engagement and burnout ( $r = .48$ ), performance e burnout ( $r = .42$ ), intrinsic motivation e work engagement ( $r = .64$ ), achievement motivation and work engagement ( $r = .49$ ), extrinsic motivation and work engagement ( $r = .42$ ), performance and work engagement ( $r = .60$ ), achievement and intrinsic motivation ( $r = .59$ ), extrinsic motivation and achievement motivation ( $r = .56$ ) and performance and achievement motivation ( $r = .67$ ).

## Structural Model

The structural model revealed an acceptable fit to the data ( $\chi^2_{(1049)} = 2668.842$ ;  $p < .001$ ;  $n = 330$ ;  $CFI = .937$ ;  $NFI = .900$ ;  $TLI = .932$ ;  $SRMR = .082$ ;  $RMSEA = .069$ ;  $P(RMSEA \leq .05) < .001$ ; 90% CI [.065; .072]).

Table 3.5 - Mediation

Y ← X	B	SE	z	$\beta$	p	95% CI
Direct effects						
IQ <- B	0.402	0.182	2.210	0.210	.027	] 0.045; 0.759[
IQ <- WE	-0.192	0.139	-1.378	-0.167	.168	] -0.466; 0.081[
IQ <- EXT	-1.058	0.231	-4.587	-0.533	< .001	] -1.510; -0.606[

Y ← X	B	SE	z	β	p	95% CI
<b>Direct effects</b>						
IQ ← INTR	-0.173	0.117	-1.473	-0.168	.141	]-0.403; 0.057[
IQ ← ACHI	0.444	0.146	3.037	0.389	.002	] 0.158; 0.731[
P ← B	-0.275	0.096	-2.846	-0.304	.004	]-0.464; -0.085[
P ← WE	0.280	0.078	3.580	0.516	< .001	] 0.127; 0.433[
P ← EXT	-0.027	0.131	-0.209	-0.029	.835	]-0.285; 0.230[
P ← INTR	-0.229	0.071	-3.241	-0.471	.001	]-0.367; -0.090[
P ← ACHI	0.409	0.097	4.223	0.762	< .001	] 0.219; 0.599[
P ← IQ	0.082	0.044	1.853	0.175	.064	]-0.005; 0.170[
<b>Indirect effects</b>						
P<-IQ<-EXT	-0.087	0.048	-1.806	-0.093	.071	]-0.182; 0.007[
P<-IQ<-INTR	-0.014	0.011	-1.249	-0.029	.212	]-0.037; 0.008[
P<-IQ<-ACHI	0.037	0.021	1.733	0.068	.083	]-0.005; 0.078[
P<-IQ<-B	0.033	0.026	1.273	0.037	.203	]-0.018; 0.084[
P<-IQ<-WE	-0.016	0.014	-1.126	-0.029	.260	]-0.043; 0.012[
<b>Total effects</b>						
P<-INTR + (P<-IQ<-INTR)	-0.243	0.070	-3.456	-0.500	.001	]-0.381; -0.105[
P<-ACHI + (P<-IQ<-ACHI)	0.446	0.093	4.797	0.830	< .001	] 0.264; 0.628[
P<-EXT + (P<-IQ<-EXT)	-0.115	0.113	-1.014	-0.123	.311	]-0.336; 0.107[
P<-B + (P<-IQ<-B)	-0.241	0.099	-2.433	-0.267	.015	]-0.436; -0.047[
P<-WE + (P<-IQ<-WE)	0.264	0.078	3.366	0.487	.001	] 0.110; 0.418[

*Note.* IQ— intention to quit; P — performance; B — burnout; WE — work engagement; ACHI — Achievement; EXT — extrinsic; INTR — intrinsic.

The explained variance of the endogenous variables was moderate to the intention to quit factor ( $r^2 = .419$ ) and high for the performance factor ( $r^2 = .872$ ).

The direct and positive effect of burnout on intention to quit ( $\beta = 0.210$ ;  $p = .027$ ) allowed to confirm H1. Burnout had a negative and significant effect on performance ( $\beta = -0.304$ ;  $p = .004$ ) which confirmed H2.

Motivation was divided into three latent factors: extrinsic motivation was proven to be negatively associated with intention to quit ( $\beta = -0.533$ ;  $p < .001$ ); the direct effect of intrinsic motivation in intention to quit was not statistically significant ( $\beta = -0.168$ ;  $p = .141$ ) and the

relationship between achievement motivation and intention to quit was statistically significant but the hypothesis was not confirmed because of its direction ( $\beta = 0.389$ ;  $p = .002$ ). The hypothesis (H3) was partially confirmed because of the negative association between intrinsic motivation and intention to quit.

Again, the three dimensions of motivation: a relationship between extrinsic motivation and performance was not proven to be statistically significant ( $p = .835$ ); intrinsic motivation had a statistically significant relationship with performance ( $p = .001$ ) but this association was not positive ( $\beta = - 0.471$ ), and achievement motivation had a statistically significant and positive relationship with performance ( $\beta = 0.762$ ;  $p < .001$ ), confirming part of the hypothesis (H4).

H5, which posits that work engagement has a negative relation with the intention to quit was not confirmed ( $p = 0.168$ ). Work engagement had a positive statistically significant association with performance ( $\beta = 0.516$ ;  $p < .001$ ), confirming H6.

The effects of extrinsic motivation ( $p = .071$ ), intrinsic motivation ( $p = .212$ ) and achievement motivation ( $p = .083$ ) on performance, mediated by the intention to quit were tested. The indirect effects of burnout ( $p = .203$ ) and work engagement ( $p = .260$ ) on performance, via the intention to quit, were also tested. Therefore, none of the partial effects were statistically significant.

Regarding the total effects, there were statistically significant total effects among the variables intrinsic motivation, intention to quit and performance ( $p = .001$ ), achievement motivation, intention to quit and performance ( $p < .001$ ), burnout, intention to quit and performance ( $p = .015$ ) and work engagement, intention to quit and performance ( $p = .001$ ). However, there was no statistically significant effect between extrinsic motivation, intention to quit and performance ( $p = .311$ ). To better understand the hypotheses of this study, a table was constructed which summarizes the most relevant results.

Table 3.6 - Summary of hypotheses

	Burnout	Motivation			Work Engagement
		Extrinsic	Intrinsic	Achievement	
Intention to Quit	✓ ( $p = .027$ ; $\beta = 0.210$ )	✓ ( $p < .001$ ; $\beta = - 0.533$ )	✗	✗	✗
Performance	✓ ( $p = .004$ ; $\beta = - 0.304$ )	✗	✗	✓ ( $p < .001$ ; $\beta = 0.762$ )	✓ ( $p < .001$ ; $\beta = 0.516$ )



## CHAPTER IV – Discussion

Good performance is what organizations look for most because it is usually what translates to good productivity. If we think about what might affect performance, apart from individual characteristics, motivation is one of the factors that will come to mind. Of course, every organization wants employees that are engaged in their work. So, the aim of this study was to test if there was a positive relationship between motivation and performance and work engagement and perceived performance. That was suggested by many authors, such as Bakker and Leiter (2017) and Kalogiannidis (2021).

Also, there are some factors that can reduce employees' performance, such as burnout (Maslach et al., 2001). There are some factors that worry organizations. Turnover has never happened more than nowadays. Organizations need to understand what the causes are and what can be done to make it happen less. Burnout is proven to be directly associated with the intention to quit (Weisberg, 1994). And there is evidence of negative relations between motivation and intention to quit (Thatcher et al., 2006) and work engagement and intention to quit (Çankır and Arıkan, 2019).

Locke and Schattke (2019) suggested a trichotomy for motivation, dividing it into extrinsic motivation, intrinsic motivation and achievement motivation. It was therefore decided to base this study on this article and also to divide the hypotheses into these three dimensions. Extrinsic motivation can lead people to think, act and plan for the long term, which enables them to prevent and reduce stress to the extent that it is within their control. Internal motivation includes having desires or aversions. These would typically be referred to as interests. Achievement motivation relates to improving skills.

Regarding the hypothesis, our results corroborated H1, saying that burnout was positively associated with the quitting intentions. This hypothesis had previously been confirmed by studies such as Weisberg (1994). H2 was also confirmed to be true according to the results, stating that burnout had a negative and significant effect on performance.

The hypotheses that included the motivation construct (H3 and H4) were divided into 3, according to the article by Locke and Schattke (2019) that suggest a trichotomy including intrinsic, extrinsic and achievement motivation. The three dimensions of motivation were tested separately, dividing H3 and H4 into three. Regarding H3, extrinsic motivation is negatively associated with intention to quit, proving this relation to be supported; the relation between intrinsic motivation and intention to quit was not supported, because the association was not statistically significant; concerning achievement motivation and intention to quit, it was confirmed that there was a relationship between the two, but it was not found to be a negative

one. Concerning H4, extrinsic motivation and performance didn't have a statistically significant association, therefore our results could not confirm this part of the hypothesis. The second part of the hypothesis was also not supported, since it was found that there was a statistically significant relationship between intrinsic motivation and performance, but it was not possible to prove that this relationship was positive. However, the third part of the hypothesis was confirmed, proving a positive and significant relationship between achievement motivation and performance.

Regarding work engagement, the hypothesis that work engagement is negatively associated with the intention to quit (H5) was not supported because the relationship was not statistically significant. Nevertheless, our findings demonstrated a positive and significant relationship between work engagement and performance (H6).

There were very interesting relationships supported by these results: burnout and turnover intention and burnout and performance, which have been reported by previous authors for some years now, namely by Lazaro et al. (1984).

Motivation also generated interesting results, as only extrinsic motivation was negatively related to turnover intention, but intrinsic and achievement were not. And only achievement motivation had a positive association with performance and extrinsic and intrinsic motivation did not. Finally, a more expected supported relationship was the positive association between work engagement and performance. Genuinely engaged workers to perform better because their levels of cognitive, physical, and emotional personal presence are higher (Bakker & Leiter, 2017).

## **Limitations**

The study is not longitudinal as such does not allow to establish any causal reasoning between the variables. Nonprobability sampling (i.e., convenience) introduces selection bias for example in terms of region and occupational groups. All data were collected based on self-report measures, collected at a single point in time and by the same platform. There was difficulty in obtaining objective performance data. So, we had to choose an instrument to evaluate self-assessed and subjective performance.

## Future Studies

It would be interesting to investigate why only some dimensions of motivation were related to the intention to quit and performance. Some studies show the opposite of what our results say: burnout and turnover intention were significantly impacted only by intrinsic motivation. Extrinsic motivation, on the other hand, was related positively to burnout (Kim, 2018). Also, studying all these relations with objectively measured performance.

## References

- Agarwal, U.A., Datta, S., Blake-Beard, S. and Bhargava, S. (2012), "Linking LMX, innovative work behaviour and turnover intentions: The mediating role of work engagement", *Career Development International*, Vol. 17 No. 3, pp. 208-230. <https://doi.org/10.1108/13620431211241063>
- Bakker, A. B., & Leiter, M. (2017). Strategic and proactive approaches to work engagement. *Organizational Dynamics*, 46(2), 67-75.
- Bakker, A. B., Demerouti, E., & Sanz-Vergel, A. I. (2014). Burnout and work engagement: The JD–R approach. *Annu. Rev. Organ. Psychol. Organ. Behav.*, 1(1), 389-411.
- Bakker, A. B., Demerouti, E., & Verbeke, W. (2004). Using the job demands-resources model to predict burnout and performance. *Human Resource Management: Published in Cooperation with the School of Business Administration, The University of Michigan and in alliance with the Society of Human Resources Management*, 43(1), 83-104.
- Basinska, B. A., & Dåderman, A. M. (2019). Work values of police officers and their relationship with job burnout and work engagement. *Frontiers in psychology*, 10, 442.
- Campbell, J. P., & Wiernik, B. M. (2015). The modeling and assessment of work performance. *Annual review of organizational psychology and organizational behavior*, 2(1), 47-74.

- Çankır, B., & Arıkan, S. (2019). Examining work engagement and job satisfaction variables in their relations with job performance and intention to quit. *İşletme Araştırmaları Dergisi*, 11(2), 1133-1150.
- Cresswell, S. L., & Eklund, R. C. (2005). Motivation and burnout among top amateur rugby players. *Medicine and Science in Sports and Exercise*, 37(3), 469-477.
- Dahiya, R., & Raghuvanshi, J. (2021). Do values reflect what is important? Exploring the nexus between work values, work engagement and job burnout. *International Journal of Organizational Analysis*.
- De Beer, L. T., Schaufeli, W. B., De Witte, H., Hakanen, J. J., Shimazu, A., Glaser, J., Seubert, C., Bosak, J., Sinval, J., & Rudnev, M. (2020). Measurement invariance of the Burnout Assessment Tool (BAT) across seven cross-national representative samples. *International journal of environmental research and public health*, 17(15), 5604.
- Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2001). The job demands-resources model of burnout. *Journal of Applied psychology*, 86(3), 499.
- Demerouti, E., Cropanzano, R., Bakker, A., & Leiter, M. (2010). From thought to action: Employee work engagement and job performance. *Work engagement: A handbook of essential theory and research*, 65(1), 147-163.)
- Elangovan, A. R. (2001). Causal ordering of stress, satisfaction and commitment, and intention to quit: a structural equations analysis. *Leadership & Organization Development Journal*.
- Fernet, C., Gagné, M., & Austin, S. (2010). When does quality of relationships with coworkers predict burnout over time? The moderating role of work motivation. *Journal of Organizational Behavior*, 31(8), 1163-1180.
- Garden, A. M. (1991). Relationship between burnout and performance. *Psychological Reports*, 68(3), 963-977.

- Hu, Q., Schaufeli, W. B., & Taris, T. W. (2017). How are changes in exposure to job demands and job resources related to burnout and engagement? A longitudinal study among Chinese nurses and police officers. *Stress and Health, 33*(5), 631-644.
- Jorgensen, T. D., Pornprasertmanit, S., Schoemann, A. M., & Rosseel, Y. (2021). semTools: Useful tools for structural equation modeling (R package version 0.5-5) [Computer software] (0.5-5). <https://cran.r-project.org/web/packages/semTools/index.html>
- Kahn, W. A. (1990). Psychological conditions of personal engagement and disengagement at work. *Academy of management journal, 33*(4), 692-724.
- Kalogiannidis, S. (2021). Impact of employee motivation on organizational performance. A scoping review paper for public sector. *The Strategic Journal of Business & Change Management, 8* (3), 984, 996, 3.
- Kessler, R. C., Barber, C., Beck, A., Berglund, P., Cleary, P. D., McKeenas, D., Pronk, N., Simon, G., Stang, P., Ustun, T. B., & Wang, P. (2003). The world health organization health and work performance questionnaire (HPQ). *Journal of Occupational and Environmental Medicine, 45*(2), 156–174. <https://doi.org/10.1097/01.jom.0000052967.43131.51>
- Kim, J. (2018). The contrary effects of intrinsic and extrinsic motivations on burnout and turnover intention in the public sector. *International journal of manpower.*
- Kuswati, Y. (2020). The effect of motivation on employee performance. Budapest International Research and Critics Institute (BIRCI-Journal): Humanities and Social Sciences, 3(2), 995-1002.
- Lazaro, C., Shinn, M. and Robinson, P.E. (1984). "Burnout, Job Performance and Job Withdrawal Behavior", *Journal of Health and Human Resources Administration, Vol. 7, 1984, pp. 213- 34.*
- Le Ng, X., Choi, S. L., & Soehod, K. (2016). The effects of servant leadership on employee's job withdrawal intention. *Asian Social Science, 12*(2), 99.
- Locke, E. A., & Schattke, K. (2019). Intrinsic and extrinsic motivation: Time for expansion and clarification. *Motivation Science, 5*(4), 277.

- Luo, L. (1999). Work motivation, job stress and employees' well-being. *Journal of applied management studies*, 8, 61-72.
- MacKenzie, S. B., Podsakoff, P. M., & Fetter, R. (1991). Organizational citizenship behavior and objective productivity as determinants of managerial evaluations of salespersons' performance. *Organizational behavior and human decision processes*, 50(1), 123-150.
- Mardanov, I. (2020, November). Intrinsic and extrinsic motivation, organizational context, employee contentment, job satisfaction, performance and intention to stay. In *Evidence-based HRM: a Global Forum for Empirical Scholarship*. Emerald Publishing Limited.
- Marôco, J. (2021). Análise de equações estruturais: Fundamentos teóricos, software & aplicações (3rd ed.). ReportNumber.
- Maslach, C., & Leiter, M. P. (2017). Understanding burnout: New models. In C. L. Cooper & J. C. Quick (Eds.), *The handbook of stress and health: A guide to research and practice* (pp. 36–56). Wiley Blackwell. <https://doi.org/10.1002/9781118993811.ch3>
- Maslach, C., Schaufeli, W. B., & Leiter, M. P. (2001). Job burnout. *Annual review of psychology*, 52(1), 397-422.
- McNamara, A., Arino de la Rubia, E., Zhu, H., Ellis, S., & Quinn, M. (2021). skimr: Compact and flexible summaries of data (R package version 2.1.3) [Computer software] (2.1.3). <https://cran.r-project.org/web/packages/skimr/index.html>
- Motowidlo, S. J., & Van Scotter, J. R. (1994). Evidence that task performance should be distinguished from contextual performance. *Journal of Applied psychology*, 79(4), 475.
- Paais, M., & Pattiruhu, J. R. (2020). Effect of motivation, leadership, and organizational culture on satisfaction and employee performance. *The Journal of Asian Finance, Economics and Business*, 7(8), 577-588.
- Peterson, B. G., & Carl, P. (2020). PerformanceAnalytics: Econometric tools for performance and risk analysis (R package version 2.0.4) [Computer software] (2.0.4). <https://cran.r-project.org/web/packages/PerformanceAnalytics/index.html>

- Priatna, D. K., Indriyani, D., & Roswinna, W. (2020). Effect of Work Compensation and Motivation towards Productivity of Workers (A Survey in Pt. Necis Indah Cemerlang Bandung). *Dinasti International Journal of Management Science*, 1(4), 563-577.
- Putra, E. D., Cho, S., & Liu, J. (2017). Extrinsic and intrinsic motivation on work engagement in the hospitality industry: Test of motivation crowding theory. *Tourism and Hospitality Research*, 17(2), 228-241.
- R Core Team. (2022). R: A language and environment for statistical computing (version 4.2.0) [Computer software] (4.2.0). R Foundation for Statistical Computing. <https://www.r-project.org/>
- Reijseger, G., Peeters, M. C., Taris, T. W., & Schaufeli, W. B. (2017). From motivation to activation: why engaged workers are better performers. *Journal of Business and Psychology*, 32(2), 117-130.
- Rich, B. (2021). table1: Tables of descriptive statistics in HTML (R package version 1.4.2) [Computer software] (1.4.2). <https://cran.r-project.org/package=table1>
- Richer, S. F., Blanchard, C., & Vallerand, R. J. (2002). A motivational model of work turnover. *Journal of applied social psychology*, 32(10), 2089-2113.
- RStudio Team. (2022). RStudio: Integrated development for R (version 2022.2.2.485) [Computer software] (2022.2.2.485). RStudio, Inc. <http://www.rstudio.com/>
- Sánchez-Cardona, I., Vera, M., & Marrero-Centeno, J. (2021). Job resources and employees' intention to stay: The mediating role of meaningful work and work engagement. *Journal of Management & Organization*, 1-17.
- Schaufeli, W. B., & Taris, T. W. (2005). The conceptualization and measurement of burnout: Common ground and worlds apart. *Work & Stress*, 19(3), 256-262.
- Schaufeli, W. B., Salanova, M., González-Romá, V., & Bakker, A. B. (2002). The measurement of engagement and burnout: A two sample confirmatory factor analytic approach. *Journal of Happiness studies*, 3(1), 71-92.

- Schaufeli, W., De Witte, H., & Desart, S. (2020). Version 2.0–July 2020.
- Sekhar, C., Patwardhan, M., & Singh, R. K. (2013). A literature review on motivation. *Global business perspectives, 1*(4), 471-487.
- Shirom, A. (2003). Job-related burnout: A review.
- Sinval, J., Miller, V., & Marôco, J. (2021). Openness Toward Organizational Change Scale (OTOCS): Validity evidence from Brazil and Portugal. *PLOS ONE, 16*(4), 1–22. <https://doi.org/10.1371/journal.pone.0249986>
- Sinval, J., Pasian, S. R., Queirós, C., & Marôco, J. (2018). Brazil-Portugal transcultural adaptation of the UWES-9: Internal consistency, dimensionality, and measurement invariance. *Frontiers in Psychology, 9*, 1–18. <https://doi.org/10.3389/fpsyg.2018.00353>
- Sinval, J., Vazquez, A. C. S., Hutz, C. S., Schaufeli, W. B., & Silva, S. (2022). Burnout Assessment Tool (BAT): Validity Evidence from Brazil and Portugal. *International Journal of Environmental Research and Public Health, 19*(3), 1344.
- Smith, T. (2003). Money can buy happiness. *Reason Papers, 26*(Summer), 7–20.
- ten Brummelhuis, L. L., Ter Hoeven, C. L., Bakker, A. B., & Peper, B. (2011). Breaking through the loss cycle of burnout: The role of motivation. *Journal of Occupational and Organizational Psychology, 84*(2), 268-287.
- Tetteh, S., Dei Mensah, R., Opata, C. N., & Mensah, C. N. (2021). Service employees' workplace fun and turnover intention: the influence of psychological capital and work engagement. *Management Research Review*.
- Thatcher, J. B., Liu, Y., Stepina, L. P., Goodman, J. M., & Treadway, D. C. (2006). IT worker turnover: An empirical examination of intrinsic motivation. *ACM SIGMIS Database: the DATABASE for Advances in Information Systems, 37*(2-3), 133-146.
- Tzeng, H. M. (2002). The influence of nurses' working motivation and job satisfaction on intention to quit: an empirical investigation in Taiwan. *International journal of nursing studies, 39*(8), 867-878.



- Wayne, S. J., Shore, L. M., & Liden, R. C. (1997). Perceived organizational support and leader-member exchange: A social exchange perspective. *Academy of Management Journal*, 40(1), 82–111. <https://doi.org/10.2307/257021>
- Weisberg, J. (1994). Measuring workers' burnout and intention to leave. *International Journal of Manpower*.
- Wright, T. A., & Bonett, D. G. (1997). The contribution of burnout to work performance. *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior*, 18(5), 491-499.
- Yalabik, Z. Y., Popaitoon, P., Chowne, J. A., & Rayton, B. A. (2013). Work engagement as a mediator between employee attitudes and outcomes. *The International Journal of Human Resource Management*, 24(14), 2799-2823.

## Appendix

### Appendix 1



#### COMISSÃO DE ÉTICA PARECER [Final] 75/2022

##### Projeto “Are you motivated enough to stay?”

O projeto “*Are you motivated enough to stay?*”, submetido por Guadalupe Calheiros e Jorge Sinval, foi apreciado pela Comissão de Ética (CE) na reunião de 9 de junho de 2022.

A apreciação do projeto suscitou, porém, algumas reservas plasmadas no Parecer [Intercalar] 75/2022, em relação às quais os investigadores vêm agora prestar os esclarecimentos adicionais, tidos por necessários e que satisfazem, de um modo geral, os requisitos éticos exigíveis.

**A CE constata, contudo, que o Formulário de Submissão e o documento de consentimento informado não especificam o tipo de dados pessoais a recolher (assume-se que está em causa a recolha dos endereços de e-mail dos participantes) e que se refere, de forma vaga, que se prevê o armazenamento dos dados pessoais até ao final do estudo. A CE recomenda que os investigadores sejam precisos em relação aos prazos de conversação dos dados pessoais e recorda que, de acordo com as *Orientações aos Investigadores sobre Proteção de Dados Pessoais no Iscte*, o prazo máximo de conservação para efeitos de investigação científica, no caso de Dissertações de Mestrado, é de 6 meses após as provas de defesa da dissertação do Mestrado.**

**Refere-se que os dados pessoais serão armazenados em Servidores da Infraestrutura Nacional de Computação Distribuída (INCD) da Fundação para a Computação Científica Nacional (FCCN). Nestas circunstâncias, apesar de se afigurar que os dados são armazenados em servidores seguros, não fica claro em que medida o Iscte é o único responsável pelo tratamento de dados pessoais ou em que medida é necessário um acordo de responsabilidade conjunta.**

Em suma, assegurados que se encontram a natureza voluntária da participação, o consentimento livre e informado e a confidencialidade dos dados coligidos, entende a Comissão de Ética emitir parecer favorável à realização da investigação, sem prejuízo da ratificação deste parecer na próxima reunião. Contudo, recomenda a inclusão de informação sobre o tipo de dados pessoais a recolher no documento de consentimento informado bem como o cumprimento do prazo de 6 meses de conservação dos dados pessoais, de acordo com as recomendações do Iscte. Recomenda ainda a análise cuidada da responsabilidade pelo tratamento de dados pessoais, nomeadamente junto do Encarregado de Dados Pessoais do Iscte e/ou do GAI, se necessário. Caso os investigadores entendam não cumprir as referidas recomendações, o projeto deverá ser re-submetido à CE com as propostas dos investigadores.

Relatora: Cecília Aguiar  
(com Sven Waldzus)

Lisboa, 5 de setembro de 2022

O Presidente da Comissão, Prof. Doutor Sven Waldzus

A Relatora, Prof.<sup>a</sup> Doutora Cecília Aguiar

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## Appendix 2

Olá!

O presente estudo surge no âmbito de um projeto de investigação a decorrer no Iscte – Instituto Universitário de Lisboa. Este estudo tem por objetivo conhecer as perceções dos trabalhadores quanto ao seu trabalho, nomeadamente, ampliar o conhecimento que existe sobre a intenção de saída, burnout, envolvimento no trabalho, e motivação nas Organizações. Se concordar com a investigação, terá de responder a perguntas relacionados com temas específicos, nomeadamente burnout, envolvimento no trabalho, intenção de saída e motivação.

O Iscte é o responsável pelo tratamento dos seus dados pessoais, recolhidos e tratados exclusivamente para as finalidades do estudo, tendo como base legal o seu consentimento (art. 6o, no1, alínea a) do Regulamento Geral de Proteção de Dados).

O estudo é coordenado por Guadalupe Calheiros (mgmbm@iscte.pt) e Jorge Sinal (Jorge.sinal@iscte-iul.pt), que poderá contactar caso pretenda esclarecer uma dúvida, partilhar algum comentário ou exercer os seus direitos relativos ao tratamento dos seus dados pessoais. Poderá utilizar o contacto indicado para solicitar o acesso, a retificação, o apagamento ou a limitação do tratamento dos seus dados pessoais. A participação neste estudo é confidencial. Os seus dados pessoais serão sempre tratados por pessoal autorizado vinculado ao dever de sigilo e confidencialidade. O Iscte garante a utilização das técnicas, medidas organizativas e de segurança adequadas para proteger as informações pessoais. É exigido a todos os investigadores que mantenham os dados pessoais confidenciais.

Além de confidencial, a participação no estudo é estritamente voluntária: pode escolher livremente participar ou não participar. Se tiver escolhido participar, pode interromper a participação e retirar o consentimento para o tratamento dos seus dados pessoais em qualquer momento, sem ter de prestar qualquer justificação. A retirada de consentimento não afeta a legalidade dos tratamentos anteriormente efetuados com base no consentimento prestado. Os seus dados pessoais serão conservados até ao final do estudo, após o qual serão destruídos ou anonimizados, garantindo-se o seu anonimato nos resultados do estudo, apenas divulgados para efeitos estatísticos, de ensino, comunicação em encontros ou publicações científicas.

Não existem respostas certas ou erradas às questões colocadas, mas todas as respostas são importantes, pois queremos conhecer o seu ponto de vista sobre diferentes áreas e experiências na sua atividade. Não existem riscos significativos expectáveis associados à participação no estudo. O Iscte não divulga ou partilha com terceiros a informação relativa aos seus dados pessoais. Não é expectável que surja nenhum tipo de dificuldade ou dano no

decorrer da participação no estudo. Caso sinta a necessidade de nos contactar devido aos temas abordados (nomeadamente após receber o seu relatório individual) poderá fazê-lo através do contacto (Jorge Sinval; [jorge.sinval@iscte-iul.pt](mailto:jorge.sinval@iscte-iul.pt)).

O Iscte tem um Encarregado de Proteção de Dados, contactável através do email [dpo@iscte-iul.pt](mailto:dpo@iscte-iul.pt). Caso considere necessário tem ainda o direito de apresentar reclamação à autoridade de controlo competente – Comissão Nacional de Proteção de Dados.

Como agradecimento pelo tempo que despendeu, oferecemos-lhe um relatório comparativo das suas respostas com o total de respostas de todos os participantes que responderem num prazo de 15 dias.

Cordialmente,

Guadalupe Calheiros

Jorge Sinval

Declaro ter compreendido os objetivos de quanto me foi proposto e explicado pelo/a investigador/a, ter-me sido dada oportunidade de fazer todas as perguntas sobre o presente estudo e para todas elas ter obtido resposta esclarecedora. Aceito participar no estudo e consinto que os meus dados pessoais sejam utilizados de acordo com a informações que me foram disponibilizadas.