

# Master Thesis

The role of leadership in mitigating the negative effects of economic stress on employee well-being

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Master Strategic Human Resource Leadership



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Thank you for taking the time to read my Master Thesis, hopefully you will enjoy the read!

Kim Janssen

Gendt, 17-06-2024

## **Abstract**

The changing economic environment for organisations and its potential negative effects on a particular group of employees are inevitable. Economic stress is a result of this, and amongst employees it is one of the top causes of occupational stress and declined well-being. Leadership can be recognised as a workplace factor that could enhance well-being amongst subordinates and weaken the impact of economic stress. This study aims to find out whether transformational and ethical leadership are potential mitigating factors for the negative effects of economic stress on employees' well-being. By a sophisticated investigation, this study hopes to contribute to literature by providing insights on the phenomenon of economic stress in the workplace, and to society by seeking evidence-based strategies for enhancing economically vulnerable employees' well-being.

A deductive-positivistic study was conducted (N=658) that tested multiple hypotheses. The results surprisingly indicated that only ethical leadership included a moderating effect, however this effect was not mitigating but more aggravating. Nevertheless, it was found that indeed economic stress decreases, and both transformational and ethical leadership increases employees' psychological subjective well-being. This outcome indicates that employees experience transformational and ethical leadership as a good thing, but when economic stress comes in it questions if this leadership could soften the impact of this on their subordinates. Therefore, more investigation is needed upon this crucial topic of an organisation's role in combatting economic stress amongst workers.

**Keywords:** employee well-being, affective emotions, economic stress, financial concern, job insecurity, transformational leadership, ethical leadership.

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# 1. Introduction

Nowadays, economic stressors are among the most prevalent and influential sources of stress in the working lives of adults (PwC, 2023). While the world recovered from the recession of 2008, a next economic devastation, imposed by the COVID-19 pandemic, spread economic instability and stress (Richards et al., 2022). Economic stress refers to the employment and income related circumstances that may act as a source of stress (Sinclair et al., 2024). Some economic stressors are objective, such as unemployment or downward mobility, and some are subjective such as perceptions of one's financial status (Voydanoff, 1990). According to a research of the CNV, 14% of all workers in the Netherlands financially do not make it to the end of the month and more than 49% is concerned about whether they are able to pay their future bills (CNV, 2022). As organisations endeavour happy, healthy and productive employees, it is of utmost importance for organisations to address this growing issue of financial vulnerability amongst employees (Wright & Cropanzano, 2000).

There are some multifaced effects of economic stress on employees' well-being (Huang et al., 2021). This research specifically delves into psychological subjective well-being, which concerns employees' evaluation of their lives, through the presence of positive affect and the absence of negative affect (Ryff & Singer, 2008). Positive affect includes a range of pleasant emotions like contentment and joy, and negative affect encompasses unpleasant emotions such as fear and anger (Prizmic-Larsen et al., 2019). Evidence is found that subjective stress is amongst the most influential for workers' psychological subjective well-, as these consider individual differences in vulnerability for stress, whereas the objective stressors assume that all forms of stress are equal within the workforce (Shields et al., 2023). It was chosen to examine the two specific subjective economic stressors of financial concern, referred to as a negative cognitive evaluation of one's financial situation (Sinclair & Cheung, 2016) and job insecurity; being worried about the future of your job and losing it (Van der Elst, 2012).

The Job Demands-Resources (JD-R) framework, of Demerouti et al., 2001, is applied as a central principle within this thesis that explains and predicts the phenomenon under investigation. The theory proposes that the work context can be categorized into job demands and job resources. On the one hand, job demands refers to "those physical, social, or organisational aspects of the job that require sustained physical or mental effort" and are linked with severe psychological costs like stress and exhaustion (Demerouti et al., 2001, p. 501). The JD-R framework specifies how employees create a subjective interpretation of job demands, in terms of how these jobs were objectively designed (Demerouti et al., 2001). Financial concern and job insecurity are therefore seen as forms of subjective job demands, as these are the perceptions employees gradually develop because of experiencing uncertainty in employment and stress to pay monthly bills (Cooper et al., 2001; Li et al., 2023). Empirically, financial concern was found to be a subjective job demand causing stress as employees sense a low ability to perform economically (Choi et al., 2020) and job insecurity as it violates employees' basic psychological needs and causes feelings of (Schaufeli, 2017).

On the other hand, the JD-R theory defines job resources as the physical, psychological, social, or organisational components of the job that could be useful in achieving work (Demerouti et al., 2001). Their “Buffer hypothesis” proposes that these job resources have the potential to weaken the impact of job demands on employees’ psychological subjective well-being, as they alter cognitions evoked by job demands and lessen the health-damaging impact of those appraisals (Bakker & Demerouti, 2007). A substantial body of literature has shown that leadership is a significant workplace factor and job resource that should stand out more convincingly in enhancing psychological subjective well-being amongst subordinates (Fernet et al., 2015; Montano et al., 2017; Skakon et al., 2010). This implies that the negative relationship of job demands, like financial concern and job insecurity, with employee well-being is attenuated when leadership comes in (Breevaart & Bakker, 2018; Ong & Johnson, 2023). This line of reasoning where leadership is seen as a potential moderating job resource of the relationship of job stress on employees’ psychological subjective well-being, is empirically evidenced by various studies (Abbasi, 2018; Khalid et al., 2012).

After reviewing relevant literature, in particular evidence was found that confirms how a high level of transformational leadership is associated with lower job-related stress, as this type of leadership is considered to be a job resource that provides workers with a vision and fosters autonomy and intellectual stimulation (Breevaart & Bakker, 2018; Kloutsiniotis et al. 2022). Moreover, literature suggests that ethical leadership plays a vital role in lowering occupational stress amongst employees, as it is a job resource that promotes innovative workplace behaviour, allows employees to have a voice and exhibits a positive attitude (Brown et al., 2005; Liu et al., 2023; Probst, 2005). Transformational leadership is one of the most empirically examined leadership styles and is extensively proven to be successful in predicting high individual and organisational outcomes (Deng et al., 2023). Nevertheless, a critique of transformational leadership is that a moral dimension is lacking (Hoch et al., 2018), which calls for more nuanced leadership styles including ethical and value-based behaviours (Dinh et al., 2014). Therefore, both transformational and ethical leadership styles should be regarded as a potential tool for organisations to mitigate experienced economic stress amongst their employees.

Since employees will continue to face economic stress and examining how organisations in particular can address this current issue is vital (Wilson et al., 2020; Choi et al., 2020), it is important to investigate leadership as a potential workplace factor that could soften the impact of economic stress for employees (Zhang & Lee, 2010). Consequently, the objective of the present study is to examine the potential of transformational and ethical leadership to mitigate the negative effects of economic stress on employees’ psychological subjective well-being. The following research question was set up to accomplish this aim:

*“To what extent is the relationship of financial concern and job insecurity on employees’ psychological subjective well-being, moderated for transformational and ethical leadership?”*

By answering this research question, the study aims to deliver several contributions. First of all, economic stress is studied extensively in social psychological research, indicating how it creates a burden for individuals and their families due to declined physical and mental health (Friedline et al., 2020; Rodrigues et al., 2023), however, economic stress is understudied with regard to how it intersects with the workplace (Sinclair et al., 2024). Responding to these limitations, this study contributes to an under investigated area of literature by examining economic stress in the context of work. Secondly, leadership literature is mostly dedicated to the relationship of transformational and ethical leadership on general work-related stress and well-being of employees (Harms et al., 2017; Sosik & Godshalk, 2000). However, little literature is performed on the relationship between these leadership styles and stress that is particularly economically related and there is a call for future research that tests the JD-R theory in exploring how the architecture of organisations, for instance their leaders, influence employee well-being (Bakker et al., 2023). Hence, this thesis makes another theoretical contribution by introducing the role of leadership, as an organisational factor, that could influence employees' well-being when experiencing economic stress. Thirdly, this study contributes to literature by exploring and contrasting both leadership styles; transformational as most successfully evidenced, and ethical as a supplement for the lack of moral characteristics in transformational leaders (Hoch et al., 2018; Dinh et al., 2014). Contrasting these two leadership styles aids in making more powerful practical implications for this study, as understanding their separate roles would provide employers with an overview of which specific leader characteristics are most appropriate in diminishing economic stress amongst their employees (Rizvi, 2022).

On a societal level, the changing economic environment of today's businesses, and the detrimental effects of this on a particular group of employees, are inevitable (Ratna, 2020). Firstly, this study contributes societally by helping the vulnerable group of workers that experience economic stress. The current research therefore adds to the 2030 Agenda for Sustainable Development and contributes to the Sustainable Development Goal (SDG) of "Ensure healthy lives and promote well-being for all at all ages" (United Nations, 2024). Secondly, the findings of this research are relevant for practitioners and policymakers within organisations who seek evidence-based strategies for enhancing economically stressed employees' psychological subjective well-being, as this will eventually improve organisational performance (Ongori & Agolla, 2008). An extensive study on what strategy works best for mitigating the negative effect of economic stress on workers' psychological subjective well-being is hence of high relevance, not only for advancing literature and practitioners in the field, but also for the general health and well-being of our population.

## 2. Theoretical framework

This chapter describes the main concepts and their relationships within this research. Theoretical foundations are established that lay the groundwork for an insightful investigation of the current research question. Firstly, the constructs of financial concern and job insecurity are posed as economic stressors affecting employee's psychological subjective well-being. Next, the relationship of transformational and ethical leadership on employee's psychological subjective well-being is elaborated upon. Lastly, theoretical grounding is provided for the mitigating effect of leadership on the relationship of economic stress with employee's psychological subjective well-being.

### 2.1 *Economic stress and employee well-being*

It was chosen to delve into economic stressors of subjective nature, as explained in the first chapter of this study, these were the most influential for the psychological subjective well-being of employees (EBRI, 2023; Lado et al., 2023), and subjective economic stressors have the potential to provide meaningful interactions with psychological subjective well-being in particular (Shields et al., 2023). Financial concern and job insecurity were selected as these are the two most frequently examined subjective economic stressors (Probst, 2005). This study treats them as two independent constructs. Even though literature has suggested that the two are somewhat related (Choi et al., 2020), addressing both of them separately would give interesting insights when examining well-being (Bazzoli et al., 2021; Wilson et al., 2020).

#### *Financial concern*

Financial concern is defined as “a state that develops when personal finances become a problem for the individual, or between individuals, to the point that one has a strong sense of owing too much, or feeling overwhelmed by debt” (Peasley et al., 2020, p. 62). Financial is a subjective job demand, as, according to the JD-R framework, these are subjective interpretations of the negative features of a work environment that enlarge the mental burden for employees (Demerouti et al., 2001). Financial concern is reflected in workers feeling stressed to pay monthly bills and save enough for retirement (Sinclair et al., 2024), as inflation has been navigating higher prices but compensation is not keeping up with this rising cost of living (Klug et al., 2020). Financial concern is a subjective job demand as it is the result of employees making a cognitive evaluation of one's financial situation (Sinclair & Cheung, 2016). It becomes a stressor when this evaluation is negative, for instance when a person senses he/she is not able to cope with monthly payments (Larsen, 2009). Following the JD-R theory, this financial concern adversely impacts employees' psychological subjective well-being within organisations, as job demands require mental effort and therefore comes at the cost of mental health (Bakker & Demerouti, 2007).

In line with this JD-R framework, numerous studies have shown that employee's psychological subjective well-being is strongly associated with their current financial state and ability to perform economically (Choi et al., 2020; Prince et al., 2002; Salignac et al., 2020). As solid argumentation was found in theory and literature, the current study predicts a negative relationship between financial concern and employees' psychological subjective well-being. Accordingly, the following hypothesis is proposed:

**H1:** *Financial concern decreases employees' psychological subjective well-being.*

### *Job insecurity*

Non-standard work arrangements and precarious jobs have become more widespread, where disempowerment in employment results in insecurity regarding income and work conditions (Van Aerden, 2014). Job insecurity refers to these experienced and perceived levels of threat to the stability and future of one's employment (Probst, 2005). According to the JD-R framework, job insecurity is seen as a job demand, as this is the negative aspect of a job that drains energy (Demerouti et al., 2001). The uncertain work environment can be seen as a subjective job demand, as employees assess the probability of losing one's job which could result in a negative affective reaction (Anderson & Pontusson, 2007). In turn, this subjective job demand could be potentially harmful to the psychological subjective well-being of employees, as the JD-R theory explicates how mental exhaustion is the result of high demands being present in a job (Bakker & Demerouti, 2007).

In fact, several studies have found support for the expectation that experiencing job insecurity as a subjective job demand is related with lower psychological subjective well-being (De Witte, 2000; Godinic et al., 2020; Llosa et al., 2018; Van der Elst et al., 2012). Furthermore, the study of Kim & Knesebeck (2015) revealed that job insecurity - being employed and sensing insecurity - is just as dangerous for psychological health of employees as if they were unemployed. Therefore, this research proposes a negative relationship of job insecurity with which resulted in creating the next hypothesis:

**H2:** *Job insecurity decreases employee's psychological subjective well-being.*

## **2.2 Leadership and employee well-being**

The JD-R theory acknowledges that job resources are positively related to the psychological subjective well-being of employees, as a resource has a motivating potential for employees, diminishes stress and creates a positive work environment (Bakker et al., 2023; Bakker & Demerouti, 2007). Moreover, it suggests that leadership is a valuable job resource themselves, as they help employees to cope with hindrances and demands (Breevaart & Bakker, 2018). From this theoretical perspective, this study believes that one of the primary ways for leadership to positively influence worker's psychological subjective well-being is by its potential to be a job resource (Inceoglu et al., 2018; Tummars & Bakker, 2021).

### *Transformational leadership*

Transformational leaders are defined as those who inspire to follow through charismatic vision, motivate to commit to this vision and consider the specific needs of their followers (Hay, 2006). Transformational leaders are found to enhance employees' psychological subjective well-being as, following the JD-R framework, this leadership is a job resource for employees (Breevaart & Bakker, 2018). The theory suggests that a job resource stimulates personal growth and development (Demerouti et al., 2001), and transformational leadership enables meaningful work and opportunities for development (Kelloway et al., 2012). Additionally, the potential of transformational leadership to provide a positive vision and autonomy for workers, makes this type of leadership a job resource, as this energises and challenges employees (Nielsen & Munir, 2009).

Several studies have found support for this reasoning grounded in the JD-R theory, where transformational leadership, by being a job resource, positively influences employee's psychological subjective well-being. To illustrate, Fernet et al. (2015) indicated how transformational leadership serves as a job resource for employees by promoting high-quality autonomous motivation. In addition, Van Dierendonck et al.'s (2004) study showed that the transformational leader characteristics of displaying coaching behaviour and being transparent about expectations are related to enhanced employees' psychological subjective well-being. This is also supported by Nielsen & Munir (2009), who found evidence that transformational leadership as a job resource is positively related to psychological subjective well-being, self-efficacy amongst subordinates was increased. This theoretical framework therefore provides reason to assume that transformational leadership has the ability to enhance employees' psychological subjective well-being. The next hypothesis is proposed: **H3: Transformational leadership increases employees' psychological subjective well-being.**

### *Ethical leadership*

Leaders who demonstrate a "normatively appropriate conduct through personal actions and interpersonal relationships" and promote this behaviour to followers "through two-way communication, reinforcement and decision-making" are seen as ethical leaders (Brown et al. 2005, p. 120). Grounded in the JD-R framework, ethical leadership enhances employees' psychological subjective well-being as this leadership is a job resource (Demerouti et al., 2001). The theory considers job resources to be functional in achieving work goals, and employees working with ethical leaders may sense their work as more meaningful and successful as their leaders provide higher quality relationships and protect them against injustice (Kalshoven et al., 2013). Moreover, the JD-R theory suggests that job resources satisfy the basic psychological needs of employees, and ethical leaders provide emotional support and concern for their interests, which enhances employee's mental condition (Piccolo et al., 2010).

This reasoning is evidenced by the study of Teimouri et al. (2018) which revealed that the components of ethical leadership like being respectful for others and a conduct based on ethics and values, positively impacted employees' psychological subjective well-being. In addition, Li et al.

(2013) outlined how ethical leaders facilitate workers' well-being by offering distributive and interpersonal justice as employees were found to maintain a positive attitude. This is moreover evidenced by the study of Avey et al. (2012) who found that ethical leadership enhanced worker well-being by offering employee voice; encouraging employees to speak up about concerns, making them feel safe. Accordingly, this research has found compelling evidence to suspect that ethical leadership improves employees' psychological subjective well-being. This resulted in the following hypothesis: **H4: Ethical leadership increases employees' psychological subjective well-being.**

### ***2.3 Leadership mitigating the effect of economic stress on employee well-being***

Positioning the JD-R theory as foundation, this theoretical framework has shown that that employees experience subjective job demands in terms of financial concern and job insecurity. Next, the theoretical framework argued how transformational and ethical leadership are valuable job resources for employees. Taking it one step further, the JD-R theory proposes a "Buffer hypothesis" that forms the central principle of this thesis. This hypothesis suggests that job resources, like transformational and ethical leadership, can protect employees from subjective job demands, like financial concern and job insecurity, as they aid in coping with these stressors at work and replenish the resources that are lost when job demands come in (Bakker & Demerouti, 2023), causing an increase in employees' psychological subjective well-being as occupational stress and job demands are diminished (Demerouti et al., 2001).

#### *Transformational leadership as a mitigating factor*

The buffering proposition of the JD-R framework provides grounding to believe that transformational leadership can act as a job resource, and therefore mitigate the negative influences of economic stress on their subordinates well-being (Bakker et al., 2007). Employees who are confronted with job demands, like financial stress and job insecurity, can benefit from transformational leadership as a job resource since these leaders foster autonomy and intellectual stimulation for employees to cope with challenges (Breevaart & Bakker, 2018). Furthermore, transformational leaders providing meaningful justification and clarifying the severity of job demands like financial concern, will buffer the negative impact of this concern on psychological subjective well-being (Fernet et al., 2015; Nielsen et al., 2008). Tadic et al. (2015) also found a similar pattern; when employees were facing challenging job demands, their positive affective responses were higher when job resources such as individual coaching and feedback were present. Moreover, Kloutsiniotis et al., (2022) found that personal financial stress, defined as the concerns about future payments and the fear of losing one's jobs and, decreases when a vision is provided by transformational leaders that create positive expectations about the future. Lastly, Lacerda (2019) found that in order to maintain psychological subjective well-being in economic crises, transformational leaders have the potential to act as blocking agent against the

negative impact of distrust and uncertainty of the future in organisations, for instance by ensuring respect and close relationships as well as generating a compelling vision.

Therefore, this study suspects that the negative effects of economic stress on employee wellbeing are softened by transformational leadership. This has led to formulating two hypotheses:

**H3a:** *Transformational leadership moderates the negative effect of financial concern on employees' psychological subjective well-being, such that the effect becomes less strong when transformational leadership is higher.*

**H3b:** *Transformational leadership moderates the negative effect of job insecurity on employees' psychological subjective well-being, such that the effect becomes less strong when transformational leadership is higher.*

#### *Ethical leadership as a mitigating factor*

Job insecurity is associated with employees perceiving a certain lack of control (Van der Elst et al., 2012), and the study of Probst (2005) has shown that allowing employees to have a voice in job-related decisions by using ethical leadership, is found to be a job resource that can avoid the negative effects of job insecurity on psychological subjective well-being. Furthermore, ethical leaders that enact strong two-way organisational communication, can play a pivotal role in diminishing the negative effects of financial concern (Appelbaum & Donia, 2001). When economic stress is experienced amongst employees, they become less engaged and innovation will go down (Sanchez-Gomez et al, 2021), nevertheless Liu et al. (2023) show that ethical leadership is able to evoke innovative behaviour amongst employees through providing psychological safety. Job insecurity and financial concern cause undue emotional stress resulting in impaired psychological health (Ratna, 2020), job resources provided by ethical leadership, like emotional support and demonstrating concern for their interests, can be used to mitigate this emotional stress (Kalshoven et al., 2013; Picollo et al., 2010). To finalize, leadership should exhibit a positive attitude so that workers well-being during financial crises will be increased (Lacerda, 2019). Ethical leaders are the designated persons for this as they address ethical work norms and promote a positive view amongst followers (Brown et al., 2005).

Consequently, this research proposes that when employees experience economic stress, ethical leadership can diminish these negative effects their psychological subjective well-being. The last two hypotheses proposed in this study therefore are:

**H4a:** *Ethical leadership moderates the negative effect of financial concern on employees' psychological subjective well-being, such that the effect becomes less strong when ethical leadership is higher.*

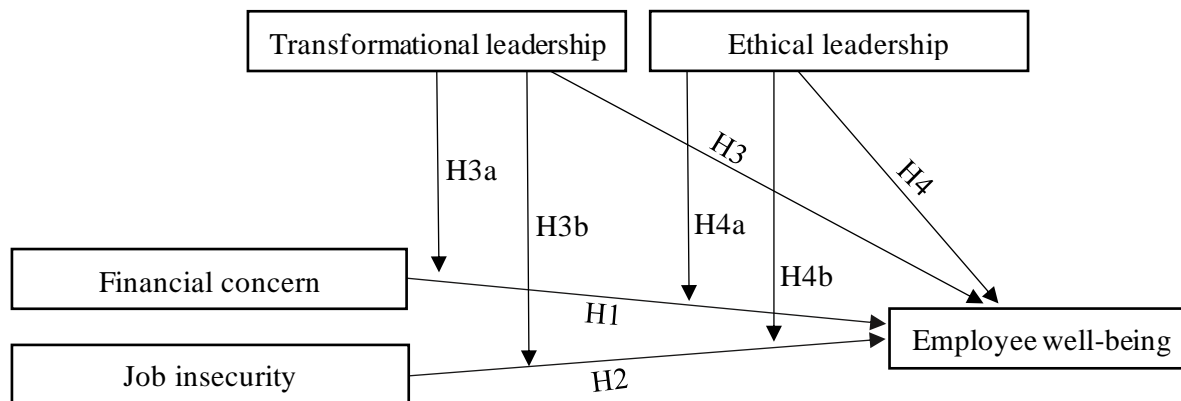
**H4b:** *Ethical leadership moderates the negative effect of job insecurity on employees' psychological subjective well-being, such that the effect becomes less strong when ethical leadership is higher.*

## 2.4 Conceptual model

A conceptual model, shown in Figure 1, is created from the hypotheses that were developed in the theoretical framework. The arrows display the direct relationships between variables, each of these relationships are labelled by a formulated hypothesis. It is firstly assumed that both economic stressors of financial concern and job insecurity are negatively related to employees' psychological subjective well-being. Subsequently, it is proposed that transformational leadership and ethical leadership are positively influencing this worker well-being. Moreover, transformational and ethical leadership are expected to moderate this relationship of financial concern and job insecurity on employees' psychological subjective well-being. In conclusion, the current study predicts that the more the economic stress is experienced by employees, the more ethical and transformational leadership are able contribute to the psychological subjective well-being of these employees by reducing the negative impacts of economic stress on this well-being.

**Figure 1**

*Conceptual model*



### **3. Methodology**

This chapter delves into the proposed methodology that is used within this study. First, the research design of the current study is addressed, after which the data collection procedure and sample characteristics are discussed. Next, the measures used are explained by literature and the data analysis procedure is defined. Lastly, it is considered how ethics takes its part within this investigation.

#### **3.1 *Research design***

This study has a deductive positivistic design, which includes taking theory as the point of departure and then test these through empirical observation and data collection (Vennix, 2021). The purpose of this research is examining the relationships between employee well-being, leadership and economic stress, and prove or disprove the hypotheses that were developed using the JD-R framework (Hair et al., 2018). In this way, the quality of the report can be assured through standardization as controls for influences and therefore guarantees validity and reliability (Flick, 2007).

The basic belief system guiding this investigation is the positivistic paradigm. Adopting this philosophy affects the current research as, following Guba & Lincoln (1994), it assumes that an apprehendable reality exists where the investigator and investigated phenomenon are independent entities. On the one hand, this imposes the existence of certain concepts and see things as they are (Vennix, 2021), which might lead to lateral thinking. On the other hand, little interaction with study participants minimizes bias for the current research as it enhances objectivity (Park et al., 2020). Moreover, this hypothetic-deductive paradigm imposes generalizability as it identifies explanatory associations supporting findings of a phenomenon from large sample sizes (Park et al., 2020).

Moreover, this thesis has a cross-sectional design to gather data through the use of a survey. Cross-sectional studies are characterized by collecting data at a given point in time, which stresses the importance of being careful with making causal inferences in this study (Kesmodel, 2018). Nevertheless, the cross-sectional design is efficient given the timeline of this research, as it makes it feasible to gather a large amount of data in a short time (Wang & Cheng, 2020). Furthermore, participants are neither deliberately exposed nor treated so there are rarely ethical difficulties accompanied with using cross-sectional designs (Wang & Cheng, 2020).

#### **3.2 *Data collection procedure and sample characteristics***

Primary data was collected through an online survey including pre-validated measures for the constructs of this research. Some of the data was already collected by a former group of students in December 2020, on top of this a new survey was distributed in April 2024. An online survey is an empirical method that is related to a multitude of objects of which information is gathered and statistically processed (Vennix, 2021). Therefore, it is a suitable method to use within this thesis as it tests the relationships between the different variables opposed; employee well-being, economic stress

and leadership, as well as it allows online data processing, impaired data loss and quicker data collection (Kılınç & First, 2017). Questions within the survey are translated via back-translation, which is the best recommended technique to compare inconsistencies whilst translating from Dutch and German to English and backwards (Tyupa, 2011).

The general population of this research, all working people in Germany and the Netherlands above 18 years old, is too large to be entirely included in this study. Therefore, a sample was selected to draw conclusions and generalize to the overall population. Non-probability sampling was adopted, where participants are voluntarily selected based on their availability for the researcher (Vennix, 2021). Moreover, snowball-sampling allowed participants to identify any further potential cases (Saunders et al., 2016). These sampling techniques are especially relevant for the research's ethical foundations, as well as the effectiveness in terms of costs and time available (Kılınç & First, 2017). However, it could also identify a biased composition of the target sample as respondents who have a personal relationship with a researcher, are also more likely to participate than others (Marcus et al., 2017). In order to enhance reliability of this thesis, it is relevant to emphasize reaching participants outside the social circle of the researchers.

As stated by Hair et al. (2018), the minimum sample size is 50 and preferably 100 observations in order to maintain .80 statistical power, meaning that there is a high probability of avoiding a Type II error. For the current research a total of 130 respondents completely filled in the recent questionnaire and the previous dataset included 528 respondents, therefore, the total sample size of this study was 658. Among these 658 participants, a slight majority is female (53.3%) and nearly half (46.2%) of the respondents are lowly educated. The average age is 44 years old ( $SD = 13.7$ ), 51.5% has a Dutch nationality and 47.1% is German. Most respondents are working in manufacturing, wholesale and retail, human health and social work activities and public administration and defence.

### **3.3 Measurement scales**

In order to measure the different variables that will be investigated in this research, appropriate scales were used to create the questionnaire. A reliability analysis is performed that assesses the structure and reliability of the prespecified measurement scales that are being used (Hair et al., 2018). In order for the scales to be reliable, the Cronbach's Alpha is desired to be above .7. The end of this section will touch upon the control variables that were chosen to be included in this thesis.

*Employee well-being.* The dependent variable of employee well-being is assessed using the "Positive And Negative Affect schedule" (PANAS) constructed by Watson et al. (1988), as positive and negative affect is an indicator of mental health and psychological well-being. This measure consists of 10 items where employees rate the occurrence of certain feelings like "Upset", "Ashamed", "Inspired" and "Active" in the last couple of days by a Likert scale ranging from 1 (never) to 5 (always). These 10 items can each be categorized as either negative affect or positive affect. The

PANAS scale was validated by Crawford & Hendry (2004), Thompson (2007) and Engelen et al. (2006). The reliability analysis revealed adequate reliability as the Cronbach's Alpha of .818 for the positive affect and .799 for the negative affect.

*Financial concern.* In order to measure the respondents' financial concerns, the scale designed by Gerrans et al. (2014) is utilised, of which a total of 3 items will be included in this research. For instance the item "How confident are you that you could find the money to pay for a financial emergency that costs about twice your weekly income?" is rated on a 5-point Likert scale covering 1 (no confidence) to 5 (high confidence). This measurement scale is empirically validated and adopted in the studies of Joo (1998), Bagwell (2000) and Kim & Garman (2003) and has an adequate reliability as the Cronbach's Alpha was .700.

*Job insecurity.* The variable of job insecurity is assessed using the Job Insecurity Scale (JIS) of 4 items, originally developed by De Witte (2000). An item that will for instance be included is "I think I might lose my job in the near future". This item is measured using a 7-point Likert scale ranging from strongly disagree 1 (strongly disagree) to 7 (strongly agree). It is proven that JIS can be used in a valid way for measuring the variable of job insecurity (Van der Elst et al., 2014). Considering the Cronbach's Alpha to be .814, this scale is also found to be reliable.

*Transformational leadership.* Employee perceptions on their supervisors' transformational leader behaviour was measured using 6 out of the original 11 "Dutch Charismatic Leadership in Organisations" items designed by De Hoogh et al. (2004). To illustrate, the scale included questions like: my leader "has a clear vision and an image of the future". Once more, the 7-point Likert scale was used to rate participants' opinions. This Dutch measure is validated in a fair amount of literature (De Hoogh et al., 2004; 2009), and covers content comparable to other transformational leadership scales (Bass & Avolio, 1990; Podsakoff et al., 1990). The reliability analysis indicated a Cronbach's Alpha of 0.858 within this thesis, which means that the scale is reliable.

*Ethical leadership.* Ethical leadership was measured with 4 items from a 10 item scale developed by Brown et al. (2005). Participants for instance rated to what extent their leader "has the best interests of employees in mind" on again a 7-point Likert scale. This proposed scale validated in assessing ethical leadership (Kalshoven et al., 2013; Zappalá & Toscano, 2020), and is considered to be reliable within this study as the Cronbach's Alpha had a value of .923.

*Control variables.* This research included variables to control for any influential effects of unrelated factors, as this could increase internal validity by revealing the nature of causal relationships (Hair et al., 2018). The first control variable was cohort in terms of data set; the previously collected data might show different results compared to the newly collected data as these were collected four years apart. Secondly age is controlled for, as this is related to the stages employees go through in their private and working life. This could impact the experienced level of economic stress amongst employees as financial needs and aspirations may change between life stages (Sinclair et al., 2024). Moreover, the current study controlled for level of education, as lower educated employees tend to be

more exposed to financial worries and uncertainties than higher educated employees (Pearlin et al., 2005). Also, gender of participants was controlled for, as literature suggests that women could benefit more from ethical leadership styles than their male counterparts, as they face a tougher ethics environment and stressful situations impacting their psychological subjective well-being (ECI, 2016).

### **3.4 Data analysis**

Data that is gathered was analysed using the statistics software SPSS. After the data was prepared and cleaned, the final dataset was explored by assessing the descriptive statistics of the variables in this research. In this way, the characteristics of the sample, means and standard deviations can be checked upon (Hair et al., 2018). A confirmatory factor analysis was performed afterwards that tested how well the theoretical specification of the factors fit with the reality captured in the data (Hair et al., 2018). Hence, the validity of the measurement model is examined in this factor analysis. Next, a correlation analysis was done as it explored the individual relationships between the independent, dependent and moderating variables (Hair et al., 2018). After the dataset was fully checked upon any fallacies, the hypotheses of this research were tested using a hierarchical regression analysis. This is the most widely used analytical tool that explores several types of dependence relationships (Hair et al., 2018). For this study these entail the relationship between the independent variables of financial concern and job insecurity, as well as transformational and ethical leadership with the dependent variable employee well-being. Moreover, the potential moderating effect of transformational and ethical leadership on the relationship of financial concern and job insecurity with the dependent variable will be tested.

### **3.5 Ethics**

Ethics are an important consideration within research. As this study acts from the positivistic paradigm, ethics is considered to be extrinsic to the inquiry process itself as this is aimed at explanation (Guba & Lincoln, 1994). An ethical consideration that was made was to guarantee anonymity and voluntary participation for respondents within the data collection. Moreover, respondents have been well-informed about the topic of the research they are participating in. In addition, there were multiple simple options to quit with the survey when respondents would have wanted this. Lastly, it was clearly explained what was going to happen with their data and who is going to use it.

## 4. Results

This section will focus on the data analysis and statistical methodologies used within SPSS to arrive at the results of this thesis. Firstly, the descriptive statistics and correlations are examined to get familiar with the dataset and a confirmatory factor analysis to assess factor validity. Following up, after verifying the assumptions, the hypotheses are tested based upon a hierarchical regression-based moderation analysis of which the results are interpreted and reported.

### 4.1 Descriptive statistics

The descriptive statistics are analysed and summarized in Table 1. The means of the dependent variables differ substantially, where the mean of negative affect ( $M = 1.54$ ,  $SD = .619$ ) is relatively low and the mean of positive affect ( $M = 3.13$ ,  $SD = .777$ ) is high. This indicates that respondents in general felt more positive affective emotions than negative ones. Negative affect is positively skewed meaning that the scores were clustered and peaking to the right end, whereas positive affect is only slightly skewed to the left end.

**Table 1**

*Descriptive statistics*

	N	Min.	Max.	Mean	Std. Dev.	Skewness	Kurtosis
<b><i>Dependent variable</i></b>							
Negative affect	658	1	4	1.536	0.619	1.676	2.938
Positive affect	658	1	5	3.130	0.778	-0.295	-0.116
<b><i>Independent variables</i></b>							
Financial concern	658	1	5	2.473	0.969	0.308	-0.643
Job insecurity	658	1	6	2.736	1.060	0.674	-0.017
<b><i>Moderators</i></b>							
Transformational leadership	658	1	7	4.955	1.242	-0.877	0.720
Ethical leadership	658	1	7	5.254	1.342	-1.028	0.953
<b><i>Control variables</i></b>							
Cohort	658	0	1	.802	0.398	-1.523	0.319
Age	658	18	74	44.334	13.740	-.109	-1.202
Gender	658	0	2	.470	.502	.164	-1.884
Education	658	1	3	1.670	.781	.647	-1.074

For both independent variables the mean is around the middle score of 2.5, which implies that the respondents in general experienced a moderate sense of financial concern ( $M = 2.47$ ,  $SD = .969$ ) and job insecurity ( $M = 2.736$ ,  $SD = 1.060$ ). Furthermore, transformational ( $M = 4.95$ ,  $SD = 1.242$ ) and

ethical ( $M = 5.25, SD = 1.342$ ) leadership as moderator variables turned out to have relatively high mean scores, indicating that in general the sample thinks their leaders have transformational and ethical characteristics. The skewness and kurtosis of the independent and moderator variables indicates that all the variables are normally distributed. Examining the control variables shows a high dispersion for age ( $M = 44.33, SD = 13.739$ ), indicating that the respondents cover a broad range of different ages and a low score for education ( $M = 1.67, SD = .781$ ), indicating that the participants of this study are generally lower educated.

## 4.2 Correlations

The correlations between the variables that were used in this study are shown in Table 3. The Pearson's correlation coefficient displays values between -1 and +1 and reveals the presence of a relationship between variables, and if so, in what direction this would be (Hair et al., 2018). Financial concern positively correlates with negative affect ( $r = .309, p < .001$ ) and negatively correlates with positive affect ( $r = -.126, p = .001$ ). This is the same for the independent variable of job insecurity; job insecurity is positively related to negative affect ( $r = .238, p < .001$ ) and negatively related to positive affect ( $r = -.207, p < .001$ ). Hence, when financial concern and job insecurity increases, positive affect will decrease and negative affect will increase.

Furthermore, the moderating variable of transformational leadership is negatively related with negative affect ( $r = -.180, p < .001$ ) and positively related with positive affect ( $r = .281, p < .001$ ). This is similar for the second moderating variable of ethical leadership where  $r = -.186 (p < .001)$  for the negative affect and  $r = .265 (p < .001)$  for the positive affect. Therefore, the correlation analysis revealed that when the respondents experienced transformational and ethical leadership, they are more likely to sense positive affective emotions and less likely to sense negative ones.

In addition, there is a strong significant correlation ( $r = .746, p < .001$ ) between the two moderators of transformational and ethical leadership. This could be a sign of multicollinearity, however, appendix A revealed that there are no issues with multicollinearity as the tolerance level of the variables are  $> .1$  and the VIF values are  $< 10$ . Nevertheless, based upon these results it was decided to separately analyse transformational and ethical leadership as moderators when testing hypotheses, as it is not the primary goal of the study to compare the moderators but to find out whether these moderate the impact of economic stress on well-being.

**Table 2***Pearson's correlations per variable*

Variable	1	2	3	4	5	6	7	8	9
1. Negative affect	(.799)								
2. Positive affect	-.130**	(.818)							
3. Financial concern	.309**	-.126**	(.700)						
4. Job insecurity	.238**	-.207**	.405**	(.814)					
5. Transformational leadership	-.180**	.281**	-.221**	-.240**	(.885)				
6. Ethical leadership	-.186**	.265**	-.199**	-.290**	.746**	(.923)			
7. Cohort	.051	-.075	.317**	.143**	-.095*	-.023	-		
8. Age	-.145**	.183**	.040	.002	.015	.013	.348**	-	
9. Gender	-.047	.004	-.001	.019	-.023	.003	.151**	.135**	-
10. Education	.100*	.078*	.081*	-.102**	.001	-.010	-.194**	-.198**	-.143**

Note.  $N = 658$ ; Gender is coded 0 = Female, 1 = Male; Cohort is coded 0 = new dataset, 1 = old dataset.

\*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).

### 4.3 *Confirmatory factor analysis*

Even though the survey was used in a previous study, an additional confirmatory factor analysis was performed to check the structure of the scales (Table 2). The confirmatory factor analysis enabled assessing whether the measured items load on the underlying factors, derived from the theoretical framework, where they are expected to load on (Hair et al., 2018).

**Table 3**  
*Standardised factor loadings and reliabilities*

<b>Construct</b>	<b>Item</b>	<b>Loading</b>	<b>Reliability</b>
Negative affect	Upset	0.716	.799
	Hostile	0.635	
	Ashamed	0.517	
	Nervous	0.741	
	Afraid	0.719	
Positive affect	Alert/Concentrated	0.580	.818
	Inspired	0.568	
	Determined	0.801	
	Attentive	0.810	
	Active	0.707	
Financial concern	What do you feel is the level of your financial stress?	0.549	.700
	How often do you worry about not being able to meet normal monthly living expenses?	0.909	
	How confident are you that you could find the money to pay for a financial emergency that costs twice your weekly income?	0.564	
Job insecurity	I am sure I can keep my job.	0.677	.814
	I feel insecure about the future of my job.	0.775	
	I think I might lose my job in the near future.	0.908	
Transformational leadership	Has a vision and imagination of the future.	0.836	.885
	Displays conviction in his/her ideals, beliefs, and values.	0.791	
	Involves subordinates in decisions that affect their work.	0.786	
	Challenges subordinates to think in new ways.	0.804	
Ethical leadership	Delegates challenging responsibilities to subordinates.	0.677	.923
	Has the best interests of employees in mind.	0.890	
	Makes fair and balanced decisions.	0.923	
	When making decisions, asks “what is the right thing to do?”	0.873	

*Note: N = 658*

To assess the factor validity of the measurement model, the confirmatory factor analysis is conducted with MPLUS. Possible deviation of a normal distribution was accounted for by using a maximum likelihood estimator with robust standard errors and a Chi-square (MLR) (Yuan & Bentler, 2007). Several fit indices were used to assess the model fit; the robust comparative fit index (CFI) and the

Tucker-Lewis index (TLI). Both indexes are acceptable at a value higher than .90 (McDonald & Ho, 2002). Additionally, an acceptable fit requires the robust root mean square error of approximation (RMSEA) and the standardized root mean square residual (SRMR) to be lower than .08 (Hu & Bentler, 1999). A measurement model was specified where all specific items loaded on the corresponding first order factors, preferably with a loading higher than .3 (Hair et al., 2018). It was concluded that the proposed model adequately fits the data ( $SB-\chi^2 = 718.681$ ,  $df = 237$ ,  $p < 0.01$ ;  $CFI = 0.923$ ;  $TLI = 0.911$ ;  $RMSEA = 0.06$ ;  $SRMR = 0.04$ ).

#### **4.4 Assumptions**

Several assumptions should be checked prior to performing a moderation analysis and testing our hypothesis (Field, 2018). First of all, a normal distribution must be confirmed. The descriptive statistics in Table 1 indicates that there are no serious issues with normality, as most of the variables fall within the range of -1 and +1 for skewness and kurtosis. As negative affect and cohort were showing a higher value than +1 and -1, a Normal P-Plot was examined on top of the descriptive statistics (Appendix A). It was confirmed that the residuals align closely with the diagonal line of normal distribution and therefore the first assumption is met.

Secondly, the assumption of homoscedasticity was tested, which proposes an even spread of the residuals across the range of predictors (Field, 2018). By investigating the scatterplot in Appendix A, a constant variance was found amongst the residuals and no pattern was identified. Therefore, the data is found to be homoscedastic and the assumption is verified.

Thirdly, the absence of multicollinearity is checked for, meaning that there should not be high correlations present between the independent variables (Hair et al., 2018). Studying the tolerance and VIF value in Appendix A, tells us that the tolerance values of most of the independent variables are  $> .1$  and the VIF values are  $< 10$ . This indicates that there is a low possibility that multicollinearity would impact the results of this thesis, meaning that also this assumption is met.

Lastly, the model in the study should be linear. In order to check the absence of a curvilinear pattern, a Loess fit line is drawn in the scatter plot shown in Appendix A. Ideally, the Loess fit line is a horizontal line at  $Y = 0$  (Field, 2018). There is indeed a horizontal line present at  $Y = 0$  for the dependent positive affect variable. The small local deviations from the horizontal line are not problematic. However, for negative affect there is quite a deviation of the horizontal line in the beginning from  $X = -2$  till  $X = 0$ . This would indicate that the predicted value for negative affect is higher than the actual value, but only for the values that were below the mean. Nevertheless, the Loess fit line is allowed to curve when this better fits the data, therefore no serious issues with linearity are experienced (Hair et al., 2018).

#### 4.5 Hierarchical regression-based moderation analysis

This section delves into testing the hypotheses that were proposed in this thesis. For each of the two dependent variables, and for each of the two moderator variables, a hierarchical regression-based moderation analysis was performed.

##### *Economic stress and employee well-being*

For H1, the main effect of financial concern on employee well-being was assessed. The hypothesis predicts that financial concern decreases employee well-being. The effect of financial concern on negative affect was significant and positive ( $\beta = .152, p < .001$ ). However, financial concern was non-significantly related with positive affect ( $\beta = -.034, p = .321$ ). Therefore, H1 is partially supported, as higher financial concerns indeed increases negative affective emotions, but there is no evidence that lower financial concerns lead to more positive affective emotions.

H2 was tested in the similar manner as H1, but then with the independent variable of job insecurity. The relationship of job insecurity on negative affect was significant and positive ( $\beta = .089, p < .001$ ), and was significant and negative for positive affect ( $\beta = -.129, p < .001$ ). Therefore, H2 is supported as job insecurity concern increases negative affective emotions and decreases positive affective emotions amongst the respondents.

##### *The role of transformational leadership in economic stress and employee well-being*

H3 assumes that transformational leadership increases employee well-being. Testing H3 indicated that transformational leadership is significantly negatively related to negative affect ( $\beta = -.059, p < .05$ ), and is significantly positively related to positive affect ( $\beta = .184, p < .001$ ). Hence, H3 is supported as transformational leadership decreases negative and enlarges positive affective emotions.

H3a and H3b test whether this transformational leadership is able to mitigate the negative effects of economic stress (i.e., financial concern and job insecurity) on employee well-being. The interaction effects of transformational leadership and financial concern on negative affect ( $\beta = -.005, p > .05$ ) and on positive affect ( $\beta = -.047, p > .05$ ) are both non-significant. The interaction effects of transformational leadership and job insecurity on negative affect ( $\beta = -.029, p > .05$ ) and on positive affect ( $\beta = -.016, p > .05$ ) are both non-significant. Therefore, H3a and H3b are both rejected.

Age remains a significant control variable after controlling for this interaction, where it is negatively related to negative affect ( $\beta = -.007, p < .001$ ) and positively related to positive affect ( $\beta = .002, p < .001$ ). Thus, younger workers sense more negative and less positive affective emotions than elderly when experiencing economic stress with a transformational leader. Cohort was negatively related to positive affect ( $\beta = -.177, p < .05$ ), implying that the old data set sensed fewer positive affective emotions than the recent one, when experiencing economic stress and transformational leadership. Lastly, education positively relates to positive affect ( $\beta = .098, p < .05$ ) for the interaction, meaning that the lower educated respondents sense fewer positive emotions than the higher educated.

**Table 4***Results of hierarchical regression analysis - transformational leadership*

Predictors	Outcome variable: negative affect				Outcome variable: positive affect			
	$\beta$	SE	t	Sig.	$\beta$	SE	t	Sig.
Model 1	(R <sup>2</sup> = .041, p < .001)				(R <sup>2</sup> = .255, p < .001)			
Constant	1.612	0.111	14.558	< .001	2.551	0.137	18.567	< .001
Cohort	0.204	0.064	3.162	0.002	-0.283	0.080	-3.536	< .001
Age	-0.008	0.002	-4.079	0.000	0.014	0.002	6.176	< .001
Gender	-0.038	0.048	-0.798	0.425	0.010	0.060	0.166	0.868
Education	0.069	0.031	2.198	0.028	0.100	0.039	2.561	0.011
Model 2	(R <sup>2</sup> = .140, p < .001)				(R <sup>2</sup> = .314, p < .001)			
Constant	1.728	0.107	16.078	< .001	2.536	0.138	18.344	< .001
Cohort	0.030	0.065	0.456	0.648	-0.203	0.084	-2.427	0.015
Age	-0.007	0.002	-3.695	< .001	0.014	0.002	5.932	< .001
Gender	-0.028	0.046	-0.618	0.537	0.006	0.059	0.104	0.917
Education	0.052	0.030	1.714	0.087	0.092	0.039	2.335	0.020
FC	0.152	0.026	5.789	< .001	-0.034	0.034	-0.993	0.321
JI	0.089	0.025	3.570	< .001	-0.129	0.032	-4.017	< .001
Model 3	(R <sup>2</sup> = .148, p = .012)				(R <sup>2</sup> = .387, p < .05)			
Constant	1.729	0.107	16.147	< .001	2.536	0.134	18.872	< .001
Cohort	0.024	0.065	0.375	0.708	-0.186	0.081	-2.290	0.022
Age	-0.006	0.002	-3.626	< .001	0.013	0.002	5.896	< .001
Gender	-0.031	0.046	-0.672	0.502	0.014	0.057	0.238	0.812
Education	0.051	0.030	1.695	0.090	0.094	0.038	2.466	0.014
FC	0.144	0.026	5.462	< .001	-0.008	0.033	-0.248	0.804
JI	0.078	0.025	3.116	0.002	-0.096	0.032	-3.031	0.003
TL	-0.059	0.023	-2.519	0.012	0.184	0.029	6.281	< .001
Model 4	(R <sup>2</sup> = .151, p = .310)				(R <sup>2</sup> = .395, p = .097)			
Constant	1.720	0.107	16.032	< .001	2.516	0.134	18.722	0.000
Cohort	0.032	0.065	0.498	0.618	-0.177	0.081	-2.176	0.030
Age	-0.007	0.002	-3.751	< .001	0.013	0.002	5.776	< .001
Gender	-0.029	0.046	-0.632	0.527	0.017	0.057	0.298	0.766
Education	0.054	0.030	1.787	0.074	0.098	0.038	2.568	0.010
FC	0.143	0.026	5.410	< .001	-0.009	0.033	-0.276	0.783
JI	0.078	0.025	3.102	0.002	-0.097	0.032	-3.069	0.002
TL	-0.051	0.024	-2.141	0.033	0.197	0.030	6.579	< .001
FC x TL	-0.005	0.024	-0.206	0.837	-0.047	0.030	-1.565	0.118
JI x TL	-0.029	0.024	-1.222	0.222	-0.016	0.029	-0.537	0.591

Note. N = 658; FC = financial concern; JI = job insecurity; TL = transformational leadership

### *The role of ethical leadership in economic stress and employee well-being*

H4 tests the potential of ethical leadership to increase well-being. Results show that ethical leadership is significantly and negatively related to negative affect ( $\beta = -.063, p < .05$ ), and is significantly positively related to positive affect ( $\beta = .175, p < .001$ ). Therefore, H4 is supported as ethical leadership diminishes negative affective emotions and increases positive ones amongst respondents.

H4a and H4b examine if this ethical leadership could mitigate the negative impact of economic stress (i.e., financial concern and job insecurity) on employee well-being. Firstly, the interaction effect, of ethical leadership and financial concern, on negative affect is non-significant ( $\beta = .019, p > .05$ ). However, contrary to the expectations, this interaction effect on positive affect is significant but negative ( $\beta = -.071, p < .05$ ). Namely, plotting this relationship in Figure 2 shows that ethical leaders improve the positive mood more among employees who have lower financial concerns compared to higher financial concerns. Hence, H4a is rejected as the lower well-being caused by financial concern was not mitigated by ethical leadership. Nevertheless, the unexpected findings about positive affect are still interesting to discuss further. Secondly, the interaction effects of ethical leadership and job insecurity on negative affect ( $\beta = -.029, p > .05$ ) and on positive affect ( $\beta = -.020, p > .05$ ) are both non-significant. Therefore, H4b is rejected.

Some significant effects were found for the control variables in the negative and positive affect when accounted for the interaction effect of ethical leadership. Firstly, similar to the interaction effect with transformational leadership, age was negatively related to negative affect ( $\beta = -.007, p < .001$ ), and positively related to positive affect ( $\beta = .014, p < .001$ ). This implies that younger employees are sensing more negative and less positive affective emotions than elderly employees when they experience economic stress where ethical leadership is present. Secondly, cohort was again negatively related to positive affect ( $\beta = -.223, p < .05$ ), this tells us that the old data set sensed fewer positive affective emotions than the newer one when they have ethical leaders and experienced economic stress. Lastly, education was also for this moderation effect positively related to positive affect ( $\beta = .096, p < .05$ ). Accordingly, the higher educated sense more positive emotions than lower educated employees when experiencing economic stress and ethical leadership.

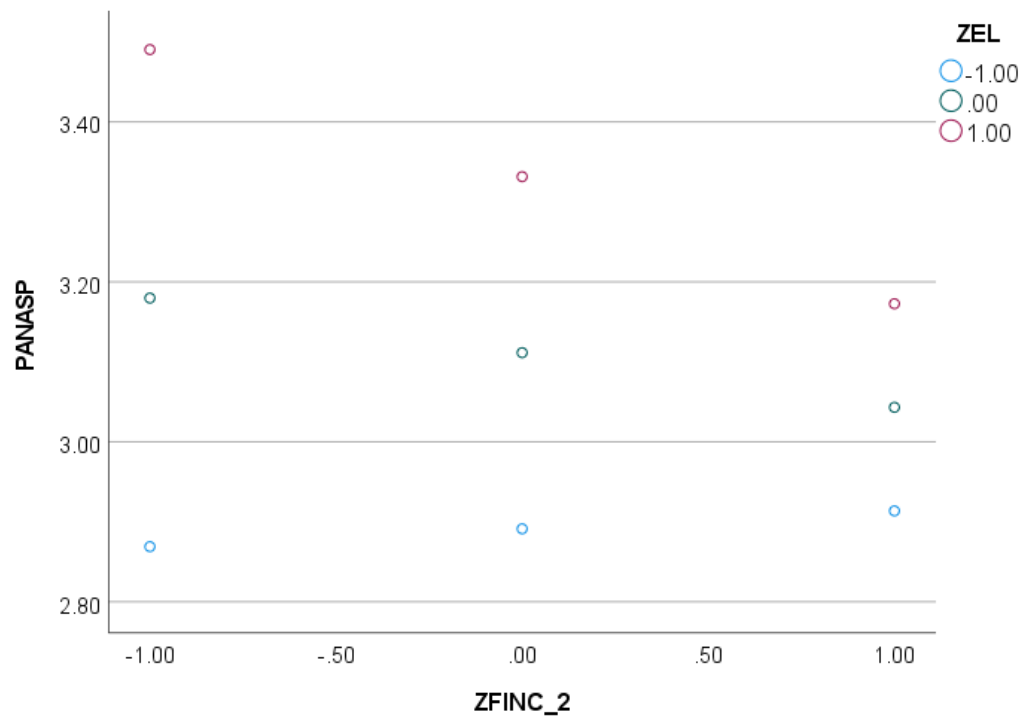
**Table 5***Results of hierarchical regression analysis - ethical leadership as moderator*

Predictors	Outcome variable: negative affect				Outcome variable: positive affect			
	$\beta$	SE	t	Sig.	$\beta$	SE	t	Sig.
Model 1	(R <sup>2</sup> = .203, p < .001)				(R <sup>2</sup> = .255, p < .001)			
Constant	1.612	0.111	14.558	< .001	2.551	0.137	18.567	< .001
Cohort	0.204	0.064	3.162	0.002	-0.283	0.080	-3.536	< .001
Age	-0.008	0.002	-4.079	< .001	0.014	0.002	6.176	< .001
Gender	-0.038	0.048	-0.798	0.425	0.010	0.060	0.166	0.868
Education	0.069	0.031	2.198	0.028	0.100	0.039	2.561	0.011
Model 2	(R <sup>2</sup> = .374, p < .001)				(R <sup>2</sup> = .314, p < .001)			
Constant	1.728	0.107	16.078	< .001	2.536	0.138	18.344	< .001
Cohort	0.030	0.065	0.456	0.648	-0.203	0.084	-2.427	0.015
Age	-0.007	0.002	-3.695	< .001	0.014	0.002	5.932	< .001
Gender	-0.028	0.046	-0.618	0.537	0.006	0.059	0.104	0.917
Education	0.052	0.030	1.714	0.087	0.092	0.039	2.335	0.020
FC	0.152	0.026	5.789	< .001	-0.034	0.034	-0.993	0.321
JI	0.089	0.025	3.570	< .001	-0.129	0.032	-4.017	< .001
Model 3	(R <sup>2</sup> = .386, p = .007)				(R <sup>2</sup> = .380, p < .001)			
Constant	1.726	0.107	16.129	< .001	2.544	0.135	18.870	< .001
Cohort	0.037	0.065	0.570	0.569	-0.223	0.082	-2.731	0.006
Age	-0.007	0.002	-3.718	< .001	0.014	0.002	6.094	< .001
Gender	-0.029	0.046	-0.626	0.531	0.007	0.057	0.119	0.905
Education	0.051	0.030	1.672	0.095	0.096	0.038	2.504	0.013
FC	0.145	0.026	5.527	< .001	-0.015	0.033	-0.439	0.661
JI	0.073	0.026	2.856	0.004	-0.084	0.032	-2.621	0.009
EL	-0.063	0.024	-2.690	0.007	0.175	0.030	5.894	< .001
Model 4	(R <sup>2</sup> = .392, p = .180)				(R <sup>2</sup> = .396, p = .007)			
Constant	1.709	0.107	15.895	< .001	2.506	0.135	18.590	< .001
Cohort	0.044	0.065	0.682	0.496	-0.233	0.081	-2.866	0.004
Age	-0.007	0.002	-3.787	< .001	0.014	0.002	6.265	< .001
Gender	-0.029	0.046	-0.642	0.521	0.011	0.057	0.200	0.841
Education	0.056	0.030	1.853	0.064	0.100	0.038	2.626	0.009
FC	0.145	0.026	5.534	< .001	-0.012	0.033	-0.355	0.723
JI	0.223	0.085	2.625	0.009	0.016	0.107	0.145	0.884
TL	-0.051	0.024	-2.141	0.020	0.197	0.030	6.474	< .001
FC x EL	-0.005	0.024	-0.206	0.455	-0.071	0.031	-2.279	0.023
JI x EL	-0.029	0.024	-1.222	0.064	-0.020	0.020	-0.981	0.327

Note. N = 658; FC = financial concern; JI = job insecurity; EL = ethical leadership

**Figure 2**

*Plot of unexpected relationships*



## 5. Discussion

In this final chapter, the results of this research are firstly interpreted in light of the main objective of this study. Secondly, the contributions of this thesis to theory and to practice are discussed. After that, it addresses limitations and the suggested directions for future research. This report ends with an overall conclusion that summarizes the main take-aways from this study.

### 5.1 *Interpretation of the main findings*

#### *The relationship of economic stress and leadership on employee well-being*

This study revealed that both financial concern and job insecurity, as economic stressors, decrease the psychological subjective well-being of employees in a way that they experience an increase in negative affective emotions when these stressors are present. These findings correspond with the expectations of this thesis, grounded in the JD-R framework of Demerouti et al., 2001, where financial concern and job insecurity are subjective job demands that come at the cost of their mental health and well-being. Financial concern is a subjective job demand as it causes negative interpretations of one's financial situation (Sinclair & Cheung, 2016) and job insecurity because this interpretation is made on the probability of losing one's job (Anderson & Pontusson, 2007; Bakker & Demerouti, 2007).

Moreover, as expected, both transformational and ethical leadership are able to increase employees' psychological subjective well-being, as the results indicate how a strong presence of these leadership styles causes employees to have less negative and more positive affective emotions. The JD-R theory provides explanation for this, leadership is a job resource that diminishes stress and creates a positive work environment (Demerouti et al., 2001). Transformational leadership is a job resource as it provides a positive vision for workers (Kelloway et al., 2012), whereas ethical leaders are job resources as they protect them against injustice (Lemoine et al., 2019). Consequently, the JD-R framework offers solid theoretical ground for understanding the negative relationship of economic stress with employee well-being, and the positive relationship leadership with employee well-being.

#### *Leadership mitigating the effect of economic stress on employee well-being*

Interpreting the moderation effects has provided us with a surprising answer to the main question of this study. Even though, the negative direction of the moderation effect on negative affect was as suspected following the JD-R framework (Demerouti et al., 2001) - job resources like transformational and ethical leadership buffer the damaging effects of subjective job demands like financial concern and job insecurity - this study did not find enough statistical significance for the existence of this effect. For the positive affect, the moderation effects were non-significant (except the one addressed below) and not in the proposed positive direction as it was grounded in the JD-R theory (Demerouti et al., 2001): more job resources like transformational and ethical leadership would lead to more positive affective emotions because the job demands of financial concern and job insecurity are diminished.

A possible explanation for this insignificance of the moderation effects could be the lack of exposure of the respondents to the leadership styles (Faber & Fonseca, 2014). Even though the mean values for transformational and ethical leadership were quite high, the standard deviation reveals that the observed data is quite spread out. This explains only limited cases were found to experience the job resources of transformational and ethical leadership. The reason for this low exposure could be that a large amount of our respondents occupied blue-collar job positions, and these type of workers are experiencing less forms direct leadership (Howard, 2020; Lee & Sabri, 2017). Another possible explanation could be that transformational or ethical leadership style as a standalone variable might not be enough to mitigate the effects of economic stress on well-being (Takiar, 2019). Several recent articles have for instance found that enhancing financial literacy amongst employees via a financial wellness program (Akhiar, 2024; Lone, 2024) and providing team bonding opportunities (Koubek, 2023; Wool, 2021) would enable workers to overcome economic obstacles. This illustrates that, on top of the buffering proposition from the JD-R theory, the harmful aspects of economic stress could be mitigated when leaders integrate a financial wellness program or team bonding opportunities on top of their transformational and ethical leadership characteristics.

#### *The unexpected effect of ethical leadership as a moderator*

The results indicated one significant negative relationship for ethical leadership as a moderator for the relationship of financial stress on positive affect (Figure 2). This surprising relationship tells us that for employees with ethical leaders, their positive mood gets down faster when they experience financial concerns versus when they are not exposed to ethical leadership. A possible explanation for this could be that 80% of the answers were collected in December 2020. This time period is characterised by a pandemic caused by the COVID-19 virus within both the Netherlands and Germany (Rijksoverheid, 2020; Robert Koch Institut, 2020). This had detrimental effects for labour as it for instance increased unemployment by 56 percent (BCS, 2024). This worldwide crisis can therefore be seen as a factor that could increase financial concerns amongst workers as employees' risked losing their income (Sinclair & Cheung, 2016). Ethical leadership is in some cases proven to not be an effective leadership style in times of a crisis, as the leader characteristic of considering fairness and morality is not seen as a priority by employees (Leschke-Kahle, 2020), but characteristics that are valued in a crisis are more task-oriented and taking control (Bar, 2022). Economically stressed employees might therefore be somehow more concerned with basic needs in terms of security and practical guidance, than how their leaders behave ethically (Godinic et al., 2020). Additionally, the old data set includes many elderly employees (Table 3), and these are less benefitted by ethical leadership than younger employees (Table 5). This could also be an explanation for the unexpected effect as elder individuals might have obtained higher levels of cognitive moral development, and therefore act ethically already (Kohlberg, 1981) and do not benefit as much from these leaders as younger employees.

## 5.2 *Theoretical contributions*

Subsequently, the contributions of this research to theory are discussed. First of all, by revealing insights on the phenomenon of economic stress in the workplace, this research has contributed to an understudied area of literature (Sinclair et al., 2024). It has concluded that both economic stressors are harmful for employees' well-being, in a way that they sense less positive affective emotions and more negative ones. Furthermore, against any expectations, it was found that ethical leadership aggravates the negative influences of this economic stress on employees' well-being, as employees' positive emotions, when experiencing financial concern, became less evident when ethically supervised. This is contrary to the findings of Probst (2005) and Haque & Yamoah (2021), who examined general occupational stress and found that ethical leadership as a job resource is able to mitigate the negative consequences of this on their subordinates' well-being. This thesis therefore revealed novel insights for economic stress in the workplace as a dependent variable compared to general occupational stress.

In addition, there was a lack of literature that addresses the role of leadership for economically stressed employees. By testing the JD-R theory in explaining how leadership as a job resource buffers economic stress as a job demand on employee well-being, this thesis has contributed to this. However, contrary to the propositions of this theory, this study found no significant mitigating effects for both transformational and leadership styles, only ethical leadership as an aggravating factor was found. This is opposite to the findings of the research of Kloutsiniotis et al. (2022), Lacerda et al. (2019) and Tadic et al. (2015), who found that transformational leadership is a mitigating job resource for economic stress on employee well-being as it facilitates individual coaching and a compelling vision that creates positive expectations, as well as it ensures respect and close relationships.

Lastly, this study has contributed to literature by contrasting and exploring both transformational and ethical leadership styles and therefore providing a more thorough understanding of their individual potential to diminish the negative effects of economic stress on psychological subjective well-being. This thesis revealed, as stated above, only one significant moderating effect for ethical leadership, and none for transformational leadership. However, both were found to be influencing the employees' psychological subjective well-being in a positive manner. This finding is in line with the evidence of Fernet et al. (2015), Nielsen & Munir (2009) and Van Dierendonck et al. (2004) who imply that a transformational leader is related to better employee well-being as they display coaching behaviour, support independent decision making and are transparent about expectations. Moreover, the positive effect found in this research for ethical leadership, was in accordance with the results of Avey et al. (2012), Li et al. (2013) and Teimouri et al. (2018) where the authors found that being servant and respectful for others as well as offering distributive justice and employee voice are characteristics of an ethical leader that positively influence employee well-being.

### **5.3 *Practical implications and recommendations***

Following up, this thesis provides several practical implications for stakeholders involved in the phenomenon under investigation. First, this study has emphasized how economic stress is a prevalent source of diminished well-being for employees, and it is therefore of utmost importance for practitioners to recognize their potential role in minimizing the damage that is done by experiencing this form of stress. Unfortunately, this study did not find statistical support for the fact that leadership is a workplace factor that mitigates the damage done by economic stress on employee well-being. This gives more reason for organisations to find other manners in which the financial vulnerability of their employees can be flattened. Eventually, employees as a stakeholder will benefit from this organisational intervention as they will become happy, healthy and productive, which is in turn beneficial again for organisations (Wright & Cropanzano, 2000).

Second, managers and supervisors should engage in transformational and ethical leadership characteristics so that the psychological subjective well-being of their subordinates is improved. Especially because the two leadership styles were examined separately, this thesis has defined the specific characteristics of a leader that are most appropriate for boosting the well-being of their subordinates. HR professionals could encourage their supervisors to exhibit these specific characteristics, for instance by offering trainings where behavioural coaches help with achieving positive changes in the current behaviour of supervisors (Goldsmith, 2022). Moreover, HR professionals could arrange information sessions where both employees and supervisors are enlightened upon the appropriate characteristics of transformational and ethical leadership. In this way, employees develop a thorough understanding of the exemplary leadership behaviour and could provide feedback when the actual leadership behaviour deviates from the exemplary one.

Third, an unexpected relationship within this study revealed the inefficiency of ethical leadership as a mitigating factor for economic stress. On the contrary, ethical leadership is an aggravating factor that should be taken into account by practitioners as economically stressed employees' positive mood is evidenced to decrease more when exposed to ethical leadership compared to no exposure. As the alternative explanation for this in section 5.1 covered, financially vulnerable employees might not be concerned about how their leaders behave ethically but more about their basic individual needs. Therefore, managers and supervisors should be cautious when implementing ethical leadership behaviour for employees that experience high financial concerns as this could have undesirable consequences. Moreover, governments should be concerned with enabling basic individual needs to economically stressed employees so that they can proceed in their working and private lives. On top of national governments that provide employee insurances and compensations for employers to hire vulnerable employees (Belastingdienst, 2024; Rijksoverheid, 2024), the local municipalities could for instance play a role in stimulating financial literacy within their community. For instance by reducing barriers towards understanding the financial products that are to the benefit of them and the skill to manage their budgets.

#### ***5.4 Limitations and suggestions for future research***

In addition to its theoretical and practical contributions, it is imperative to acknowledge the limitations of this thesis. First of all, a limitation is using PANAS as a subjective measure of well-being. Even though the scale has the ability to measure positive and negative affect, it is not a diagnostic tool as there are no thresholds for the scores and (Bowman, 2022). Moreover, PANAS is frequently criticized for including multiple items that are not typically classified as emotions and for leaving out a number of fundamental emotions as it includes general scales (Jovanović, 2015). Therefore, future work could for instance use Diener et al.'s (2010) Scale of Positive and Negative Experiences (SPANE) as an alternative instrument to measure subjective well-being, as this SPANE scale has proven its ability to perform better in predicting well-being than the PANAS (Espejo et al., 2020).

Another limitation of this study is the sample that is utilised for data analysis. The sample is collected four years apart from each other. On top of the changed employee perceptions of their needs due to the COVID-19 crisis as addressed in section 5.1, this difference in time could have additional consequences for the findings of this research. In general, research shows that leadership behaviour has changed over time in the “new normal” situation after the COVID-19 crisis (Turi & Sorooshian, 2024), which implies that the results of this research could be biased and might be related to decreased validity, as the respondents in 2020 perceived different standards for effective leadership compared to the respondents that filled in the questionnaire last April.

Following up on reflecting the choices in research design, the cross-sectional nature of this study is seen as a limitation. The suggested outcomes of the variables and its relationships are all based on a 1-time measurement. Therefore, this research was limited in making causal interpretations; the well-being of employees was only measured at a given moment in time. However, Watson et al. (1988) found that for instance positive affect varies according to the respondent's stage in life, and even to the time of the day during which the questionnaire was filled in. A longitudinal approach would therefore make sense for future work as it could be interesting to find out whether economically stressed employees' perceptions of leadership would change over time, or stays constant.

Lastly, a limitation of this study is that the sample only experienced a moderate sense of financial concern and job insecurity. Studying a sample that experiences real economic stress could provide more in-depth results and is therefore a suggestion for future research. Especially since most leadership and well-being theories are validated in observations done amongst more “elite” workers instead of the “vulnerable” ones (Inceoglu et al., 2018). Moreover, explorative research that invests what different factors in the workplace play a mitigating role for this real economic stress experienced by employees, is a future suggestion for literature. This inductive approach could improve the current theoretical understanding of economic stress in the workplace, as it holistically examines trends instead of already having determined the constructs by theory (Jebb et al., 2017).

## **6. Conclusion**

A concluding answer to the main question of this study would be that no evidence is found for transformational leadership to play a moderating role in the relationship of economic stress on employee's psychological subjective well-being. However, against any expectations, this research did find a moderating effect for ethical leadership where it aggravates the negative influences of economic stress on employees' well-being. Moreover, it was found that economic stress is harmful and leadership is beneficial for employees' psychological subjective well-being. Therefore, this thesis has clearly illustrated that employees in general experience transformational and ethical leadership as a good thing, but when economic stress comes in it has raised the question whether these leadership styles have the potential to mitigate some of the negative effects of this stress on employees. This underscores the necessity nowadays for practitioners to not only cultivate effective leadership like transformational and ethical styles, but also for literature to examine the influence organisation can exert in combatting economic stress amongst workers. Through this collective effort, we could enhance the general health and well-being of our population and therefore make our world a slightly better place to live in.

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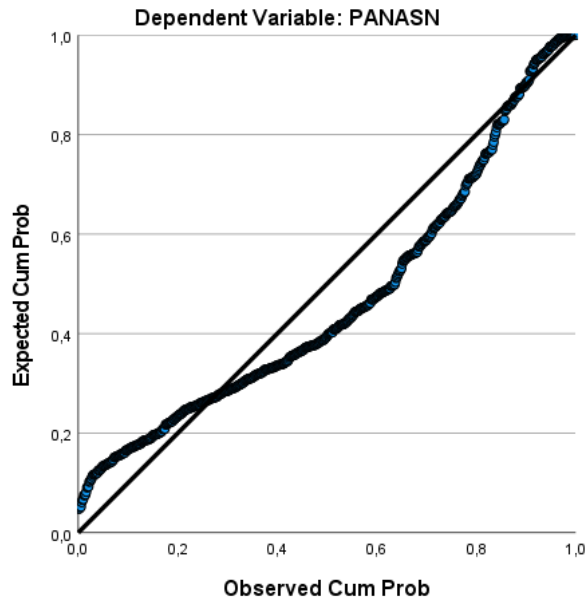
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# Appendices

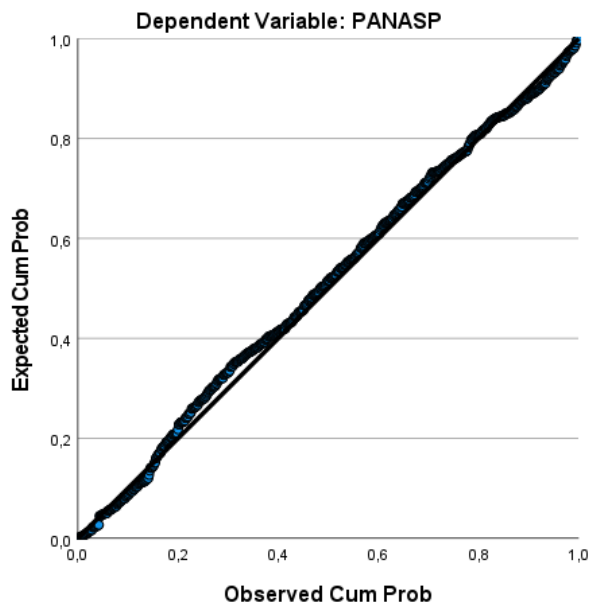
## Appendix A – Testing assumptions

### Normality

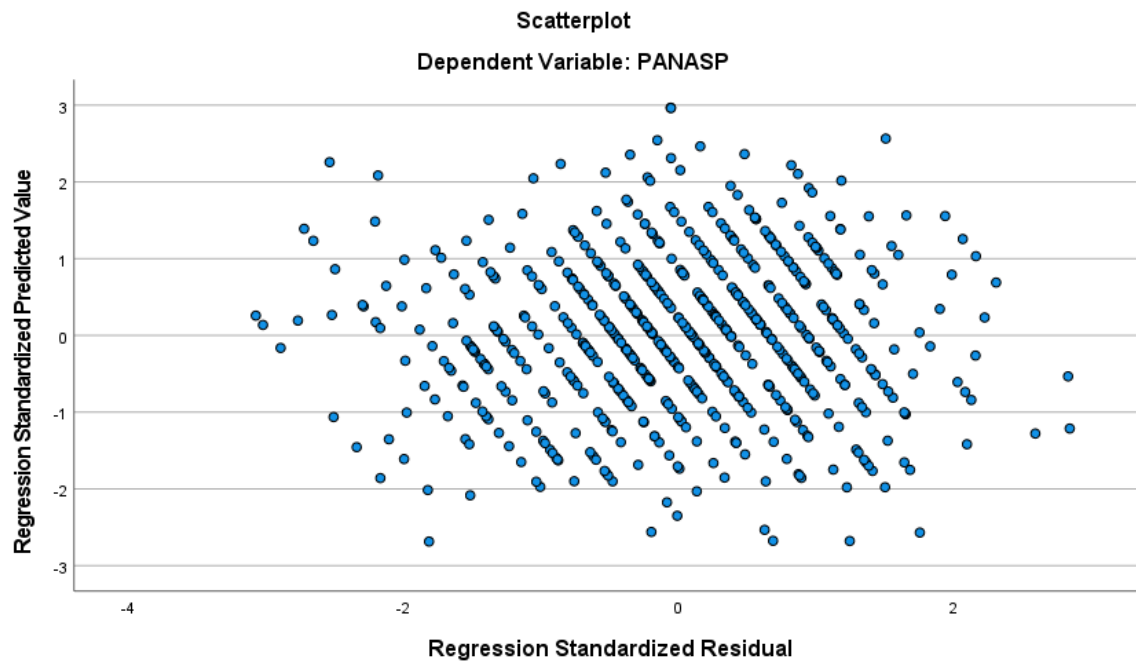
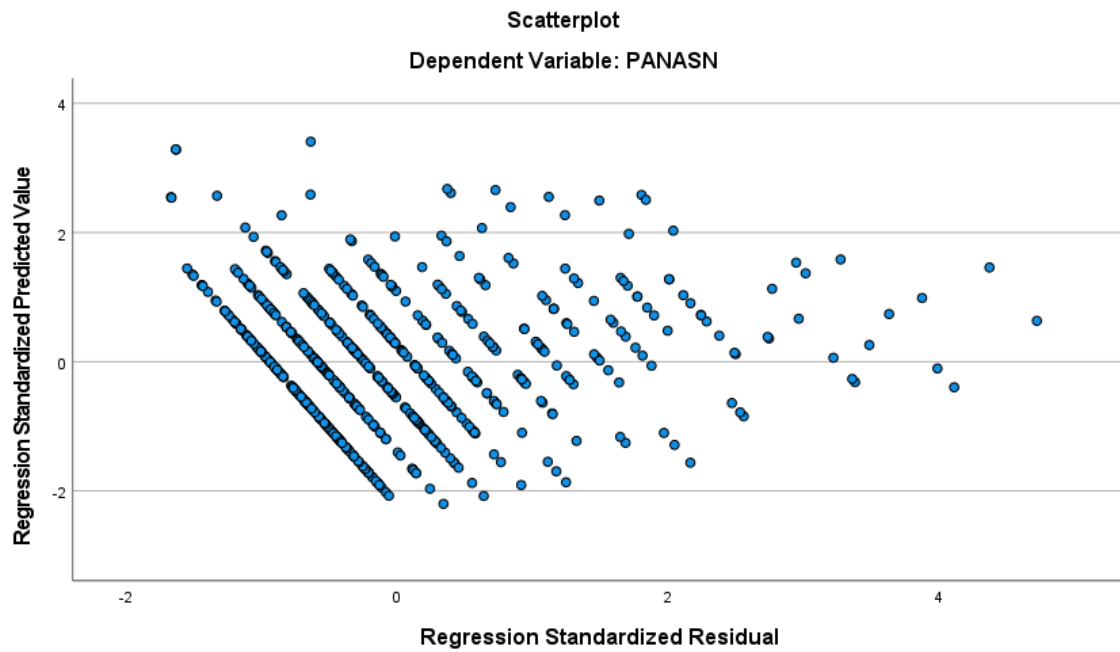
Normal P-P Plot of Regression Standardized Residual



Normal P-P Plot of Regression Standardized Residual



*Homoscedasticity*



*Multicollinearity*

*Coefficients<sup>a</sup>*

Model	Unstandardized Coefficients		Standardized Coefficients	Collinearity Statistics			
	B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1 (Constant)	1,612	,111		14,558	<,001		
COHORT	,204	,064	,131	3,162	,002	,855	1,170
E_AGE	-,008	,002	-,169	-4,079	<,001	,857	1,167
E_GENDER	-,038	,048	-,031	-,798	,425	,959	1,043
E_EDU	,069	,031	,087	2,198	,028	,932	1,073
2 (Constant)	1,728	,107		16,078	<,001		
COHORT	,030	,065	,019	,456	,648	,755	1,325
E_AGE	-,007	,002	-,145	-3,695	<,001	,852	1,173
E_GENDER	-,028	,046	-,023	-,618	,537	,958	1,044
E_EDU	,052	,030	,066	1,714	,087	,893	1,120
ZFINC	,152	,026	,245	5,789	<,001	,735	1,360
ZJINS	,089	,025	,144	3,570	<,001	,816	1,226
3 (Constant)	1,729	,107		16,147	<,001		
COHORT	,024	,065	,016	,375	,708	,754	1,326
E_AGE	-,006	,002	-,142	-3,626	<,001	,852	1,174
E_GENDER	-,031	,046	-,025	-,672	,502	,957	1,045
E_EDU	,051	,030	,065	1,695	,090	,893	1,120
ZFINC	,144	,026	,232	5,462	<,001	,724	1,381
ZJINS	,078	,025	,127	3,116	,002	,793	1,261
ZTL	-,059	,023	-,095	-2,519	,012	,922	1,084
4 (Constant)	1,720	,107		16,032	<,001		
COHORT	,032	,065	,021	,498	,618	,749	1,336
E_AGE	-,007	,002	-,148	-3,751	<,001	,843	1,187
E_GENDER	-,029	,046	-,023	-,632	,527	,956	1,046
E_EDU	,054	,030	,069	1,787	,074	,890	1,124
ZFINC	,143	,026	,230	5,410	<,001	,723	1,383
ZJINS	,078	,025	,126	3,102	,002	,793	1,261
ZTL	-,051	,024	-,083	-2,141	,033	,879	1,138
FINCxTL	-,005	,024	-,009	-,206	,837	,732	1,366
JINSxTL	-,029	,024	-,052	-1,222	,222	,716	1,397

a. Dependent Variable: PANASN

*Coefficients<sup>a</sup>*

Model	Unstandardized Coefficients		Standardized Coefficients	Collinearity Statistics			
	B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1 (Constant)	2,551	,137		18,567	<,001		
COHORT	-,283	,080	-,145	-3,536	<,001	,855	1,170
E_AGE	,014	,002	,252	6,176	<,001	,857	1,167
E_GENDER	,010	,060	,006	,166	,868	,959	1,043
E_EDU	,100	,039	,100	2,561	,011	,932	1,073
2 (Constant)	2,536	,138		18,344	<,001		
COHORT	-,203	,084	-,104	-2,427	,015	,755	1,325
E_AGE	,014	,002	,239	5,932	<,001	,852	1,173
E_GENDER	,006	,059	,004	,104	,917	,958	1,044
E_EDU	,092	,039	,092	2,335	,020	,893	1,120
ZFINC	-,034	,034	-,043	-,993	,321	,735	1,360
ZJINS	-,129	,032	-,166	-4,017	<,001	,816	1,226
3 (Constant)	2,536	,134		18,872	<,001		
COHORT	-,186	,081	-,095	-2,290	,022	,754	1,326
E_AGE	,013	,002	,231	5,896	<,001	,852	1,174
E_GENDER	,014	,057	,009	,238	,812	,957	1,045
E_EDU	,094	,038	,094	2,466	,014	,893	1,120
ZFINC	-,008	,033	-,011	-,248	,804	,724	1,381
ZJINS	-,096	,032	-,123	-3,031	,003	,793	1,261
ZTL	,184	,029	,237	6,281	<,001	,922	1,084
4 (Constant)	2,516	,134		18,722	<,001		
COHORT	-,177	,081	-,091	-2,176	,030	,749	1,336
E_AGE	,013	,002	,227	5,776	<,001	,843	1,187
E_GENDER	,017	,057	,011	,298	,766	,956	1,046
E_EDU	,098	,038	,098	2,568	,010	,890	1,124
ZFINC	-,009	,033	-,012	-,276	,783	,723	1,383
ZJINS	-,097	,032	-,124	-3,069	,002	,793	1,261
ZTL	,197	,030	,253	6,579	<,001	,879	1,138
FINCxTL	-,047	,030	-,066	-1,565	,118	,732	1,366
JINSxTL	-,016	,029	-,023	-,537	,591	,716	1,397

a. Dependent Variable: PANASP

Coefficients<sup>a</sup>

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	1,612	,111		14,558	<,001		
COHORT	,204	,064	,131	3,162	,002	,855	1,170
E_AGE	-,008	,002	-,169	-4,079	<,001	,857	1,167
E_GENDER	-,038	,048	-,031	-,798	,425	,959	1,043
E_EDU	,069	,031	,087	2,198	,028	,932	1,073
2 (Constant)	1,728	,107		16,078	<,001		
COHORT	,030	,065	,019	,456	,648	,755	1,325
E_AGE	-,007	,002	-,145	-3,695	<,001	,852	1,173
E_GENDER	-,028	,046	-,023	-,618	,537	,958	1,044
E_EDU	,052	,030	,066	1,714	,087	,893	1,120
ZFINC	,152	,026	,245	5,789	<,001	,735	1,360
ZJINS	,089	,025	,144	3,570	<,001	,816	1,226
3 (Constant)	1,726	,107		16,129	<,001		
COHORT	,037	,065	,024	,570	,569	,753	1,327
E_AGE	-,007	,002	-,146	-3,718	<,001	,852	1,173
E_GENDER	-,029	,046	-,023	-,626	,531	,958	1,044
E_EDU	,051	,030	,064	1,672	,095	,893	1,120
ZFINC	,145	,026	,234	5,527	<,001	,728	1,374
ZJINS	,073	,026	,118	2,856	,004	,771	1,298
ZEL	-,063	,024	-,102	-2,690	,007	,905	1,104
4 (Constant)	1,709	,107		15,895	<,001		
COHORT	,044	,065	,028	,682	,496	,747	1,338
E_AGE	-,007	,002	-,149	-3,787	<,001	,847	1,180
E_GENDER	-,029	,046	-,024	-,642	,521	,957	1,045
E_EDU	,056	,030	,071	1,853	,064	,884	1,132
ZFINC	,145	,026	,234	5,534	<,001	,727	1,375
ZJINS	,223	,085	,360	2,625	,009	,069	14,439
ZEL	-,057	,024	-,091	-2,334	,020	,852	1,173
FINCxEL	,019	,025	,031	,748	,455	,778	1,285
JINSxEL	-,029	,016	-,250	-1,853	,064	,072	13,911

a. Dependent Variable: PANASN

Coefficients<sup>a</sup>

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	2,551	,137		18,567	<,001		
COHORT	-,283	,080	-,145	-3,536	<,001	,855	1,170
E_AGE	,014	,002	,252	6,176	<,001	,857	1,167
E_GENDER	,010	,060	,006	,166	,868	,959	1,043
E_EDU	,100	,039	,100	2,561	,011	,932	1,073
2 (Constant)	2,536	,138		18,344	<,001		
COHORT	-,203	,084	-,104	-2,427	,015	,755	1,325
E_AGE	,014	,002	,239	5,932	<,001	,852	1,173
E_GENDER	,006	,059	,004	,104	,917	,958	1,044
E_EDU	,092	,039	,092	2,335	,020	,893	1,120
ZFINC	-,034	,034	-,043	-,993	,321	,735	1,360
ZJINS	-,129	,032	-,166	-4,017	<,001	,816	1,226
3 (Constant)	2,536	,134		18,872	<,001		
COHORT	-,186	,081	-,095	-2,290	,022	,754	1,326
E_AGE	,013	,002	,231	5,896	<,001	,852	1,174
E_GENDER	,014	,057	,009	,238	,812	,957	1,045
E_EDU	,094	,038	,094	2,466	,014	,893	1,120
ZFINC	-,008	,033	-,011	-,248	,804	,724	1,381
ZJINS	-,096	,032	-,123	-3,031	,003	,793	1,261
ZTL	,184	,029	,237	6,281	<,001	,922	1,084
4 (Constant)	2,516	,134		18,722	<,001		
COHORT	-,177	,081	-,091	-2,176	,030	,749	1,336
E_AGE	,013	,002	,227	5,776	<,001	,843	1,187
E_GENDER	,017	,057	,011	,298	,766	,956	1,046
E_EDU	,098	,038	,098	2,568	,010	,890	1,124
ZFINC	-,009	,033	-,012	-,276	,783	,723	1,383
ZJINS	-,097	,032	-,124	-3,069	,002	,793	1,261
ZTL	,197	,030	,253	6,579	<,001	,879	1,138
FINCxTL	-,047	,030	-,066	-1,565	,118	,732	1,366
JINSxTL	-,016	,029	-,023	-,537	,591	,716	1,397

a. Dependent Variable: PANASP

*Linearity*

