

Will empowering leadership make a career more sustainable?

Applying a paradox perspective towards the conflicting mechanisms of self-efficacy and work-related stress.



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Abstract

This study aims to create insights on how positive and negative effects of empowering leadership related to career sustainability by identifying two conflicting mechanisms within that relationship. As empowering leadership has been proved to have positive as well as negative outcomes, the two conflicting mechanisms are suggested to operate via one positive mediator, self-efficacy and one negative mediator, work-related stress, for which the Job Demands-Resources framework was used to further argument these mechanisms. By looking into the negative effects and ‘dark side’ of empowering leadership this study hopes to contribute to the literature trying to capture the multifaced nature of empowering leadership. A quantitative and dyadic study ($n=125$) was performed in order to test the three suggested hypotheses. The results confirmed that empowering leadership positively influences career sustainability and that self-efficacy mediates this positive relationship. No evidence was found for a mediating effect of work-related stress between a negative relationship between empowering leadership and career sustainability. Therefore, the suggested conflicting mechanisms could not be confirmed. Outcomes of this showed that empowering leadership can be applied in practice to make careers of employees more sustainable, as it increases their overall well-being.

Key words: Career sustainability, empowering leadership, self-efficacy, work-related stress, employee well-being.

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1. Introduction

The importance of creating and maintaining a sustainable career has been underlined in many academic studies in the past decade (De Vos & Van der Heijden, 2015; De Vos et al., 2017; De Vos et al., 2020). The way people perceive careers and how they should become sustainable has changed and consequently, studying sustainable careers has become more important (Van der Heijden & De Vos, 2015). Nowadays, people have on average 12.4 jobs during their life (U.S. Bureau of Labor Statistics, 2021), which contests the upward mobility perspective of a career in which someone works for one employer their whole career. What makes a career sustainable is not having or keeping one certain job but is more about being and remaining happy, healthy and productive throughout that career, regardless of where one works (De Vos & Van der Heijden, 2015). The notion of sustainable careers has contributed to a greater focus towards the current and long-term well-being of employees (McDonald & Hite, 2018). Realizing and maintaining this well-being is critical for achieving human and career sustainability (De Vos et al., 2020). Thus, sustainable careers cannot be studied without considering well-being (De Vos et al., 2020). If one is not able to maintain a beneficial level of well-being, its career won't be sustainable. It has been argued that well-being should be concerned more as an end state in research instead of a means to achieve other performance outcomes (Inceoglu et al., 2018). Therefore, this study aims to integrate well-being as an end state by investigating sustainable careers as outcome.

A career is generally approached from an individual perspective which means that the person itself is the 'owner' of the career that can become sustainable through proactivity and control (De Vos et al., 2020). However, this so-called individual agency does not mean that it is the full responsibility of the individual employee to ensure his or her career sustainability. It is a shared responsibility wherein the employer is required to provide certain circumstances that helps employees demonstrate individual agency and create meaning, for instance through certain leadership behaviours (Van der Heijden et al., 2020). This research aims acknowledge this shared responsibility by studying career sustainability as outcome of a distinct leadership style, empowering leadership (Pearce et al., 2003). Empowering leadership concerns leaders sharing power with their subordinates (Conger & Kanungo, 1988) and consists of multiple dimensions focused on sharing authority, decision making, problem solving or information (Konczak et al., 2000). These leadership behaviours generate psychological empowerment of employees (Zhang & Bartol, 2010), which fosters greater feelings of autonomy and self-responsibilities (Kirkman & Rosen, 1999; Spreitzer, 1995).

Academic literature has already provided some insights that give reason to assume that empowering leadership supports career sustainability (Barthauer et al., 2020; Martin et al., 2013; Richardson & McKenna, 2020; Van Dam et al., 2015). Career sustainability is stimulated by self-regulatory behaviours of employees such as adaptability, goal striving and pro-activity (Van Dam et al., 2015). Building on the Job Demands-Resources (JD-R) framework (Demerouti et al., 2001) it can be argued that empowering leadership can provide certain resources like autonomy, information or power. These job resources are positive aspects of a job, functional in achieving work goals or dealing with job demands and beneficial for personal growth and development (Demerouti et al., 2001). They fulfil certain needs for autonomy and competence, which might further enhance the intrinsic motivation to engage in proactive and self-directed activities (Martin et al., 2013), self-regulatory behaviours that contribute to career sustainability.

Although positive effects of empowering leadership on employee outcomes are very well discovered (Lee et al., 2018), suggesting an enabling process, other studies have proposed that empowering leadership can have unintended negative consequences (Cheong et al., 2019; Lee et al., 2017; Yam et al., 2021). While empowering leaders can provide valuable resources to employees, they can also create some unintended job demands that require more sustained physical or mental effort (Demerouti et al., 2001). The suggested curvilinear effect (Lee et al., 2017) and ‘Too Much of Good’ effect (Sharma & Kirkman, 2015) provide insights on how too much empowering leadership can negatively influence an employee and prompt a so-called burdening process (Cheong et al., 2016), for instance through the cost of autonomy (Langfred & Moye, 2004) or role stress (Rizzo et al., 1970). This means that employees can be overwhelmed by too much autonomy and are not able to deal with having to make so many decisions or not know what roles to take on regarding certain work tasks.

The goal of this study is to create insights on how both these positive and negative outcomes of empowering leadership relate to career sustainability by identifying two conflicting mechanisms within that relationship. Considering and integrating both sides is important because taking this balanced view will help in revealing the real nature of empowering leadership (Cheong et al., 2016). Studying its conflicting mediating mechanisms will further specify how empowering leadership is not purely beneficial and through which paths it can become disadvantageous or ineffective and induce undesired outcomes (Cheong et al., 2019; Sharma & Kirkman, 2015). Overall, it will help empowering leadership in becoming a more effective leadership style.

To offer this deeper understanding on how empowering leadership relates to career sustainability, a paradox perspective is applied. The two conflicting mechanisms are tested via two mediating relationships, one through self-efficacy as positive outcome and enabling process and the other through work-related stress as negative outcome and burdening process. Therefore, following research question is adopted:

“How does empowering leadership relate to career sustainability, and to what extent is this relationship mediated by self-efficacy and work-related stress as conflicting mechanisms?”

The enabling process of empowering leadership to career sustainability is proposed to operate through its positive relationship with self-efficacy. Self-efficacy reflects people's perceptions about their own ability to successfully organize and execute activities in order to achieve certain outcomes (Bandura, 1986). The positive relationship between empowering leadership and self-efficacy has been well-studied and well-established in prior research (Ahearne et al., 2005; Cheong et al., 2016; Dong et al., 2015; Kim & Beehr, 2017; Srivastava et al., 2006; Zhang & Zhou, 2014). Self-efficacy has been considered as a resource that helps individuals in creating and maintaining sustainable careers (Kelly et al., 2020). Furthermore, self-efficacy has been studied as antecedent of career satisfaction (Biemann et al., 2015), career decision-making (Betz et al., 1996) and career self-management (Lent & Brown, 2013), which are all important to career sustainability. Altogether, self-efficacy reflects a personal resource that is positively influenced by empowering leadership, which in turn positively influences career sustainability.

To empirically test the burdening process of empowering leadership to career sustainability, this research will focus on its positive relationship to work-related stress. Cheong et al. (2016) have yet showed how certain demands associated with empowering leadership can cause employees to experience feelings of strain, nervousness or stress which results in job induced tension (Cheong et al., 2016). Therefore it is acceptable to assume that empowering leadership has the ability to prompt work-related stress. Furthermore, Sharma and Kirkman (2015) proposed that over time, empowering leadership causes hindrance stressors and has a U-shaped relationship with negative consequences such as psychological distress. If empowering leadership is displayed too excessively, its positive effects are lost and more work-related stress is likely to occur. According to De Vos et al. (2020), in order to realize career sustainability, employees need psychological resources for coping with current and career-related tasks, transitions and traumas (Savickas & Porfeli, 2012). When employees experience work-related stress, one can expect those psychological resources that are required

for career sustainability will be limited. Therefore, this research proposes that work-related stress is positively influenced by empowering leadership, which in turn negatively influences career sustainability.

This research offers two scientific contributions. First, only a few studies have researched how a sustainable career can and should be developed (De Hauw & Greenhaus, 2015; De Vos et al., 2017; Heslin et al., 2020). McDonald and Hite (2018) studied how sustainable careers should be conceptualized and created and how human resource development should play a role in this. One of their implications concentrates on supporting individual employees by guiding them in creating a sustainable career. This research will create insights on how this support can be realized through empowering leadership and thereby by fill those existing gaps on how to realize that support. It will elaborate on how empowering leadership supports self-efficacy which in turn helps employees to create a sustainable career. On the other hand, it will also show how applying it to support career sustainability should be considered carefully due to its negative effects. Second, diverse academic writings have implied to look more into the negative outcomes of empowering leadership. Sharma and Kirkman (2015) have recommended to investigate the U-shaped effects of empowering leadership and they recommend that this ‘dark side’ of empowering leadership should be studied in future work. Cheong et al. (2019) suggest applying a paradox-examining perspective in future research by looking at the interplay of opposite forms or consequences. This research aims to answer these suggestions by identifying another burdening process and further unravel the real nature of empowering leadership.

Next to these theoretical contributions, this research also aims to provide practical contributions by creating insights on how empowering leadership could applied in organisations to build sustainable careers. Career sustainability is ought to be of great importance nowadays because the philosophy that a career is reflected by continued employment in one job has become implicit (De Vos et al., 2020). Employers and organisations are recommended to create sustainable careers, regardless of whether an employee will keep working for them (Lawrence et al., 2015). Insights of this research can guide HR professionals, managers and supervisors by confirming how an empowering leadership style is a possible instrument for developing sustainable careers, but also how it could also be destructive regarding consequential work-related stress. It will help them become more aware of both contradictory outcomes and develop more effective leaders.

The remaining part of this thesis is structured as follows. The next section, chapter 2, will provide a theoretical framework that supports the proposed relations between empowering

leadership and career sustainability. Chapter 3 demonstrates the quantitative methodology applied in this research and chapter 4 will show the results that came forward after collecting and analyzing data. Subsequently, chapter 5 provides a conclusion and discussion that includes theoretical and practical implications, limitations and recommendations for future research.

2. Theoretical framework

This chapter will further elaborate on the main concepts of this research and their proposed relationships. It will provide a deeper understanding of the theories and empirical insights underlying empowering leadership and career sustainability in order to support their relationship. Furthermore, the JD-R framework will be applied to provide argumentation for the mechanisms underlying the conflicting mediating relationships of self-efficacy and work-related stress.

2.1 Career sustainability

A career is defined as the sequence of work experience that evolves over the individual's life course (Arthur et al., 1999; Greenhaus et al., 2010; Hall, 2002). With the emergence of sustainability in the fields of management and HRM, other concepts such as sustainability at work (De Lange et al., 2015), human sustainability (Pfeffer, 2010), employability (Van der Heijde & Van der Heijden, 2006) and sustainable HRM (Ehnert & Harry, 2012) have found its way into academic literature. These concepts stem from "a worldview according to which people should strive to fulfill their needs in a manner such that the ability of future generations to fulfill their needs is not endangered" (Docherty et al., 2009, p.3). In this way, sustainability focusses on the ability of long-term use and re-use of (human) resources. Along with those new approaches, the need for a new career concept that reconsiders the notion of contemporary careers and puts them in a more historical perspective was recognized by Van der Heijden and De Vos (2015) as the sustainable career. The sustainable career incorporates the four central elements of time, social space, agency and meaning and how they have changed over the years (Van der Heijden & De Vos, 2015). Over the past decades, shorter-term career sequences, more boundaryless careers, increased individual responsibilities and subjective career success have diminished the traditional and predictable upward mobile careers (Van der Heijden & De Vos, 2015). These shifts in the four elements point out how careers are much less stable and more complex nowadays.

Until now, studies on sustainable careers have defined what they are, provided underlying theoretical frameworks and presented approaches for measuring and testing career sustainability (Van der Heijden et al., 2020). However, while multiple conceptualizations and operationalizations can be found in academic literature, studies on the dynamic processes underlying career sustainability that recognize its complex character and changes over time are in a minority (Van der Heijden et al., 2020). Van der Heijden and De Vos (2015) earlier pleaded for more attention towards the alignment of the career-related needs and goals of

employees and organisations together. This reflects the need to overcome an overly agentic perspective found in career research recent years and suggests that employers should support sustainable careers based on employee needs (Van de Heijden et al., 2020). Taking a shared responsibility towards creating career sustainability can facilitate personal career-related outcomes as well as organisational outcomes (Newman, 2011). Over decades, a shift has occurred from individuals versus organisations to individuals within organisations to individuals within, inside and outside organisations (Lawrence et al., 2015). Together with a highly competitive economic climate wherein a shift occurs from permanent to more temporary work and technological factors creating more employment insecurity and work intensification (McDonald & Hite, 2018), studying and creating sustainable careers has become more pertinent.

Building on the dynamic character of the sustainable career, De Vos and Van der Heijden (2015) have come up with the following definition: “the sequence of an individual’s different career experiences, reflected through a variety of patterns of continuity over time, crossing several social spaces, and characterized by individual agency, herewith providing meaning to the individual” (p. 7). The underlying notion of this definition is that a sustainable career is about finding a balance between individual and organisational needs and contains four elements. *Continuity over time* refers to the sequence of career experiences that are reflected by periods of employment versus periods of unemployment, sick leave, part-time work, volunteering or caregiving in which someone (unintendedly) works less (De Vos & Van der Heijden, 2015). *Social space* refers to the different contexts in which an individual finds itself during their career. Contexts differ from personal ones to more economic or societal ones and because careers shift between these contexts, careers have become more boundaryless (De Vos & Van der Heijden, 2015). This means that today, individuals are expected to engage in more and different types of work activities for different types of employers. Furthermore, actors and factors within the context of an individual can ensure continuity and thus career sustainability (De Vos & Van der Heijden, 2015). *Agency* stems from the choices that one individual makes regarding its career and career development. These choices are a result of individual needs and aspirations but are also influenced by external influences from the work context and broader life context (De Vos & Van der Heijden, 2015). Objectives of the organisation and objectives of the individual should be aligned and mutually beneficial in order for a career to be sustainable. Next to obtaining new expertise and creating new career opportunities, creating *meaning* from professional activities is perceived to be of great importance. Only those individuals who are able to derive meaning from their work as well as

from other aspects of life are expected to realize career sustainability (De Vos & Van der Heijden).

Based on this definition, De Vos et al. (2020) identified interacting dimensions and indicators of sustainable careers. A person themselves, its context and time are important dimensions to consider when looking at how a sustainable career is realized. Together with these dimensions, De Vos et al. (2020) have drawn a conceptual model that presents three indicators of sustainable careers, happy, healthy and productive. The model suggests that when an individual is able to engage proactively and adaptively towards its context over time, he or she will realize a person-career fit. This person-career fit makes employees happy, healthy and productive. The three indicators reflect the dynamic fit of one's career over time with (1) one's values, career goals, or needs regarding work-life balance or personal growth (happy), (2) one's mental and physical capabilities (healthy) and (3) organisational human capital needs (productive). Altogether, these dimensions and indicators of sustainable careers interact with each other and thus concern many underlying processes that reflect the dynamic character of sustainable careers.

Other indicators that are important when aiming to create a sustainable career are for instance a growth mindset and active learning that help employees get into a learning mode (Heslin et al., 2020). Furthermore, so called 'agile learning strategies' through which employees search actively for feedback and are open to experience (Anseel, 2017) have been proven to enhance sustainable careers. What seems to be critical for learning and growth to appear, is this openness towards experience (Bozionelos et al., 2020) from employees. When employees are open to learn and systematic training and development are provided, other indicators of career sustainability like performance, employability (Bozionelos et al., 2020), adaptability (Van Dam et al., 2015), career success (Straub et al., 2020), turnover intentions (Barthauer et al., 2020) and well-being (De Vos et al., 2020) can be successfully enhanced. Organisations need to be aware of these indicators and antecedents and how they might positively (or negatively) influence career sustainability. Altogether, initiatives from organisations towards employees to promote their career sustainability are merged into the term sustainable career management (De Vos et al., 2017). Realizing these sustainable careers is therefore a shared responsibility in which the individual needs to take initiative and the organisation needs to realize support, for instance through offering leader behaviours like empowering leadership.

2.2 Empowering leadership

2.2.1 Empowerment and leadership

Empowerment has been considered an important organisational concept as it supports employees in increasing their effectiveness (Cheong et al., 2016) due to its ability to foster autonomy, self-responsibilities (Kirkman & Rosen, 1999) and pro-active behaviours (Martin et al., 2013). Conger and Kanungo (1988) have distinguished empowerment as a relational and a motivational construct. The relational construct of empowerment refers to the process of an individual sharing his or her power with subordinates (Conger & Kanungo, 1988). The motivational construct of empowerment considers power as the intrinsic need for self-determination (Deci, 1975) or a belief in self-efficacy (Bandura, 1986). This motivational construct refers to “a process of enhancing feelings of self-efficacy among organisational members through the identification of conditions that foster powerlessness and through their removal by both formal organisational practices and informal techniques of providing efficacy information” (Conger & Kanungo, 1988, p. 474). These practices and techniques do not solely mean a leader or manager delegating or sharing some power, but also constructing other conditions that empower and foster feelings of efficacy. Based on their research, Conger and Kanungo (1988) requested a more direct link between empowerment and leadership that investigates the potential of empowerment as effective leadership style.

Empowering leadership builds on this wider notion of empowerment and refers to those organisational actors that create the necessary organisational conditions for empowerment (Conger & Kanungo, 1988). Many studies have acknowledged the influential role of the leader in realizing employee empowerment (Ahearne et al., 2005; Conger & Kanungo, 1988; Martin et al., 2013). Nowadays, leaders are expected to manage more responsibilities regarding their environment due to globalization, changing technologies, diminishing resources and increasing costs and face much more demands to manage their employees (Sharma & Kirkman, 2015). Sharma and Kirkman (2015) have pointed out that in order to deal with these responsibilities and demands, leaders experience a practical imperative to engage in empowering behaviours. To decrease their own workload, leaders enable employees to do more work and make more decisions themselves.

Empowering leadership has been defined by many authors (Ahearne et al., 2005; Amundsen & Martinsen, 2014; Arnold et al., 2000; Chen et al., 2011; Kirkman & Rosen, 1999; Sharma & Kirkman, 2015; Zhang & Bartol, 2010). Cheong et al. (2019) have integrated many of these definitions into the following: “a process of sharing power, and allocating autonomy and responsibilities to followers, teams, or collectives through a specific set of

behaviours for employees to enhance internal motivation and achieve work success” (p. 34). This set of behaviours refers to enhancing the meaningfulness of work, expressing confidence in high performance, promoting participation in decision making and providing autonomy from bureaucratic constraints (Cheong et al., 2016; Conger & Kanungo, 1988). In multiple empowering behaviours of leaders, autonomy is an essential and leading concept. According to Amundsen and Martinsen (2014), leaders give autonomy through sharing power, they help employees in coping with autonomy through motivation support and promote skills and competence of employees for working autonomously through development support.

Within the leadership literature, empowering leadership is recognized as a constructive style of leadership (Kaluza et al., 2020) and fits within the positive (Spreitzer, 1995) and supportive (Bowers & Seashore, 1996) stream of leadership literature. This leadership style has been suggested to resemble situational leadership (Hersey et al., 1979), participative leadership (Locke & Schweiger, 1979), super leadership (Manz & Sims Jr, 1990), individualized leadership (Dansereau et al., 1995) and shared leadership (Fausang et al., 2015) as they all concern delegating, coaching, sharing and informing behaviours. However, it is an empirically and conceptually distinct style of leadership with specific representative leader behaviours (Pearce, 2003), a specific focus and central behavioural dimensions (Cheong et al., 2019).

Generally, two approaches towards empowering leadership and empowerment can be recognized, a structural and a psychological approach (Sharma & Kirkman, 2015). The structural approach looks at empowerment as something that is encouraged structurally through organisational conditions (Sharma & Kirkman, 2015). It examines leader behaviours and dimensions of leadership as instruments that facilitate empowerment (Cheong et al., 2019). Structural empowerment can be defined as “a practice, or set of practices involving the delegation of responsibility down the hierarchy so as to give employees increased decision-making authority in respect to the execution of their primary work tasks” (Leach et al., 2003, p. 28). Contradictory, psychological empowerment refers to the definition of Conger and Kanungo (1988), illustrated earlier in this section. It examines the extent to which employees believe that they experience impact, competence, autonomy and meaningfulness. Empowering leadership is thus an antecedent of psychological empowerment. This study aims to integrate two approaches of empowerment, from looking into empowering leadership as an organisational practice that represents an antecedent of employee psychological empowerment captured through two mediators, self-efficacy and work-related stress.

2.2.2 *Empowering leadership and sustainable careers*

In current academic literature, positive consequences of empowering leadership are widely studied and empirically confirmed (Ahearne et al., 2005; Srivastava et al., 2006; Vecchio et al., 2010; Zhang & Bartol, 2010). All these positive outcomes support the idea that empowering leadership generates an enabling process. Structural and psychological empowerment enables employees to develop self-control and act on their own. It creates conditions in which they feel that they can explore alternatives and take initiatives outside their formal responsibilities (Lee et al., 2018). These proactive behaviours and personal initiatives help employees customize their work to their own needs and aspirations (Frese et al., 1996; Hornung & Rousseau, 2007; Kim & Beehr, 2018). This process of adapting and proactively reacting towards jobs and careers and pursuing individual needs and aspirations, is key to a sustainable career. In addition, multiple studies have also showed how empowering leadership is positively related to learning behaviours (Yun et al., 2005), knowledge sharing (Eze et al., 2013; Srivastava et al., 2006) and creativity (Amundsen & Martinsen, 2015; Zhang & Bartol, 2010). This suggests that those empowering leader behaviours provide opportunities for employees to learn and possibly get into a ‘learning mode’, which has been declared as a form of self-directed learning that can enhance people’s career sustainability (Heslin et al., 2020).

Unintended and negative consequences of empowering leadership are also being explored in an emerging body of literature (Sharma & Kirkman, 2015). Many other negative consequences, related to resistance, stress or exhaustion have been studied (e.g. Cheong et al., 2019). Cheong et al. (2019) have reviewed the effectiveness of empowering leadership based on existing literature to uncover the incongruent and mixed results so far. They conclude that the multifaced nature of empowering leadership should be captured by considering non-linear effects, reverse causation, contradictory mediating mechanisms or boundary conditions. Addressing the negative outcomes, Conger and Kanungo (1988) argued how empowering leader behaviours could result in subordinates becoming overconfident and therefore make more strategic or tactical errors. Furthermore, Humborstad and Kuvaas (2013) illustrated how empowering leadership can encourage high role ambiguity or low intrinsic motivation if leaders overestimate employees’ wishes towards empowerment. Along with other negative consequences like stress, strain and nervousness (Cheong et al., 2016), they require more psychological effort to deal with basic elements of work tasks. In turn, this will come at the expense of proactive and adaptive behaviours that are essential for career sustainability (De Vos & Van der Heijden, 2020).

Taken together, although negative effects are expected to come about, empowering leadership does create ample opportunities for employees to act in ways that contribute to their career sustainability. The autonomy, decision making power, participation and supervisor support that are part of empowering leadership help employees to engage in self-regulatory behaviours, learning behaviours, creativity or personal development, while performing their regular work tasks. Therefore this research expects an overall positive relationship and proposes the following hypothesis:

Hypothesis 1: Empowering leadership has a positive relationship with career sustainability.

2.3 Job Demands-Resources Framework

In this study, the Job Demands-Resources (JD-R) framework will be conceptualized as a potential mechanism through which empowering leadership influences career sustainability via self-efficacy and work-related stress. The framework captures how job demands (stressors) and job resources (energy sources) in a work environment have the potential to cause strain or stress on the one hand, and engagement or motivation on the other hand (Schaufeli & Bakker, 2004). Job demands are the psychological, social, physical and organisational requirements of a job that demand endured physical and psychological efforts and therefore come with the necessary physical and/or psychological costs (Akkermans et al., 2013). Job resources are those physical, psychosocial, social, or organisational aspects of the job that support the employee in achieving work goals, reducing job demands, or stimulating personal growth, learning, and development (Akkermans et al., 2013). The framework shows how demands and resources interact, cause exhaustion or motivation and eventually lead to other organisational or individual outcomes, negative or positive. It demonstrates two underlying processes of which (1) the motivational process suggests that job resources increase levels of motivation through, for instance, work engagement and (2) the health impairment process suggests that job demands increase strain in the form of emotional exhaustion (Schaufeli & Bakker, 2004). Bakker and Demerouti (2017) have studied this model in more a long-term perspective and concluded how job resources could function as motivators or buffers over time across different occupational fields (Van der Heijden et al., 2020).

When leaders engage in empowering behaviours and share some of their power, employees are given additional resources. Autonomy, decision making power, participation and supervisor support are generally seen as job resources (Bakker et al., 2005; Demerouti et al., 2001). However, leaders that empower their employees by setting high performance

standards, giving them additional work or decisions to make could provoke higher job demands. In the next sections, the JD-R framework will be used as theoretical lens to explain the two mediating effects as conflicting mechanisms.

2.4 The enabling process of empowering leadership

In this thesis, the enabling process of empowering leadership towards career sustainability is further explained through self-efficacy as mediator. As already mentioned in the previous section, empowering leadership is concerned as a motivational construct enhancing feelings of self-efficacy (Conger & Kanungo, 1988). Self-efficacy can be defined as “the strength of people’s convictions in their own effectiveness” (Bandura, 1977, p. 193) or “the belief in one’s capabilities to organize and execute the course of action required to produce given attainments” (Bandura, 1986, p. 3). Empowering leadership thus enhances employees’ perceptions of their own abilities to successfully perform activities in order to achieve outcomes. Moreover, motivational support, developmental support, emotional support, expressing confidence in high performance (Amundsen & Martinsen, 2014; Bandura, 1986; Cheong et al., 2016) and many other empowering behaviours help employees in enhancing perceptions about their abilities, and thus self-efficacy. Since many researchers have established the positive effect of empowering leadership on self-efficacy in their studies over the years (Ahearne et al., 2005; Cheong et al., 2016; Dong et al., 2015; Kim & Beehr, 2017; Srivastava et al., 2006; Zhang & Zhou, 2014) further argumentation as to why this study can also expect to find this positive relation would be redundant. More interestingly, the focus of this research is not this relationship but its mediating effect towards career sustainability (combined with a competing mediating effect of work-related stress). To illustrate why self-efficacy, enhanced through empowering leadership, positively influences career sustainability the JD-R model will be applied.

Self-efficacy is generally considered a more personal resource (Bakker & De Vries, 2021; Bandura, 1986; Jerusalem & Mittag, 1995; Jerusalem & Schwarzer, 1992), rather than a job resource. It arises based on perceptions of oneself and is certainly more subjective (Schwarzer, 2014), while a job resource is provided more by other organisational actors or conditions. Self-efficacy mostly acts as a personal resource in stressful situations or life transitions (Jerusalem & Mittag, 1995) as it buffers the experience of stress (Jerusalem & Schwarzer, 1992). Furthermore, self-efficacy as a personal resource helps counterbalancing environmental demands (Schwarzer, 2014), of which job demands is one of them. According to Ventura et al. (2015), professional self-efficacy helps employees to experience more challenge demands in their jobs instead of hindrance demands, of which the former promote

personal growth and effective problem-solving and are considered positive (LePine et al., 2005). Experiencing these challenge demands is thus preferred over hindrance demands and can promote well-being (Ventura et al., 2015).

Turning back to the JD-R model, personal resources are suggested to have buffering effects in the relation between job demands and job strain (Tremblay & Messervey, 2011; Xanthopoulou et al., 2007). Xanthopoulou et al. (2007) conclude that personal resources mediate the relationship between job resources and work engagement (positive well-being) on the one hand and exhaustion (negative well-being) on the other hand. They studied how self-efficacy, as personal resource, results in less exhaustion and more work engagement. In addition, self-efficacy also generates higher perceptions of job resources (Bakker & De Vries, 2021). Altogether, this personal resource thus supports dealing with job demands and has a positive effect on well-being (Bakker & De Vries, 2021). Since self-efficacy is not dependent on job resources, it could also help in decreasing job strain in times when demands become higher or job resources become more scarce. This would ensure the continuity of positive well-being outcomes over time, which is a prerequisite of career sustainability.

Moreover, self-efficacy has been associated with more self-regulatory capabilities and behaviours towards one's own learning activities (Zimmerman, 1995). These effects could stimulate the proactive and adaptive behaviours of employees towards their context and help them get into a learning mode. They could contribute to achieving a person-career fit and make a career sustainable. To conclude, empowering leadership thus stimulates self-efficacy, which in turn stimulates career sustainability. Therefore, the following hypothesis is proposed:

Hypothesis 2: The positive relationship between empowering leadership and career sustainability is mediated by self-efficacy, due to its positive relationship with career sustainability.

2.5 The burdening process of empowering leadership

Equal to this research, earlier studies have taken into account the mixed consequences of empowering leadership, and thereby included negative as well as positive effects or assumed a curvilinear relation (Cheong et al., 2016; Lee et al., 2017; Van Dijke et al., 2012; Wong & Giessner, 2018; Zhang et al., 2020). Cheong et al. (2016) have illustrated how empowering leadership can lead to self-efficacy, but also to job induced tension, together having both positive and negative effects on work role performance. Along with other studies (Lee et al., 2017; Wong & Giessner, 2018), they all integrate a 'Too-Much-of-a-good-thing'

effect (Sharma & Kirkman, 2015) with respect to their outcome variables. Empowering leadership has its benefits up to a certain extent, but after this it can become a burden and result in negative outcomes.

According to Chua and Iyengar (2011), giving too much freedom can backfire. Autonomy, decision making power, participation and other indicators of empowering leadership all guarantee some degree of freedom. Too much of it can be dysfunctional for employees. Moreover, individual differences among employees make that not every employee needs or can handle the same degree of empowerment (Lee et al., 2018). Meaning that a so called ‘empowerment readiness’ is critical for its effectiveness (Ahearne et al., 2005). If empowering leaders delegate too much authority and responsibilities and thereby over rely on them or set very high performance standards, it can become an additional burden (Cheong et al., 2016; Lee et al., 2017; Sharma & Kirkman, 2015). According to Langfred and Moye (2004), this can be referred to as the cost of autonomy. Having too much autonomy requires more cognitive activity and therefore distracts the employee in performing their regular tasks (Langfred & Moye, 2004). The employee needs to spend more time in decision making activities, which otherwise the leader would have done. Using role theory, Cheong et al. (2016) explained how the excessive responsibilities and assignments can confuse role perceptions and result in role ambiguity and role stress. It becomes unclear to the employee what is expected from them and how they should act, which creates job induced tension or work-related stress.

To explain why work-related stress, as outcome of empowering leadership, is destructive towards career sustainability the JD-R framework will be applied again. Job stress, strain or even burnout is caused when job resources are not sufficient to deal with job demands (Demerouti et al., 2001). According to a recent study of Bakker and De Vries (2021), over time, job strain causes employees to engage in maladaptive self-regulation behaviours and fewer self-regulation strategies. Because employees experience more work-related stress, they become less invested and effective in concentrating and managing their emotions (Bakker & De Vries, 2021). Coping inflexibility and self-undermining are consequences of those job demands through job strain and cause the employee to ineffectively deal with situational demands. Adaptive regulation strategies, such as job crafting and recovery, are expected to decrease when employees experience continuing higher levels of job strain (Bakker & De Vries, 2021). Job crafting is of importance when trying to realize career sustainability and recovery from work is crucial for someone’s mental and physical well-being in order to keep them healthy, one of the three indicators of sustainable careers (De Vos

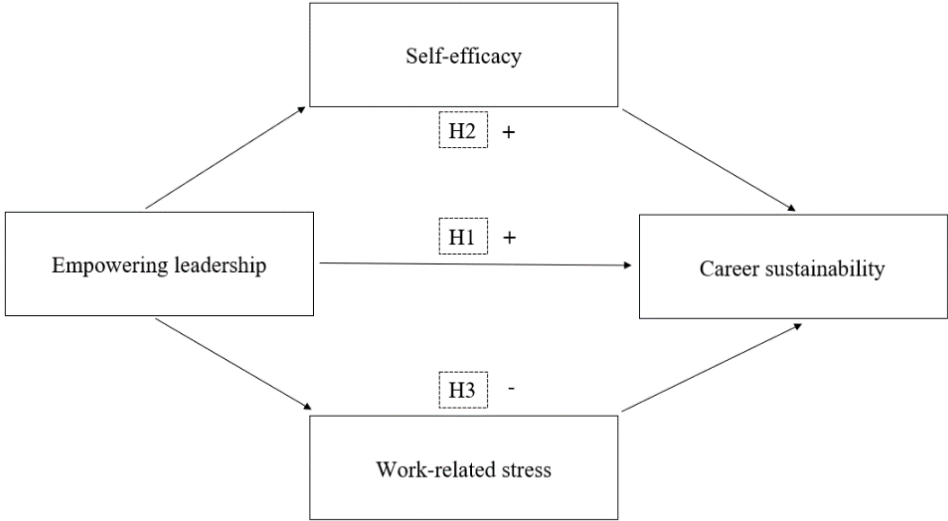
et al., 2020). When a leader empowers his or her employees too excessively over time, it generates more work-related stress and in turn less proactive and adaptive behaviours required for more career sustainability. The self-regulatory behaviours that stimulate employees to proactively and adaptively engage with their environment are reduced and so they are not capable of continuing to work on their person-career fit. To conclude, the empowering leader behaviours and work-related stress become too much of a burden and no time and energy are left to work on a sustainable career. Therefore this research proposes the following hypothesis:

Hypothesis 3: The negative relationship between empowering leadership and career sustainability is mediated by work-related stress, due to its negative relationship with career sustainability.

2.6 Conceptual model

Following the hypotheses, figure 1 shows the conceptual model of this research. The main effect of empowering leadership is still expected to be positive, therefore hypothesis 1 is included. The overall positive effect is expected to only somewhat decrease through work-related stress.

Figure 1: Conceptual model



3. Methodology

This chapter provides a detailed discussion of the methodology applied in this research. By elaborating on various aspects of this methodology, it aims to explain how the research goal of this study was achieved. First, the approach, methods and design of the study are given. Next, the sample and data collection procedure are illustrated, followed by the suitable measures for the research variables. Subsequently, the steps of the data analysis will be demonstrated and lastly, research ethics are discussed.

3.1 Research approach, methods and design

In order to answer the research question: “How does empowering leadership relate to career sustainability, and to what extent is this relationship mediated by self-efficacy and work-related stress as conflicting mechanisms?”, a quantitative approach was applied. Since the purpose of this study is to analyse the relationship between the listed variables, a quantitative method is appropriate. This research adopted this hypothetic-deductive approach because its hypotheses were based on theory derived information, which is signature to quantitative research (Field, 2018; Symon & Cassel, 2012). It wished to either verify or reject its proposed hypotheses by means of gathering quantitative data from a large number of individuals, in order further generalize it to a wider population (Vennix, 2011).

This research had a cross-sectional and correlational design in which data was gathered from respondents at one point in time (Anderson, 2009), through the use of surveys. This means that what naturally happens was observed, without experimental manipulation of the independent variable or any interference of researchers or others (Field, 2018). A cross-sectional design allowed for gathering large amounts of data from numerous people within a short period of time, which made it cost-effective (Anderson, 2009) and feasible within the timeline of this research project. However, since it is a correlational research method (Field, 2018), variables and other related variables were measured in a static form (Ployhart & Vandenberg, 2010). This means that results could only be concluded based on correlations, with limited possibility of making any actual causal claims about the relationships between study variables (Field, 2018) and discovering whether they could be bidirectional or reciprocal. While the cross-sectional nature of the data collection remained a limitation of the current study design, which will be further acknowledged when interpreting the results, for collecting data this study used supervisor-employee dyads. Both members of the dyad were requested to fill in the survey, which was adjusted to their role in the leader-follower relationship. Applying a dyadic study design decreased self-reported biases and a particular

form of common method variance, single source bias, that arises when variability is caused by collecting data from a single source (Campbell & Fiske, 1959).

3.2 Sampling and procedure

The population of this research included all working people above 18 in the Netherlands. Since the study focused on the role of leadership on employee well-being and since dyads were used it was required for each respondent to have an immediate supervisor or be an immediate supervisor to someone working for the same employer. To create a sample of this population a non-probability, volunteer sampling technique was applied. Through this technique, members of the population were selected by researchers themselves and invited to participate in the research and fill out the survey. In addition, volunteer sampling was combined with snowball sampling to allow for further spread of the survey through which targeted participants were asked to identify and recommend other potential participants (Goodman, 1961). However, being non-probability sampling technique, it had its limitations because it could be susceptible for biased or preferred selection of respondents. Because data gathering was carried out by five student-researchers working together in a thesis circle, people in the population more similar to the characteristics of the researchers had a higher probability of being targeted. This most likely referred to characteristics related to age and level of education. Therefore, trying to reach other parts of the population needed to be emphasized.

The required sample size of quantitative studies can be determined in multiple ways (Green, 1991; Hair et al., 2018). Rules of thumb state a minimum of four or five respondents for each variable while the preferred ratio is usually 15 to 20 respondents per variable. An absolute requirement for a sample is set at a minimum of 50 but preferably 100 (Hair et al., 2018). In order to convince respondents to participate in this study, they were approached by the researchers themselves by means of electronic or face-to-face communication. While collecting all measurements and assembling the survey in the software Qualtrics, respondents were approached in advance to already generate some commitment. In general, a non-response rate of 40% is known in quantitative research (Field, 2018). This means that at least 34 dyads needed to be approached every researcher to obtain the desired sample size of 100. To maximize the response rate, at least one member of the dyad was asked personally and they were both warned about the length of the survey and guaranteed anonymity. Before the survey was shared with the respondents, multiple pilot tests were performed with individuals not involved in any part of this research. Data collecting through this survey eventually started at April 14, 2022 and ended at May 3, 2022 when the survey was closed.

In total, 121 supervisors and 167 employees were approached for participation. Of these, 96 supervisors and 137 employees completely filled in the questionnaire, which resulted in a fairly high response rate of 79,3 % and 82,0 % respectively. Data from both the supervisor and employee were merged into one dataset in which all dyads were included. For some dyads, only the supervisor or the employee responded. Therefore they were inapplicable and had to be removed during data cleaning. In addition, no missing values were found since respondents were not allowed to continue filling out the survey if questions were not answered. The total sample size of the study ended up at 125 dyads, which meets the requirements set by Hair et al., (2018). Of these 125 dyads, 78 dyads were unique because for some supervisors multiple employees participated and filled out the survey.

Among the 125 employees, the majority of the respondents identified as female (60.8%) and was higher educated (HBO and higher) (64.0%). The average age of the employees was 37.15 years ($SD = 14.37$) and they worked on average 30.59 hours a week ($SD = 12.08$). Only a small percentage of the employees did not have a full Dutch background (5.6%) and the two industries that were most represented were Healthcare and Welfare (24.0%) and Trades and Services (30.4%). Most of the employees had contact with their supervisor on a weekly basis (41.6%) and worked with them for one to three years (31.2%). Among the 78 supervisors, the slight majority of the sample identified themselves as male (51.3%) and most of them were higher educated (85.9%). The average age of the supervisors was 45.91 years ($SD = 11.74$) and they had worked in a supervisory function for 15.13 years ($SD = 11.41$) on average. 3.8% of the supervisors did not have a full Dutch background and lastly, the two most represented industries were Healthcare and Welfare (20.5%) and Trades and Services (42.3%). These percentages differ somewhat from those of the employees since more employees are accounted for in this sample which resulted in a differing distribution.

In the further statistical analyses, the 125 dyads were treated as unique to guarantee complete cases in which both data of employee and supervisor is available and applicable. To ensure that this was an appropriate choice, the independence of observation assumption was tested, an ICC was computed and a model check taking into account the complex sampling features was performed, all as part of the additional analyses.

3.3 Measures

This section describes which measures were used in this study. Each variable had its own adopted measurement scale which means that there were four in total. Of these four scales, only the one for empowering leadership was requested to fill out by both supervisor and leader, the subsequent scales were only filled out by employees. Measurements were chosen

based on whether they are validated in earlier research, could be retrieved from a peer reviewed source and applied a preferred interval level. Each measurement had a number of items that was, if needed, translated to Dutch via back-to-back translation and formed the base of the questionnaire distributed. The items adopted for each variable can be found in appendix A. The end of this section will discuss the control variables that were included in this study, which have been rated at the beginning of the survey.

Empowering leadership. To measure empowering leadership, the 12 item Leadership Empowerment Behavior (LEB) scale of Ahearne et al. (2005) was adopted. The scale demonstrated adequate reliability (Cronbach's α supervisor = .80, Cronbach's α employee = .87), has been validated and published in earlier peer reviewed journals (Ahearne et al., 2005) and was nominated as one of the most applied measures in empowering leadership research (Cheong et al., 2019). Within this scale, four dimensions are distinguished; meaningfulness of work, fostering participation in decision making, expressing confidence in high performance and providing autonomy from bureaucratic constraints. All four dimensions consisted of three items that were measured on a 5-point Likert scale ranging from 'strongly disagree' (1) to 'strongly agree' (5). An example item was: "My manager expresses confidence in my ability to perform at a high level". To generate a scale applicable for data analyses, the employee- and supervisor-rated scores on empowering leadership were averaged per item, which resulted in 12 new items for this construct. These were in turn averaged into the variable empowering leadership. Combining data obtained from both members of a dyad into a single, averaged, score is one method for dealing with dyadic data (Kenny et al., 2006). A prerequisite for using this average is that the score on Y (in this case career sustainability) is equally influenced by both scores on Y (empowering leadership) of both dyad members (Kenny et al., 2006). Assuming that an effect of empowering leadership on whichever employee outcome was not solely based on the behaviours a supervisor displays but also on the perceptions that employee had of those behaviours, the effects of the supervisor score and employee score were considered equal in this study. While this method has been argued to be conceptually and methodologically problematic (Tambling et al, 2011), for this research combining both scores allowed for integration of both perspectives and resembled the logic of 360 degrees feedback which resulted in a score more comprehensive and closer to what could be considered truth.

Self-efficacy. To measure self-efficacy a short form of the General Self-Efficacy Scale (GSE-6) (Cronbach's α = .84) of Romppel et al. (2013) was adopted. This short form was based on the 10-item general efficacy scale of Schwarzer & Jerusalem (1995). This scale consists of six items measured on 4-point Likert scale ranging from 'definitely false' (1) to

‘definitely true’ (4). To be more consistent with the other scales, ‘neutral’ was inserted as central option which eventually made it a 5-point scale. The general self-efficacy scale has been validated and published in peer reviewed journals (Luszczynska et al., 2005). An example item was: “If someone opposes me, I can find means and ways to get what I want”.

Work-related stress. To measure work-related stress, a 4-item scale regarding occupational stress of Motowidlo et al., (1986) (Cronbach’s $\alpha = .78$) was adopted. This scale has been validated and published in a peer-reviewed article (Motowidlo et al., 1986). The items were measured on a 5-point Likert scale ranging from ‘strongly disagree’ (1) to ‘strongly agree’ (5). An example item was: “I feel a great deal of stress because of my job”.

Career sustainability. To measure career sustainability a validated scale of well-being was selected. Since career sustainability is a relative new concept and hard to measure in a quantitative manner due to its dynamic nature (De Vos et al., 2020), validated and proper scales were not available. As already explained, short-term and long-term well-being are closely related to and reflected by career sustainability and therefore a measure of general well-being was applied. Hence, the Flourishing scale of Diener et al. (2010) (Cronbach’s $\alpha = .90$) was adopted. This scale measures positive functioning of humans in several areas such as relationships, feelings of competence and having meaning and purpose in life. It had eight items that were measured on a 7-point Likert scale ranging from ‘strong disagreement’ (1) to ‘strong agreement’ (7). An example item was: “I lead a purposeful and meaningful life”. This scale has been validated before (Schotanus-Dijkstra et al., 2016; Silva & Caetano, 2013) and a Dutch translation was be retrieved from Schotanus-Dijkstra et al. (2016).

Control variables. In this study, multiple variables were included in the analyses to control for any influential effects of extraneous factors. It increased internal validity as it helped reveal the true nature of causal relationships (Field, 2018). The first control variable was age of employees. Age is related to different life stages a person goes through in their private and working life (De Vos & Van der Heijden, 2017). Although these life stages might differ for everyone, significant changes and life events that occur as someone ages were expected to influence the relationships between the predictor variables and the outcome of this study, career sustainability. Second, gender of employees [1 = Male, 2 = Female, 3 = Non-binary] was controlled for since women have been found to perceive empowering leader behaviours as more supportive and valuable than men (Kim et al., 2018; Knezovic & Musrati, 2018). Third, educational level of employees [1 = secondary school, 2 = MBO, 3 = HBO = 4 = Bachelor, 5 = Master, 6 = PhD] was included since it can positively influence the degree to which people engage in learning behaviours and life-long learning (Rashkovits & Livne,

2013; Van Vuuren et al., 2011). Because openness to learn and getting into a learning mode contribute to career sustainability, educational level was expected to have some impact on the proposed relationships. Furthermore, two variables were included that focused on the nature of the relationship between the supervisor and employee. Time spent working together [1 = <6 months, 2 = 6 months-1 year, 3 = 1-3 years, 4 = 3-5 years, 5 = >5 years] and frequency of contact with each other [1 = monthly, 2 = every two weeks, 3 = weekly, 4 = daily, 5 = multiple times a day] were included because for empowering leadership to induce any negative effect, a leader needs to engage in empowering behaviours to a greater extent (Lee et al., 2017). More time spent working together and a higher frequency of contact allow a leader to display more empowering behaviours and could therefore influence the relationships proposed in this study.

3.4 Data analysis

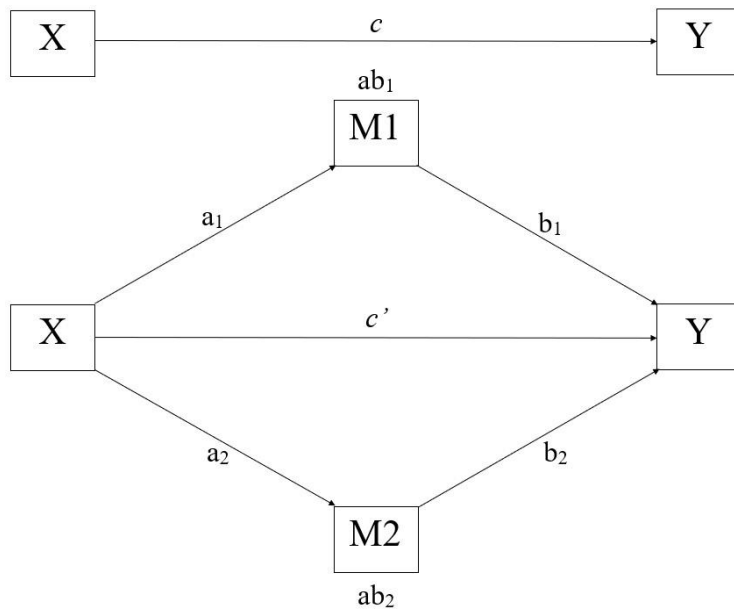
After data collection, data analyses were performed by using the statistics software SPSS. The final dataset of 125 dyads was explored by evaluating the descriptive statistics of the variables such as frequencies, means, standard deviations and by checking (influential) outliers.

In addition, confirmatory factor analysis and a reliability analysis were executed to evaluate the factor structure and check whether the measured items reflect its construct (Hair et al., 2018). Finally, correlations between variables and assumptions were checked before conducting any dependence technique to test the hypotheses. The dependence technique applied in this study was a multiple regression-based mediation analysis. A requirement of multiple regression analysis is that the independent variables are metric variables of at least the interval level of measurement, or if not, transformed non-metric variables (Hair et al., 2018). Only the control variable gender was not metric and thus transformed into dummy variables.

Multiple regression analysis enabled testing the proposed hypotheses of this research because it analyses the relationship between a single dependent variable and several independent variables (Hair et al., 2018). Moreover, since the current study also assessed mediating relationships, the PROCESS tool that allows a regression-based approach to mediation in SPSS was applied (Hayes, 2017). More specifically, Model 4 in this tool was used to test the significance of the total effect (path c), direct effect (path c') and indirect effects (path ab_1 and ab_2). Figure 2 demonstrates the statistical models that needed to be tested, following the three hypotheses.

Figure 2

Statistical models



3.5 Research ethics

When conducting any kind of research, it is important to consider research ethics. Researchers need to be aware of the specific context they enter, how that affects those being studied and what possible harm or benefits might occur (Symon & Cassel, 2012). Principles of research ethics are for instance honesty, openness, carefulness, freedom, mutual respect and objectivity (Resnik, 2005). This research had a few points of attention towards ethics. First, scientific insights and knowledge retrieved from academic literature were interpreted carefully and accurately. Especially in writing the theoretical framework, the literature was studied with preciseness before interpreting and paraphrasing it. Another ethical consideration was the guaranteed anonymity and voluntary participation of respondents. While approaching them and during participation, respondents were clearly informed about the possibility to withdraw anytime and that any personal information was not able to track back to them. Furthermore, the total amount of data obtained during this research was handled carefully. While transferring data from Qualtrics to SPSS, none of it was stored in places where people with no involvement in the research could retrieve it. Lastly, reflexivity of the researcher contributed to the ethical conduct of this research. This means that the researcher has been aware of her own role and how this influenced the object of research (Symon & Cassel, 2012). As a young student and woman it was important to realize that this might have affected the type of people being approached for participating and how people could respond differently. In addition, the positivist ontological and epistemological assumptions and pre-existing beliefs of the researcher were recognized throughout the research process to further realize reflexivity.

4. Results

This chapter will discuss the statistical procedures followed and data the analyses performed in order to come to the results of this research. It will first demonstrate the preliminary analyses in order to get familiar with the dataset, guarantee reliability and validity and to make sure that regression analysis can be done sufficiently. Subsequently, hypothesis testing will demonstrate the final outcomes, followed by some additional analyses.

4.1 Preliminary analyses

4.1.1 Descriptive statistics and outliers

In Table 1, the descriptive statistics of the variables used in the study are summarized. The mean values for the dependent variable career sustainability ($M = 5.88$, $SD = .673$) and the independent variables empowering leadership ($M = 3.98$, $SD = .377$) and self-efficacy ($M = 3.95$, $SD = .508$) turned out to be relatively high and therefore very right-centered. The mean value for work-related stress ($M = 2.75$, $SD = .874$) was lower and only slightly right-centered, being closer to the middle score 2.5.

Looking at the control variables, the age of employees ($M = 37.15$) seemed to be quite dispersed within the range of 18 to 75 ($SD = 14.37$), meaning that more people of more age categories were included. For level of education, the mean score ($M = 3.00$) was slightly left-centered from the middle score 3.5, as well as for time spent working together ($M = 2.90$) was from the middle score 3.0. Frequency of contact was slightly right-centered ($M = 3.38$), being somewhat higher than the middle score 3.0. For gender, the descriptive statistics of the dummy variables demonstrate the distribution of males and non-binary people in the sample, with the category female as reference category.

A test for outliers was executed in order to check whether there were observations that were extreme or different compared to other observations and if they could have an influential effect on the outcomes of any multivariate analysis (Hair et al., 2018). For each variable, a boxplot was used to detect which observations ranged more than one quartile from the box and were thus outliers. These boxplots can be found in Appendix B and illustrate that the number of outliers were minimal, ranging from zero for work-related stress and six for empowering leadership. In order to check if these outliers could be influential, the scores in the data on the variables were standardized (see Appendix B) which makes comparisons across variables convenient (Hair et al., 2018). A z-score above three indicated outliers, of which two observations (38 & 67) were found. However, scores of these observations were all meaningful and realistic responses which could consciously be rated like this by respondents due to more extreme experiences. A sensitivity analysis (checking how excluding these cases

Table 1*Descriptive statistics*

	N	Min.	Max.	Mean	Std. Dev.	Skewness	Kurtosis
<i>Dependent variable</i>							
Career sustainability	125	3.88	7.00	5.882	0.673	-0.991	1.199
<i>Independent variables</i>							
Empowering leadership	125	2.75	4.88	3.976	0.377	-0.596	1.252
Self-efficacy	125	2.50	5.00	3.952	0.508	-0.281	-0.344
Work-related stress	125	1.00	4.50	2.740	0.874	-0.027	-0.741
<i>Control variables</i>							
Age	125	18	75	37.150	14.365	0.502	-1.039
Male (<i>Dummy variable</i>)	125	0.00	1.00	0.384	0.488	0.483	-1.796
Non-binary (<i>Dummy variable</i>)	125	0.00	1.00	0.008	0.089	11.180	125.000
Level of education	125	1.00	6.00	3.00	1.270	0.360	0.430
Time spent working together	125	1.00	5.00	2.90	1.402	0.134	-1.136
Frequency of contact	125	1.00	5.00	3.38	1.060	-0.308	-0.126

would influence outcomes in testing the hypotheses) showed only minor changes and therefore cases 38 and 67 were retained in further analyses.

4.1.2 Reliability and factor analysis

To ensure reliability and internal validity of the constructs applied in the data analysis process a factor analysis and reliability analysis were performed. A confirmatory factor analysis (CFA) was executed via SPSS in which the items were tested for their internal structure. The first step in this CFA was checking the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and performing the Bartlett's test of Sphericity. The KMO measure tested the strength of the correlation between the items and needed to be higher than .5 (Field, 2018). The Bartlett's test checked whether there was at least one significant correlation between the items and needed to be significant ($p < 0.5$) in order for the null-hypothesis (H_0 : There are no correlations between the items) to be rejected (Hair et al., 2018). Next, communalities indicated the proportion of an item's common variance (Field, 2018). The threshold for communalities was .20. Any item with a communality lower than this value was wished to be removed. The number of items to be extracted were based on Eigenvalue higher than 1 or a total variance explained higher than 60%. The goal was to achieve a simple structure in which each item loaded significantly high ($> .30$) on one factor and no cross-loadings could be found (Hair et al., 2018). Outputs of the CFA can be found in Appendix C.

Since the Leadership Empowerment Behavior (LEB) scale of Ahearne et al. (2005) that was applied consisted of four dimensions, it was expected that four factors would be extracted in their factor analysis. Furthermore, since empowering leadership was rated by both supervisor and employee and therefore received slightly different-worded scales, separate factor analyses were executed. For the supervisors, the KMO test and Bartlett's test showed acceptable values (.678; $p > 0.001$) and there were no communalities below 0.2. For the employees, these tests also showed acceptable values (.841; $p > 0.001$) and no communalities below 0.2. While not all items loaded exactly according to their dimensions, both analyses showed resemblance with the theoretically set structure and since this is a highly validated scale, no items were removed in order to maintain construct validity. Furthermore, the reliability analyses both showed acceptable values for the supervisor (Cronbach's $\alpha = .80$) and employee (Cronbach's $\alpha = .87$), which could not be improved if any item was deleted.

For the other variables, no dimensions were set in their measurements and therefore only one factor was expected to be extracted. Items of self-efficacy showed acceptable KMO

and Bartlett's test values (.781; $p > 0.001$) but had one communality below .20. This item (SE_1) did also not load significantly and reliability analysis showed that removing this item would increase the Cronbach's α . Omitting this variable resulted in the one factor extracted (instead of the initial two) which was in line with expectations, but still one other communality below .20 was found. Reliability analysis showed that removing this item (SE_2) would further increase Cronbach's α . Therefore, this item was also removed. The third and last extraction showed acceptable KMO and Bartlett's test values (.761; $p > 0.001$), had no further communalities below .20 and all items loaded significantly on one factor. Reliability analysis resulted in a Cronbach's α of .84, which could not be increased by removing anymore items.

For work-related stress and career sustainability, the KMO and Bartlett's test showed acceptable values (.829; $p > 0.001$; .898; $p > 0.001$ respectively), no communalities below .20 were found and all items loaded on one factor. Reliability analyses showed a Cronbach's α of .87 for work-related stress and a Cronbach's α of .90 for career sustainability, where both of them could not be improved if any item was deleted.

A final analysis in which all five scales were included, the number of factors to be extracted was set at five and a varimax rotation was applied demonstrated acceptable values of the KMO and Bartlett's test (.756; $p > 0.001$), and no communalities below .20. All items loaded significantly on their expected factor and therefore it could be assumed that the items in the dataset resembled the structure of their theoretically defined constructs.

4.1.3 Correlations

The correlations between the variables empowering leadership, self-efficacy, work-related stress, career sustainability and the control variables are summarized in Table 2. The Pearson correlation coefficient indicates whether there exists a relationship between two variables and demonstrates a score within -1 and +1, of which these two values mean perfect correlation (Field, 2018). Two significant correlations were found between the dependent variable and an independent variable. Empowering leadership ($r = .205$, $p = .022$) and self-efficacy ($r = .348$, $p < .001$) both positively correlated with career sustainability. These correlations indicated that if empowering leadership or self-efficacy were to increase, a higher value career sustainability can be expected or the other way around. Multiple variables were positively correlated to empowering leadership; self-efficacy ($r = .302$, $p < .001$), work-related stress ($r = .191$, $p =$

Table 2*Pearson's correlations between variables*

<i>Variable</i>	1	2	3	4	5	6	7	8	9	10
1. Career sustainability	(.90)									
2. Empowering leadership	.205*	(.80 ¹ ,.87 ²)								
3. Self-efficacy	.348**	.234**	(.84)							
4. Work-related stress	-.001	.191*	-.124	(.87)						
5. Age	.152	.021	.216*	-.019	-					
6. Male (<i>Dummy variable</i>)	.024	-.071	.092	-.062	.192*	-				
7. Non-binary (<i>Dummy variable</i>)	.016	-.034	-.022	.104	.018	-.071	-			
8. Level of education	.071	.227*	-.160	.158	.049	.078	-.142	-		
9. Time spent working together	.007	.275**	.074	.027	.463**	.047	.135	.144	-	
10. Frequency of contact	.075	.438**	.000	.146	-.091	.062	.053	.114	.119	-

N = 125. **. Correlation significant at $p < 0.001$ (2-tailed), *. Correlation significant at $p < 0.05$ (2-tailed). ¹Empowering leadership rated by employees. ²Empowering leadership rated by supervisors..

.033), level of education ($r = .227$, $p = .011$), time spent working together ($r = .275$, $p = .002$) and frequency of contact ($r = .438$, $p < .001$). These last two highly significant correlations indicated that the more time and frequently an employee works with their supervisor, the higher degree of empowering leadership was experienced. In addition, one other correlation was found between a control variable and independent variable. Self-efficacy significantly correlated with age ($r = .207$, $p = .020$). Furthermore, some other correlations were found between the control variables. The dummy variable male significantly correlated with age ($r = .192$, $p = .032$) which means that men were on average older than women. As shown in the table, not all variables are significantly correlated with each other. Overall, only some significant correlations were found which might have had implications for the regression analysis executed during hypotheses testing.

4.1.1 Assumptions testing

Prior to executing any regression analysis, a number of assumptions were required to be tested. By testing the assumptions underlying this multivariate technique, a foundation for making statistical inferences and results was created (Hair et al., 2018). Violating certain assumptions could have detrimental effects to successful completing an analysis. SPSS output for testing these assumptions can be found in Appendix D. The first assumption that was tested is normality. Normality indicates a normal distribution of the residuals and can be determined by looking at skewness, kurtosis and a Normal P-Plot. The descriptive statistics of the variables showed no problematic values for skewness or kurtosis that were far outside the desired range of - 1 and + 1. The kurtosis of career sustainability was somewhat above 1, but the Normal P-Plot showed that the residuals of this dependent variable were actually normally distributed. The second assumption to be checked was linearity, which indicates a linear relationship between each independent variable and the dependent variable (Hair et al., 2018). The Partial Regression plots showed that the data points were considerably distributed around a central line and therefore, variables were linearly related. The third assumption, homoscedasticity, indicates a constant variance of the dependent variable for all levels of the predictor variables (Hair et al., 2018). The scatterplot demonstrated no obvious pattern to be found among its data points, which meant they were randomly scattered and thus homoscedasticity could be assumed. The fourth assumption tested was multi-collinearity, which implies that no independent variable was highly correlated with other independent variables (Hair et al., 2018). This was checked by looking at the Tolerance and VIF values. The Tolerance value was not allowed to lower than .1, while the VIF should have been greater

than 1. The collinearity statistics illustrated no Tolerance value $< .1$ or VIF value < 1 , which meant that this fourth assumption was also not violated. The fifth and last assumption, independence of error items, tested whether each predicted value was not related to any other prediction (Hair et al., 2018). The Durbin-Watson statistic indicates this independence and a value close to 2 was desired (Field, 2018). The Model Summary demonstrated a value of 1,832 which meant that this assumption was also not violated.

4.2 Hypothesis testing

In this section, the conceptual model and its proposed hypotheses, H1, H2 and H3 will be tested. A multiple regression-based mediation analysis was performed via the SPSS extension PROCESS. Model 4, which allows analyses for single and multiple mediation, was used to test each relation between all predictor and outcome variables. Career sustainability was inserted as Y, empowering leadership as X, and self-efficacy and work-related stress as M. Furthermore, control variables age, gender, level of education of employees, time spent working together and frequency of contact were included as covariates. For gender, only the dummy variables for male and non-binary were included, as female was the reference category. Hereby, any effect to be assessed was controlled for the age, gender, level of education of employees, time spent working together and frequency of contact. While not all control variables did have significant effects on the total, direct and indirect effects, including them had consequences for the effect sizes found. For any effect to be significant, a p-value $< .05$ was required.

To test H1, the main effect between empowering leadership and career sustainability without the presence of any mediating variable, the total effect of X on Y was assessed. This total effect is actually the same effect a simple regression analysis would indicate and turned out to be significant and positive ($\beta = .417$, $p = .028$). Therefore, H1 was accepted.

To accept a mediating effect, the indirect effect between the predictor and outcome variable via the mediator variable should be significant. Not only the two relationships between the variables in isolation but also the whole indirect effect needed to be assessed, which was done by means of a Sobel test (Field, 2018). This test checked whether 95% of bootstrapping samples fell within a confidence interval that excluded zero. A bootstrap sample is a smaller sample taken from the total sample of which the parameter of interest is calculated (Field, 2018), in this case the coefficient. When zero falls outside of the lower limit confidence interval (LLCI) and upper limit confidence interval (ULCI) of the bootstrap samples, the indirect effect is non-zero and thus significant.

To test H2, the mediating effect of self-efficacy, as part of the effect of X on Y was assessed. First, the PROCESS output indicated that the isolated effects of empowering leadership on self-efficacy and self-efficacy on career sustainability were positive and significant ($\beta = .581, p < .001$; $\beta = .360, p < .001$). This means that empowering leadership had a positive effect on self-efficacy and that self-efficacy had a positive effect on career sustainability, which was in line with the expected direction of their relationships. The control variables age and level of education of employees had a significant effect on the relationship between empowering leadership and self-efficacy. While age did positively influence their relationship ($\beta = .010, p > .001$), level of education had a negative effect ($\beta = -.114, p = .007$). The whole indirect effect of empowering leadership on career sustainability via self-efficacy was also found to be positive and significant ($\beta = .209, p < .05$) as zero fell outside of the LLCI and ULCI ([.059, .414]) Therefore, H2 was accepted.

To test H3, the mediating effect of work-related stress, as part of the effect of X on Y was assessed. First, the PROCESS output indicated that empowering leadership was positively related to work-related stress but not significantly ($\beta = .335, p = .176$). It also showed that work-related stress was negatively, but non-significantly, related to career sustainability ($\beta = -.004, p = .956$). Accordingly, the whole indirect effect of empowering leadership on career sustainability via work-related stress was negative, but non-significant ($\beta = -.001, p > 0.05$) because zero fell within the LLCI and ULCI ([-.064, .081]). Therefore, H3 was rejected.

It should be noted that the direct effect of X on Y (c'), when mediation variables were included, was not found to be significant ($\beta = .176, p = .296$). This indicates that the effect of X on Y mostly occurs via the mediating variables, in this case only self-efficacy since that was the only effect found significant. The total effect (c) is fully explained by the indirect effect (ab_1) and therefore self-efficacy provides complete mediation. Table 3 presents all the total and direct effects resulting from this mediation-based regression analysis, while Table 4 provides an overview of the indirect effects found. Furthermore, figure 3 presents the statistical models with the effects that were assessed in order to accept or reject the hypotheses.

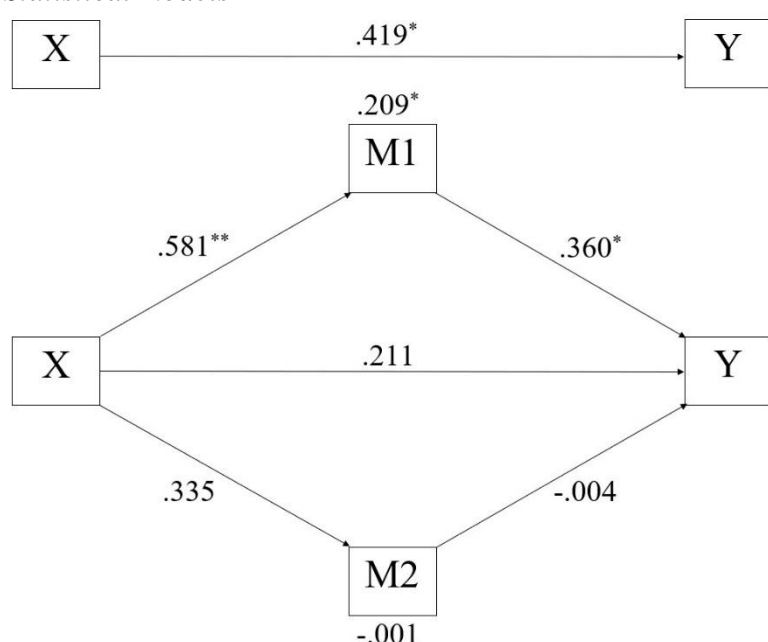
Table 3*Total and direct effects of predictor variables on outcome variables*

Outcome variable	Total effect				Direct effects											
	Career sustainability				Career sustainability				Self-efficacy				Work-related stress			
Predictor	R ²	β	SE	p	R ²	β	SE	p	R ²	β	SE	p	R ²	β	SE	p
1. Empowering leadership	.086	.419	.188	.028	.171	.211	.193	.278	.175	.581	.158	.000**	.068	.335	.246	.230
2. Self-efficacy	-	-	-	-		.360	.107	.001*		-	-	-		-	-	-
3. Work-related stress	-	-	-	-		-.004	.069	.958		-	-	-		-	-	-
4. Age		.011	.005	.025*		.007	.005	.123		.010	.004	.015*		.001	.006	.898
5. Male (Dummy variable)		-.061	.127	.781		-.099	.123	.423		.104	.107	.331		-.105	.166	.529
6. Non-binary (Dummy variable)		.268	.687	.697		.160	.664	.811		.312	.580	.590		.895	.900	.322
7. Level of education		.014	.049	.782		.055	.049	.263		-.114	-.041	.007*		.079	.064	.223
8. Time spent working together		-.084	.051	.104		-.068	.049	.173		-.045	.043	.298		-.033	.067	.625
9. Frequency of contact		.008	.064	.900		.030	.062	.629		-.060	.054	.264		.062	.084	.459

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

Table 4*Indirect effects of Empowering leadership on Career sustainability through mediation*

Mediation Paths	β	SE	95% bootstrap confidence interval	
			Lower limit	Upper limit
Empowering leadership → Self-efficacy → Career sustainability	.209	.099	.059	.414
Empowering leadership → Work-related stress → Career sustainability	-.001	.034	-.064	.081

Figure 3*Statistical models*

Note: * $p < .05$, ** $p < .001$

4.3 Additional analyses

Since a somewhat conceptually and methodologically criticized method for computing a variable for empowering leadership was used, some additional analyses were performed to further check how using this mean score could have influenced statistical outcomes. The mean of empowering leadership from the perspective of supervisors was found to be 4.103 ($SD = .385$) which was somewhat higher than the mean from the perspective of the employees, being 3.849 ($SD = .570$). For that reason, using either one of the perspectives would have implied different outcomes.

First of all, instead of a mean score, a difference score was computed for the supervisor-rated and employee-rated means for empowering leadership. This difference of mean score indicates how similar or dissimilar members of a dyad are (Kenny et al., 2006; Schönbrodt et al., 2018). A higher score would mean a greater dissimilarity between supervisor and employee. Performing a regression analysis with this difference of mean variable indicated whether their dissimilarity has significant effects on self-efficacy, work-related stress or career sustainability. After applying the difference score ($S - E$) in the analysis, the total effect ($p = .002$) and the indirect effect of X on Y mediated by self-efficacy ($[-.210, -.024]$) remained significant, while the indirect effect via work-related stress ($[-.026, .020]$) remained non-significant. What this implied is that dissimilarities between supervisors and employees in their scores on empowering leadership indeed had an effect on the outcomes. Therefore, this should not be ignored by only including either one of their perspectives.

Furthermore, a test for the independence of observations was performed. Due to the dyadic context of this study in which not all dyads were unique, it was important to establish that each dyad was independent and variability in the outcomes between dyads was maximized. To test this, the Intraclass Correlation Coefficient (ICC) was examined. This coefficient looks at what proportion of the total variability in the outcome is a result of being a dyad nested with one the same leader. Therefore, a low value would indicate the variance in the outcome being explained mostly by employee-level factors while a high value indicates that the variance in the outcome is explained mostly by the leader-level factors. The ICC values for career sustainability (.133), self-efficacy (.907) and work-related stress (.108) were found to be very low, which was desired. This means that, for example, 13.3% of the variance in career sustainability is explained by the factors at leader level of analysis, while 86.7% of variance is explained by differences between employees. Since both levels explained some of the variance, using both perspectives by applying the mean score was deemed acceptable.

Lastly, because the data were nested, an additional test of the hypotheses by means of a sandwich estimator (i.e. Type = Complex in MPlus) was performed, which corrects the standard errors to reflect the effects of the nestedness. To test the hypothesized model, a path analysis in MPlus was used, which allows for simultaneous estimation of different regression equations. All obtained results were confirmed with this additional test, with parameter estimates being almost identical.

5. Conclusion and discussion

In this chapter, a reflection on the outcomes of the results will be presented in order to answer the research question of this study. Based on this reflection, limitations of this thesis and recommendations for future research will be discussed and finally, practical implications are provided.

5.1 Reflection on the outcomes

The aim of this study was to create insights on how positive and negative effects of empowering leadership related to career sustainability by identifying two conflicting mechanisms within that relationship. The proposed conflicting mechanisms were suggested to occur positively via self-efficacy and negatively via work-related stress as mediators. Using the Job Demands-Resources framework (Demerouti et al., 2001), arguments were provided to support their mediating effect. Accordingly, the research question of this study was: *“How does empowering leadership relate to career sustainability, and to what extent is this relationship mediated by self-efficacy and work-related stress as conflicting mechanisms?”*

To answer this research question, three hypotheses were formulated and tested. The first hypothesis (*H1: Empowering leadership has a positive relationship with career sustainability*) tested whether there was a relationship between empowering leadership and career sustainability and what its direction was, which answers the first part of the research question. Since this hypothesis was accepted, it can be concluded that empowering leadership indeed increases career sustainability.

The second hypothesis (*H2: The positive relationship between empowering leadership and career sustainability is mediated by self-efficacy, due to its positive relationship with career sustainability*) tested the mediating effect of self-efficacy as one of the two conflicting mechanisms. Since hypothesis 2 was accepted, self-efficacy does indeed mediate the positive relationship between empowering leadership and career sustainability which means that one of the assumed mechanisms is present.

The third hypothesis (*H3: The negative relationship between empowering leadership and career sustainability is mediated by work-related stress, due to its negative relationship with career sustainability*) tested the mediating effect of work-related stress as one of the two conflicting mechanisms. Since hypothesis 3 was rejected, work-related stress does not mediate a negative relationship between empowering leadership and career sustainability, nor is it a conflicting mechanism.

To answer the research question, empowering leadership is positively related to career sustainability, this relationship is indeed positively mediated by self-efficacy but not negatively by work-related stress. Therefore, self-efficacy and work-related stress do not represent conflicting mechanisms within the relationship between empowering leadership and career sustainability, as only half of the proposed mechanisms appeared to be present.

As expected, based on the Job Demands-Resources framework (Demerouti et al., 2001), empowering leadership provides those job resources that enable employees to engage in self-regulatory and adaptive behaviours which helps them to flourish and build a sustainable career (De Vos et al., 2020). Furthermore, self-efficacy is enhanced as a result of empowering leader behaviours like sharing power and allocating autonomy and responsibilities (Cheong et al., 2019). This personal resource helps employees further dealing with job demands and prevents negative outcomes like job strain (Bakker & De Vries, 2021), which in turn positively affects their well-being and thus their sustainable career. Therefore, the JD-R framework provides a theoretical ground on which the mechanism underlying the positive relationship between empowering leadership and career sustainability can be explained.

While the isolated effect of empowering leadership on work-related stress was positive, it was not found to be significant. A possible explanation could be that participants of this study were not exposed that excessively to empowering leadership. Their supervisor could have engaged in empowering leader behaviours only to a moderate extent, wherefore negative consequences had not occurred to a certain extent. The so called ‘Too Much of Good’ or curvilinear effect (Sharma & Kirkman, 2015; Lee et al., 2017) did not occur simply because there was not ‘too much good’, even when controlling for time spent working together or frequency of contact. Another explanation could be the scale that was used to measure empowering leadership (Ahearne et al., 2005). This scale only consists of positive worded items and measures more positive aspects of empowering leadership. No negative worded items or negative aspects of empowering leader behaviours are included and therefore, the expected significant and positive effect might have remained absent. Another reason why these expectations could not be supported might have been the consideration of empowerment readiness (Ahearne et al., 2005) and empowerment expectations (Wong & Giessner, 2018) of employees by their supervisors. Supervisors in this study could have been able to detect personal differences among employees regarding empowerment and engage in empowering behaviours in such a degree desired by and effective for each of their employees, whereby no negative outcomes like work-related stress occurred.

Next to the isolated effects towards and from work-related stress, the whole indirect was also non-significant. This might partly be a result of how work-related stress was measured. The scale used (Motowidlo et al., 1986) was unidimensional and only consisted of four items, of which all of them measured stress directly experienced from work activities or at work. This scale might have been too work-related and not measure stress (resulting from work) experienced in other activities outside of work or further in life. These stress experiences could possibly affect an employee's general well-being more strongly (like exhaustion in the J D-R framework of Demerouti et al. (2001)) and have a negative impact on career sustainability. Alternatively, the whole concept work-related stress could be too closely related to direct working experiences and another concept, more related to general well-being, would fit better within the relationship between empowering leadership and career sustainability. Another negative employee outcome could represent a mediating variable more in-between leadership experiences at work and a sustainable career than work-related stress and possibly establish a significant relationship more conveniently.

5.2 Limitations of the study and recommendations for future research

Despite the engaging outcomes of this study, it has some limitations that should be taken into account when interpreting these outcomes. First of all, as already mentioned in chapter 3, this study had a cross-sectional design and is not longitudinal. This means that all the suggested effects and relationships as outcomes are based on correlations between scores on variables that are measured at one point in time. It should be kept in mind when interpreting the presented positive and negative relationships that these are not based on actual causal effects.

A second limitation of this study was the sample used for data analysis. The sample of this research differed substantially from the Dutch working population regarding educational level. According to Dutch statistics, only 36,3 % (CBS, 2021) of the Dutch working population is highly educated, while in the sample 64.0% of the employees and 85.9% of the supervisors were highly educated. This means that they were overrepresented in this research and that the sample was not representative of the actual Dutch working population. As van Vuuren et al. (2011) have suggested, higher educated people are more likely to engage in learning behaviours, which contributes to a sustainable career. Effects in this study could have turned out stronger than it would have for a more representative sample and therefore, generalizability decreased.

A third limitation of this study was the conceptually and methodologically debated use of the mean score for supervisor- and employee-rated scores. Conceptually, it has been argued

that combining scores of two members into one is too simplistic as it assumes that they are that similar in how they score each variable (Tambling et al., 2011). Methodologically, it has been argued summing and averaging scores creates a loss of information, especially when members are dissimilar and average scores differ to certain extent from both individual scores (Kenny et al., 2006; Tambling et al., 2011). While additional analyses showed that combining both perspectives did not influence the results disproportionately or unreasonably, what can be debated is whether both perspectives actually have an equal effect, like assumed in this study. Future research could investigate how applying this method can overcome some of these issues by identifying to what extent these effects are actually equal. In case of a supervisor-employee dyad, the effects could be 40/60 or 30/70 in which for some cases the perception of the employee would be more decisive and in other case the perception of the supervisor. Applying another ratio could then prevent a loss of crucial information.

The fourth limitation of this study was the use of the Flourishing Scale (Diener et al., 2010) to measure career sustainability. While career sustainability is reasonably related to general well-being, this scale was not designed to measure any career-related aspects regarding psychological flourishing. While there has recently been an attempt to create a scale for career sustainability (Chin et al., 2021), it is still relatively new and specific for more Asian contexts. The demand for a more validated and applicable scale should be satisfied by future research.

To continue, building on the reflection on the outcomes, future research could explore what other concepts related to negative employee well-being would potentially fit better within the relationship between empowering leadership and career sustainability. Negative outcomes like psychological distress (Sharma & Kirkman, 2015), exhaustion (Demerouti et al., 2001) or depression (Kim & Beehr, 2018) could be included as mediating variables and possibly a negative relationship between empowering leadership and career sustainability could be established.

A last suggestion for future research is related to exploring the ‘dark side’ of empowering leadership. As the proposed negative outcomes of this study could not be substantiated, no mixed effects or conflicting mechanisms were found. For that reason, the multifaceted nature of empowering leadership was not further revealed and a paradoxical situation was not confirmed. Future research could seek to find cases in which empowering leadership is displayed to a greater extent in order to detect more conflicting outcomes. For instance by selecting cases from a much greater sample that were rated for empowering

leadership above a certain higher score or by performing a more qualitative analysis on the perceptions of employees to account for more personal differences and interpretations.

5.3 Practical implications

Based on the outcomes of this study, there are some practical implications to be mentioned. First of all, as it was confirmed that empowering leadership has a positive relationship with career sustainability, practitioners and HR professionals can apply empowering leader behaviours to develop more sustainable careers. Sustainable careers are driven by and related to well-being to a great extent (De Vos et al., 2020). Therefore, managers and supervisors should engage in empowering leadership mostly with the objective to increase and sustain well-being of employees in the end - and not to achieve other organisational goals- in order to build their sustainable careers.

While self-efficacy fully mediated the relationship between empowering leadership and career sustainability in this study, practitioners should keep in mind that many other concepts or phenomena could act as a mediator in this relationship. Leadership behaviours do not create a sustainable career straightforwardly and therefore focusing on or finding out what indicators related to, for instance, career development and success, personal development, personal characteristics, self-regulatory behaviours, learning behaviours or work and contextual factors (Anseel, 2017; Barthauer et al., 2020; Bozionelos et al, 2020; De Vos et al., 2020; Heslin et al., 2020; Straub et al., 2020; Van Dam et al., 2015) are positively influenced by empowering leadership is of importance.

Since no negative (mediating) effects were found in this study, applying empowering leadership to yield positive outcomes is still recommended. However, practitioners should keep in mind that empowering leadership is able to prompt negative outcomes, as previous research has already proved the existence of negative effects (Cheong et al., 2019). Empowering leader behaviours that involve overreliance on employees (Sharma & Krikman, 2015), setting too high performance standards (Lee et al., 2017) or overestimating the empowerment readiness and expectations of employees (Ahearne et al., 2005; Wong & Giessner, 2018) should tried to be avoided in practice nonetheless.

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Appendix A: Measurement scales

Leadership Empowerment Behaviour (LEB) scale (Ahearne et al., 2005)

1. My manager helps me to understand how my objectives and goals relate to that of the company.
2. My manager helps me understand the importance of my work to the overall effectiveness of the company.
3. My manager helps me understand how my job fits into the bigger picture.
4. My manager makes many decisions together with me.
5. My manager often consults me on strategic decisions.
6. My manager solicits my opinion on decisions that affect me.
7. My manager believes that I can handle demanding tasks.
8. My manager believes in my ability to improve even when I make mistakes.
9. My manager expresses confidence in my ability to perform at a high level.
10. My manager allows me to do my job my way.
11. My manager makes it more efficient for me to do my job by keeping the rules and regulations simple.
12. My manager allows me to make important decisions quickly to satisfy customer needs.

General Self-Efficacy Scale (GSE-6) (Romppel et al., 2013)

1. If someone opposes me, I can find the means and ways to get what I want.
2. It is easy for me to stick to my aims and accomplish my goals.
3. I am confident that I could deal efficiently with unexpected events.
4. Thanks to my resourcefulness, I know how to handle unforeseen situations.
5. I can remain calm when facing difficulties because I can rely on my coping abilities
6. I can usually handle whatever comes my way.

Occupational Stress Scale (Motowidlo et al., 1986)

1. My job is extremely stressful.
2. Very few stressful things happen to me at work.
3. I feel a great deal of stress because of my job.
4. I almost never feel stressed because of my job.

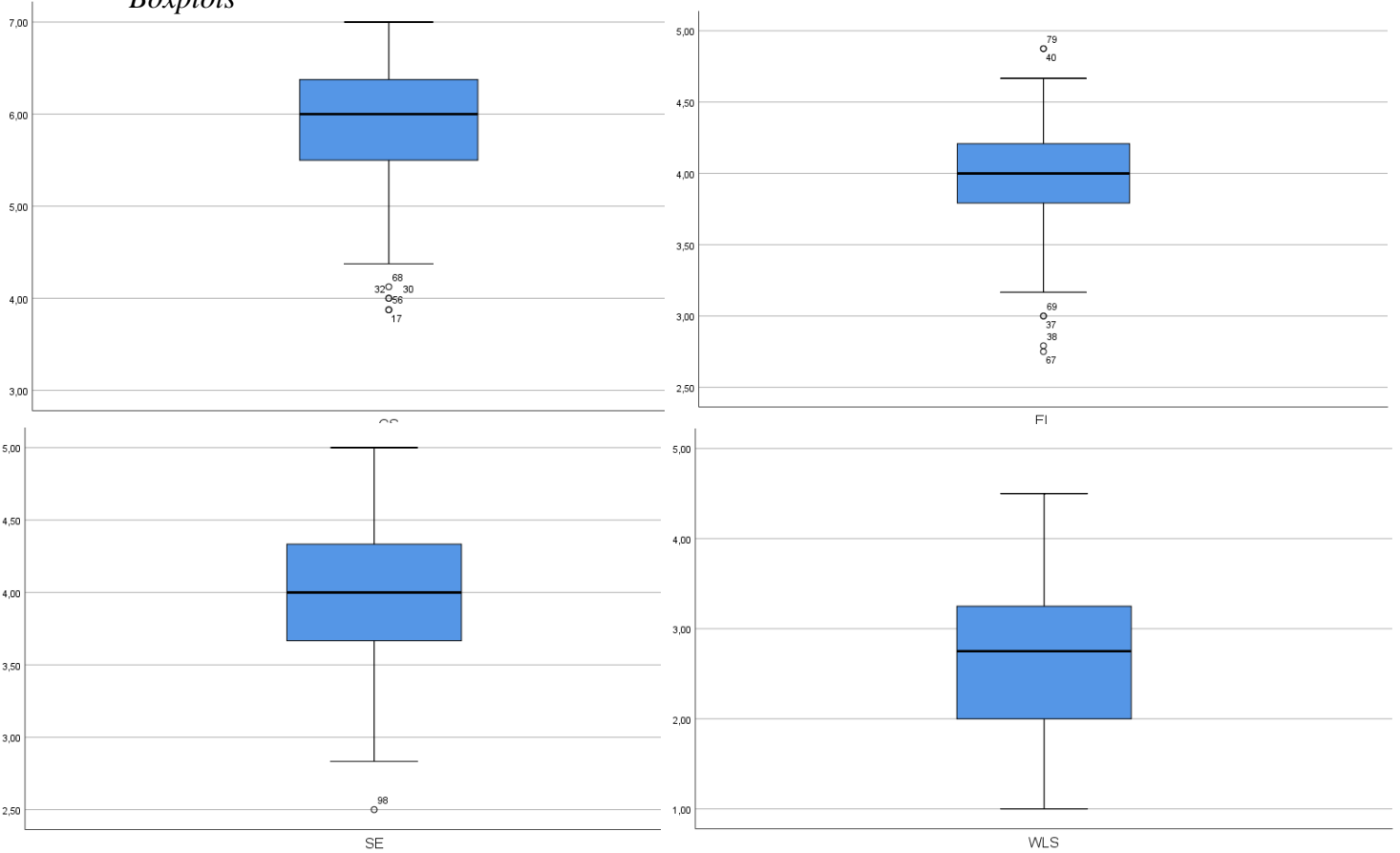
Flourishing Scale (Diener et al., 2010)

1. I lead a purposeful and meaningful life
2. My social relationships are supportive and rewarding

3. I am engaged and interested in my daily activities
4. I actively contribute to the happiness and wellbeing of others
5. I am competent and capable in the activities that are important to me
6. I am a good person and lead a good life
7. I am optimistic about my future
8. People respect me

Appendix B: Outliers

Boxplots



Frequency Tables of standardized values

Zscore(EL)		Frequency
Valid	-3,24967	1
	-3,13920	1
	-2,58684	2
	-2,14494	1
	-2,03447	1
	-1,81352	1
	-1,59258	1
	-1,37163	1
	-1,37163	2
	-1,26116	1
	-1,15069	2
	-1,04021	2
	-,92974	1
	-,81927	1
	-,81927	3
	-,70879	5
	-,70879	1

Zscore(CS)		Frequency
Valid	-2,98044	2
	-2,79482	2
	-2,60919	1
	-2,23793	1
	-2,05230	3
	-1,30979	3
	-1,12416	3
	-,93854	2
	-,75291	10
	-,56728	6
	-,38165	4
	-,19602	9
	-,01040	9
	,17523	25
	,36086	5
	,54649	7
	,73212	11

-,59832	3
-,48785	3
-,48785	4
-,37738	3
-,26690	5
-,15643	7
-,15643	4
-,04596	5
-,04596	1
,06452	7
,17499	1
,17499	2
,28546	1
,28546	3
,39594	6
,50641	3
,50641	3
,61688	5
,61688	4
,72735	3
,83783	2
,83783	2
,94830	2
,94830	2
1,05877	3
1,16925	5
1,16925	2
1,50067	2
1,83208	3
2,38445	2
Total	125

,91775	5
1,10337	7
1,28900	2
1,47463	1
1,66026	7
Total	125

Zscore(SE)

Frequency		
Valid	-2,85872	1
	-2,20245	1
	-1,87431	6
	-1,54618	3
	-1,21804	9
	-,88991	11
	-,56177	10
	-,23363	13
	,09450	21
	,42264	10
	,75078	19
	1,07891	6
	1,40705	9
	1,73518	5
	2,06332	1
Total		125

Zscore(WRS)

Frequency		
Valid	-1,99133	5
	-1,70522	3
	-1,41911	5
	-1,13300	6
	-,84689	17
	-,56078	9
	-,27467	13
	,01144	9
	,29755	13
	,58366	17
	,86977	5
	1,15588	6
	1,44199	11
	1,72811	4
	2,01422	2
Total		125

Appendix C: Factor Analysis & Reliability Analysis

Empowering leadership – Supervisor rated

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,678
Bartlett's Test of Sphericity	Approx. Chi-Square	421,563
	df	66
	Sig.	,000

Communalities

	Initial	Extraction
S_EL_1	,346	,347
S_EL_2	,485	,768
S_EL_3	,454	,501
S_EL_4	,314	,436
S_EL_5	,348	,381
S_EL_6	,368	,352
S_EL_7	,459	,434
S_EL_8	,496	,948
S_EL_9	,384	,326
S_EL_10	,443	,490
S_EL_11	,415	,489
S_EL_12	,382	,360

Extraction Method: Principal Axis Factoring.

Pattern Matrix^a

	Factor			
	1	2	3	4
S_EL_1				-,387
S_EL_2				-,820
S_EL_3				-,647
S_EL_4	,634			
S_EL_5	,372			-,300
S_EL_6			,387	
S_EL_7		-,564		
S_EL_8		-,973		
S_EL_9			,331	
S_EL_10			,668	
S_EL_11			,701	
S_EL_12				

Extraction Method: Principal Axis Factoring.

Rotation Method: Oblimin with Kaiser Normalization.^a

a. Rotation converged in 24 iterations.

Item-Total Statistics

	Cronbach's Alpha if Item Deleted
S_EL_1	,792
S_EL_2	,781
S_EL_3	,788
S_EL_4	,793
S_EL_5	,783
S_EL_6	,780
S_EL_7	,787
S_EL_8	,790
S_EL_9	,781
S_EL_10	,787
S_EL_11	,789
S_EL_12	,778

Reliability Statistics

Cronbach's Alpha	N of Items
,800	12

Empowering leadership – Employee rated

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,841
Bartlett's Test of Sphericity	Approx. Chi-Square	620,919
	df	66
	Sig.	,000

Communalities

	Initial	Extraction
E_EL_1	,437	,481
E_EL_2	,662	,788
E_EL_3	,617	,661
E_EL_4	,563	,563
E_EL_5	,464	,542
E_EL_6	,428	,423
E_EL_7	,455	,548
E_EL_8	,486	,478
E_EL_9	,449	,439
E_EL_10	,460	,970
E_EL_11	,451	,394
E_EL_12	,298	,273

Extraction Method: Principal Axis Factoring.

Pattern Matrix^a

	Factor		
	1	2	3
E_EL_1		-,641	
E_EL_2		-,882	
E_EL_3		-,822	
E_EL_4	,545		
E_EL_5	,793		
E_EL_6	,444		
E_EL_7	,753		
E_EL_8	,553		
E_EL_9	,453		
E_EL_10			1,004
E_EL_11		-,430	,365
E_EL_12			,399

Extraction Method: Principal Axis Factoring.

Rotation Method: Oblimin with Kaiser Normalization.^a

a. Rotation converged in 8 iterations.

Item-Total Statistics

	Cronbach's Alpha if Item Deleted
	E_EL_1
E_EL_2	,858
E_EL_3	,862
E_EL_4	,851
E_EL_5	,866
E_EL_6	,859
E_EL_7	,861
E_EL_8	,859
E_EL_9	,858
E_EL_10	,864
E_EL_11	,865
E_EL_12	,872

Reliability Statistics

Cronbach's Alpha	N of Items
,872	12

Self-efficacy – Extraction 1

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,781
Bartlett's Test of Sphericity	Approx. Chi-Square	236,512
	df	15
	Sig.	,000

Communalities

	Initial	Extraction
SE_1	,070	,092
SE_2	,169	,482
SE_3	,467	,499
SE_4	,492	,540
SE_5	,611	,840
SE_6	,491	,488

Extraction Method: Principal Axis Factoring.

Item-Total Statistics

	Cronbach's Alpha if Item Deleted
SE_1	,809
SE_2	,753
SE_3	,703
SE_4	,694
SE_5	,675
SE_6	,699

Reliability Statistics

Cronbach's Alpha	N of Items
,760	6

Pattern Matrix^a

	1	2
SE_1		
SE_2		,714
SE_3	,619	
SE_4	,660	
SE_5	1,000	
SE_6	,677	

Extraction Method: Principal Axis Factoring.

Rotation Method: Oblimin with Kaiser Normalization.

a. Rotation converged in 4 iterations.

Self-efficacy – Extraction 2

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,777
Bartlett's Test of Sphericity	Approx. Chi-Square	228,301
	df	6
	Sig.	,000

Reliability Statistics

Cronbach's Alpha	N of Items
,809	5

Communalities

	Initial	Extraction
SE_2	,143	,148
SE_3	,467	,528
SE_4	,492	,571
SE_5	,610	,714
SE_6	,489	,484

Extraction Method: Principal Axis Factoring.

Item-Total Statistics

	Cronbach's Alpha if Item Deleted
SE_2	,841
SE_3	,758
SE_4	,751
SE_5	,733
SE_6	,765

Factor Matrix^a

	Factor 1
SE_2	,385
SE_3	,726
SE_4	,756
SE_5	,845
SE_6	,696

Extraction Method: Principal Axis Factoring.

a. 1 factors extracted. 7 iterations required.

Self-efficacy – Extraction 3

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,761
Bartlett's Test of Sphericity	Approx. Chi-Square	210,109
	df	6
	Sig.	,000

Reliability Statistics

Cronbach's Alpha	N of Items
,841	4

Communalities

	Initial	Extraction
SE_3	,456	,506
SE_4	,484	,554
SE_5	,609	,766
SE_6	,477	,477

Extraction Method: Principal Axis Factoring.

Factor Matrix^a

	Factor 1
SE_3	,711
SE_4	,744
SE_5	,875
SE_6	,691

Extraction Method: Principal Axis Factoring.

a. 1 factors extracted. 9 iterations required.

Item-Total Statistics

	Cronbach's Alpha if Item Deleted
SE_3	,812
SE_4	,800
SE_5	,757
SE_6	,819

Work-related stress

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,829
Bartlett's Test of Sphericity	Approx. Chi-Square	288,178
	df	6
	Sig.	,000

Reliability Statistics

Cronbach's Alpha	N of Items
,886	4

Communalities

	Initial	Extraction
WLS_1	,664	,781
WLS_2	,505	,550
WLS_3	,615	,684
WLS_4	,610	,698

Extraction Method: Principal Axis Factoring.

Item-Total Statistics

	Cronbach's Alpha if Item Deleted
WLS_1	,838
WLS_2	,876
WLS_3	,850
WLS_4	,850

Factor Matrix^a

	Factor 1
WLS_1	,884
WLS_2	,742
WLS_3	,827
WLS_4	,835

Extraction Method: Principal Axis Factoring.

a. 1 factors extracted. 7 iterations required.

Career sustainability

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,898
Bartlett's Test of Sphericity	Approx. Chi-Square	564,939
	df	28
	Sig.	,000

Reliability Statistics

Cronbach's Alpha	N of Items
,902	8

Communalities

	Initial	Extraction
CS_1	,547	,543
CS_2	,506	,390
CS_2	,692	,705
CS_4	,414	,419
CS_5	,573	,583
CS_6	,628	,652
CS_7	,594	,609
CS_8	,556	,496

Extraction Method: Principal Axis Factoring.

Factor Matrix^a

	Factor 1
CS_1	,737
CS_2	,624
CS_2	,839
CS_4	,647
CS_5	,764
CS_6	,807
CS_7	,780
CS_8	,705

Extraction Method: Principal Axis Factoring.

a. 1 factors extracted. 4 iterations required.

Item-Total Statistics

	Cronbach's Alpha if Item Deleted
CS_1	,891
CS_2	,898
CS_2	,881
CS_4	,897
CS_5	,888
CS_6	,884
CS_7	,886
CS_8	,893

All items included

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,757
Bartlett's Test of Sphericity	Approx. Chi-Square	2650,285
	df	780
	Sig.	,000

Communalities

	Initial	Extraction
S_EL_1	,584	,254
S_EL_2	,573	,330
S_EL_3	,552	,294
S_EL_4	,450	,200
S_EL_5	,535	,374
S_EL_6	,525	,404
S_EL_7	,571	,243
S_EL_8	,626	,222
S_EL_9	,534	,333
S_EL_10	,605	,418
S_EL_11	,579	,324
S_EL_12	,607	,377
E_EL_1	,520	,395
E_EL_2	,743	,544
E_EL_3	,711	,503
E_EL_4	,677	,575
E_EL_5	,656	,348
E_EL_6	,525	,401
E_EL_7	,584	,469
E_EL_8	,562	,460
E_EL_9	,640	,508
E_EL_10	,666	,363

Rotated Factor Matrix^a

	Factor				
	1	2	3	4	5
S_EL_1			,426		
S_EL_2			,551		
S_EL_3			,511		
S_EL_4			,432		
S_EL_5			,582		
S_EL_6			,573		
S_EL_7			,434		
S_EL_8			,404		
S_EL_9			,569		
S_EL_10	,303		,510		
S_EL_11	,340		,438		
S_EL_12			,593		
E_EL_1	,617				
E_EL_2	,698				
E_EL_3	,645				
E_EL_4	,743				
E_EL_5	,485				
E_EL_6	,619				
E_EL_7	,544				,368
E_EL_8	,641				
E_EL_9	,609				

E_EL_11	,660	,311
E_EL_12	,409	,241
SE_3	,589	,495
SE_4	,680	,560
SE_5	,716	,707
SE_6	,628	,473
WLS_1	,765	,801
WLS_2	,631	,525
WLS_3	,734	,696
WLS_4	,703	,709
CS_1	,682	,550
CS_2	,661	,417
CS_2	,781	,707
CS_4	,538	,437
CS_5	,712	,609
CS_6	,711	,651
CS_7	,745	,619
CS_8	,701	,549

Extraction Method: Principal Axis Factoring.

E_EL_10	,520	
E_EL_11	,555	
E_EL_12	,371	
SE_3		,659
SE_4		,703
SE_5		,808
SE_6		,634
WLS_1		,889
WLS_2		,707
WLS_3		,818
WLS_4		,828
CS_1	,718	
CS_2	,637	
CS_2	,820	
CS_4	,639	
CS_5	,744	
CS_6	,796	
CS_7	,731	
CS_8	,700	

Extraction Method: Principal Axis Factoring.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 5 iterations.

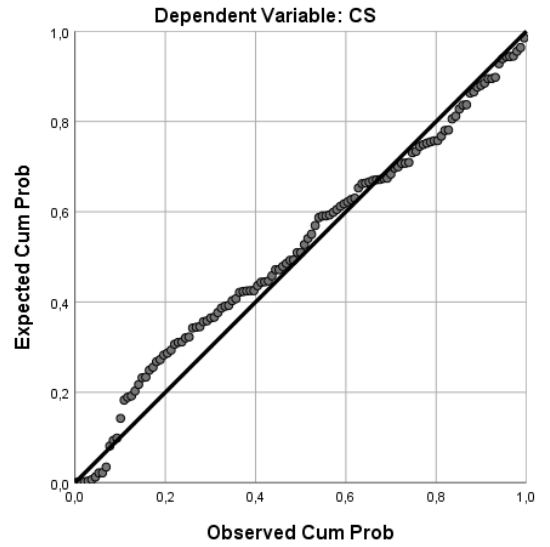
Appendix D: Assumptions Testing

Normality

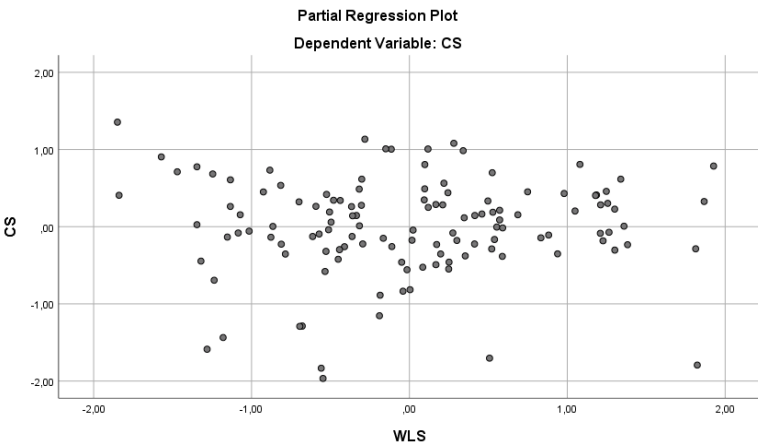
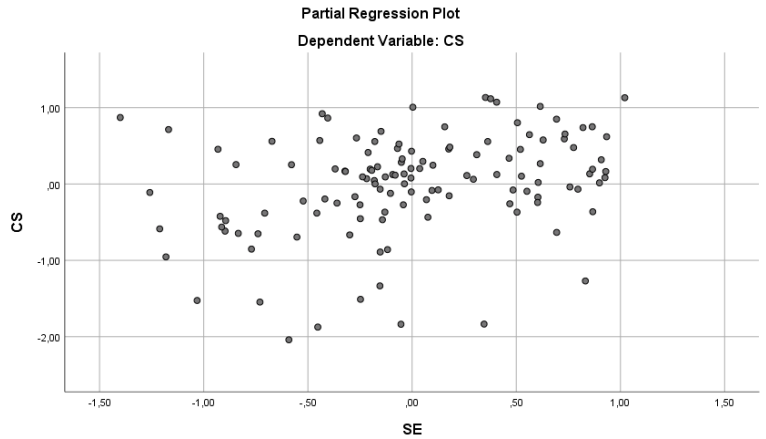
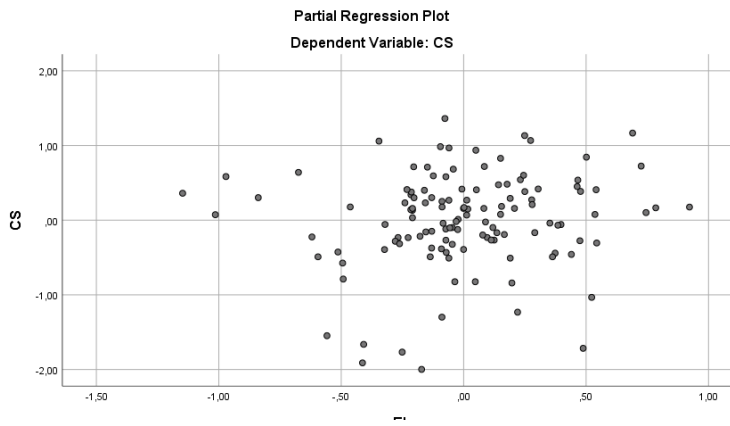
Descriptive Statistics

	N		Skewness		Kurtosis	
	Statistic	Std. Error	Statistic	Std. Error	Statistic	Std. Error
	ic	ic	ic	ic	ic	ic
CS	125	,217	-,911	,217	1,199	,430
EL	125	,217	-,596	,217	1,252	,430
SE	125	,217	-,281	,217	-,344	,430
WLS	125	,217	-,027	,217	-,741	,430
Valid N (listwise)	125					

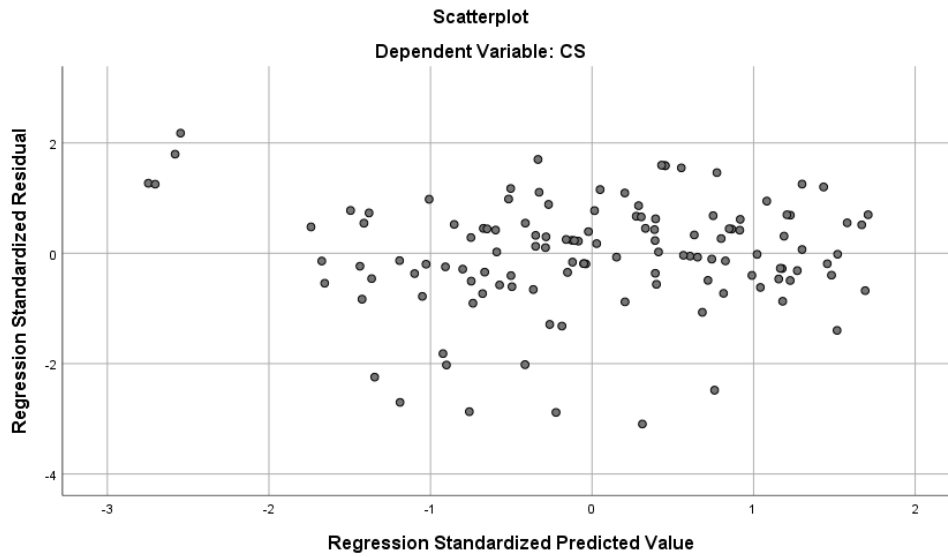
Normal P-P Plot of Regression Standardized Residual



Linearity



Homoscedasticity



Multi-collinearity

Coefficients^a

Model		Unstandardized Coefficients		Standardized	t	Sig.	Collinearity Statistics	
		B	Std. Error	Coefficients Beta			Tolerance	VIF
1	(Constant)	3,446	,667		5,169	,000		
	EL_MEAN	,226	,159	,127	1,420	,158	,896	1,116
	SE_1	,362	,100	,320	3,629	,000	,915	1,092
	WLS	,013	,067	,017	,195	,846	,933	1,071

a. Dependent Variable: CS

Independence of error items

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,371 ^a	,137	,116	,63315	1,832

a. Predictors: (Constant), WLS, SE_1, EL_MEAN

b. Dependent Variable: CS