

MASTER MASTER IN MONETARY AND FINANCIAL ECONOMICS

MASTER'S FINAL WORK

DISSERTATION

SECURE MINDS, PRODUCTIVE WORK: LINKING ANXIETY AND PSYCHOLOGICAL SAFETY

MARYAM MOSHKELGOSHA



MASTER MASTER IN MONETARY AND FINANCIAL ECONOMICS

MASTER'S FINAL WORK

DISSERTATION

SECURE MINDS, PRODUCTIVE WORK: LINKING ANXIETY AND PSYCHOLOGICAL SAFETY

MARYAM MOSHKELGOSHA

SUPERVISION:

Prof. Maria João Coelho Guedes

OCTOBER - 2024

GLOSSARY

BAI – Beck Anxiety Inventory.

HADS – Hospital Anxiety and Depression Scale.

OLS – Ordinary Least Squares.

PPP – Purchasing Power Parity.

SD – Standard Deviation.

STAI – State-Trait Anxiety.

ABSTRACT

This study explores the relationship between anxiety, psychological safety, and

productivity in the workplace, addressing two primary questions: whether highly anxious

individuals can perceive psychological safety in their work environment, and if

psychological safety and anxiety influence productivity levels of the employees. Using a

quantitative methodology, a survey was conducted among employed individuals in Iran

and Portugal, collecting data from 184 participants.

The findings reveal a significant negative relationship between anxiety and perceived

psychological safety, indicating that increased anxiety is associated with feeling less safe

in the workplace. Additionally, the results highlight a positive relationship between

psychological safety and productivity, suggesting that environments fostering

psychological safety can improve employee performance. However, the study also

uncovers that anxiety does not have negative effects on productivity as hypothesized.

Overall, this research underscores the crucial role of mental health in workplace

dynamics, demonstrating that anxiety influences the perception of psychological safety

and showing that both anxiety and psychological safety significantly impact productivity.

These insights contribute to a deeper understanding of how organizations can create

supportive environments that promote mental well-being and enhance overall

performance.

KEYWORDS: Psychological Safety; Anxiety; Productivity.

JEL CODES: D91; I1.

ii

TABLE OF CONTENTS

Glossary	i
Abstract	ii
Table of Contents	iii
List of Tables	v
Acknowledgments	vi
1. Introduction	1
2. Literature Review	2
2.1. Anxiety	3
2.1.1. Anxiety and Perception	4
2.2. Psychological Safety	5
2.2.1. Psychological Safety and Perception	7
2.3. Productivity	9
2.3.1. Productivity and Psychological Safety	9
2.3.2. Productivity and Anxiety	11
3. Methodology	
3.1. Sample	
3.2. Variables	14
3.2.1 Productivity	
3.2.2 Psychological Safety	16
3.2.3. Anxiety	17
3.3. Control Variables	17
3.4. Model	20
3.5. Descriptives	21

4. Results and Discussion of Results	21
4.1. Multiple Regressions	21
4.2. Robust Control	26
5. Conclusion	29
6. Limitations and Future Research	30
References	32
Appendices	50

LIST OF TABLES

Table 1: Descriptive Statistics	15
Table 2: Regression Results for OLS (Fisrt Model)	21
Table 3: Regression Results for OLS (Second Model)	23
Table 4: Regression Results with Moderators	26
Table 5: Regression Results with Moderators	28

ACKNOWLEDGMENTS

I would like to express my deepest gratitude to my supervisor, Professor Maria João Coelho Guedes, for her unwavering professional support and the invaluable time she dedicated to my thesis. Her guidance and expertise have greatly contributed to improving the quality of my work, and for that, I am truly thankful.

I wish to thank my dear friends and colleagues, Ermita and Alexandre, for their constant help and encouragement throughout this journey. Your support and guidance made the long hours and hard work more bearable.

Lastly, I am profoundly grateful to my parents and my brother for their unconditional support and encouragement. Your belief in me has been a driving force in completing my master's degree, and I could not have done it without you.

1. Introduction

In today's fast-paced work environment, mental health has emerged as an important factor influencing both individual well-being and organizational productivity. One of the issues affecting mental health considerably is anxiety. Anxiety, defined by Freeman & Freeman (2012) as a mental and psychological state characterized by emotional reactions in response to future events, is affected by workplace pressures such as tight deadlines, competition, and the demand for perfection. The issues influencing anxiety and stress level have crucial impacts on how people perceive their surroundings and interpret their interactions which will further influence the efficiency and effectiveness of the performance (Eysenck et al., 2007).

Psychological safety, defined by Nembhard & Edmondson (2012) as a climate in which individuals feel safe to engage in open and productive discussions without fear of being embarrassed, criticized, or punished for speaking up, is a relatively recent idea in organizational research which concentrates on providing a safe and supportive work environment. However, most of these studies address how psychological safety can mitigate adverse effects of anxiety (Hebles et al., 2022) and only a limited amount of them paid attention to how an anxious person may not be able to feel safe in the workplace regardless of the way an environment is managed (American Psychological Association [APA], 2024). Psychological safety can help individuals take risks, express their opinions freely, and be more productive (Edmondson, 1999), but limited evidence exists regarding the ability of someone with high levels of anxiety to effectively perceive the safety being provided by the environment. The first question that will be answered in this study is:

On the other hand, by considering the impact of mental health on productivity and workplace harmony, this study seeks to investigate the potential impact of feeling psychologically unsafe in the workplace due to anxiety on productivity of the employees, answering the second question: Does psychological safety have a positive influence on productivity and whether this positive influence can be sabotaged by high level of anxiety.

As a result, the goals of this research are: first, to analyze how anxiety affects individuals' perception of the psychological safety in the workplace; and second, to determine how anxiety and psychological safety can influence the level of productivity. By doing so, this study contributes to a deeper understanding of the importance of mental health in the workplace and provides insights into creating environments that support mental well-being and enhance organizational performance.

The results of a survey distributed in Portugal and Iran shows that there exists a significant negative relationship between anxiety and psychological safety, confirming the potential negative effect of anxiety on feeling psychologically safe and on the other hand, in addition to the positive impact of psychological safety on levels of productivity, there is a positive significant relationship between anxiety and level of productivity. Based on the findings of this study, both anxiety and psychological safety improve performance and promote productivity of individuals.

2. LITERATURE REVIEW

Mental health is a state of mental well-being that has intrinsic and instrumental value and is integral to our overall well-being (WHO, 2024). It enables people to cope with the stresses of life effectively, realize their abilities, learn and work efficiently, and contribute to their community properly. Our brain works in multiple ways and has a great impact on various functions of human beings, such as cognition, emotion regulation, motor control,

sensory processing, hormonal regulation, and consciousness (Ackerman, 1992). One of the most important effects of brain function which greatly benefits mental health is the control of the perception and proper interpretation of events and surroundings. Our responses to the daily challenges of our lives are greatly affected by the way we interpret them, and these responses will be translated into the efficiency and effectiveness of our performance later. As a result, maintaining mental health is essential to ensure good productivity (de Oliveira et al, 2023), creativity (Knudsen et al, 2019), sound decision making (Cáceda, 2014), and for achieving better outcomes in life (Chu, 2022). It is now recognized that mental health encompasses a wide range of issues, among which anxiety and depression are the most impactful and extensively researched.

The potential impact of mental health issues on interpretation of surrounding rose the questions of; 1. Whether anxiety as a mental health issue that can have a noteworthy impact on the way people perceive their working environment and social surrounding (Tsuji & Shimada, 2018) can cause individuals to perceive their work environment less psychologically safe. 2. Although psychological safety has a positive impact on productivity (Lee et al., 2018), can anxiety sabotage this impact and decrease performance quality and overall productivity.

2.1. Anxiety

Anxiety is a state of "apprehension, tension, or uneasiness that stems from the anticipation of danger, which may be internal or external" (American Psychological Association [APA], 1987, p. 392). Spielberger (1985), on the other hand, conceptualized anxiety as the tendency to experience tension and worry in response to perceived threats, highlighting its multifaceted nature by introducing trait anxiety, when being anxious is a

personality characteristic, and state anxiety, which is the transitory form of anxiety that happens as a response to a certain event or to the anticipation of it temporarily.

According to Endler & Kocovsky (2001), state and trait anxiety are interrelated and influencing each other significantly. An individual's level of state anxiety is influenced by their level of trait anxiety and the nature of the perceived threat in a given situation (Endler, 1983; Eysenck, 2000). In addition, it has been argued that trait anxiety can be manifested through the symptoms of state anxiety, due to individuals with high levels of trait anxiety being more likely to respond to stressful situations with higher levels of state anxiety than individuals with lower levels of trait anxiety (Spielberger, 1966).

2.1.1. Anxiety and Perception

The focus of the study is on how anxiety can influence the interpretation process negatively. Literature shows that the perception process of the social surrounding happens by decoding the cues visible in people's facial expressions, vocal intonations and body movements which can be affected by mental health issues, including anxiety (Tsuji & Shimada, 2018). The potential impact of anxiety on perception is also known as interpretation bias. This phenomenon can be defined as «the tendency to interpret ambiguous situations as threatening, more easily (Muris et al., 2000, p. 184).

Mathews & MacLeod (1985) indicate that trait anxiety, as one of the aspects of anxiety in general, has a pronounced effect on how a person interprets the environment and according to Esysenck et al. (2005), individuals that have higher levels of trait anxiety are more sensitive to threat-related stimuli, as is shown in their greater tendency to react disproportionately to such stimuli. Furthermore, trait anxiety is often associated with cognitive biases and narrowed attention which forms one's perception negatively and leads to impaired communication with colleagues, feeling unsafe in the workplace,

et al., 2024). Kraus et al. (2021) claimed that people with high trait anxiety develop a negative and imprecise perspective about their environment, which can increase the frequency and intensity of state anxiety episodes.

Dember (1963) noted that anxiety narrows attentional focus and causes individuals to concentrate on perceived threats and ignore non-threatening stimuli. This influenced attention can lead to a distorted view of the environment and make highly anxious individuals more vulnerable to stress (Reiss, 1997; Spielberger, 1972; Spielberger et al., 1984). It is argued that high anxiety causes increased perceptual sensitivity, prompting people to perceive a broader range of situations as dangerous or threatening (Dember, 1963; Reiss, 1997; Spielberger, 1972; Spielberger et al., 1984). In addition, research has shown that mental distress in the form of anxiety can have a damaging influence on information processing and mental flexibility which can further cause perceptions of fear and avoidance of social interactions (Carr, 2012; Oommen, 2013; Ruini & Fava, 2009).

According to studies, although individuals are unique and elements such as gender, age, and personality, can influence the way a person copes with anxiety (Carver & Connor-Smith, 2009; Dias, 2010) noticeably, there is an apparent consensus in the literature indicating that people with high levels of anxiety are more vulnerable to stress and are more likely to respond to a wider range of situations as dangerous or threatening. (Spielberger et al., 1984) thus feeling less safe in general.

2.2. Psychological Safety

A considerable amount of our time is spent in offices and close to our colleagues, and as a result the workplace can have significant influence on mental health and anxiety level (Chopra, 2009). The excess of work-related stress, often caused by "unrealistic demands,

lack of support, unfair treatment, low decision latitude, lack of appreciation, effort—reward imbalance, conflicting roles, lack of transparency and poor communication" (Bhui et al, 2016), has been associated with lower levels of creativity (Anjum & Zhao, 2022), and decrease in productivity (Bui et al, 2021). Addressing these issues derived the introduction of the concept of psychological safety.

Psychological safety is broadly defined as an individual's belief that the workplace is managed in a way for them to feel secure in expressing themselves, taking risks, and engaging in open communication without fear of negative consequences. (Edmondson, 1999; Edmonson, 2004; Frazier et al., 2017; Kahn, 1990). It has been described as a critical factor in promoting the feeling of security and the adaptability to organizational changes, while reducing perceived threats, facilitates acceptance of change, and creates an environment that «tolerates failure without retaliation, renunciation, or guilt (Edmondson, 1999; Edmondson & Lei, 2014). The concept of psychological safety helps people overcome the defensiveness and anxiety associated with learning new information and going beyond conventional expectations motivating concentration on collective goals rather than self-protection (Edmondson, 1999). In a psychologically safe work environment, employees do not feel being rejected by their colleagues for saying what they think, they respect each other's competence, they can engage in constructive conflict or confrontation, they feel safe experimenting new things and taking risks and, they are more likely to speak up, exchange information freely, and share diverse perspectives (Collins & Smith, 2006; Detert & Burris, 2007; Edmondson, 1999; Liang et al., 2012; Siemsen et al., 2010). This type of supportive environment not only improves performance, reduces the perception of uncertainty, encourages a climate of trust, and enables employees to feel secure in their work environment, but also contributes to collective success of the organization (Dwivedi et al., 2023; Edmondson, 1999; Edmonson, 2004; Frazier et al., 2017; Kahn, 1990).

2.2.1. Psychological Safety and Perception

It is noteworthy to know that Kahn (1990) introduced four primary elements of antecedent to psychological safety: interpersonal relationships, group dynamics, leadership, and organizational norms.

First, a meaningful interpersonal interaction is characterized by mutual appreciation, respect and positive feedback, which enables an individual to feel valued. Such interactions create a supportive environment where people are encouraged to participate in work without fear of failing and to consider criticism as constructive rather than destructive (Dusenberry & Robinson, 2020; Kahn, 1990). However, cognitive biases often lead to misinterpretations in communication, particularly across diverse teams, which negatively impacts workplace relationships (Bodenhausen et al., 2009; Sias, 2005).

Second, group dynamics is known as the unconscious actions that form the conscious functioning of organizations, (Bion, 1961; Hirschhorn, 1988; Kahn, 1990; Slater, 1966) which can be characterized as a social system with a collective mentality beyond the individual mentalities of its members (Kahn, 1990; Wells, 1980). Only a safe and healthy interaction among the group members can lead to a strong and cohesive team dynamic (Johnson & Johnson, 1987). On the other hand, communication errors and misinterpretations lead to relationship conflicts reducing team cohesion (Sims et al., 2005).

Third, leaders play a major role in translating system demands and reinforcing behaviors that can create supportiveness and openness (Kahn, 1990; Louis, 1986). A controlling manager who exhibits inconsistency or unpredictability cannot be trusted and

negatively influences the working dynamic and behavioral patterns of employees leading to an environment filled with fear of uncertainty and distrust (Kahn, 1990). Conversely, those who value differences among individuals help to reduce perceived interpersonal risks (Dwivedi et al., 2023; Mayer et al., 2007; Nishii, 2013; Nishii & Mayer, 2009). Effective leadership relies heavily on clear communications while communication breakdowns can cause leaders to lose their influence, as misunderstandings cause distrust and reduce a leader's perceived competence (Tourish & Robson, 2006).

Forth, organizational norms represent shared expectations about the general behaviors within the group members (Hackman, 1986; Kahn, 1990). While rigid organizational norms weaken psychological safety within the workplace, flexible organizational norms develop openness and adaptability, supporting constructive communication, learning, and exploration of new possibilities. (Kahn, 1990; Shorris, 1981). Conversely, misunderstandings of cultural norms within an organization can cause resistance to change and internal conflict, impacting the overall functioning of the organization negatively (Schein, 2010).

As a result, elements of psychological safety share a common characteristic: They can be affected by wrong interpretations. All these elements are prone to personal misinterpretations and the negative impact of wrong perception on them will lead to feeling psychologically unsafe in the working environment (Bodenhausen et al., 2009; Schein, 2010; Sias, 2005; Sims et al., 2005; Tourish & Robson, 2006).

Studies like the ones conducted by Kahn (1990), Edmondson (1999), and Newman et al (2017), have pointed out the important aspects of a psychologically safe environment and its impact on employees' mental health, but few addressed a key factor: the necessity of a psychologically safe mindset to perceive an environment safe. This raises an

important question: if an individual inherently views many of their interactions with others and the surrounding environment as threatening and unsafe, can this person perceive a psychologically safe environment as truly safe to be able to effectively benefit from the opportunities being provided within such an environment?

Taking all into consideration, we hypothesize that:

Hypothesis 1: Anxiety has a negative relationship with psychological safety as highly anxious individuals would perceive the environments more threatening and thus less psychologically safe.

2.3. Productivity

Productivity, defined by Pritchard (1995) as the ratio of outputs over inputs, is one of the essential factors motivating researchers to take anxiety and psychological safety into consideration. Organizations seek changes to improve productivity and quality of outcomes, and mental health and organizational psychological safety demonstrated undeniable influence on these important issues.

2.3.1. Productivity and Psychological Safety

Studies highlighted the influence of psychological safety on performance effectiveness, indicating that a climate of trust and information sharing among the group members contributes to team effectiveness, suggesting that psychological safety positively affects team innovation and performance quality (Cole et al., 2022; Edmondson & Lei, 2014). Teams that build on, combine, and critically improve the ideas of their members, and allow individuals to speak up freely and exchange new ideas without fear of embarrassment, rejection or punishment (Bradley et al., 2012; Edmondson, 1999; Farh et al., 2010; Gong et al., 2013; Lee et al., 2018), can expect an improvement in the level of creativity, innovation and at last productivity (Kang et al., 2016; Lee et al., 2018; West

& Anderson, 1996). Psychological safety has been shown to positively impact employee engagement, task performance, satisfaction, and commitment (Dusenberry et al., 2020). Additionally, it has been claimed that psychological safety empowers team members to speak freely, cooperate, and resolve conflicts which improves positive effects and mitigates negative influences on team performance (Diegmann et al., 2017; Roberge & van Dick, 2010).

The positive effect of psychological safety on productivity is also observable through literature focused on the four main components of it: organizational norm, leadership, interpersonal relationship and group dynamic (Kahn, 1990).

Kozlowski & Ilgen's (2006) review of 50 years of research into team effectiveness highlights that climate and organizational norm are the key points for team cognitive processes and productivity. They characterized climate as a strategic imperative which shapes team consensus (Brennan, 2022). It has also been argued that the effectiveness of these strategies and the organizational performance is dependent on the values and cognitive bases of the leaders as well (Dwivedi et al., 2023; Hambrick & Mason, 1984) as leaders play an important role in constructing the organizational climate and influencing the psychological safety perceived by the employees (Brennan, 2022; Veltrop et al., 2021). On the other hand, Collins & Smith (2006) claims that substantial investment in employer-employee relationships, hence a high investment in psychological safety of the team through interpersonal relationship and group dynamic, motivates employees and provides the flexibility needed for innovative and dynamic work environments, leading to improvement in productivity and quality of performance.

On the other hand, studies show that a psychologically unsafe environment undermines openness to consideration of different views (Bradley et al., 2012; Salazar et

al., 2012; Veltrop et al., 2021) and this inability to adequately reflect on and integrate diverse views causes cognitive conflict which adversely affects decision-making process (Gameroet al., 2008; Gardner et al., 2012; de Dreu & Weingart, 2003; de Wit et al., 2012; Mooney et al., 2007; Veltrop et al., 2021) leading to loss of productivity. As a result, it is hypothesize that:

Hypothesis 2.1: Psychological safety has a positive impact on productivity, meaning that higher levels of psychological safety improve productivity level of the employees.

2.3.2. Productivity and Anxiety

Anxiety is a widely researched subject, and several studies have explored the relationship between anxiety and productivity (Beehr & Newman, 1978; Nixon et al, 2011; Yerker & Dodson, 1908). The findings are often contradictory. While many studies indicate that high levels of anxiety are related to reduced productivity (Eysenck et al., 2007; Lerner et al., 2004), others argue that there is no relationship between the two or even that anxiety can improve productivity (Dieguez, 2022; Elfering et al, 2005; Hardy & Hutchinson, 2007; Humphreys & Revelle, 1984; Maloney et al., 2014; McCarthy et al, 2016; Nixon et al, 2011).

As for the negative impacts of anxiety, literature shows that high levels of anxiety results in poor performance and productivity level (Erickson et al., 2009; Kawai et al., 2017; Marciniak et al., 2004). In addition, some studies have found that high trait anxiety negatively affects cognitive abilities and working memory functions by causing distractions (Dieguez, 2022; Eysenck et al., 2007; Hirsh, 2016; Salthouse, 2012) while others argue that it disrupts cognitive processes necessary for creative performance adversely affecting complex task performance which will cost overall productivity (Byron et al., 2011; Byron & Khazanchi, 2011; Dieguez, 2022; Fuster, 2002; Hirsh, 2016;

Judge & Bono, 2001; Shackman et al., 2006). Furthermore, a significant work performance impairment has been associated with severe anxiety and it is also argued to negatively influence interpersonal relationships at work (Erickson et al., 2009).

In contrast neutral effects of anxiety are demonstrated in other findings showing that although people with high levels of anxiety may take longer to perform a cognitive task efficiently, they can ultimately perform with same quality as those with lower levels of anxiety (Dieguez, 2022; Owens et al., 2014). In addition, Eysenck & Derakshan (2009) reported no significant difference in task performance among individuals with varying levels of anxiety, suggesting that individuals with high trait anxiety might only take longer to complete the task but they perform as well as the ones with low level of trait anxiety (British Economic Social and Research Council, 2009; Dieguez, 2022; Reio & Callahan, 2004).

However, positive influence of anxiety on levels of productivity was argued by Mughal et al. (1996) who found that employees with high anxiety had better sales performance and finer results, as they were exerting more effort. This positive effect of anxiety on performance has been demonstrated in other studies as well (Al Majali, 2020; Dieguez, 2022; Hardy & Hutchinson, 2007; Mellifont et al., 2016a; Mellifont et al., 2016b; Perkins & Corr, 2005). According to Perkins & Corr (2005), worrying can benefit performance, especially in individuals with higher cognitive ability, assisting with the planning and regulation of behavior. Another study indicated that state worry enhances performance on a visual working memory task and improves processing efficiency in individuals with high trait anxiety helping them to perform better on verbal and spatial working memory tasks (Dieguez, 2022; Walkenhorst & Crowe, 2009). On the other hand, Cheng & McCarthy (2018) suggest that anxiety in form of workplace anxiety can boost

performance through strategical planning for reaching the goal of the task in hand (Dieguez, 2022; Cheng & McCarthy, 2018). Furthermore, according to Righi et al. (2009), anxiety activates cognitive strategies to assist anxious individuals in performing more efficiently, as a result anxiety is not bound to end in impaired productivity (Gu et al., 2010). It is important to point out that according to Gerard (1958), anxiety appears when more neurons become engaged and only moderate level of anxiety is predicted to improve performance while higher level of neuronal activity causes the performance to become more rigid and eventually deteriorate.

In conclusion, we cannot be sure about the effect of anxiety on productivity as the literature is mixed. However, given that psychological safety is highly dependent on an individual's perception, and that anxiety can lead to misinterpretation of one's environment, we hypothesized that:

Hypothesis 2.2: Although literature is mixed, anxiety has a negative impact on productivity as perceiving a working place as threatening diminishes quality of performance and hence productivity.

3. METHODOLOGY

To test the main hypotheses, a quantitative approach using a cross-sectional survey, distributed between employed individuals in Iran and Portugal, was utilized.

3.1. Sample

The focus of the study was on individuals from Iran and Portugal who were currently employed, so the unemployed respondents were excluded. The participants varied in terms of age, gender, education level, job position, marital status, parental status, immigration status and therapy attendance. Data was collected over a period of two

months, from May to July 2024 by a survey that was designed to collect data allowing for the proper examination of potential associations between psychological safety, anxiety and productivity. The survey was created in Qualtrics and was distributed online through email and social media platforms (Telegram and WhatsApp) to achieve a broader target population. Ethical approval for this research was sought and received from the ISEG Ethics Review Board and participants were informed about the study's purpose and the time required to complete the survey, assured of their anonymity, and in case of some questions (e.g. HADS-A and Psychological Safety), provided with the instructions on how to answer the questions.

The survey has been sent to 500 people in Iran and 20100 people in Portugal. As a result, we obtained 109 validated answers from Iran and 75 validated answers from Portugal, totalizing to 184 answers.

3.2. Variables

The following section presents the dependent, independent and control variables used in the study (for the labels and descriptions of the variables, see Appendix A).

To better understand the sample characteristics, the average age of participants in the study is 45 years. According to the results approximately 17% of participants are immigrants and about 11% of them receive therapy support. As for the education level of the respondents, the average education level is 1.66, indicating that on average, participants degree of education fall between the bachelor's and master's degree categories. On the other hand, job position within the organization shows a mean of 1.67, suggesting that the most common job position in the dataset is somewhere between non-managerial and managerial or supervisory positions. Finally, variable corresponding to gender has a mean of 0.32 showing that 32% of participants are female and 68% are male.

Table 1 shows the descriptive statistics of the model variables.

Table 1: Descriptive Statistics

VARIABLE	N	Mean	SD	Min	Max
Psychological Safety	184	58.5	14.68801	14	84
Anxiety	184	6.690217	4.009103	0	20
In(Productivity)	184	4.229237	2.480524	0.9042511	9.208145
In(Psychological Safety)	184	4.028411	0.3102084	2.639057	4.430817
ln(Anxiety)	182	1.712238	0.6899741	0	2.995732
Age	184	45.11957	11.74766	21	69
Education	184	1.657609	0.7803227	0	3
Position	184	1.668478	0.8056399	0	3
Gender	184	0.3206522	0.4680008	0	1
Immigrant	184	0.1684783	0.3753117	0	1
Therapy	184	0.1141304	0.3188372	0	1

3.2.1 Productivity

The variable of productivity is used as the dependent variable of the second model. To address this variable, participants were requested to provide information about their average wage and working hours. To calculate the productivity on this basis in a way to help with comparability of the data between the two countries, the real purchasing power of the wage of participants was calculated based on the implied Purchasing Power Parity (PPP) conversion rate of each country which indicates the relative cost of goods and services in the country compared to US dollar in terms of the exchange rate. PPP provides

a standardized metric to assess the relative purchasing power of different economies, adjusting for price-level differences which provides a stable more accurate assessment of inflationary impacts (International Labour Organization, 2023). According to International Monetary Fund (IMF), the implied PPP conversion rate of Rial of Iran per international dollar is 115.67 thousand and the implied PPP conversion rate of Euro of Portugal is 0.57 per international dollar (International Monetary Fund [IMF], 2024). The nominal wage of the participants, divided by the PPP, gives the real wage of the respondents. This real wage is considered as the output of each person, which is divided by working hours, will generate the level of productivity of each employee. Equation 1 presents the formula for calculation of productivity.

The variable of psychological safety is used as the dependent variable of the first model. The normal design of testing psychological safety is through teams withing am organization. However, the aim in this study is to see the effect of anxiety on perception of psychological safety regardless of the team or the organization, proving that it is more likely for this factor to be perceived by people who are less anxious than those who have high levels of anxiety. To address this concern, 14 questions have been designed in a way to capture the feeling of respondents regarding psychological safety of their working environment. The questions' design was inspired by the work of Edmondson (1999) on psychological safety. The questions have been divided into 2 sections: one section is about the way respondents feel in relationships with their colleagues and the other is focused on the way they feel in relationship with their boss or supervisor. Each question is rated on a Likert 6-point, ranging from 1 (very rarely or never true) to 6 (very often or

always true). Psychological safety score is calculated by adding the scores of each item. The total will be from 14 to 84. Cronbach's alpha value of 0.92 suggests that the items on the scale reliably measure psychological safety level (De Vellis, 1991).

3.2.3. *Anxiety*

The variable of anxiety is used as the independent variable of both first and second models. Anxiety is measured using the Hospital Anxiety and Depression Scale specific to anxiety (HADS-A) which was devised by Zigmond and Snaith (Stern, 2014). This scale was developed as a brief measure of generalized symptoms of anxiety and fear, and it can be used to detect and quantify the magnitude of symptoms of anxiety (Avinir et al., 2022; Julian, 2011). This scale consists of 7 questions and respondents are required to indicate how they currently feel. Each question is rated on a 4-point Likert scale and ranges from 0 to 3 which vary depending on the item (e.g., "I can sit still and feel relaxed" scores as 0 for "definitely" to 3 for "not at all"; and "I feel restless as I have to be on the move" scores as 0 for "not at all" to 3 for "very much indeed"). Scoring is accomplished by summing the scores of each item. Total ranges from 0 to 21 (Julian, 2011). Studies regarding compatibility and validity of HADS-A test indicate that there is high association between this test and Sate and Trait Anxiety Inventory (STAI-T and STAI-A) (Avinir et al., 2022) supporting that this scale can provide a valid evaluation of trait and state anxiety. In addition, the Cronbach's alpha of 0.84 indicates a good reliability of the scale (De Vellis, 1991).

3.3. Control Variables

The control variables are included based on their potential impact on feeling psychologically safe. Therapy attendance (*Therapy*) is a dummy variable that equals to one if respondents confirmed they attend therapy regularly and zero if they do not.

Previous studies show that work counseling improves workplace well-being and employees' psychological health (Prudenzi et al., 2022) and it supports employees to feel less distressed and be able to adapt to new changes in workplace (Moralo & Graupner, 2022) which improves the level of perceived psychological safety in the workplace. Additionally, counseling and therapy attendance is indicated to have a positive impact on performance quality and productivity of employees (Ekpang, 2015).

Immigration status (*Immigrant*) is a dummy variable that equals one if the participants are immigrants and zero otherwise. Highly educated migrants feel more satisfied with their jobs after immigration considering other aspects affecting job satisfaction and psychological safety (Balasubramanian et al., 2016; Wang & Jing, 2018; Woodend & Arthur, 2017). In a related line, Dibble et al. (2019) shows the impact of cultural intelligence on improvement in psychological safety. In addition, skilled immigrants have positive influence on productivity of the organization and increase in wage of the native workers as well as themselves (Grossmann & Stadelmann, 2013; Morales, 2024).

Job position (*Position_encoded*) which has been ranked based on the hierarchy of the participant within the organization. This categorical variable is equal to 1 for non-managerial positions, 2 for managerial and supervision positions and 3 for top management positions. The report of American Psychological Association (2024) indicated a positive relationship between job position within the organizations and feeling psychologically safe, hierarchy stability is shown to have a positive impact on feeling in control and improvement in performance (Knight & Mehta, 2017) and according to Van Kleef & Lange (2020), job position within the organization has a positive impact on emotional behavior and perception of individuals which influences their feelings toward psychological safety. Similarly, job security and stability increase job satisfaction which

in return positively influences productivity, indicating that promotion and job rotation can improve productivity within an organization (Hidayat et al., 2024; Okpo et al., 2024).

Age (*Age*) is the biological age of the participants. According to Carls & Boehm (2022), age diversity has a negative relationship with psychological safety and can be considered as a risk factor. In addition, there is a noteworthy relationship between age and productivity that can be explained based on knowledge intensity of the services and wage (Roosaar, 2019).

Gender (*Gender_encoded*) is a dummy variable has a value of 1 for female and 0 for male. According to Cole et al. (2022), although women feel more psychologically safe with other women, there is no difference in psychological safety between gender homogenous and heterogenous teams. On the other hand, according to Petersen et al. (2007) gender has an influence on wages and accordingly productivity of the employees. They explain that two-thirds of the wage gap is due to productivity differences between men and women.

The educational level (*Education_encoded*) is the control variable used to isolate the impact of anxiety and psychological safety on productivity. It is defined as the educational degree, or the equivalence of the degree completed by the participants. This categorical variable is equal to 1 for Bachelor and equivalent degrees, 2 for Master and 3 for Doctorate (PhD). Past studies show the effect of education level on social trust, psychological distress and adaptability (Chlapecka et al., 2023; Handoyo & Sulistiani, 2018; Muñoz & Santos-Lozada, 2021) all of which are related to psychological safety and can show the potential influence of educational level on feeling psychologically safe. Furthermore, studies emphasize the improving effect of high-quality education on level of productivity (Égert et al., 2024; Oxenham, 1984). Education level also impact the

income level of employees positively (Égert et al., 2024; U.S. Bureau of Labor Statistics, 2020) and has a negative relationship with working hour (Ye, 2021).

Appendix A contains definitions and detailed descriptions of the variables.

3.4. Model

To assess the relationship between anxiety and psychological safety and the impact on productivity, an Ordinary Least Square (OLS) regression is used. Two regressions were conducted: the first one was providing information regarding the effect of anxiety on perception of psychological safety and the second one was performed to address the impact of anxiety and psychological safety on productivity level. The regression models use robust standard errors to control for potential heteroskedasticity.

The first regression, which aims to test the impact of anxiety on feeling psychologically safe, is presented in equation 2:

$$PS_score_i = \alpha_0 + \alpha_1 Anxiety_Score_i + \alpha_2 Therapy_i + \alpha_3 Immigrant_i + \alpha_4$$

$$Position_encoded_i + \alpha_5 Education_encoded_i + \alpha_6 Gender_encoded_i + \alpha_7$$

$$Age_i + \varepsilon_i$$
(2)

The second regression is conducted to determine the influence of anxiety and feeling psychologically safe on the level of productivity of the individuals which is calculated by real wage per hour of employees. The model used for this regression is presented in equation 3:

$$In_Productivity_i = \beta_0 + \beta_1 In_Anxiety_score_i + \beta_2 In_PS_score_i +$$

$$\beta_3 Education_encoded_i + \beta_4 Position_encoded_i + \beta_5 Age_i + \beta_6 Immigrant_i +$$

$$\beta_7 Gender_encoded_i + \beta_8 Therapy_i + \eta_i$$
(3)

3.5. Descriptives

According to Table 2, Psychological Safety (PS_score), has an average of 58.5, ranging between 14 to 84. The results indicated that participants generally perceive a moderate to high level of psychological safety. However, a considerable standard deviation (SD) of 14.69 indicates variability in individuals' perception of the target population.

Anxiety (Anxiety_score) measures the anxiety score of participants which ranges from 0 to 20. The mean of anxiety score is 6.690, indicating that participants report a moderate level of anxiety on average.

As for the Productivity the mean is 4.2, ranging from 0.90 to 9.21. This result together with the substantial standard deviation of 2.48 implies a diverse distribution of productivity levels across the employees included in this sample.

4. RESULTS AND DISCUSSION OF RESULTS

4.1. Multiple Regressions

Table 2 presents the regression results, using the Ordinary Least Squares (OLS) method with robust standard errors between psychological safety and anxiety.

Table 2: Regression Results for OLS (Fisrt Model)

VARIABLE	Psychological Safety	Psychological Safety	Psychological Safety
		(Iran)	(Portugal)
Anxiety	-0.937 ***	-1.194***	-0.759**
	(0.319)	(0.432)	(0.357)
Position	2.538 *	1.669	1.217
	(1.409)	(1.974)	(1.781)
Gender	0.205	-1.242	-2.189

	(2.301)	(3.528)	(2.722)
Education	-0.493	0.042	3.478*
	(1.284)	(1.790)	(2.001)
Immigrant	6.627 **	8.065**	-0.097
	(2.521)	(3.460)	(3.420)
Therapy	-7.212*	-2.695	-10.018
	(3.899)	(4.223)	(6.822)
Age	-0.277 ***	-0.178	-0.005
	(0.091)	(0.134)	(0.159)
Constant	73.502 ***	67.391***	65.779***
	(5.474)	(7.740)	(8.207)
Observations	184	109	75
R-squared	0.16	0.15	0.24

Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

The relationship between Anxiety level of participants and their perception of psychological safety is negative and statistically significant at a significance level of p<0.001 in all models. Accordingly, higher levels of anxiety are associated with lower levels of perceiving psychological safety supporting Hypothesis 1. These results align with prior research that underscores the impact of high anxiety on perceptual sensitivity, leading to misinterpretation of threat in the environment and feeling unsafe in workplace (Dember, 1963; Kraus et al., 2021; Muschalla, 2016). Furthermore, the control for the specific country supports the findings as anxiety has a negative significant relationship with psychological safety in both Iran and Portugal as well.

The results regarding the control variables show that immigration has a statistically significant positive effect on feeling psychologically safe. One possible explanation for

this result may lie in the reasons for immigration. A prominent motivation for immigration is the pursuit of better economic opportunities and a more stable life (Carling, 2024; European Parliament, 2024) which might affect their perception of psychological safety in the workplace in the host country. Regarding this subject, more detailed research about their educational and cultural background, duration of immigration (Okafor & Kalu, 2024) and language proficiency (Bloemen, 2023) is required to provide a better explanation of these results.

Conversely, Age is negatively related to psychological safety, suggesting that older employees will have a negative influence on psychological safety and according to Carls & Boehm (2022), it can be considered as a risk factor for psychological safety.

Both therapy attendance and job position within the company showed marginal significance with job position having a positive and therapy attendance having a negative impact on feeling psychologically safe.

The second model focuses on the potential influence of anxiety and psychological safety on level of productivity which is measure by real wage per hour. Here, the dependent variable is Productivity, Table 3 presents the OLS regression results with robust standard errors.

Table 3: Regression Results for OLS (Second Model)

VARIABLE	Productivity	Productivity	Productivity
	·	(Iran)	(Portugal)
Psychological Safety	1.791 ***	-0.144	-0.038
	(0.549)	(0.258)	(0.307)
Anxiety	0.488**	-0.267**	0.029
	(0.195)	(0.127)	(0.161)
Position	0.420 **	0.148	-0.059

	(0.212)	(0.098)	(0.118)
Education	-0.629 ***	0.044	-0.149
	(0.193)	(0.107)	(0.125)
Gender	0.364	-0.049	-0.349*
	(0.395)	(0.178)	(0.192)
Immigrant	1.883 ***	0.751***	0.600**
	(0.411)	(0.263)	(0.253)
Therapy	-0.300	-0.101	-0.356**
	(0.566)	(0.188)	(0.182)
Age	-0.050 ***	0.026***	-0.003
	(0.016)	(0.006)	(0.007)
Constant	-1.648	1.610	7.566***
	(2.544)	(1.180)	(1.544)
Observations	182	109	73
R-squared	0.32	0.34	0.20

Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Results for the whole sample show a strong positive and significant relationship between psychological safety and productivity with p < 0.01, supporting the Hypothesis 2.1 which suggests that a more psychologically safe workplace enhances the level of productivity of the employees. This results are aligned with the previous studies representing the significant positive effect of psychological safety on productivity level (Dusenberry et al., 2020; Lee et al., 2018; Lee et al., 2023; Li & Tan, 2013; Li & Yan, 2009; Singh et al., 2013). However, the country specific regression did not support the positive effect of psychological safety on productivity as this variable is insignificant in both Portugal and Iran contradicting the literature.

In addition, the analysis shows a significant positive relationship between anxiety and productivity indicating that higher level of anxiety leads to better productivity. Although these findings contradict the Hypothesis 2.2 stating that anxiety has a negative impact on productivity, they support the line of studies suggesting that moderate levels of anxiety can improve performance and productivity level of employees (Cheng & McCarthy, 2018; Gerard, 1958; Perkins & Corr, 2005).

As for control variables, there is a significant negative relationship between education level and productivity, indicating that more educated individuals tend to be less productive in the workplace. To confirm the validity of these results, further inclusion of country of education is important as according to Magableh et al. (2022), developing countries struggle with increasing economic performance due to lack of proper education. Furthermore, mismatch between job and education can cause job dissatisfaction and wage deprivation (Njifen, 2024).

Another variable showing a significantly negative relationship with productivity is age, indicating that productivity tends to decrease as employees get older. These results are supported by literature indicating this negative impact (Børing & Grøgaard, 2023) which can be explained due to changes in physical stamina and possible impairments in working memory (Klencklen et al., 2017; Li et al., 2022) and difficulties adapting to new technologies (Acharjya & Das, 2022; Morris et al., 2005). In addition, the findings suggest, "Productivity growth is more sensitive to workforce aging in urban areas than in nonurban regions. [...] workforce aging weakens innovative and knowledge-intensive activities, which are highly concentrated in cities" (Bode et al., 2023, p. 409). Conversely, this variable has a significant positive impact on productivity level of the employees in Iran. This positive impact can also be supported by literature regarding the improving

impact of age diversity on level of productivity (Backes-Gellner & Veen, 2013; De Meulenaere et al., 2016).

On the other hand, there is a positive and statistically significant relationship between immigration status and employee's productivity, suggesting that immigrants are more productive and earn a higher wage per hour in comparison to those who work in their hometown. Considering the demographic of the respondents, most of the immigrants are highly educated and studies indicate that skilled and educated immigrants contribute positively to the productivity level of the economy which leads to increase in income level of workers (Jaumotte et al., 2016; OECD, 2018; Peri et al., 2014). These results are further supported by the country specific regressions which indicate the positive and significant association between immigration status and productivity in both Iran and Portugal.

Additionally, hierarchical status indicates a positive influence on productivity. The positive impact of job position within the organization on wage level of employees (Egger et al., 2022; Meagher, 2001) can support the results of this study.

4.2. Robust Control

In order to test the robustness of the results, several additional regressions were conducted. First, Immigration status and age were used as moderators as several studies have shown that they have considerable influence on anxiety level of individuals (Acharya et al., 2024; Hadjimina & Furnham, 2017; Krasucki et al., 1998; Nguyen & Nguyen, 2024). Table 4 represents the regression results using the moderators.

Table 4: Regression Results with Moderators

VARIABLE	Psychological Safety
----------	----------------------

Anxiety	-0.087 **
	(0.040)
Position	0.044 *
	(0.026)
Gender	-0.002
	(0.050)
Therapy	-0.190
	(0.094)
Education	-0.028
	(0.032)
Immigrant	0.174
	(0.256)
Immigrant x Anxiety	-0.020
	(0.163)
Age	-0.016 **
	(0.006)
Age x Anxiety	0.006
	(0.003)
Constant	4.886 ***
	(0.292)
Observations	182
R-squared	0.15

Robust standard errors in parentheses. *** p < 0.01, ** p < 0.05, * p < 0.1

The findings show a significant negative association between anxiety and psychological safety, which further supports hypothesis 1 and results of the other regressions and show no moderator effect of immigrant status or age.

Then for the second model, age and gender were incldued as moderators because previous studies have shown they have significant influence on level of productivity (Grekou et al., 2023; Pfeifer & Wagner, 2014). Table 5 shows the regression results using these moderators.

Table 5: Regression Results with Moderators

VARIABLE	Productivity
Psychological Safety	1.786 **
	(0.691)
Anxiety	0.302
	(0.255)
Position	0.400*
	(0.217)
Gender	-0.870
	(5.075)
Gender x Psychological Safety	0.066
	(1.254)
Gender x Anxiety	0.582
	(0.422)
Education	-0.663**
	(0.198)
Immigrant	1.928***
	(0.462)
Therapy	-0.271
	(0.594)
Age	0.149
	(0.252)
Age x Psychological Safety	-0.050

	(0.059)
Age x Anxiety	0.004
	(0.022)
Constant	-10.250
	(12.609)
Observations	182
R-squared	0.33

Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

According to the findings of the regression with moderators, the positive relationship between psychological safety and productivity is further supported, but there is no evidence of moderation effects for age and gender.

5. CONCLUSION

This study examined how anxiety influences an individuals' perception of the level of psychological safety present in their surroundings, indirectly affecting their level of productivity. The findings indicate that employees with high levels of anxiety are more prone to perceive their work environments as psychologically unsafe. In addition, studies show that when employees feel psychologically safe, they are better equipped to manage feelings of anxiety (Edmondson, 1999; Nembhard & Edmondson, 2012; Frazier et al., 2007). This relation suggests that organizational interventions aimed at enhancing psychological safety must also consider individual differences in anxiety levels to be truly effective.

The result of this study showed a positive influence of anxiety and psychological safety on the level of productivity. This positive effect of anxiety on productivity indicates that moderately anxious individuals may perform even more effectively in comparison to

a person with low levels of anxiety. It is noteworthy that most participants in this research reported moderate levels of anxiety indicating that more research is required to indicate the true relationship between high anxiety levels and productivity.

The implications of these findings are significant for organizations that are trying to improve their employees' well-being and performance. Implementing strategies that increase psychological safety in the organization can lead to improved employee engagement, innovation, and productivity. In addition, providing resources and support for managing anxiety can further strengthen these outcomes, and create a more harmonious working environment.

In conclusion, addressing anxiety in the workplace through the lens of psychological safety offers a comprehensive approach to help well-being and productivity of the employees in the organization. By acknowledging and supporting those with anxiety and by providing environments where employees feel psychologically safe, organizations can not only improve individual outcomes but also drive collective success.

6. LIMITATIONS AND FUTURE RESEARCH

As with any study, there are some limitations to acknowledge. First, the sample size of this study is medium in size. Future studies can include more respondents for other geographies and compare how the results hold. Second, the sample comes from different organizations and various contexts. Future research can concentrate on either similar education subjects or within a single organization and see how within the same context the results are replicable. Third, self-report answers to the questions can be misleading and even though the surveys were completed anonymously, the participants may provide false answers to the questions. Future research can build upon these results and complement with qualitative study, such as interviews done by a certified psychologist to

consider non-verbal communications. Forth, future research can have a longer survey available and conduct additional test of anxiety with other scales, including the State-Trait Anxiety Inventory (STAI) and the Beck Anxiety Inventory (BAI). Inclusion of these tests could further validate the results of the anxiety test conducted by HADS-A. Fifth, this study has been done in two culturally distinct populations (Iran and Portugal), the study does not explicitly account for cultural factors due to the lack of available research in this particular area. Future research could explore the cultural influence on perception of psychological safety.

Additionally, lack of research regarding the potential impact of education level of employees on feeling psychologically safe provides a great opportunity to explore this relationship further. On the other hand, most of the studies on immigration and educated immigrants in the workplace concentrate on the macroeconomic impacts of immigration on the whole economy. Future research can focus on the impacts of immigration on immigrants themselves, indicating the effects of immigration on productivity level and feeling psychologically safe in the host country of immigrants.

REFERENCES

- Acharjya, B. and Das, S. (2022). Adoption of e-Learning during the COVID-19 pandemic: The moderating role of age and gender. *International Journal of Web-Based Learning and Teaching Technologies (IJWLTT)*, 17(2), pp.1-14.
- Ackerman, S. (1992). *Discovering the brain*. Washington, DC: National Academies Press (US).
- Ackerman, S. (1992). *Discovering the brain*. Washington, DC: National Academies Press (US). Available from: https://www.ncbi.nlm.nih.gov/books/NBK234151/.
- Al Majali, S. (2020). Positive anxiety and its role in motivation and achievements among university students. *International Journal of Instruction*, 13, pp. 975-986.
- American Psychological Association (2024). 2024 work in America survey:

 Psychological safety in the changing workplace. Washington, DC: American Psychological Association.
- Anjum, A. and Zhao, Y. (2022). The impact of stress on innovative work behavior among medical healthcare professionals. *Behavioral Sciences*, 12(9), p.340.
- Arnetz, B.B., Lucas, T. and Arnetz, J.E. (2011). Organizational climate, occupational stress, and employee mental health: mediating effects of organizational efficiency. *Journal of Occupational and Environmental Medicine*, 53(1), pp.34-42.
- Avinir, A., Dar, S., Taler, M., Haj, O., Gothelf, D., Kopylov, U., Ben-Horin, S. and Mekori-Domachevsky, E. (2022). Keeping it simple: mental health assessment in the Gastroenterology Department–using the Hospital Anxiety and Depression

- Scale (HADS) for IBD patients in Israel. *Therapeutic Advances in Gastroenterology*, 15, p.17562848211066439.
- Backes-Gellner, U. and Veen, S. (2013). Positive effects of ageing and age diversity in innovative companies—large-scale empirical evidence on company productivity. *Human Resource Management Journal*, 23(3), pp.279-295.
- Balasubramanian, M., Spencer, A.J., Short, S.D., Watkins, K., Chrisopoulos, S. and Brennan, D.S. (2016). Job satisfaction among 'migrant dentists' in Australia: implications for dentist migration and workforce policy. *Australian Dental Journal*, 61(2), pp.174-182.
- Beehr, T.A. and Newman, J.E. (1978). Job stress, employee health, and organizational effectiveness: A facet analysis, model, and literature review 1. *Personnel Psychology*, 31(4), pp.665-699.
- Bhui, K., Dinos, S., Galant-Miecznikowska, M., de Jongh, B. and Stansfeld, S. (2016).

 Perceptions of work stress causes and effective interventions in employees working in public, private and non-governmental organisations: a qualitative study. *BJPsych Bulletin*, 40(6), pp.318-325.
- Bloemen, H.G. (2023). Language proficiency of migrants: the relation with job satisfaction and skill matching. *Empirical Economics*, 65(6), pp.2899-2952.
- Bode, E., Dohse, D. and Stolzenburg, U. (2023). Aging and regional productivity growth in Germany. *Review of Regional Research*, 43(3), pp.409-432.
- Bodenhausen, G.V., Todd, A.R. and Richeson, J.A. (2009). Controlling prejudice and stereotyping: Antecedents, mechanisms, and contexts. *Perspectives on Psychological Science*, 4(5), pp. 421-438.

- Børing, P. and Grøgaard, J.B. (2023). Do older employees have a lower individual productivity potential than younger employees. *Journal of Population Ageing*, 16(2), pp.369-397.
- Brennan, N.M. (2022). Is a Board of Directors a Team. *The Irish Journal of Management*, 41(1), pp.5-19.
- Bui, T., Zackula, R., Dugan, K. and Ablah, E. (2021). Workplace stress and productivity: a cross-sectional study. *Kansas Journal of Medicine*, 14, p.42.
- Byron, K. and Khazanchi, S. (2011). A meta-analytic investigation of the relationship of state and trait anxiety to performance on figural and verbal creative tasks. *Personality and Social Psychology Bulletin*, 37(2), pp.269-283.
- Cáceda, R., Nemeroff, C.B. and Harvey, P.D. (2014). Toward an understanding of decision making in severe mental illness. *The Journal of Neuropsychiatry and Clinical Neurosciences*, 26(3), pp.196-213.
- Carling, J. (2024). Why do people migrate? Fresh takes on the foundational question of migration studies, *International Migration Review*, p. 01979183241269445.
- Carls, T.B. and Boehm, S.A. (2022). Age diversity as a risk factor for psychological safety in teams of older employees. In: *Academy of Management Proceedings*, Vol. 2022, No. 1, p. 17907. Briarcliff Manor, NY: Academy of Management.
- Carr, A. (2012). Clinical psychology: An introduction. Abingdon: Routledge.
- Carver, C.S. and Connor-Smith, J. (2010). Personality and coping. *Annual Review of Psychology*, 61(1), pp.679-704.

- Chen, L., Liu, X., Weng, X., Huang, M., Weng, Y., Zeng, H., Li, Y., Zheng, D. and Chen, C. (2023). The emotion regulation mechanism in neurotic individuals: The potential role of mindfulness and cognitive bias. *International Journal of Environmental Research and Public Health*, 20(2), p.896.
- Cheng, B.H. and McCarthy, J.M. (2018). Understanding the dark and bright sides of anxiety: A theory of workplace anxiety. *Journal of Applied Psychology*, 103(5), p.537.
- Chlapecka, A., Wolfová, K., Fryčová, B. and Cermakova, P. (2023). Educational attainment and anxiety in middle-aged and older Europeans. *Scientific Reports*, 13(1), p.13314.
- Chopra, P. (2009). Mental health and the workplace: issues for developing countries. *International Journal of Mental Health Systems*, 3, pp.1-9.
- Chu, T., Liu, X., Takayanagi, S., Matsushita, T. and Kishimoto, H. (2023). Association between mental health and academic performance among university undergraduates: The interacting role of lifestyle behaviors. *International Journal of Methods in Psychiatric Research*, 32(1), p.e1938.
- Cole, C., Jablokow, K., Mohammed, S. and Miller, S. (2022). The impact of gender on individual perceptions and team psychological safety in engineering design teams.
 In: Proceedings of the International Design Engineering Technical Conferences and Computers and Information in Engineering Conference, Vol. 86267, p. V006T06A027. New York: American Society of Mechanical Engineers.
- Cole, C., Marhefka, J., Jablokow, K., Mohammed, S., Ritter, S. and Miller, S., (2022).

 What is the relationship between psychological safety and team productivity and

- effectiveness during concept development? An exploration in engineering design education. *Journal of Mechanical Design*, 144(11), p.112301.
- De Meulenaere, K., Boone, C. and Buyl, T., (2016). Unraveling the impact of workforce age diversity on labor productivity: The moderating role of firm size and job security. *Journal of Organizational Behavior*, 37(2), pp.193-212.
- De Oliveira, C., Saka, M., Bone, L. and Jacobs, R., (2023). The role of mental health on workplace productivity: a critical review of the literature. *Applied Health Economics and Health Policy*, 21(2), pp.167-193.
- DeVellis, R.F. (1991). *Scale development: Theory and applications*. Applied Social Research Methods Series, Vol. 26. Newbury Park, CA: Sage Publications.
- Dember, W.N. (1963). *The psychology of perception*. New York: Holt, Rinehart and Winston.
- Dias, C., Cruz, J.F. and Fonseca, A.M. (2010). Coping strategies, multidimensional competitive anxiety, and cognitive threat appraisal: Differences across sex, age, and type of sport. *Serbian Journal of Sports Sciences*, 4(1), pp. 23-31.
- Dibble, R., Henderson, L.S. and Burns, Z.C., (2019). The impact of students' cultural intelligence on their psychological safety in global virtual project teams. *Journal of Teaching in International Business*, 30(1), pp.33-56.
- Diegmann, P. and Rosenkranz, C. (2017). Team diversity and performance: How agile practices and psychological safety interact. In: *Proceedings of the International Conference on Information Systems (ICIS)*.

- Dieguez, T.A. (2022). *Trait anxiety in the workplace: A job demands-resources perspective*. Thesis, Florida Institute of Technology. Available from: https://repository.fit.edu/etd/241.
- Dusenberry, L. and Robinson, J. (2020). Building psychological safety through training interventions: Manage the team, not just the project. *IEEE Transactions on Professional Communication*, 63(3), pp.207-226.
- Dwivedi, P., Gee, I.H., Withers, M.C. and Boivie, S. (2023). No reason to leave: The effects of CEO diversity-valuing behavior on psychological safety and turnover for female executives. *Journal of Applied Psychology*, 108(7), p.1262.
- Edmondson, A. (1999). Psychological safety and learning behavior in work teams. *Administrative Science Quarterly*, 44(2), pp.350-383.
- Edmondson, A.C. and Lei, Z. (2014). Psychological safety: The history, renaissance, and future of an interpersonal construct. *Annu. Rev. Organ. Psychol. Organ. Behav.*, 1(1), pp.23-43.
- Égert, B., De la Maisonneuve, C. and Turner, D. (2024). A new macroeconomic measure of human capital exploiting PISA and PIAAC: Linking education policies to productivity. *Education Economics*, pp.1-17.
- Egger, H., Jahn, E. and Kornitzky, S. (2022). How does the position in business group hierarchies affect workers' wages. *Journal of Economic Behavior & Organization*, 194, pp.244-263.
- Ekpang, P.U. (2015). Counselling for effective work performance: a way for service improvement. *Department of Educational Foundations, Guidance and*

- Counselling, Faculty of Education University of Calabar, Calabar OSR Journal of Humanities and Social Science, 20(3), pp.39-43.
- Elfering, A., Grebner, S., K Semmer, N., Kaiser-Freiburghaus, D., Lauper-Del Ponte, S. and Witschi, I. (2005). Chronic job stressors and job control: Effects on event-related coping success and well-being. *Journal of Occupational and Organizational Psychology*, 78(2), pp.237-252.
- Endler, N.S. and Kocovski, N.L. (2001). State and trait anxiety revisited. *Journal of Anxiety Disorders*, 15(3), pp.231-245.
- Erickson, S.R., Guthrie, S., VanEtten-Lee, M., Himle, J., Hoffman, J., Santos, S.F., Janeck, A.S., Zivin, K. and Abelson, J.L. (2009). Severity of anxiety and work-related outcomes of patients with anxiety disorders. *Depression and Anxiety*, 26(12), pp.1165-1171.
- Eysenck, M.W. (2000). A cognitive approach to trait anxiety. *European Journal of Personality*, 14(5), pp.463-476.
- Eysenck, M.W., Derakshan, N., Santos, R. and Calvo, M.G. (2007). Anxiety and cognitive performance: attentional control theory. *Emotion*, 7(2), p.336.
- Eysenck, M., Payne, S. and Derakshan, N. (2005). Trait anxiety, visuospatial processing, and working memory. *Cognition & Emotion*, 19(8), pp.1214-1228.
- Frazier, M.L., Fainshmidt, S., Klinger, R.L., Pezeshkan, A. and Vracheva, V. (2017).

 Psychological safety: A meta-analytic review and extension. *Personnel Psychology*, 70(1), pp.113-165.
- Freeman, D. and Freeman, J. (2012). *Anxiety: A very short introduction*. Oxford: Oxford University Press.

- Grekou, D., Watt, J. and Morgan, H.M. (2023). Gender productivity gap: does gender-equal ownership compensate for female entrepreneurs' lack of prior industry experience. *Small Business Economics*, 60(4), pp.1543-1571.
- Grossmann, V. and Stadelmann, D. (2013). Wage effects of high-skilled migration: international evidence. *The World Bank Economic Review*, 27(2), pp.297-319.
- Gu, R., Ge, Y., Jiang, Y. and Luo, Y.J. (2010). Anxiety and outcome evaluation: the good, the bad and the ambiguous. *Biological Psychology*, 85(2), pp.200-206.
- Hadjimina, E. and Furnham, A. (2017). Influence of age and gender on mental health literacy of anxiety disorders. *Psychiatry Research*, 251, pp.8-13.
- Handoyo, S. and Sulistiani, W. (2018). Career adaptability: The influence of readiness and adaptation success in the education context: A literature review. In: Proceedings of the 3rd ASEAN Conference on Psychology, Counselling, and Humanities (ACPCH 2017).
- Hardy, L. and Hutchinson, A. (2007). Effects of performance anxiety on effort and performance in rock climbing: A test of processing efficiency theory. *Anxiety, Stress, and Coping*, 20(2), pp.147-161.
- Hebles, M., Trincado-Munoz, F. and Ortega, K. (2022). Stress and turnover intentions within healthcare teams: The mediating role of psychological safety, and the moderating effect of COVID-19 worry and supervisor support. *Frontiers in Psychology*, 12, p.758438.
- Hidayat, R., Nurbaya, S. and Marhumi, S. (2024). The Effect of Position Rotation on Employee Work Productivity at The Fisheries Service Office Bulukumba

- Regency. International Journal of Economic Research and Financial Accounting, 2(4).
- Hirsh, J.B. and Kang, S.K. (2016). Mechanisms of identity conflict: Uncertainty, anxiety, and the behavioral inhibition system. *Personality and Social Psychology Review*, 20(3), pp.223-244.
- Humphreys, M.S. and Revelle, W. (1984). Personality, motivation, and performance: a theory of the relationship between individual differences and information processing. *Psychological Review*, 91(2), p.153.
- International Labour Organization (2024). The true value of a paycheck: Understanding PPP-adjusted income statistics. ILOSTAT. Available from: https://ilostat.ilo.org/blog/the-true-value-of-a-paycheck-understanding-ppp-adjusted-income-statistics/ [Accessed: 24 August 2024].
- International Monetary Fund (a.n.d.) (2024). *Iran: Country profile*. IMF DataMapper.

 Available from: https://www.imf.org/external/datamapper/profile/IRN
 [Accessed: 24 August 2024].
- International Monetary Fund (a.n.d.) (2024). *Portugal: Country profile*. IMF

 DataMapper. Available from:

 https://www.imf.org/external/datamapper/profile/PRT [Accessed: 24 August 2024].
- Jaumotte, M.F., Koloskova, K. and Saxena, M.S.C. (2016). *Impact of migration on income levels in advanced economies*. Washington, DC: International Monetary Fund.

- Johnson, D.W. and Johnson, F.P. (1991). *Joining together: Group theory and group skills*. Englewood Cliffs, NJ: Prentice-Hall, Inc.
- Julian, L.J. (2011). Measures of anxiety. Arthritis Care & Research, 63(011).
- Kahn, W.A. (1990). Psychological conditions of personal engagement and disengagement at work. *Academy of Management Journal*, 33(4), pp.692-724.
- Kawai, K., Kawai, A.T., Wollan, P. and Yawn, B.P. (2017). Adverse impacts of chronic pain on health-related quality of life, work productivity, depression and anxiety in a community-based study. *Family Practice*, 34(6), pp.656-661.
- Klencklen, G., Lavenex, P.B., Brandner, C. and Lavenex, P. (2017). Working memory decline in normal aging: Is it really worse in space than in color. *Learning and Motivation*, 57, pp.48-60.
- Knight, E.L. and Mehta, P.H. (2017). Hierarchy stability moderates the effect of status on stress and performance in humans. *Proceedings of the National Academy of Sciences*, 114(1), pp.78-83.
- Knudsen, K.S., Bookheimer, S.Y. and Bilder, R.M. (2019). Is psychopathology elevated in Big-C visual artists and scientists. *Journal of Abnormal Psychology*, 128(4), p.273.
- Krasucki, C., Howard, R. and Mann, A. (1998). The relationship between anxiety disorders and age. *International Journal of Geriatric Psychiatry*, 13(2), pp.79-99.
- Kraus, N., Niedeggen, M. and Hesselmann, G. (2021). Trait anxiety is linked to increased usage of priors in a perceptual decision-making task. *Cognition*, 206, p.104474.

- Lee, B.W., Nittala, L., Jacobs, M.A. and Yu, W. (2023). Impact of psychological safety on supply chain operational performance. *International Journal of Production Research*, 61(3), pp.754-773.
- Lee, H.W., Choi, J.N. and Kim, S. (2018). Does gender diversity help teams constructively manage status conflict? An evolutionary perspective of status conflict, team psychological safety, and team creativity. *Organizational Behavior and Human Decision Processes*, 144, pp.187-199.
- Lerner, J.S., Small, D.A. and Loewenstein, G. (2004). Heart strings and purse strings:

 Carryover effects of emotions on economic decisions. *Psychological Science*, 15(5), pp.337-341.
- Li, A.N. and Tan, H.H. (2013). What happens when you trust your supervisor? Mediators of individual performance in trust relationships. *Journal of Organizational Behavior*, 34(3), pp.407-425.
- Li, F., Liu, S., Zhang, F. and Huang, H. (2022). Moderating effects of self-efficacy and time pressure on the relationship between employee aging and work Performance. *Psychology Research and Behavior Management*, pp.1043-1054.
- Li, N. and Yan, J. (2009). The effects of trust climate on individual performance. *Frontiers of Business Research in China*, 3, pp.27-49.
- Magableh, S., Alalawneh, M. and Alqalawi, U. (2022). An empirical study on the effect of education on labor productivity. *Journal of Governance and Regulation/Volume*, 11(2).
- Maloney, E.A., Sattizahn, J.R. and Beilock, S.L. (2014). Anxiety and cognition. *Wiley Interdisciplinary Reviews: Cognitive Science*, 5(4), pp.403-411.

- Marciniak, M., Lage, M.J., Landbloom, R.P., Dunayevich, E. and Bowman, L. (2004).

 Medical and productivity costs of anxiety disorders: case control study. *Depression and Anxiety*, 19(2), pp.112-120.
- Mathews, A. and Macleod, C. (1985). Selective processing of threat cues in anxiety states. *Behaviour Research and Therapy*, 23(5), pp.563-569.
- McCarthy, J.M., Trougakos, J.P. and Cheng, B.H. (2016). Are anxious workers less productive workers? It depends on the quality of social exchange. *Journal of Applied Psychology*, 101(2), p.279.
- Meagher, K.J. (2001). The impact of hierarchies on wages. *Journal of Economic Behavior & Organization*, 45(4), pp.441-458.
- Mellifont, D., Smith-Merry, J. and Scanlan, J.N. (2016). Pitching a Yerkes–Dodson curve ball: A study exploring enhanced workplace performance for individuals with anxiety disorders. *Journal of Workplace Behavioral Health*, 31(2), pp.71-86.
- Mellifont, D., Smith-Merry, J. and Scanlan, J.N. (2016). Disabling accommodation barriers: A study exploring how to better accommodate government employees with anxiety disorders. *Work*, 55(3), pp.549-564.
- Mendoza, L.S.M., Trujillo-Güiza, M., Forero, D.A. and Baez, S. (2024). Health, psychosocial and cognitive factors associated with anxiety symptoms. *Current Psychology*, pp.1-13.
- Morales, N. (2024). How Do College-Educated Immigrants Affect US Firms and Workers. *Richmond Fed Economic Brief*, 24(15).

- Morris, M.G., Venkatesh, V. and Ackerman, P.L. (2005). Gender and age differences in employee decisions about new technology: An extension to the theory of planned behavior. *IEEE Transactions on Engineering Management*, 52(1), pp.69-84.
- Mughal, S., Walsh, J. and Wilding, J. (1996). Stress and work performance: The role of trait anxiety. *Personality and Individual Differences*, 20(6), pp.685-691.
- Muñoz, I.G. and Santos-Lozada, A.R. (2021). Educational attainment and psychological distress among working-age adults in the United States. *SSM-Mental Health*, 1, p.100003.
- Muris, P., Kindt, M., Bögels, S., Merckelbach, H., Gadet, B. and Moulaert, V. (2000).

 Anxiety and threat perception abnormalities in normal children. *Journal of Psychopathology and Behavioral Assessment*, 22(2), pp.183-199.
- Nembhard, I.M. and Edmondson, A.C. (2012). Psychological safety: A foundation for speaking up, collaboration, and experimentation in organizations. In: *The Oxford Handbook of Leadership and Organizations*, pp. 491-504. Oxford University Press.
- Newman, A., Donohue, R. and Eva, N. (2017). Psychological safety: A systematic review of the literature. *Human Resource Management Review*, 27(3), pp.521-535.
- Nguyen, T.T.L. and Nguyen, V.C. (2024). Presence of Anxiety or Depression Feelings and Its Associated Risk Factors among Immigrants in Korea: A Nationwide Cross-Sectional Study. *Journal of the Korean Academy of Family Medicine*.
- Nixon, A.E., Mazzola, J.J., Bauer, J., Krueger, J.R. and Spector, P.E. (2011). Can work make you sick? A meta-analysis of the relationships between job stressors and physical symptoms. *Work & Stress*, 25(1), pp.1-22.

- Njifen, I. (2024). Education-Job mismatch, earnings and worker's satisfaction in African labor market: evidence from Cameroon. *Economia Politica*, pp.1-32.
- OECD (2018). How immigrants contribute to developing countries' economies. In: ILO, World Employment Social Outlook 2018. Geneva: ILO, pp. 133-163. Paris: OECD Publishing.
- Okafor, O.N. and Kalu, K. (2024). Integration challenges, immigrant characteristics and career satisfaction for immigrants in the field of accounting and finance: An empirical evidence from Canada. *Critical Perspectives on Accounting*, 99, p.102602.
- Okpo, E.I.E., Nwoyi, O.E., Ogar, G.W., Arrey, M.E.V. and Nkamare, S.E. (2021). The Impact of Job Satisfaction on Employees Productivity. *IIARD International Journal of Economics and Business Managemen*, 7(1), pp.55-62.
- Oommen, D. (2013). The relationship between mental distress, assessed in terms of anxiety and depression, and conflict management in the context of cultural adaptation. *Journal of Intercultural Communication Research*, 42(2), pp.91-111.
- Owens, M., Stevenson, J., Hadwin, J.A. and Norgate, R. (2014). When does anxiety help or hinder cognitive test performance? The role of working memory capacity. *British Journal of Psychology*, 105(1), pp.92-101.
- Oxenham, J. (ed.) (1984). Education versus qualifications: A study of relationships between education, selection for employment and the productivity of labour. London: Allen & Unwin.

- Peri, G., Shih, K.Y. and Sparber, C. (2014). Foreign STEM workers and native wages and employment in US cities. *National Bureau of Economic Research Working Paper Series*, no. w20093.
- Perkins, A.M. and Corr, P.J. (2005). Can worriers be winners? The association between worrying and job performance. *Personality and Individual Differences*, 38(1), pp.25-31.
- Petersen, T., Snartland, V. and Milgrom, E.M.M. (2007). Are female workers less productive than male workers. *Research in Social Stratification and Mobility*, 25(1), pp.13-37.
- Pfeifer, C. and Wagner, J. (2014). Age and gender effects of workforce composition on productivity and profits: Evidence from a new type of data for German enterprises. *Contemporary Economics*, 8(1), pp.25-46.
- Pritchard, R.D. (1995). *Productivity measurement and improvement: Organizational case studies*. Westport, CT: Praeger Publishers/Greenwood Publishing Group.
- Prudenzi, A., Graham, C.D., Flaxman, P.E., Wilding, S., Day, F. and O'Connor, D.B. (2022). A workplace Acceptance and Commitment Therapy (ACT) intervention for improving healthcare staff psychological distress: A randomised controlled trial. *PLOS One*, 17(4), p.e0266357.
- Reio, T.G. and Callahan, J.L. (2004). Affect, curiosity, and socialization-related learning:

 A path analysis of antecedents to job performance. *Journal of Business and Psychology*, 19, pp.3-22.
- Reiss, S. (1997). Trait anxiety: It's not what you think it is. *Journal of Anxiety Disorders*, 11(2), pp.201-214.

- Righi, S., Mecacci, L. and Viggiano, M.P. (2009). Anxiety, cognitive self-evaluation and performance: ERP correlates. *Journal of Anxiety Disorders*, 23(8), pp.1132-1138.
- Roosaar, L., Masso, J. and Varblane, U. (2019). Age-related productivity decreases in high-waged and low-waged employees. *International Journal of Manpower*, 40(6), pp.1151-1170.
- Ruini, C. and Fava, G.A. (2009). Well-being therapy for generalized anxiety disorder. *Journal of Clinical Psychology*, 65(5), pp.510-519.
- RW, G. (1958). Anxiety and tension: the thirty-third Hermann M. Biggs Memorial Lecture. *Bulletin of the New York Academy of Medicine*, 34(7), pp.429-444.
- Schein, E.H. (2010). *Organizational culture and leadership*, Vol. 2. Hoboken, NJ: John Wiley & Sons.
- Sias, P.M. (2005). Workplace relationship quality and employee information experiences. *Communication Studies*, 56(4), pp.375-395.
- Sims, D.E., Salas, E., Burke, C.S. and Wheelan, S.A. (2005). Promoting effective team performance through training. In: *The handbook of group research and practice*.

 Thousand Oaks, CA: Sage Publications, pp. 407-425.
- Singh, B., Winkel, D.E. and Selvarajan, T.T. (2013). Managing diversity at work: Does psychological safety hold the key to racial differences in employee performance. *Journal of Occupational and Organizational Psychology*, 86(2), pp.242-263.
- Spielberger, C.D. (1966). Theory and research on anxiety; in anxiety and behavior. *Spielbergered*, pp.3-22.

- Spielberger, C.D. (1975). Anxiety: State-trait process. Stress and Anxiety, pp.115-143.
- Spielberger, C.D. (1985). Assessment of state and trait anxiety: Conceptual and methodological issues, *Southern Psychologist*, 2(1), pp. 6-16.
- Stern, A.F. (2014). The hospital anxiety and depression scale. *Occupational Medicine*, 64(5), pp.393-394.
- Tourish, D. and Robson, P. (2006). Sensemaking and the distortion of critical upward communication in organizations. *Journal of Management Studies*, 43(4), pp.711-730.
- Tsuji, Y. and Shimada, S. (2018). Socially anxious tendencies affect impressions of others' positive and negative emotional gazes. *Frontiers in Psychology*, 9, p.2111.
- U.S. Bureau of Labor Statistics (2020). Education pays: The benefits of higher education for individuals and society. U.S. Department of Labor.
- Van Kleef, G.A. and Lange, J. (2020). How hierarchy shapes our emotional lives: Effects of power and status on emotional experience, expression, and responsiveness. *Current Opinion in Psychology*, 33, pp.148-153.
- Veltrop, D.B., Bezemer, P.J., Nicholson, G. and Pugliese, A. (2021). Too unsafe to monitor? How board–CEO cognitive conflict and chair leadership shape outside director monitoring. *Academy of Management Journal*, 64(1), pp.207-234.
- Walkenhorst, E. and Crowe, S.F. (2009). The effect of state worry and trait anxiety on working memory processes in a normal sample. *Anxiety, Stress, & Coping*, 22(2), pp.167-187.

- Wang, Z. and Jing, X. (2018). Job satisfaction among immigrant workers: A review of determinants. *Social Indicators Research*, 139(1), pp.381-401.
- Woodend, J. and Arthur, N. (2017). Correlates of Immigrant Workers' Job Satisfaction. *Canadian Journal of Career Development*, 16(2), pp.44-47.
- Ye, C. (2021). How does education affect the time spent on work and leisure. In:

 Proceedings of the 6th International Conference on Financial Innovation and

 Economic Development (ICFIED 2021), pp. 274-280. Paris: Atlantis Press.
- Yerkes, R. M., & Dodson, J. D. (1908). The Relation of Strength of Stimulus to Rapidity of Habit-Formation. *Journal of Comparative Neurology and Psychology*, 18, 459-482.

APPENDICES Appendix A: Labels and Descriptions of the Variables

VARIABLE	Variable Label	Description
PS_score	Psychological Safety score	Psychological Safety score range from 14 to 84
Anxiety_Score	Anxiety level	Anxiety score ranging from 0 to 21 collected from the questions of HADS-A
ln_Productivity	In(Productivity)	Natural logarithm of the measure of real wage per hour
ln_PS_score	In(Psychological Safety score)	Natural logarithm of Psychological Safety scores ranges from 14 to 84
ln_Anxiety_Score	ln(Anxiety level)	Natural logarithm of Anxiety score ranging from 0 to 21 collected from the questions of HADS-A
Therapy	Therapy attendance	Therapy attendance of the participants
Immigrant	Immigration status	Immigration status of the participants
Position_encoded	Job position	Hierarchy position of the employees within the organization they work in
Education_encoded	Education	Education level of participants
Gender_encoded	Gender	Gender of participants
Age	Age	Age of participants

Appendix B: Pearson Correlation Matrix

Appendix B. I carson Correlation Matrix									
	1	2	3	4	5	6	7	8	9
Productivity	1.000								
Anxiety	0.044	1.000							
Psychological Safety	0.186**	-0.237***	1.000						
Immigrant	0.375***	-0.001	0.183**	1.000					
Therapy	-0.071	0.306***	-0.212***	-0.025	1.000				
Age	-0.245***	-0.356***	-0.084	-0.076	-0.176**	1.000			
Position	0.041	-0.103	0.114	-0.049	-0.107	0.265***	1.000		
Education	-0.166**	-0.055	-0.028	0.030	-0.040	0.105	-0.025	1.000	
Gender	-0.031*	0.173**	-0.051	0.002	0.303***	-0.288***	-0.238***	-0.132*	1.000

*** p<0.01, ** p<0.05, * p<0.1

Gender identity:						
\bigcirc	Female (1)					
\bigcirc	Male (2)					
Age:	Prefer not to answer (3)					
	an immigrant?					
\bigcirc	Yes (1)					
Current n	No (2) narital status?					
\bigcirc	Single (1)					
\bigcirc	Married (2)					
\bigcirc	Widowed (4)					
\bigcirc	Divorced (5)					
Do you h	ave kids?					
0	Yes (1)					
\bigcirc	No (2)					
Level of	education.					
\bigcirc	Bachelor's degree (1)					
\bigcirc	Master's degree (2)					
\bigcirc	Doctorate degree (3)					

Are you	currently employed?
\bigcirc	Yes (1)
\bigcirc	No (4)
Your cur	rent position in the company
\bigcirc	Non-Managerial Position (1)
\bigcirc	Manager/Supervisor (2)
\bigcirc	Director/Executive (3)
\bigcirc	Other (please specify): (4)
Years of	experience in the company?
Working	hours per week?
Your ann	ual gross salary?
\bigcirc	€0-€30,000 (1)
\bigcirc	€31,000-€60,000 (2)
\bigcirc	€61,000-€90,000 (3)
\bigcirc	€91,000-€120,000 (4)
0	€120,000+ (5)
Please an	swer the following questions base on how you have been feeling recently.
1. I	feel tense:
\bigcirc	Most of the time (1)
\bigcirc	A lot of the time (2)
\bigcirc	From time to time, Occasionally (3)
\bigcirc	Not at all (4)

	2. I get a sort of frightened feeling as if something awful is about to happen:
\bigcirc	Very definitely and quite badly (1)
0	Yes, but not too badly (2)
0	A little, but it doesn't worry me (3)
0	Not at all (4) 3. Worrying thoughts go through my mind:
\bigcirc	A great deal of the time (1)
\bigcirc	A lot of the time (2)
\bigcirc	From time to time, but not too often (3)
0	Only occasionally (4) 4. I can sit at ease and feel relaxed:
\bigcirc	Definitely (1)
\bigcirc	Usually (2)
\bigcirc	Not Often (3)
\bigcirc	Not at all (4)
	5. I get a sort of frightened feeling like 'butterflies' in the stomach:
\bigcirc	Not at all (1)
\bigcirc	Occasionally (2)
\bigcirc	Quite Often (3)
0	Very Often (4) 6. I feel restless as I have to be on the move:
\bigcirc	Very much indeed (1)
\bigcirc	Quite a lot (2)

\bigcirc	Not very much (3)
\bigcirc	Not at all (4)
	7. I get sudden feelings of panic:
0	Very often indeed (1)
\bigcirc	Quite often (2)
0	Not very often (3)
\bigcirc	Not at all (4)
	Are you currently attending therapy sessions:
0	Yes (1)
\bigcirc	No (2)
	Answer the questions based on how you have been feeling recently from 1 (very rarely or never true) to 6 (very
ofter	n or always true).

	1 (x1)	2 (x2)	3 (x3)	4 (x4)	5 (x5)	6 (x6)
1. I can make mistakes without fear because my coworkers do not hold it against me. (1)	0	0	0	0	0	0
2. I feel comfortable asking for help from other members of this team. (2)	0	0	0	0	0	0
3. My opinions are welcomed by my colleagues. (3)	0	0	0	0	0	0
4. No one on this team would deliberately act in a way that undermines my effort. (4)	0	0	0	0	0	0
5. My unique skills and talents are valued and utilized in this team. (5)	0	0	0	0	0	0
6. I have never been rejected by this team for being different. (6)	0	0	0	0	0	0

Answer the questions based on how you have been feeling recently from 1 (very rarely or never true) to 6 (very often or always true).

	1 (x1)	2 (x2)	3 (x3)	4 (x4)	5 (x5)	6 (x6)
1. People keep each other informed about the work-related issues within the team. (1)	0	0	0	0	0	0
2. In this team, my colleagues and I feel comfortable giving feedback to each other. (2)	0	0	0	0	0	0
3. Members of this team are open to changes and doing work in new and innovative ways. (3)	0	0	0	0	0	0
4. Members of this team are able to bring up problems and tough issues. (4)	0	0	0	0	0	0

Answer the questions based on how you have been feeling recently from 1 (very rarely or never true) to 6 (very often or always true).

	1 (x1)	2 (x2)	3 (x3)	4 (x4)	5 (x5)	6 (x6)
1. My direct manager values my ideas. (1)	0	0	0	0	0	0
2. It is easy to ask for the help and support of the manager.(2)	0	0	0	0	0	0
3. The manager is able to solve problems and conflicts properly. (3)	0	0	0	0	0	0
4. The manager trusts me with making the decisions regarding my responsibilities in the team. (4)	0	0	0	0	0	0