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THE RELATION BETWEEN POSITIVE EMOTIONS AND RUMINATION WITH EMPLOYEE TURNOVER INTENTION. EMPIRICAL RESEARCH ON AVIATION EMPLOYEES

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ABSTRACT

Positive emotions and turnover intention have been of considerable interest to the research community, while the study of rumination is a relatively new field. This paper attempts to investigate the relations between emotions, positive and negative, and rumination, with turnover intention. The research focuses on the Greek aviation sector, collecting data from 366 employees, for the conduct of which four questionnaires were used, one demographic and three related to the research variables. Specifically, the Positive and Negative Affect Scales, PANAS, the Rumination Scale and the short version of the Turnover Intention Scale were administered. Positive emotions were found to be unrelated to rumination and turnover intention. It appeared that rumination is positively related to negative emotions and turnover intention and that negative emotions are a predictive factor of turnover intention. The above is consistent with relevant findings of related studies. The study aspires to fill the gaps in literature and be a tool for dealing with and managing turnover intention, for HR departments in the aviation industry.

INTRODUCTION

Human capital constitutes the main pillar of development of financial organizations (Luthans & Youssef, 2004). Thus, the well-being of human capital and its components have attracted the interest of researchers and are examined both from an individual point of view, in terms of securing and maintaining psychosomatic health, and from a holistic approach to the organization, in terms of the contribution to productivity (Kowalski & Loretto, 2017). Well-being consists, among other things, of positive emotions, positive relationships and positive achievements (Seligman, 2008), while positive emotions are not just an indication of health and well-being, but can be a factor of them (Fredrickson, 2009). Research in an organizational context focuses on the study of positive and negative emotions, since these play a dynamic role in the data of the work context, as they are related in various ways to work performance (Ashkanasy, 2004). In direct relation to the above, in cases where well-being is being compromised, individuals resort to various self-regulation techniques, such as the technique of regurgitating their thoughts, i.e. rumination (Nolen-Hoeksema, 1991).

The approach to the concept of rumination is of interest to the organizational study as it is thought to be a passive repeated attachment to the symptoms of mental distress and theirroots, without taking corrective action (Nolen-Hoeksema, 1998). In particular, people who ruminate remain passively attached to problematic situations and emotions, without developing any kind of action, in contrast to other management mechanisms that lead to active problem solving (Nolen-Hoeksmema et al., 2008). A study of related research points to the positive correlation between rumination and negative emotions and the negative correlation with positive emotions (Kircanski et al., 2017). According to Kircanski et al. (2017), high levels of momentary rumination predict a subsequent decrease in positive thymic on the one hand and an increase in negative thymic on the other. A variable that concerns both the organization and the individual is turnover intention. The interest for it lies in the various harmful effects it brings to the organization, such as the cost of hiring and replacing the departing workforce and the disruption of the smooth operation of the organization, as well as the reasons that cause it (Hom et al., 2017). Job satisfaction and commitment, as well as the characteristics of the context, seem to play an important role in relation to turnover intention, as pointed out in Hom 'sresearch.

In particular, turnover intention shows a positive correlation with negative emotions (Maertz & Campion, 2004), which seem to predict it to a mild degree (Griffeth *et al*., 2000). Turnover intention has also been approached from the perspective of leadership, an important component that will not concern the present research. In particular, in the transactional model of leadership, turnover intention occurs with a lower probability in members of favored groups compared to unfavored ones (Ferris, 1985; Greenberg & Baron, 2013). Additionally, when subordinates' turnover intention is high, abusive management by superiors shows a strong positive correlation with the occurrence of work delinquency as well as supervisor-oriented delinquency in subordinates (Tepper *et al*., 2009). The purpose of this paper is to investigate the correlation between positive and negative emotions with rumination and turnover intention. In particular, we examine whether rumination shows a negative correlation with positive emotions and a positive correlation with negative emotions. Additionally, we study whether negative emotions are positively related to turnover intention and whether they can be predictive of it.

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LITERATURE REVIEW

Positive and negative emotions: The study of human emotions categorizes them into positive and negative, with the positive relating to states of emotional well-being while the negative to states of psychological distress (Ostir*et al*., 2000; Ekman, 2003). Fredrickson (2009) distinguishes joy, gratitude, peace, interest, hope, pride, cheerfulness, inspiration, awe and love as the basic positive emotions. According to the theory of "broadening and building" (Fredrickson, 2001) repertoires of thought and action are expanded through positive emotions, which negate negative ones while contributing to the building of mental resilience. In particular, positive emotions contribute to the effective reduction of stress and tension, expand the ability to pay attention and think, and contribute to the construction of

original and alternative management strategies (Fredrickson *et al*., 2003). The access that people who experience positive emotions have to their mental supplies, provides the possibility of a faster mental recovery from situations of sadness and anxiety (Fredrickson, 2009). But beyond the psychological field, according to the reversal phenomenon (Fredrickson, 2009) positivity can contribute to suppressing or even reversing the effects of negativity on the human cardiovascular system. Thus, when individuals experience intense negative emotions, such as anxiety and stress, a return to normal organ function can be achieved more quickly through the experience of positive emotions (Fredrickson & Levenson, 1998). In an organizational context, emotions and feelings may influence the work behavior of individuals (Greenberg & Baron, 2013). With reference to the tendency to experience positive or negative moods and emotions, in various environments and under different conditions, positive or negative emotionality is distinguished respectively (Isen & Baron, 1992 in Greenberg & Baron, 2013). The emotional dipole is examined in the professional environment in terms of influencing decision-making, group performance and the manifestation of aggressive behavior (George, 1993; Staw&Barsade, 1993; Aquino *et al*., 1999). In addition, positive and negative emotionality, through the influence of genetic factors, affect job satisfaction (Ilies & Judge, 2003), an important component of the organizational context, which in fact is negatively related to turnover intention (Hom *et al*., 2017).

People who more often experience positive emotions are characterized, according to social scientists, as happy (Greengerg & Baron, 2013). However, happiness decreases when individuals engage in rumination (Sariçam, 2016). Research shows that happy employees experience more advantages than those who are less happy (Lyubomirsky *et al*., 2005). In particular, happy employees outperform their less happy colleagues and organizations are recommended to improve employee well-being to increase overall effectiveness (Cropanzano & Wright, 1999; Wright &Staw, 1999). The positive correlation between positive emotions and professional success is explained by the theory of mood compatibility (Greenberg & Baron, 2013), according to which, a positive mood contributes to the recall of positive situations, which encourages effort and leads to improvement of professional performance. Also, positive mood contributes to encouraging feedback at work and promoting cooperation (Ashkanasy & Daus, 2002; Ashkanasy, 2004). Conversely, in work environments where negative emotions prevail, employees may experience burnout due to deprivation of job satisfaction (Lee & Ashforth, 1996). Also, employees' negative emotionality may lead to higher levels of turnover intention, in the event that they perceive the current management as abusive (Tepper, 2000; Penney & Spector, 2005; An & Wang, 2016; Zou, 2020). In this case, the strengthening of positive emotions is considered necessary and could be achieved by having employees participate in corresponding lifelong learning educational programs. According to the theory of Fredrickson (1998), positive emotions are amenable to construction and expansion, so they can be a product of learning. In particular, positive emotions, through the process of the endless growing chain, contribute to dealing with the consequences of negative emotions, broaden the horizon of thinking and action of individuals, strengthen psychological endurance and improve mental health and lead to the achievement of mental and emotional well-being (Fredrickson, 1998).

On the question of whether there is an ideal ratio, in an organizational context, of positive and negative emotions, Fredrickson's collaboration with Losada (2005), leads to the answer of the optimal ratio of 3:1. Despite the criticism received by this position (Brown *et al*., 2013), Fredrickson (2013) argues that a high positivity ratio may be a predictor of good mental health, well-being, and other positive outcomes. Organizations are therefore encouraged to enhance the positive feelings of employees. A related proposal concerns the appropriate therapeutic assistance to achieve flow, which may bring about higher returns and higher levels of positive emotions (Csikszentmihalyi, 2009), through its effect on employee performance, on work commitment and on the cultivation of leadership characteristics (Hefferon & Boniwell, 2019).

Rumination: The concept of rumination is analyzed as the passive repeated attachment to the symptoms of mental distress as well as the roots of these symptoms, without taking corrective action, it includes negative thoughts regarding the past, present and future, while it is associated with a lower ability to solve interpersonal problems (Nolen-Hoeksema, 1998). Individuals employ various management techniques in cases of disruption of well-being and psychological distress. As such, ruminative thinking may be a determinant of vulnerability to depression, as well as the intensity and duration of its symptoms (Nolen-Hoeksema, 1991). Related research (Kircanski *et al.*, 2017) shows that high levels of momentary rumination predict a subsequent decrease in positive thymic on the one hand and an increase in negative thymic on the other. Brooding could be considered to contribute to emotional improvement, as an emotional regulation strategy, however it may lead to attachment to negative emotions and negative affective amplification (Demeyer *et al.*, 2012). Specifically, people believing that rumination regarding the depressive mood and related symptoms will contribute to an improved understanding of the causes and the self, engage in it. However, instead of the desired increase in self-understanding, rumination, through focusing attention on mood, leads to an increase in depressed mood. Thus, a positive correlation between rumination and anxiety is observed, as well as a positive correlation between rumination and sadness-depression (Lyubomirsky & Nolen-Hoeksema, 1995; Nolen-Hoeksema, 1996 in Kirkegaard Thomsen, 2006). With regard to the professional context, recovery from the demands and pressures of work translates into the ability to pause related thoughts, while it is positively associated with maintaining well-being (Cropley & Zijlstra, 2011). The possibility of distancing oneself from work shows a negative predictability of acute fatigue, a key parameter of difficulty with euphoria (Querstret& Cropley, 2012), while rumination related to work stress during the weekend is positively associated with the instability of the nocturnal heart rate the corresponding period (Vahle-Hinz *et al.*, 2014). The possibility of distancing oneself from work, on non-working days and hours, is positively associated with the well-being of employees (Sonnentag *et al.*, 2008) while rumination related to stressful work events functions as a mechanism linking stress with adverse recovery processes (Brosschot *et al.*, 2005) and in particular emotional rumination (Querstret & Cropley, 2012).

Repetitive negative cognitions related to an anger-inducing event, such as memories, thoughts, feelings, and plans for revenge, are characterized as anger rumination (Sukhodolsky*et al.*, 2001; Denson *et al.*, 2006). This particular form of rumination is of immediate interest in the work context as the development of anger regurgitation after a challenge may increase aggression not only towards the moral perpetrator but also towards other targets (Bushman *et al.*, 2005), a fact that may cause disruption in the work group. Additionally, rumination after anger reduces one's ability to self-regulate (Denson *et al.*, 2011), which according to Fredrickson (1998), is strengthened by experiencing positive emotions. Anger rumination, not only does not heal negative emotional states, on the contrary it maintains and/or strengthens anger, aggressive cognitions, physical arousal, thus enhancing the possibility of developing aggressive behavior (García-Sancho *et al.*, 2016). And while rumination is initially accompanied by a negative sign regarding the emotional attachmentsparameter (Nolen-Hoeksema, 1991), some scholars point out that it may prove to be beneficial (Martin & Tesser, 2013). Specifically, positive forms of rumination may contribute to finding alternative solutions to problem solving (Martin & Tesser, 2013). Repetitive structured thoughts that focus on a specific plan, decision, and action are a versatile form of rumination (Watkins, 2008; Watkins, 2016). Also, conscious rumination, which refers to the voluntary focus on understanding events and their consequences, is an adaptive process (Cann *et al.*, 2011). Looking for ways to enhance psychological adjustment and well-being and to reduce negative rumination, researchers propose the promotion of positive rumination as an answer (Yang & Li, 2020). Positive management strategies can be trained and are an effective way to treat negative emotions (Yang & Li, 2020).

Turnover Intention: As pointed out by Hom *et al.* (2017), turnover intention is defined as the deliberate and conscious desire to cut off existing work ties. It may be related to context components and behavioral parameters, but it affects both the individual and the organization (Hom *et al.*, 2017). Specifically at the organizational level, the effects are direct, due to the subsequent costs of re-hiring and training staff, but also indirect, due to the deprivation of knowledge and reduction of productivity (Mukamel *et al.*, 2009). Turnover intention shows a positive correlation with stressors (Mosadeghrad, 2013). In particular, job burnout, job stress, and task overload show a strong positive correlation with turnover intention (Park *et al.*, 2020; Li & Yao, 2022). On the contrary, trust, professional identity and satisfaction, organizational commitment and perceived organizational support are the parameters with the strongest negative correlation to turnover intention (Li & Yao, 2022; Ma *et al.,* 2022). Thus, according to the study of Ma *et al.* (2022), compensatory interventionsenhancing perceived organizational support are proposed in order to curb turnover intention. Turnover intention is positively related to the verbal abuse received by employees from the customers of an organization, however two parameters that contain or cause positive emotions, psychological capital and organizational climate, are the negative mediating factors of the specific relationship (Gong *et al.*, 2018). Consequently, positive emotions as components of psychological capital and good organizational climate appear as negative mediators in the positive relationship between verbal abuse and turnover intention. The psychological capital parameter includes, according to the Luthans *et al.* (2007) approach, self-efficacy, hope, optimism and resilience. A good organizational climate contributes to the cultivation of positive feelings for the organization, while at the same time acting as a counterbalance to the development of negative ones (Gong *et al.*, 2018). The sign of emotionality is of interest to organizational design as individuals who have negative feelings about the organization are more likely to be led to spontaneous departure from it (Maertz & Campion, 2004). In particular, according to Griffeth *et al.* (2000), the negative emotion of workplace stress is a mild predictor of turnover intention. With reference to the concept of organizational change (Greenberg & Baron, 2013), the more receptive individuals appear to change, the lower the intention to leave the job (Wanberg & Banas, 2000). Responsiveness to change depends on mental resilience mediated by employees' optimism and positive attitude towards change. Thus, in the study of Wanberg and Banas (2000), two manifestations of positive emotions, optimism and positive attitude, inhibit turnover intention, while negative emotions predict passive abandonment and resignation (Kiefer, 2005). In addition, employees with positive affectivity appear ready to accept support and those who experience a supportive organizational climate show low turnover intention (Hui *et al.*, 2007)

Associations between rumination, emotions, and turnover intention: Workplace conflicts that are not dealt with effectively can sometimes foster turnover intention (Hills, 2016). Disputes drain time and energy from individuals, causing passive or aggressive avoidance of opposing parties (Hills, 2016). Thus, rumination comes to the fore, in the sense of attachment of thought to the aspect of confrontations, and the question arises as to whether this can lead to an increase in turnover intention. In conclusion, turnover intention shows a negative correlation with positive emotions, as the latter have a positive effect on the parameter of job satisfaction (Ilies & Judge, 2003; Hom *et al.*, 2017). Also, positive emotions seem to be negatively related to the phenomenon of rumination (Kircanski*et al.*, 2017), as according to the theory of mood compatibility, they contribute to the recall of positive situations and experiences (Greenberg & Baron, 2013). On the contrary, people who experience negative emotions tend to indulge more often in the phenomenon of rumination, in other words, a positive correlation between rumination and negative emotions is observed (Kircanski *et al.*, 2017). Negative emotions are positively related to turnover intention as they act as a deterrent to the job satisfaction of employees and through this difficulty they cause work burnout and an increase in turnover intention (Lee & Ashforth, 1996), being at the same time a mild predictive factor of the phenomenon (Griffeth *et al.*, 2000).

Purpose and research hypotheses: The present study aims to investigate the relationship of positive and negative emotions with rumination and turnover intention. More specifically, it examines whether rumination shows a negative correlation with positive emotions and a positive correlation with negative emotions. Additionally, we examine whether negative emotions are positively related to turnover intention. The study of research related to the variables demonstrates that positive emotions seem to reduce turnover intention as they have a reinforcing effect on the parameter of job satisfaction, which in turn is negatively related to turnover intention (Ilies & Judge, 2003; Hom *et al*., 2017). Additionally, Goldberg 's (1971, in Jeswani &Dave, 2013) study supports the hypothesis that a positive emotional state is negatively associated with turnover intention. Employees' negative emotionality may contribute to the exercise of abusive power, which is positively related to turnover intention (Tepper, 2000; Penney & Spector, 2005; An & Wang, 2016; Zou, 2020). Also, positive emotions appear to be negatively related to rumination (Kircanski*et al*., 2017), as according to the theory of mood compatibility, they contribute to the recall of positive situations and experiences (Greenberg & Baron, 2013). This is also stated in the study of Sariçam (2016) which shows that the happiness of people who ruminate decreases. On the contrary, people who experience negative emotions tend to indulge more often in the phenomenon of rumination, in other words, a positive correlation between rumination and negative emotions is observed (Kircanski*et al*., 2017). The latter act as a deterrent to employees' professional satisfaction and through this difficulty cause work burnout and an increase in turnover intention (Lee & Ashforth, 1996), being at the same time a mild predictive factor of turnover intention (Griffeth *et al*., 2000).

Thus, as a result of the above-mentioned studies, this paper examines the following hypotheses:

H1: Rumination is negatively related to positive emotions
H2: Negative emotions are positively related to rumination
H3: Positive emotions are negatively related to turnover intention
H4: Rumination is positively related to turnover intention
H5: Negative emotions predict turnover intention

METHODS

Research design: For the needs of this research, the quantitative research approach was chosen as it is an appropriate method regarding the description and explanation of the relationship between two or more variables (Shaughnessy *et al*., 2018). In addition, the quantitative approach and analysis of research data provides the possibility of numerically and quantitatively summarizing the observations of a study, through the calculation of descriptive statistics and in particular the measurement of frequency, mean and standard deviation (Shaughnessy *et al*., 2018). In particular, the literature review in the relevant research activity demonstrates the use of quantitative methods (Nolen - Hoeksema, 2000; Sukhodolsky*et al*., 2001; Daskalou & Syngollitou, 2012; Bothma & Roodt, 2013; Davidson *et al*., 2014). More specifically, positive emotions, negative emotions (Fredrickson, 2001; Fredrickson, 2009) and rumination (Nolen-Hoeksema, 1991; Nolen-Hoeksema, 1998) are the independent variables and turnover intention (Hom *et al*., 2017), is the dependent variable of the present research.

Sample: The sample is opportunistic and consists of 366 Greek adult employees of the private sector in the aviation industry, for the collection of which a random sampling was carried out (Shaughnessy et al., 2018). From the statistical analysis of the data, it follows that the sample of aviation workers in the private sector (N= 366), consists of 163 men (rate 44.5%) and 203 women (rate 55.5%). Regarding the distribution of the sample in relation to educational level, 225 participants are high school graduates (61.5%percentage), 113 (30.9%percentage) hold a Bachelor's degree, 26 people (7.1%percentage) hold a Master's degree and 2 people (0.5%percentage) hold a PhD. The sample, regarding its age composition, consists of 49 people (13.4%percentage) aged 18 to 30 years, 105 people (28.7%percentage) belonging to the age group of

31 to 40 years old, 126 people (34.4%percentage) belonging to the age group of 41 to 50 years and 86 people (23.5%percentage) are over 51 years old. The sample, regarding the total years of work, consists of 86 people (23.5%percentage) who have worked up to 5 years, 121 people (33.1%percentage) who have worked between 6 and 15 years and 159 people (43.4%percentage) whose working years exceed 16 years. The sample, regarding the years of work in the current professional field, consists of 223 people (60.9%percentage) with employment up to 5 years, 99 people (27%percentage) with employment from 6 to 15 years and 44 people (12%percentage) whose years of employment exceed 16 years.

The sample, with regard to the position held by each person in the Organization, consists of 312 people (85.2% percentage) who hold the position of employee, 35 people (9.6% percentage) who hold the position of supervisor and 19 people (5.2%percentage) who hold a managerial position. Table 1 shows the characteristics of the participants in this study.

Table 1. Characteristics of Participants (N = 366)

Variable	N	%
Sex		
Man	163	44.5
Woman	203	55.5
Age		
18-30	49	13.4
31-40	105	28.7
41-50	126	34.4
Over 51	86	23.5
Education		
High School	225	61.5
Bachelor	113	30.9
Master	26	7.1
Ph.D	2	0.5
Overall work experience		
Up to 5 years	86	23.5
6-15	121	33.1
Over 16	159	43.4
Overall experience in the current field		
Up to 5 years	223	60.9
6-15	99	27.0
Over 16	44	12.0
Position in the organization		
Employee	312	85.2
Supervisor	35	9.6
Executive	19	5.2

Research tools: The research tool given to the participants consists of four (4) parts.

Demographics: The first part that the participants were asked to fill in concerns the demographic data (Appendix 1.4). Specifically, they were asked to provide information regarding the following variables: gender (male, female, other), age (18-30, 31-40, 41-50, 51 and over), educational level (high school diploma, Bachelor's degree, Master's degree, PhD), years of experience in the field (up to 5 years, 6-15, 16 and over), total years of work experience (up to 5 years, 6-15, 16 and over), position in the organization (employee, supervisor, executive).

Positive and Negative Affect Scale: The second part (Appendix 1.5) concerns the weighted Positive and Negative Affect Scales, PANAS. Created by Watson *et al*. (1988) and adapted to Greek (Daskalou&Syggolitou, 2012). It consists of two subscales, which include ten characteristics each. Each question is answered on a five-point Likert scale, ranging from 1 (*very little*) to 5 (*very much*). Cronbach's internal reliability index *a*for the positive emotion has a value of 0.74 while the corresponding one for the negative emotion is 0.79.

Rumination Scale: The third part (Appendix 1.6) concerns the weighted Rumination Scaleconstructed by Jackson and Nolen-Hoeksema (1998). The questionnaire was translated into Greek using the reverse translation process and evaluated by an independent reviewer. It consists of 22 statements answered on a four-point Likert

scale, from 1 (*almost never*) to 4 (*almost always*). Cronbach's index *a* has a value of 0.85 (Nolen-Hoeksema & Jackson, 2001).

Turnover Intention Scale: The fourth part (Appendix 1.7) consists of the short version of the weighted Turnover Intention Scale. The original scale was constructed by Roodt (2004, in Bothma & Roodt, 2013), while the short version was constructed by Roodt (Bothma & Roodt, 2013) and consists of six (6) statements answered on a five-point Likert scale, from 1 (*never*) to 5 (*always*), from 1 (*completely unlikely*) to 5 (*very likely*), from 1 (*very satisfied*) to 5 (*completely dissatisfied*). The questionnaire was translated into Greek using the reverse translation process and evaluated by an independent reviewer. Cronbach's index *a* has a value of 0.80 (Bothma & Roodt, 2013).

Procedure: To carry out this research. a relevant Ethics Form was submitted (Appendix 1), permission was requested and received from the Ethics Committee (Appendix 2). Initially, the researcher created an electronic form of the research tool, consisting of four axes (Appendix 1.4 – 1.7), which was translated into a link to google forms. After receiving approval, on May 15, 2023, the data collection process began, which lasted until June 30, 2023. The translated into a google forms link research tool was posted on Linkedin. The relevant accompanying invitation text (Appendix 1.8 of the present) invited private sector workers in the aviation industry to complete it. There was a clear reference to the voluntary and anonymous participation in the survey, which lasted approximately 15 minutes. First, the participants read the information form (Appendix 1.1), then filled in the consent form (Appendix 1.2) and the questionnaires (Appendix 1.4 – 1.7). The process was completed by debriefing the participants (Appendix 1.3) at the end of the data collection.

Analysis strategy: The statistical processing and analysis of the quantitative data of the survey was carried out with the jamovi software (Kerby, 2014; Singmann, 2018; Revelle, 2019; Fox &Weisberg, 2020), with which we checked the normality of the distribution (Liargovas *et al*., 2023). Normality was checked with the Shapiro - Wilk statistical test (Table 2) where it was found that the conditions of normality were not met for any of the variables ($p < .05$). The relevant research variables were analyzed with the technique of descriptive and inductive statistics (Norris *et al*., 2017; Liargovas & co., 2023). Cronbach's alpha internal consistency statistic was calculated for each questionnaire used. Spearman's rho correlation coefficient was chosen for research hypotheses H1, H2, H3 and H4 as the normality of the distribution was found not to be met (table 2). Finally, a simple regression analysis was performed on hypothesis H5.

RESULTS

Index of internal reliability: Cronbach's index *a* was calculated for each research tool used. Specifically, for the subscale measuring positive emotion, the index was found to have a value of $a = .78$, while for the subscale measuring negative emotion, the index was found to have a value of $a = .84$. In the instrument measuring rumination, theCronbach index was calculated to $a = .92$ and for the instrument measuring turnover intention, the Cronbach index was found to have a value $a = .78$.

Correlations: To test the association between rumination and positive emotions (H1), negative emotions and rumination (H2), positive emotions and turnover intention (H3), rumination and turnover intention (H4), Spearman'srho statistical index was used. For hypothesis H1 stating a negative correlation between rumination and positive emotions, the analysis showed non-statistically significant results ($r_s = -.08$, $p = .13$). For hypothesis H2 stating a positive correlation between rumination and negative emotions, the analysis showed statistically significant results ($r_s = .55$, $p < .01$). It therefore follows that hypothesis H2 is confirmed. For hypothesis H3 stating a negative correlation between positive emotions and turnover intention, the analysis did not show statistically significant results ($r_s = -.09$, $p = .08$). For hypothesis H4 stating a positive correlation between rumination and turnover intention, the analysis showed statisticallysignificant results ($r_s = .41$, $p < .01$). It therefore follows that hypothesis H4 is confirmed.Table 3 presents the correlations between the variables of the present research.

Regression: In order to examine whether negative emotions can be a predictor of turnover intention (H5), a simple regression analysis was performed. The model showed statistically significant results, confirming hypothesis H5. Thus, negative emotions are a predictor of turnover intention. It was found that 12.8% of the variation in turnover intention of airline workers was explained by negative emotions $R^2 = .128$, $F(1.364) = 53.6$, $p < .01$. The results of the simple regression analysis are shown in Table 4.

DISCUSSION

The present study investigated the correlation between positive emotions, negative emotions and rumination with turnover intention. Initially, we analyzed the relationship between rumination and emotions, positive (H1) and negative (H2), the relationship between

Table 2. Normality Test (Shapiro - Wilk)

	Skewness		Kurtosis		Shapiro-Wilk	
	Skewness	SE	Kurtosis	SE	W	p
Sex	-0.221	0.128	-1.962	0.254	0.632	<.001
Age	-0.187	0.128	-0.975	0.254	0.875	<.001
Education	1.196	0.128	0.764	0.254	0.693	<.001
Professional experience	-0.372	0.128	-1.323	0.254	0.780	<.001
Field experience	1.016	0.128	-0.292	0.254	0.696	<.001
Position in the organization	2.564	0.128	5.535	0.254	0.430	<.001
Turnover Intention	-0.0235	0.128	-0.5604	0.254	0.988	0.004
Rumination	1.0157	0.128	1.3801	0.254	0.940	<.001
Positive emotions	-0.4287	0.128	-0.0035	0.254	0.982	<.001
Negative emotions	1.2611	0.128	2.3295	0.254	0.911	<.001

Table 3. Correlation of Variables

Variables	1		2		3	4
1. Turnover intention	-					
2. Rumination	0.405	***	—			
3. Positive emotions	0.093		-0.080		—	
4. Negative emotions	0.356	***	0.552	***	-0.130*	—

Note. * p < .05, ** p < .01, *** p < .001

turnover intention and positive emotions (H3) and the relationship between turnover intention and rumination (H4). Finally, we investigated whether negative emotions can be a predictive factor of turnover intention (H5).

Table 4. *Simple Regression: the Effect of Negative Emotions on Turnover Intention*

Predictor	R^2	F-test statistics	B	T-test statistics
		Fp		*tp*
Negative emotions	.128	53.6.001	.358	7.32.001

More specifically, for hypothesis H1, no statistically significant relationship was found between positive emotions and rumination. The finding does not agree with corresponding studies, according to which a negative relationship is observed between rumination and positive emotions (Kircanski *et al*., 2017; Sariçam, 2016). In particular, according to research by Kircanski *et al*. (2017), high levels of momentary rumination cause a decrease in positive emotion, that is, in the aforementioned research, levels of rumination are affected by current events and not by significant life events. Herein may be the explanation for not finding a relationship, in the present research, between positive emotions and rumination, as important life events may have had more weight for the people who participated in the research. Additionally, research linking rumination to happiness levels (Sariçam, 2016) studies the contribution of subjective vitality to the change in happiness levels due to rumination. In the present study, it is possible that the parameter of subjective vitality does not influence the relationship between rumination and positive emotions, so that rumination is not related to a change in positive emotions in this particular sample. For hypothesis H2, it was found that a positive relationship is observed between negative emotions and rumination. The finding is in agreement with the results of the related research (Lyubomirsky & Nolen - Hoeksema, 1995; Kirkegaard Thomsen, 2006; Moberly & Watkins, 2008; Querstret & Cropley, 2012; Kircanski *et al*., 2017). Specifically, a positive relationship is observed between rumination and a range of negative emotions, most often sadness, depression and anxiety (Kirkegaard Thomsen, 2006). In particular, it seems that if levels of rumination increase, an increase in negative emotion is also observed (Kircanski *et al*., 2017).

Moberly and Watkins (2008) show that the degree of rumination after stressful situations is a determining factor in the intensity of stress that individuals will experience. Also in research by Lyubomirsky and Nolen - Hoeksema (1995), participants induced to rumination showed a tendency to give a negative biased interpretation for hypothetical situations, were observed to be pessimistic regarding future positive events while giving pessimistic explanations for interpersonal problems and hypothetical negative events. For hypothesis H3, the analysis did not show a statistically significant relationship between positive emotions and turnover intention. In recent studies in the field of nurses (Fei *et al*., 2023; Wang*et al*.,inpress), a negative relationship is observed between turnover intention and positive emotions. Research linking positive emotions to turnover intention (Siu *et al*., 2015), examines the component of psychological capital and the mediating role of job well-being in a sample of a limited age range and specific work situation. Consequently, in the present study the mechanism may differ precisely because of the large age dispersion, the opposite work sector as well as changes in the intermediate factors that constitute psychological capital and contribute to work well-being. Additionally, the study by Emberland and Rundmo (2010) shows a link between psychological well-being and turnover intention as a consequence of the job insecurity experienced by employees. In the present research and time point, the factor of job insecurity may not affect employees to such an extent as to disrupt well-being and cause turonverintention.

Regarding hypothesis H4, a positive relationship is observed between rumination and turnover intention. The finding is consistent with corresponding studies (Mullen *et al*., 2020; Richter *et al*., 2020; DuPlessis & DeBeer, 2022). Mullens *et al*. (2020), shows that high rumination is related to and can predict turnover intention. Work rumination, with the contribution of work silence, can lead to an increase in turnover intention (DuPlessis &DeBeer, 2022). In particular, it seems that the rumination of employees who feel job insecurity, regarding it, is related to turnover intention (Richter*et al*., 2020). Finally, regarding hypothesis H5, it was found that employees' negative emotions can predict turnover intention. Experiencing negative emotions contributes to depriving employees of their job satisfaction, resulting in the latter feeling burnout and cultivating an increased turnover intention (Lee & Ashforth, 1996). In fact, negative emotions can predict turnover intention (Griffeth *et al*., 2000). TenHoeve*et al*. (2020) trying to contribute to the prevention of turnover intention, study negative emotions and their work parameters and show that negative emotions at work cause a decrease in professional commitment and this in turn may lead to an increased turnover intention. In addition, the perceived credibility of management is affected by employees' negative emotions, which may lead to an increase in turnover intention (Mölders*et al*., 2019). Negative emotions, combined with emotional exhaustion and perceived managerial support, act as a predictor of turnover intention (Marchand &Vandenberghe, 2016).

Limitations and suggestions for further research: The limitations of the present study include the limitations of self-report instruments. Also, this study has drawn data from a sample of private sector employees without considering the public sector in aviation. Also, the timing of the survey possibly affected the availability of participation in it as the start of the tourist season implies increased obligations and limited time, since most Greek airports are characterized by seasonality. The study only examined negative emotions in terms of predicting turnover intention. The above limitations can be suggestions for future research. Consequently, it would be interesting to study the public sector of the aviation industry. Also, a study of longer duration might have provided more reliable data regarding sample size and time span. In addition, a future research could turn to a prediction analysis based on various factors or even on specialized components of the aviation industry after a thorough study of the relevant literature. By extension, a comparative study of the same parameters in the aviation industry of European countries, would contribute to the enrichment of the relevant literature.

Practical applications: The effective treatment of employees' negative emotions concerns the human resources departments of companies as the well-being of the staff is related in various ways to the sustainability of economic organizations (Luthans & Youssef, 2004; Kowalski & Loretto, 2017). Particularly in the aviation sector, the management of negative emotions needs special attention as it has been shown that these are, among other things, factors that affect the safe work behavior of Civil Aviation personnel (Zhang & Zhang, 2022) while hindering the well-being and mental health of flying employees (Cahill*et al*., 2021; Alaminos - Torres, 2022). Additionally, it appears that negative emotions are associated with increased levels of rumination which in turn is associated with increased levels of turnover intention (Maertz & Campion, 2004; Kircanski*et al*., 2017) while negative emotions are a predictive factor of this (Griffeth *et al*., 2000). Finding ways to prevent loss of human resources, i.e. countering turnover intention, is at the top of HR departments' priorities. The turn from intention into an actual departure translates into costs of re-hiring and training staff, deprivation of knowledge and reduction of productivity (Mukamel*et al*., 2009). This fact is of particular importance for the aviation sector as the losses require immediate replacement with trained personnel, in accordance with the requirements of the relevant international (ICAO, 2007; ICAO, 2008; ICAO, 2010) and national legislation (Ministry of Transport & Communications, 2003); Ministry of Infrastructure, Transport & Networks, 2011a; Ministry of Infrastructure, Transport & Networks, 2011b; CAA, 2013; CAA, 2016).

CONCLUSIONS

The present study among private sector aviation workers does not confirm the correlation between positive emotions with rumination and turnover intention. However, a positive correlation between negative emotions and rumination, a positive correlation between

rumination and turnover intention as well as that negative emotions can predict turnover intention were found, findings that are consistent with the relevant literature.

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