Rising to the top:
Exploring the role of political skill, career self-efficacy and perceived organisational support in the career success of women in Germany

Caprice Oona Weissenrieder

A thesis submitted in partial fulfilment of the requirements of Edinburgh Napier University, for the award of Doctor of Philosophy

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“If men don’t feel comfortable with us, they will not allow us to
play with them. We can’t change their behavior,
but we can change ours.”

DiSesa (2008, p. 98)

Declaration of Authorship

I hereby declare that this thesis, submitted in partial fulfilment of the requirements of Edinburgh Napier University, for the degree of Doctor of Philosophy, represents my own work and has not been previously submitted in part or in whole to this or any other institution for any degree.

Frankfurt am Main, May 2020

Caprice Oona Weissenrieder

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Abstract

Interest in the careers of women is still highly relevant and remains an often-discussed topic amongst both scholars and practitioners. Despite several decades of legislative reform and government intervention which go aside of considerable efforts from advocacy groups, women remain significantly under-represented in the higher echelons of organisations in Germany. This situation leads to a remarkable paradox: a high number of well-trained and educated women that do not achieve the same career success as men but are often labelled as a hidden and under-utilised resource within organisations and our society. Hence, a central proposition underpinning this research is rather than describing obstacles women face, research should focus on factors that help women to get ahead (Baskerville Watkins & Smith, 2014; Shaw & Leberman, 2015).

Authors have already identified plenty of obstacles that women face at work. In particular, prior research suggests that women suffer in terms of corporate policies, limited training and career development activities, as well as gender stereotypes, promotional practices, and compensation (Garcia-Retamero & Lopez-Zafra, 2009; Hoobler, Lemmon, & Wayne, 2014; Oakley, 2000). Thus, the aim of this doctoral study was to identify and measure factors that help women in Germany to succeed.

Building on that idea, commentators have realised that successful individuals have employed tactics and strategies to aid their advancement (Orpen, 1994; Pazy, 1988; Rasdi, Garavan, & Ismail, 2011). Moreover, career processes are politically-charged and to succeed, women need to influence key stakeholders and negotiate political structures responsible for career decisions in order to overcome male privilege in the workplace. However, little is known so far in relation to how "…women may successfully steer through the political quagmire that often surrounds them at work" (Baskerville Watkins & Smith, 2014, p. 207). Thus, this study underlines the importance of political skill for females` careers which reflects the ability to identify and use powerful alliances at work, as well as to behave astutely and strategically in order to succeed (Ferris, Davidson, & Perrewe, 2005). Furthermore, there is still a need for research that helps to understand the mechanism of political skill. In particular, this study tries to shed some light on our understanding of why and how political skill affects career success due to the incorporation of the intervening variables of perceived organisational support and career self-efficacy.

This empirical study starts with a comprehensive review of literature to develop the proposed conceptual model and hypotheses. Based on a post-positivist stance and a survey method, data was collected from career-oriented women living in Germany. Data was analysed using descriptive statistics, confirmatory factor analysis, and structural equation modelling to assess model fit and test the hypotheses. The results of the study show the more frequently females´ engage in political behavoiur, the higher the influence on subjective and objective career success. Nevertheless, even though a direct effect of career self-efficacy towards womens career success occur, the assumed moderating effect has to be rejected. Finally, the study explores the importance of perceived organisational support to women's career development. Perceived organisational support was found to mediate the relationship between political skill and subjective well as objective career success.

The results suggest that enhancing political behaviour offers implications for individuals and organisations. One can conclude that women benefit from applying political skill to support their career success. In particular, this research should encourage women to train their political tactics. Moreover, women can benefit from high self-efficacy beliefs too, even though no moderation effects were identified in this study. Self-efficacy beliefs can also be enhanced by training and coaching sessions. Furthermore, the study reveals that political skill will increase women's perceptions of organisational support and commitment, which seems to influence their career success positively. Thus, this research should also motivate organisations to provide training not only for women, but also for all employees to increase their awareness of possible unconscious bias and stereotypes.

To conclude, this study contributes to the literature on females career success, particularly in Germany. It can also assist women, organisations and HRD practitioners in developing awareness, but also in designing programmes for indvidiuals and organisations.

Table of Contents

List of Abbreviations

1/VIF	Tolerance statistic value
ADF	Asymptotically distribution free
AIC	Akaike's information criterion
AVE	Average variance extracted
BC	Bias-corrected confidence interval
CarSat	Career Satisfaction
CFA	Confirmatory factor analysis
CFI	Comparative fit index
CI	Confidence interval
CMB	Common method bias
CMV	Common method variance
CR	Composite reliability
CSE	Career self-efficacy
CSE_PS	Interaction term
CV	Convergent validity
df	Degree of freedom
DV	Discriminant validity
EFA	Explanatory factor analysis
M	Mean
M.I.	Modification indices
MAR	Missing at random
MCAR	Missing completely at random

ml	Maximum likelihood estimation
ml robust	Robust maximum likelihood estimation
OST	Organisational support theory
sbentler	Satorra-Bentler estimation
MNAR	Missing not at random
POS	Perceived organisational support
PS	Political skill
RMSEA	Root mean square error of approximation
SCCT	Social cognitive career theory
SCE	Square correlation estimate
SD	Standard deviation
SEM	Structural equation model(ling)
SIT	Social influence theory
SRMR	Standardised root mean square residual
S-W test	Shapiro-Wilk test
TLI	Tucker-Lewis Index
TRAPD model	Translation (T), Review (R), Adjudication (A), Pre-testing (P), and Documentation (D) model
VIF	Variance inflation factor
χ^2	Chi-square statistics

List of Figures

List of Tables

1 Introduction

1.1 Rationale of the Study

Interest in the careers of women remains a highly relevant and much discussed topic amongst both scholars and practitioners. Despite several decades of legislative reform and government intervention combined with considerable efforts from advocacy groups, women remain significantly under-represented in the higher echelons of organisations. This situation leads to a remarkable paradox: a great number of well-trained and educated women that do not achieve the same career success as men but are often labelled as a hidden and under-utilised resource within organisations.

Although research shows a considerable progression of women within the organisational hierarchy, they still lack access to power and decision-making positions compared to men (European Commission, 2015b). Moreover, several reports in Germany document the prevalence of gender differences in career success outcomes (CRIF Bürgel GmbH, 2018; Holst & Friedrich, 2017; Holst & Wrohlich, 2017, 2019b). Looking at the last decade, women are becoming increasingly present in the German labour market. For instance, the female employment rate stood at 75% in 2017, in contrast to 2007 when only 67% of women in Germany were part of the job market. Yet, as women continue to enter the workforce this causes a differentiated gender composition in the workplace compared to previous decades (Greenhaus, Callanan, & Godshalk, 2010), women however still only represent 13% of board members of the 30 largest publicly listed companies in Germany (Schulz-Strelow, 2018). In addition, a current overview of the 160 listed companies in the selection indices DAX, MDAX, TecDAX and SDAX in Germany show a similar pattern, with just 8% of board members being women (AllBright Stiftung, 2018; Holst & Wrohlich, 2019a). When assessing the distribution of women and men at different managerial levels in the private sector across various company sizes and sectors, the available data does present a slightly more optimistic picture. Women hold 26% of the positions in top management and 38% of second management level positions in Germany (Kohaut & Möller, 2013). Moreover, research (Baran et al., 2014; European Commission, 2015b; Zellmer, 2015) claims that women are more often becoming (co-)breadwinners too (Martins, Eddleston, & Veiga, 2002; Maurer, Lippstreu, & Judge, 2008). The German government also recently announced supportive reforms for women as a means to enhance their chances to occupy decision-making positions and consequently increase their career success opportunities. In particular, a womens quota was introduced in 2016 for female representatives on the supervisory boards of listed and co-determined companies, as well as for public institutions (Gesetz für die gleichberechtigte Teilhabe von Frauen und Männern an Führungspositionen, 2015). Additionally, the 'Law for Promotion of Remuneration Transparency between Women and Men' (Transparent Remuneration Law) was introduced in 2017 whith an aim to eliminate gender discrimination by promoting the transparency of remuneration (Bundesministerium für Familie, Senioren, Frauen und Jugend, 2017). Despite their increased presence in the labour force and the governmental interventions, women still face challenges in overcoming the glass ceiling in order to occupy positions in the upper echelons of organisations (Eagly & Carli, 2007a; Oakley, 2000). Thus, organisations are still male-dominated at positions with power. The disproportionally low number of females' in management and decision-making positions does not mirror their participation in the labour market, nor does it support the idea of gender equality (European Commission, 2015a; International Labour Office, 2015).

Research related to women’s career development is still of considerable interest, due to the growing scarcity of professional and managerial staff in several fields and industries (McKinsey, 2011), global competition (Burke & Ng, 2006; Cooper & Burke, 2002) and the war for talent (Festing, Schäfer, & Scullion, 2013). When women do find themselves in managerial positions, they are often earning a lower income (Judge, Cable, Boudreau, & Bretz, 1995; O’Neil, Hopkins, & Bilimoria, 2008; Tharenou, Latimer, & Conroy, 1994) despite working at the same level as their male counterparts (Holst, Busch-Heizmann, & Wieber, 2015; Kirchmeyer, 2002), and end up less likely to progress to higher management positions in comparison to men (Eddleston, Baldridge, & Veiga, 2004; Kirchmeyer, 2002; Schneer & Reitman, 1995). In short, women still remain underrepresented in higher management positions and experience monetary and promotion-based disadvantages in Germany (Holst & Friedrich, 2017).

Academic literature has repeatedly attempted to identify the reasons and explain the barriers women face regarding their career success (Eagly & Carli, 2007a, 2007b; Heilman, 2012; Morrison, White, & van Velsor, 1987; Oakley, 2000). Several authors have already attempted to answer that issue, by proposing determinants which might be key in influencing women's careers. Thus, various factors that influence the progression of women within organisations have been analysed (Kirchmeyer, 2002; Melamed, 1995; Schneer & Reitman, 1995; Sturges, 1999; Tharenou et al., 1994). In particular, research identified human capital, mentoring, coaching and networking as key factors which influence females' career choice and success. Moreover, subconscious factors such as cultural based norms, gender roles and stereotypes can be identified as further factors which affect females' career success in our society.

From an individual view, research emphasises the importance of human capital like education, traits and work experience (Ballout, 2007; Nabi, 1999). In addition, intrinsic factors such as ambition and work centrality play an important role (Nabi, 1999; Rasdi, Ismail, & Garavan, 2011; Wayne, Liden, Kraimer, & Graf, 1999). Even though individual attributes are still highlighted as key factors for career success (Kirchmeyer, 1998, 2002; Ng, Eby, Sorensen, & Feldman, 2005; Rasdi, Ismail et al., 2011), current data show that women in Germany have a similar human capital profile to men (Busch & Holst, 2009; Holst et al., 2015; Holst & Friedrich, 2017) which leads to the assumption that other factors might be more helpful for women to succeed.

Furthermore, former studies identified several organisational factors that influence females´ careers and their advancements. In particular, opportunities for mentoring and coaching as well as further enhancement activities provided by the organisation (Baruch, 1999, 2003; Baruch & Peiperl, 2000; Bing, Davison, Minor, Novicevic, & Frink, 2011; Minor, 1986) have been identified as key factors for women to succeed. However, studies show that women do not receive the same organisational support as their male colleagues (Hoobler et al., 2014) and several discriminatory practices still exist (Kumra & Vinnicombe, 2008; Oakley, 2000). For instance, an often mentioned reason for gender discrimination in the workplace is the glass ceiling phenomena which is reflected in a low number of women who hold positions with power (Cotter, Hermsen, Ovadia, & Vanneman, 2001; Kumra & Vinnicombe, 2008; Morrison et al., 1987). In this context, literature often refers to barriers and obstacles that relate to corporate culture and practices (Jackson, 2001; van Vianen & Fischer, 2002). In particular, processes and procedures that regulate recruitment and promotion as well as behavioural patterns such as gender stereotypes and prejudice (Oakley, 2000; Sabharwal, 2015; Tharenou, 2005).

Furthermore, cultural and societal norms and assumptions of a society also show an impact on the career success of women. Research emphasise the importance of considering culture when studying career issues and therefore the impact of socialisation and culturally formed gender roles (Brown, 2002a; Henslin, 1999; Segers, Inceoglu, Vloeberghs, Bartram, & Henderickx, 2008). Hence, gender roles are strongly linked to stereotypes which are built by observations of women and men (Eagly & Steffen, 1984). These roles describe how women and men should behave with regards to their gender to be accepted in our socitey (Eagly, 1987). Thus, the discrimination of women at the workplace can occur due to the mismatch of the perceived attributes women held in our society compared to the perceived requirements of management roles (Eagly & Karau, 2002; Koenig, Eagly, Mitchell, & Ristikari, 2011). Assessing the German culture, results indicate that Germany is depicted as a masculine society (Hofstede, 2016; Hofstede, Hofstede, & Minkov, 2010). Even Sullivan (2018) recently states that "…no country has a more male-dominated corporate culture than Germany." Thus, women might experience more challenges within their careers endeavours compared to men.

In contrast to previous approaches, behavioural research commonly focus on the active role an individual can take by having some kind of control over career choice and advancement. The most frequent strategies mentioned in literature are a range of career self-management behaviours (Ballout, 2007; King, 2004; Rasdi et al., 2011; Sturges et al., 2010; Tharenou, 1997a). Especially, the ability to build strong working relationships, networks and having a mentor has been identified as accelerating factors to succeed (O'Neil et al., 2008; Seibert, Kraimer, & Crant, 2001). However, while many studies have highlighted the significance of coaching and mentoring for women, research still shows inconsistent findings. Thus, it seems that positive relationships with mentors and network building at work are indeed benefical factors, but not sufficient enough for women to succeed.

Nevertheless, the current proportion of women in management and decision-making positions suggest that some women are indeed able to succeed. In addition, Weyer (2007) identified a variety of obstacles that women face at work. In particular, corporate practices such as recruitment, retention, and promotion as well as behavioural, cultural and structural causes could be summarised as challenging for womens career endeavours. Thus, this study assumes that women need a broader range of skills to open the doors responsible for career success. In fact, commentators have realised that successful individuals have employed tactics to aid their advancement (Orpen, 1994; Pazy, 1988; Rasdi, Garavan et al., 2011), reflecting engagements to influence and manipulate the system that is responsible for career decisions (Orpen, 1994; Pazy, 1988).

This sophistication in how to play the game to succeed may be notably important in the context of ascribed gender roles and the value of masculinity and femininity in our society (Baskerville Watkins & Smith, 2014). In particular, prior research suggests that women suffer in terms of corporate policies, limited training and career development activities, as well as promotional practices, and compensation (Garcia-Retamero & Lopez-Zafra, 2009; Hoobler et al., 2014; Oakley, 2000). Moreover, Mackenzie Davey (2008, p. 650) claims that "…political processes are seen as fundamental to gender… because political activity is seen as gendered and masculine…is part of the informal system which constructs organization from which outsiders are excluded; and...is linked to the performance, achievement and maintenance of power." In addition, Ferris, Davidson et al. (2005) argue that in contrast to men, women tend to ignore the importance of corporate policies which limits their ability to recognise relevant stakeholders which can give an advantage in career building activities. Thus, career processes are politically-charged and to succeed, women need to influence the key players and negotiate political structures responsible for career decisions in order to overcome male privilege in the workplace. However, little is known so far in relation to how "…women may successfully steer through the political quagmire that often surrounds them at work" (Baskerville Watkins & Smith, p. 207). Thus, this study emphasises the importance of political skill, which is a proactive behaviour that incorporates individual agency, and reflects the ability to identify and use powerful alliances at work, as well as to behave astutely and strategically in order to succeed (Ferris, Davidson et al., 2005). Moreover, there seems to be a scarcity of research focusing specifically on the effects of proactive behaviour and human agency on a national context (Ballout, 2009) as well as supportive organisational relationships to the career success of women (Jawahar & Hemmasi, 2006). This is of particular note given that prior research suggests that women identify disadvantages within the corporate environment (Garcia-Retamero & Lopez-Zafra, 2009; Hoobler et al., 2014; Oakley, 2000). In addition, some authors claim that the process of how political skill affects certain career success outcomes is not fully understood (Hochwarter, Kacmar, Perrewé, & Johnson, 2003; Kimura, 2015).

Again, the rationale focusing on the relationship between political skill and females´ career success is based on the purpose of this study to investigate factors that support womens careers. Moreover, the majority of authors tend to describe barriers that women face rather than the factors that may help them to get ahead (Baskerville Watkins & Smith, 2014; Shaw & Leberman, 2015) and focus mainly on individual career success factors which emphasise human capital to succeed, rather than factors that consider behavioural attributes and organisational structures. Considering behavioural and organisational factors might be especially relevant as researchers have emphasised the importance of incorporating the culture and socially formed gender roles; especially if a society reflects a competitive and traditional career view. Moreover, organisations also reflect social structures and are identified as political arenas. By this, various interest groups have to compete for resources and power simultaneously (Mintzberg, 1983, 1985; Pfeffer, 1981). In addition, political processes regulate recruitment and promotion practices and are elemental in context to gender. As a result, persons who want to gain success within an organisation have to develop political skills to obtain a desired reward. Other authors (Orpen, 1994; Pazy, 1987, 1988) also claim that processes in organisations which contribute to a career are political influenced and assume that political skill acts as a key factor for women to succeed (Baskerville Watkins & Smith, 2014; Buchanan, 2008; Mainiero, 1994).

Thus, this research addresses this issue by investigating whether political skill has an impact on the subjective (career satisfaction) and objective (income, position, promotion) career success of career-oriented women in Germany. Moreover, this thesis focuses on the relationship between political skill and the intervening variables of career self-efficacy and perceived organisational support on the success of career-oriented women in Germany. Literature shows some ambiguity which mediators and moderators might consider to be relevant to understanding the process of how political skill affects certain career outcomes (Hochwarter et al., 2003; Kimura, 2015). Therefore, this doctoral thesis tries to highlight processes affecting women's career success by integrating organisational moderating and behavioural mediating factors involved in the political skill and subjective and objective career success relationship.

Therefore, the main research questions are:

RQ 1: What effect does political skill have on the subjective and objective career suc-cess of women in Germany?

RQ 2: In what way does career self-efficacy influence (moderate) the relationship between political skill and the women's subjective and objective career success?

RQ 3: In what way does perceived organisational support influence (mediate) the relationship between political skill and the women's subjective and objective career success?

1.2 Aim and Objectives of the Research

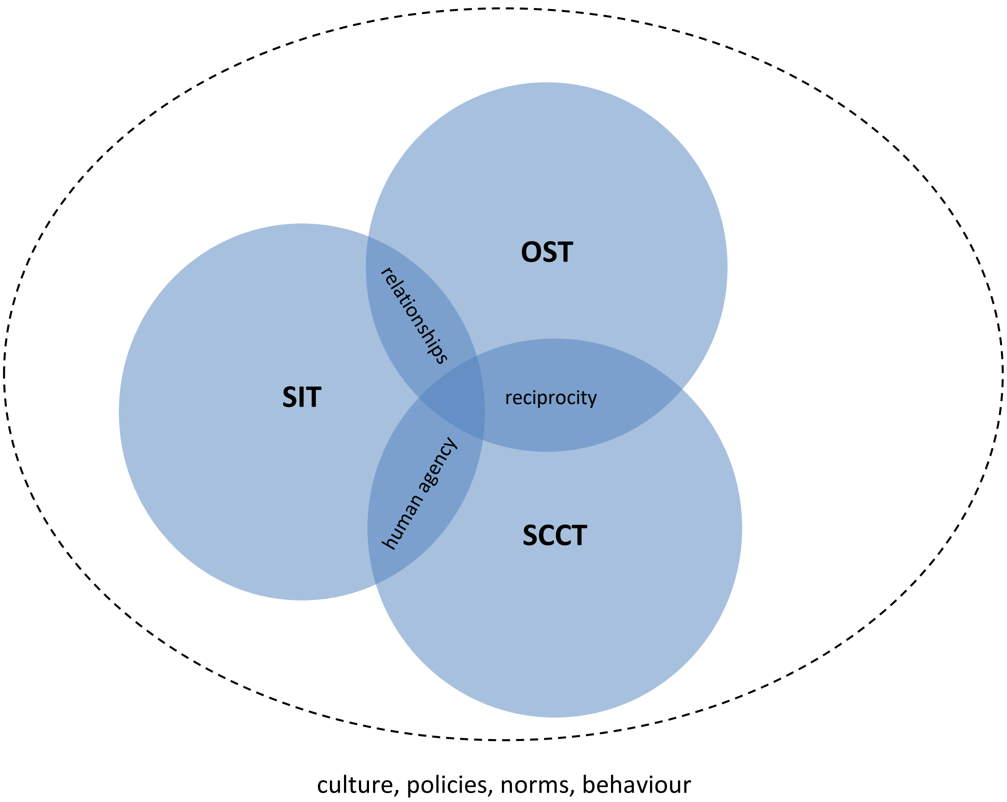
This study aims to investigate the relationship between political skill and the intervening variables of career self-efficacy and perceived organisational support on the subjective (career satisfaction) and objective (income, position, promotion) success of career-oriented women in Germany. In particular, this doctoral thesis considers political skill, which is "…the ability to effectively understand others at work and to use such knowledge to influence others to act in ways that enhance one's personal and/or organisational objectives" (Ferris, Treadway et al., 2005, p. 127), as a key success factor and tries to determine whether women perceive a career benefit through engagements in proactive behaviour and the use of political skill.

This idea builds on former research that proposes, that women face barriers in corporate policies which affect their training and career development activities, as well as promotional practices, and compensation (Garcia-Retamero & Lopez-Zafra, 2009; Hoobler et al., 2014; Oakley, 2000). In addition, it is assumed that the identified intervening variable perceived organisational support also plays an important role for women's advancement (Jawahar & Hemmasi, 2006) as it takes into consideration organisational career management activities, behaviour, and also contextual issues (Treadway et al., 2004). In particular, perceived organisational support refers to organisational policies, norms, and traditions (Rhoades & Eisenberger, 2002) and may offer an explanation as to why political skill influences females' career success. According to the interpersonal exchange character of political skill, women's perception that they feel supported by their organisation may be compromised. This perception can influence individual performance (Rhoades & Eisenberger, 2002), which may have a positive impact on females´ career success.

Moreover, limited research exists that analyses the moderating effect of career self-efficacy on the relationship between political skill and subjective and objective career success (Abele & Spurk, 2009b). Career self-efficacy builds on human agency and may moderate the proposed relationship. With a moderation being an interaction between an independent variable (PS) and a moderator (CSE), the study assumes that a strong career self-efficacy belief is able to strengthen the relationship between political skill and the subjective and objective career success of career-oriented women in Germany.

For a deeper understanding of the role behavioural and organisational factors play on career success issues this study draws upon three main theories: social influence theory (SIT), social cognitive career theory (SCCT) and organisational support theory (OST), which each reconcile behavioural aspects of the individual as well as contextual issues. To the knowledge of the researcher, this empirical study is the first work that has combined these theories to assess women's behaviour, agency, and the potential for related career success outcomes in a more holistic manner. The three theories illustrate a common view: the behaviour of the individual as well as contextual issues such as existing culturally formed roles, policies and norms which have an influence on career success. Moreover, each theory shares some characteristics with the other (Eisenberger, Huntington, Hutchison, & Sowa, 1986; Ferris & Treadway, 2011; Lent & Hackett, 1987) and are used to interpret social phenomena. This association is simply illustrated in figure 1-1.

Figure 1-1: Shared characteristics of SIT, SCCT and OST



This study also extends the existing body of research and the theoretical framework of Ferris and colleagues (2007) with an empirical work that considers SIT as a key theoretical view to show the central role the theory has been given over the past decades. Indeed, former research confirmed positive relationships between political skill and several career outcomes in general (Ferris et al., 2007; Todd, Harris, Harris, & Wheeler, 2009) as well as for women (Baskerville Watkins & Smith, 2014; Jawahar, Meurs, Ferris, & Hochwarter, 2008; Mainiero, 1994). However, less research was conducted in Germany, and authors (Hochwarter et al., 2003; Kimura, 2015) maintain that the process of how political skill affects certain career success outcomes is not fully understood.

Additionally, Kimura (2015, p. 321) noted that more research is needed to analyse political skill as "The reason for this is a shortage of mediation and dimensional analyses that can enhance our understanding of why and how political skill affects a certain outcome." Hochwarter et al. (2003) underline the importance of evaluating the relationship between political behaviour, perceived organisational support as a mediator and several outcome variables. Meanwhile, Jawahar and Hemmasi (2006) support the need for more studies that consider perceived organisational support for women's advancement. Moreover, limited research exists that analyses the potential moderators of political skill. In particular, research (Ballout, 2009; Day & Allen, 2004) claims that less studies exist which analyse the indirect influence of self-efficacy towards career success, especially in a national context. Moreover, academic literature also reveals that the consideration of women's career success remains a neglected issue (Denmark, 1993; Yukl, 2010). Indeed, past research suggests that women in male-dominated environments display disadvantages in several career success outcomes (Garcia-Retamero & Lopez-Zafra, 2009; Hoobler et al., 2014; Oakley, 2000).

Thus, the aim of this study is to close these gaps and to give an answer to the research questions. The identified gaps in the literature could be categorised as less-examined, context-based, concept-based and the nature of relationship. An overview of these research gaps provides table 1-1. In acknowledging these gaps, this doctoral study contributes to existing research and the body of career success literature in general, but also aids employees and employers who want to recognise factors that influence career success outcomes. The results may also help women progress in their development of career strategies and behaviour.

Table 1-1: Research gaps

Category	Research Gap
Less-examined	Limited research that analyses the direct relationship between political skill and females' career success outcomes. Lack of research that considers the relationship between social influence theory, social cognitive career theory and organisational support theory. In particular, the relationship between political skill, career self-efficacy and perceived organisational support and females' career success.
Contextual-based	Limited research in a German context which considers the impact of political skill, perceived organisational support and career self-efficacy on females' career success. Few studies using snowball sampling technique of career-oriented women in various industries in Germany.
Concept-based	The uniqueness of the concepts of political skill and career self-efficacy needs further investigation.
Nature of relationship	The effect of political skill on several career success outcomes is not fully understood.

To bridge the research gaps, a conceptual framework that consider political skill, career self-efficacy and perceived organisational support as crucial factors for the career success of women in Germany has been developed. The framework is based on a comprehensive literature review that incorporates theoretical and empirical results. Moreover, the study contributes empirically tested results. Hence, the conceptual framework tries to explain how career-oriented women in Germany influence their success by using political skill.

According to the aim, this doctoral study has four main research objectives:

1. To conduct a critical review of existing literature related to career success, with a particular aim to identify factors that contribute to females' careers.
2. To develop a conceptual framework and related hypothesis which provides a deeper understanding of the key antecedents affecting women's career success. In particular, the relationship between political skill and the intervening variables of perceived organisational support and career self-efficacy on the career success of women in Germany.
3. To test the developed hypothesis by investigating the direct and indirect effects of political skill, perceived organisational support and career self-efficacy on the subjective and objective career success of women in Germany.
4. To provide recommendations and implications for research and practice.

1.3 Structure of the Thesis

The thesis is structured in six major chapters. Following this introduction, chapter two provides a comprehensive review of literature relating to career success. In particular, the literature review focuses on the evaluation of a career, as well as theoretical references and factors that may contribute to the career success of women in the workplace. Chapter two concludes with a conceptual framework and a summary.

Chapter three presents the methodology of the study. The chapter provides an overview of major philosophical stances, the research design, and also the scales used to measure the identified constructs. Moreover, chapter three discusses the translation process applied to the instrument, the importance of validity and reliability in a quantitative research approach, the sampling and data collection process, and ends with a discussion of ethical considerations.

Chapter four covers the procedure of data treatment and preparation. This includes the techniques utilised to test and prepare the variables for the multivariate statistical analyses. Thus, an assessment of missing data, outliers, test for normality and linearity, as well as an evaluation of homoscedasticity and multicollinearity has been applied. Furthermore, this chapter addresses the topic of common method variance. Finally, the chapter concludes with a description of the applied analysing techniques, namely: confirmatory factor analysis and structural equation modelling.

Chapter five presents the results of the empirical study. In particular, the chapter highlights the demographics and descriptive statistics. Moreover, the chapter covers the process of instrument validation by using confirmatory factor analysis. Finally, the hypotheses were tested by applying structural equation modelling.

Chapter six provides a discussion of the results with relevant literature. In particular, the chapter shows similarities and differences between the study's findings and other empirical results, and tries to give some possible explanations for these.

Chapter seven contains recommendations and implications for theory and practice, covers the limitations, and ends with a summary of the thesis.

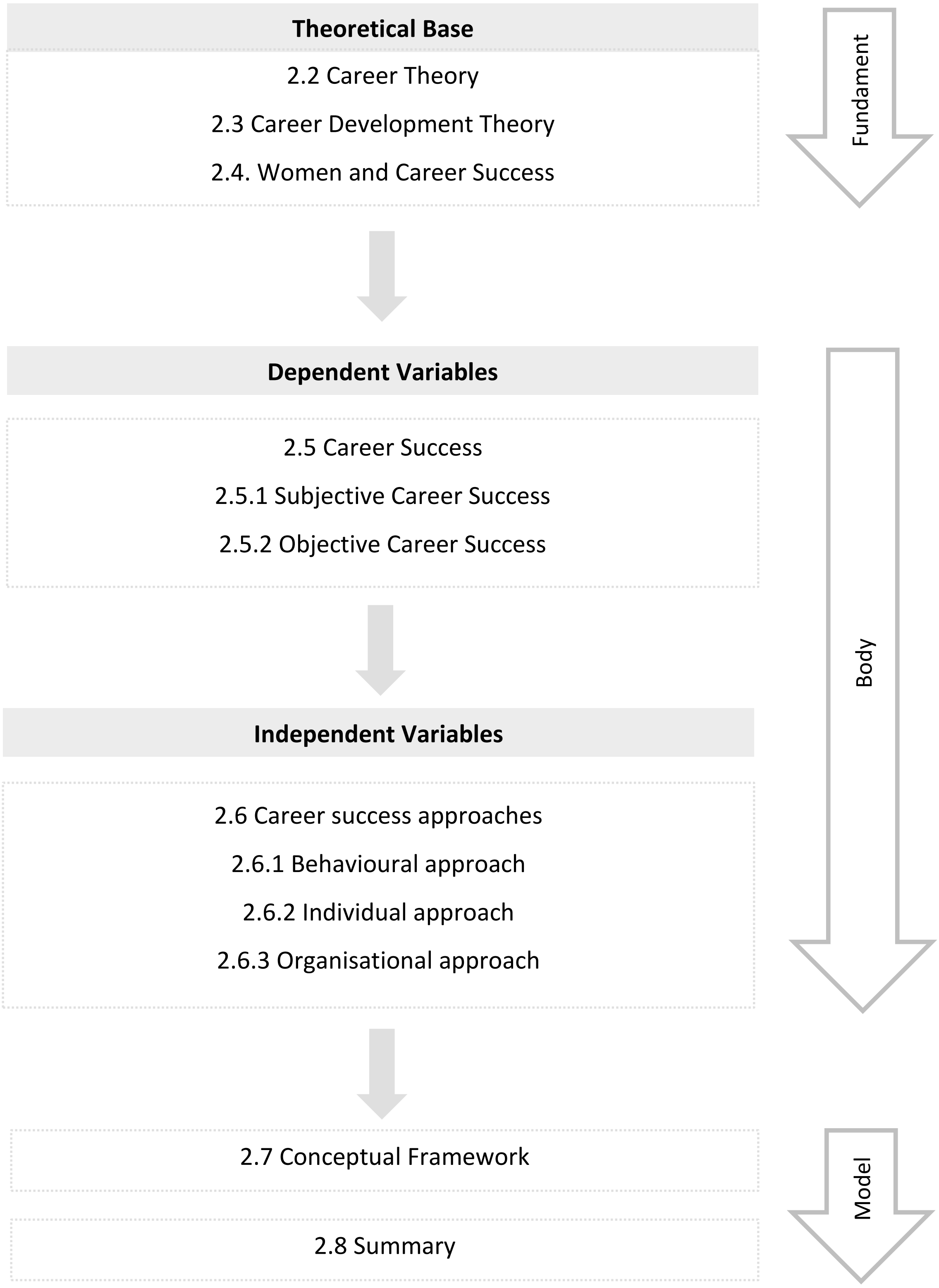
2 Literature Review

2.1 Introduction

This chapter presents a comprehensive literature review regarding the theoretical concepts and empirical investigations of career success which build the basis for the proposed research model. It aims to construct an understanding of the relationships investigated within this doctoral study. Several bodies of literature are integrated into the literature review. In particular, the review highlights factors which are imperative for females' careers and advancements, and includes crucial information with which to provide a solid perspective.

First, it examines several career theories as well as career development theories which provide a ground foundation. Second, the literature review focuses on theoretical and empirical contributions that address issues which are important for females' careers. The reviewed literature draws on a range of theoretical foundations to explain the relationships between women and their respective career outcomes. Third, it provides supportive information about how career success is understood and discusses major approaches emphasising the importance of various career antecedents to determine career success. Finally, the chapter presents the identified factors which have been synthesised in a conceptual framework, and ends with a summary which shows the key points drawn from the review. The structure of this literature review is presented in figure 2-1 so as to provide a solid overview of the chapter.

Figure 2-1: Structure of the literature review



2.2 Career Theories

Traditionally, careers were typically defined as a relationship between an individual and an employing organisation. In particular, the "…moving perspective in which persons orient themselves with reference to the social order, and of the typical sequences and concatenation of office" (Baruch, 2004, p. 58) describes how a career was characterised. Whyte (1956) deals with this topic in his book 'The Organisation Man'. He underlines that an organisational career not only means that the employee works for an organisation, it also includes the notion that the person belong to the employer. Wilensky (1960, p. 554) also provides an early definition of a career as "…a succession of related jobs, arranged in a hierarchy of prestige, through which persons move in an ordered, predictable sequence." Continuing on from these initial definitions, research on organisational careers has garnered increased attention since the 1970s (Hall, 1996a; Schein, 1971; Schein, 1978a) and is strongly influenced by the developmental stage theories of Super (1957) and Levinson (1978, 1986, 1996).

The mentioned assumptions of an organisational career reflect current views considered to be 'traditional' (see figure 2-2 and figure 2-3), i.e. the notion that a career is associated with long term employment and job security, as well as a vertical promotion process within a single company (Kanter, 1989; Sullivan, 1999) and a defined output by the organisation (Hall & Mirvis, 1995). In this form, career paths are linear and one-dimensional (Rosenbaum, 1979), mirroring mainly a vertical progression within a single company (Arthur, 1994; Orser & Leck, 2010). To emphasise this, the relationship between the employer and employee is not only built on obvious facts like a contract, but also includes psychological issues and underlying assumptions of loyalty (Orser & Leck, 2010). However, some researcher (Hall, 2002b; Rousseau, 1995) claim that the psychological contract is changing towards a more balanced commitment between both parties. Nevertheless, a career seems still to be directed by the organisation (Baruch, 2003; Cavanaugh & Noe, 1999), in so far that a traditional career path is reflected with a responsibility shift of career management towards the organisation (De Vos & Soens, 2008). Thus, organisations mainly implement career planning and management activities such as training, job security and vertical mobility to reward appropriate candidates (Baruch, 2003; Clarke, 2009). Research in this field generally focuses on objective determinants to illustrate success. Consequently, traditional career success is mainly conceptualised by extrinsic variables such as income, hierarchical position and number of promotions (Cabrera, 2009; Kanter, 1989).

Academic literature from the past three decades recognises the changing nature of careers and the modification of internal structures and processes within companies which emerge due to unpredictable environmental and socio-economic developments, unstable and dynamic employment conditions, globalisation, as well as the raised competition and adjustments of social norms (Arthur, Khapova, & Wilderom, 2005; Hall, 2002b; Kalleberg, 2000). This transition seems more supportive in terms of handling technical developments (Coovert, 1995; Howard, 1995), but also allows for a response to the increased individual needs of employees (Arnold & Cohen, 2008) and promises advantages in global competition (Rosenthal, 1995). Moreover, research indicates that nowadays employees expect a better work-life balance (Mainiero & Sullivan, 2005; Sargent & Domberger, 2007). Individuals also seem to change their career attitudes and behaviours, aiming for a better balance of family issues, self-realisation and the fulfilment of personal needs, alongside an increase of ambiguity in the form of what they expect from their employer (Arthur et al., 2005; Hall, 2002b; Sullivan & Baruch, 2009).

In response to these changes, research began to develop new models of the organisational career (see figure 2-2), with the concept of a 'career' now often described as "…a process of development of the employee along a path of experience and jobs in one or more organisations" (Baruch, p. 126) or "…being in relationship with identity and providing a residual trace of the individual's relationship with work" (Coupland, 2004, p. 515). Careers were conceptualised as being without boundaries (Arthur, 1994) and protean, understood as "…selfdetermined, driven by personal values rather than organisational rewards, and serving the whole person, family, and 'life purpose'" (Hall, 2004, p. 2). For instance, Hall (1996b) demonstrates in his book titled 'The (organisational) career is dead: Long live the (protean) career' the development towards a more modern view of a career. It has even been posed that, a traditional career seems "…no longer in fashion and no longer relevant" (Clarke, 2013, p. 685). Shaw and Leberman (2015) postulate that a traditional career model is not designed for today's multiple manifestations of a career. As a result, research about new career concepts has flourished (Arthur & Rousseau, 1996b; Briscoe, Hall, & DeMuth, 2006; Defillippi & Arthur, 1994; Hall, 1996a;

Mainiero & Sullivan, 2005). The new models include more flexible and self-directed aspects (Briscoe & Hall, 2006b) as well as the so-called 'boundaryless' relationship between an individual and several companies (Arthur et al., 2005). Mirvis and Hall (1994) indicate also that the responsibility of career development shifts from the organisation to the individual. Thus, the claim for a change of traditional career concepts results in an increase of new career models, such as the intelligent career (Arthur, 1994), post-industrial career (Gershuny, 1993) and the kaleidoscope career (Mainiero & Sullivan, 2005). Besides these models, two main streams have dominated within literature till date: the boundaryless and protean career (Briscoe & Finkelstein, 2009).

Figure 2-2: Comparison of traditional and contemporary career models

	Traditional Model	**Contemporary Models**
Career Management	Responsibility of organisation	Responsibility of individual
Appearance	• Limited number of employers • Long term employment • Job security • Vertical movements • High loyalty	• High mobility • Short term employment • Independence • Vertical & lateral movements • Meaningful work
Career Success / Idea	Achieve status, high rank and salary	Achieve self-fulfilment, satisfaction, autonomy
Career Success Outcome	Objective: position, salary, promotion	Subjective: satisfaction

Building on the idea of a higher flexibility and self-directed content, a boundaryless career (see figure 2-3) is mainly characterised by the aspects of movement between several employers and organisations without any structural constraint. It is defined as "…moving away from one single, externally determined view which defined what a good career is…" towards "…independence from, rather than dependence on, traditional organisational career arrangements" (Arthur & Rousseau, 1996b, p. 15). This also implies a change between employees and organisations regarding the psychological contract to allow for a greater independence of the individual (Arthur et al., 2005). Furthermore, a boundaryless career emphasises elements of internal and external network building (Sullivan, 1999), as well as the importance of individual and family issues (Arthur & Rousseau, 1996a, 1996b). Additional characteristics include portable skills, knowledge, and the abilities of a person (Bird, 1996; Lips-Wiersma & McMorland, 2006; London, 1998).

Also, a change of career success measures occur as objective determinants become slightly less important (Arthur et al., 2005). For instance, Parker and Arthur (2000) demonstrate in their discussion the increased importance of perceived career success as opposed to objective measurements. Nonetheless, research also indicates that the majority of literature still includes issues of vertical movement (Clarke, 2013; Sullivan & Baruch, 2009) and therefore focuses on objective career measures.

The concept of the boundaryless career further extends to the aspect of physical movements with those of psychological mobility, as "…the capacity to move as seen through the mind of the career actor" or also defined as "…the perception of the capacity to make transitions" (Sullivan & Arthur, 2006, p. 21), which emphasises the attitude of a desire to cross boundaries (Sullivan & Arthur, 2006). Thus, physical mobility describes the visible change between organisations, jobs and hierarchies, whereas psychological mobility concerns the willingness or attitude to do so (Lazarova & Taylor, 2009). As such, a career path can include both physical and psychological movements, and often associates the suitability of a job with personal values and beliefs (Clarke, 2013). Research further assumes that psychological mobility may influence individuals in so far as if they feel unbounded to their current employer they might be less motivated to invest in that relationship which can then negatively impact career development (Verbruggen, 2012). However, some academic literature (Sullivan & Baruch, 2009) proposes that research about psychological mobility and the ways in which individuals change their psychological perspectives is scarce. In addition, research (Rodrigues & Guest, 2010; Verbruggen, 2012) criticises that the construct of psychological mobility is difficult to operationalise. Briscoe et al. (2006) investigated this in a two scale measurement of psychological mobility which reflected the preference of individuals to build relationships across departmental and organisational boundaries, and claimed that the attitude towards a career is built across several employers. Hence, Briscoe et al. (2006) try to acknowledge the conceptualisation of the boundaryless career which emphasises the importance of networking and the presumed movement aspects (Sullivan, 1999; Verbruggen, 2012).

Building on the phenomenon that women tend to opt out of their organisational career and/or to establish their own businesses can be seen as a reflection of their proposed physical and psychological mobility. For instance, Mattis (2004) identified the following factors as reasons for women leaving their employers: a higher flexibility, the negative impact of the glass ceiling, dissatisfaction with the work set up and insufficiently challenging tasks within the company. The study of Cabrera (2007) determined family issues, change of interest or the endeavour for more balance in life as further reasons for women choosing to move careers, as it concerns an inadequate fit of organisational careers with their beliefs and values.

Sullivan (1999) generally argues that the attributes of a boundaryless career seem to suit women better than men. For instance, process-orientation, empathy and cooperation are common traits which have been associated with women (Eagly, 1987; Eagly & Karau, 2002; Gallos, 1989) and are also "…abilities most associated with being effective in boundaryless careers" (Sullivan, 1999, p. 475). Moreover, Sullivan and Arthur (2006) revised the concept and included gender aspects, cultural differences, and competencies as potential influencing factors to a boundaryless career, as the transition might differentiate between individuals. They assume that women have a higher psychological mobility (Sullivan & Arthur, 2006), based on their tendency to opt out and to show multi-dimensional career paths (Cabrera, 2007; O'Neil et al., 2008). The study conducted by Segers et al. (2008) also supports this assumption, indicating that the women in their study show a higher score of psychological career mobility.

Another line of thought on contemporary career models is the concept of the 'protean career' (see figure 2-3) which supports the idea of a holistic view focusing on the individual and intrinsic issues such as meaningful work (Mirvis & Hall, 1996; Mohrman & Cohen, 1995). In his book, Hall (1996b) drew upon the metaphor of the Greek god Proteus to describe the protean career. Like Proteus, who changes his shape at will, a protean career is characterised by remodelling knowledge, skills and abilities to arrange a best fit between the constant change of work environment and the modifications of a person's own needs. Briscoe et al. (2006) further emphasise two central attributes of the protean career: self-direction and personal value congruence. In addition, the protean career is characterised by a shift of responsibility for career development activities away from the organisation towards employees (Hall, 2002a; Hall & Moss, 1998). The protean career is based on intrinsic aspects and described as "…a mind-set about the career—more specifically an attitude toward the career that reflects freedom, self-direction, and making choices based on one's personal values" (Briscoe & Hall, 2006a, p. 6). Like other contemporary career models, career success in a protean career is viewed as an intrinsic issue necessary to fulfil personal values (Cabrera, 2009). Moreover, the protean career is recognised as a beneficial relationship between both parties and is regarded as "…growth, responsibility, empowerment, performance, and hard work" (Hall & Moss, 1998, p. 35). A further characteristic is the strong emphasis on continuous learning in order to develop the required career and self-competencies as "…the new career will be increasingly a continuous learning process…" (Hall, 1996a, p. 11). This learning aspect appears on a regular basis (Hall, 2002b) and implicates the motivation to learn (Briscoe & Hall, 2006a). Thus, Hall (1996a) emphasises that a career can be seen to be a continuous learning process in contrast to lifelong development stages as proposed by Super (1957, 1984) and Levinson (1978, 1986). Several studies have analysed gender differences in terms of how far a protean career might be more supportive for women. For instance, McDonald, Brown, and Bradley (2005) found that women more frequently reflect a protean career compared to men. Reitman and Schneer (2003) argue that women can benefit from a contemporary career path as it allows for the combination of work and family duties. Additional authors (Hewlett, 2007; Huang & Sverke, 2007; Ng & Feldman, 2014) also claim that a protean career is more appropriate to explain females' careers as opposed to the traditional view of a career.

In a similar vein, Mainiero and Sullivan (2005, 2006) developed the kaleidoscope career model (KCM) (see figure 2-3) to focus on individual values that may change due to personal circumstances and life stages. They found in their study that career patterns were no longer created by organisations, but instead by the values and choices of the individual (Sullivan & Mainiero, 2007). August (2011) insists that the KCM has particular relevance for women due to their work-life pattern. Thus, like a kaleidoscope that reflects different patterns while it is rotating, KCM aims to describe individuals who adjust their behaviours and career decisions while considering a range of aspects in their life (Sullivan & Baruch, 2009). The model seeks to arrange an optimal combination between work demands, constraints, relationships and personal values (Sullivan, Forret, Carraher, & Mainiero, 2009). Moreover, KCM emphasises the shift of individual needs over time (Mainiero & Sullivan, 2006), as changing values through different life stages seems to influence several career decisions.

As aforementioned, the model appears to fit specifically in the case of female career advancements, as research indicates a trend that highly educated women decide to 'opt out' of their careers (Belkin, 2003; Mainiero & Sullivan, 2006). Thus, the model emphasises the critical role gender plays in career decisions and how far women and men can differ in career and life patterns (Mainiero & Sullivan, 2006). In particular, women seem to make career decisions in a 'relational' way and consider more often contextual determinants for career judgements (Mainiero & Sullivan, 2005). The model suggests that as a kaleidoscope uses three mirrors that shape a specific pattern, individuals focus on three determinants that influence their career and related decisions (Sullivan & Baruch, 2009). First, *authenticity* covers the capacity for reflection, with each individual remaining true to themselves. Thus, personal values are reflected in their behaviour. Second, *balance* describes an adjustment of work and non-work demands. Third, *challenge* refers to autonomy and responsibility as well as learning and growing in work settings (Cabrera, 2009). These three parameters show different intensities over a whole life span and individuals try to find the best fit between personal circumstances and the work environment which in turn shapes their career decisions (Mainiero & Sullivan, 2005). Even though the model is new, research emphasises the function of the KCM (Sullivan & Baruch, 2009).

Figure 2-3: Key career concepts

Career Concept	Characteristics	Purpose	Key Authors
Traditional Career	• Long term employment • Job security • High loyalty of employee • Vertical promotion in a single company • Focus on objective career success factors like income & promotion	• Close relationship between employee and employer • Relationship is strongly embedded through the institution • Psychological issues influence employee	Hughes (1937) Levinson (1978) Rosenbaum (1979) Schein (1971, 1978b) Super (1957) Whyte (1956)
Boundaryless Career	• Mobility between several companies	• Development of the individual	Arthur (1994)

	• Independence of individual • Internal & external networking • Inclusion of subjective career success factors like job satisfaction • Vertical & lateral movements within the hierarchy	• Emphasise the importance of the person, family, portability of skills and knowledge • Open system • Company responsiveness to current changes • Individual choices are value-driven	Arthur and Rousseau (1996a, 1996b) Defillippi and Arthur (1994)
Protean Career	• Employee needs are dominant issues • Career management and development is managed by the individual • Meaningful work gains importance • Inclusion of subjective career success factors like job satisfaction • Vertical & lateral movements within the hierarchy	• Remodelling of knowledge and abilities to handle constant change • Freedom, self-directed, values-driven, flexible • Psychological success • Employability	Briscoe et al. (2006) Briscoe and Hall (2006a) Hall (1976, 1996a, 1996b) Hall and Moss (1998)
Kaleidoscope Career	• Focus on personal circumstances, life stages and the shift of individual needs over time • Emphasise personal values • Include the role of gender and differences between female and male career patterns • Balance between work and non-work demands • Highlights also the importance of a career	• Self-directed, values-driven, flexible • Consider need for challenge, career advancement and self-worth • Emphasise best fit between relationships and work constrains • Adaptable and shaping in specific life stages	Mainiero and Sullivan (2005, 2006)

In contrast, there exists also critical voices regarding the new career models. It seems that the concepts overlap in several dimensions as they share similar aspects (Briscoe

& Finkelstein, 2009; Briscoe & Hall, 2006b). For instance, Greenhaus, Callanan, and DiRenzo (2008, p. 285) question "…where boundarylessness ends and protean begins" so emphasising the problem of differentiation. Furthermore, researchers (Briscoe et al., 2006; Cabrera, 2009; Pringle & Mallon, 2003; Valcour & Ladge, 2008) argue that the number of empirical studies which test the assumptions of the new theories are limited. Also Clarke (2013) emphasises in her article that despite the proposed disappearance of the traditional career, empirical evidence to support this is scarce. Furthermore, the boundaryless career has been criticised for neglecting potential differences in career patterns across vocational fields (Goffee & Jones, 2000). King, Burke, and Pemberton (2005, p. 982) claim that the term 'boundaryless' does not accurately reflect what it intends to as "Careers are, and always have been, 'bounded'". Additionally, based on empirical results, scholars also express increased doubts regarding the disappearance of the traditional career (Mainiero & Sullivan, 2006; Smith-Ruig, 2008). For instance, Ituma and Simpson (2009) found in their study evidence for traditional career boundaries and objective career success patterns. In addition, an extensive amount of literature still focuses mainly on career success in terms of objective measures, such as income and the number of promotions (Dries, Pepermans, & Carlier, 2008; O'Neil et al., 2008). Furthermore, Baruch (2006) mentions in his article the typical attributes of a traditional career like job security. Moreover, studies show that the possibility and wish to pursue a career in a single company continues to exist (Granrose & Baccili, 2006; Smith & Sheridan, 2006; Sullivan & Baruch, 2009). In addition, Sturges, Conway, and Liefooghe (2010) emphasise that the support of the employer, with respect to the individual career, could strengthen the relationship between organisation and employee. That in turn can result in fewer turnovers as well as higher job commitment from the employees. The wish for job security seems still to be equally important for employees (Granrose & Baccili, 2006). Moreover, the concept of long-term employment remains alive, especially in public organisations (Barnett & Bradley, 2007). Even Hall and his colleague (2009, p. 182) postulate "We were wrong: the organisational career is alive and well". Sullivan and Baruch (2009) recognise in their systematic review that the traditional vertical career is still viable, alongside other career types. Also Gerber, Wittekind, Grote, and Staffelbach (2009) reveal a tendency towards a more traditional career path in several organisations. Further evidence for a traditional influence is provided by shared responsibility of career management issues as organisations are still involved in that process (De Vos, Dewettinck, & Buyens, 2008).

Obviously, this indicates that theoretical models occur as 'ideal types' and neither is able to cover all relevant issues (Barley & Kunda, 2001). Thus, it appears that no perspective provides a full and complete reflection of today's career realities. Moreover, Sargent and Domberger (2007, p. 558) argue that the "…multiplicity of career theories – both traditional and new – are relevant." Baruch, Szűcs, and Gunz (2015, p. 14) claim meanwhile that "…the traditional career is not dead, but rather that the new and the old paradigm may live next to each other at least in the literature. While individuals may be becoming more protean, and career systems may be becoming less structured and more permeable, it appears that individuals still look for security and stability and organisations still manage careers systematically." These findings lead to a more integrated view which combines the traditional concept with contemporary career models (Sullivan & Baruch, 2009). Hence, a career does not only constitute a means to climp up the career ladder, it also includes potential horizontal movements. In addition to this, individual responsibility and the desire to shape own career paths are integrated (Clarke, 2013; Lips-Wiersma & Hall, 2007). Furthermore, Griffin (2007) comments that it is quite possible to stay in a single organisation while having a protean career.

Following the aforementioned explanations and inconsistency in the literature, research should also examine traditional and contemporary career paradigms in the context of the national level (Sullivan & Baruch, 2009), as culture is able to reflect a "…set of meanings, beliefs, practices, found in a society" (Chudzikowski et al., 2009, p. 829). Academic literature emphasises the need to consider culture when studying career issues (Segers et al., 2008). When assessing the German labour market and existing career patterns, doubts might occur as to whether new career models influence German employees as much as the literature claims. For instance, the study of Kattenbach, Lücke, Schlese, and Schramm (2011) shows no clear trend towards the boundaryless concepts among German employees. As the new concepts historically emerged in the US, one may assume that cultures differ in their career and work patterns (Kattenbach et al., 2011; Rodrigues & Guest, 2010). Moreover, a study about the vocational mobility of cohorts born in Germany between 1929 and 1971 show no increase, even though a growth is apparent after a career interruption (Mayer, Grunow, & Nitsche, 2010). In addition, Rodrigues and Guest (2010) realise a stable average job tenure with an increase between 2000 and 2006. Winkelmann and Zimmermann (1998) discover also a decrease of the mobility rate. Furthermore, Diewald and Sill (2005) report a solid organisational mobility rate of 5% between 1985 and 1997. Even though some studies observe only a limited period, the results may show a tendency towards a more traditional work and career pattern in Germany. In addition, a study of Ballhausen, Süßmuth, Blösinger, and Schmitz (2012) reveal that the most frequently mentioned incentives in recruitment processes are job security, a secure basic salary, and high job autonomy.

From the aforementioned, several conclusions emerge. During the last decades various career theories have appeared which try to explain how a career can be characterised. Recent research detects an increasing responsibility of the individual accompanied with a higher mobility and independence of the employee. Moreover, the new career models seem to fit especially in the case of female careers. However, critical voices emerge as attributes of the traditional model still exist. In addition, when assessing career considering culture is important.

2.3 Career Development Theories

Career development describes the lifelong process of constructing a career in our society (Herr, Cramer, & Niles, 2004). Brown and Brooks (1990, xvii) describe this process as "…a lifelong process of getting ready to choose, choosing, and typically continuing to make choices from among the many occupations available in our society."

Over the past decades, several authors have made great contributions to theory as well as practical implications. However, no explicit classification of career development theories has existed so far. For instance, Savickas (2002) identified two main types of career development theories that deal with a) individual differences and b) individual development. In contrast, Patton and McMahon (2014) reveal in their overview a variation of different categorisations in the field of career development. Furthermore, they point out that no dominant theoretical perspective exists, even though some major theories have influenced research and practice to date (Patton & McMahon, 2014). For instance, Leung (2008) emphasised a) Theory of Work-Adjustment, b) Holland's Theory of Vocational Personalities in Work Environment, c) Super's Self-Concept Theory, d) Theory of Circumscription and Compromise and, e) Social Cognitive Career Theory as the most progressive pioneering models. Also, Brown (2002a) determines that while several theories of career development have emerged, there are only a few which have had an impact on research and practice over the last decades. Some other authors (such as Cytrynbaum & Crites, 1989; Ornstein & Isabella, 1990; Smart, 1998) depict in particular the stage theories of Super (1957, 1984) and Levinson (1978, 1986, 1996) as some of the most influential models in the field of carer development. On the contrary, Reardon, Lenz, Sampson, and Peterson (2011, p. 243) have been critical of the limited attention given to new and developing theoretical formulations as they postulate that "…there appears to be an inherent bias or selectivity regarding which knowledge or theories merit attention in the field of vocational psychology." However, Hutchison and Niles (2016) suggest the adoption of an integrated view as every theory offers an important insight that tries to understand individual uniqueness and development. It seems to be necessary to consider the context of the current study in order to choose a suitable theory. Thus, Brown (2002b) summarises that a relevant career theory provides: a) visualisation of the reality, b) an understanding of 'what' happens and 'why' it happens, c) an ability to recognise past, present, and future events, and d) comprehensiveness. In particular, the last attribute of an appropriate theory includes the observation of contextual factors, like culture and gender. This lead to the question: how is career reality constructed for women?

To furhter understand the role of gender in context of career development, research shows that early theories frequently neglected the topic of women at the workplace, especially in managerial positions (Kanter, 1977; Levinson, 1978; Super, 1957). Although career theories should generally describe "... the body of all generalisable attempts to explain career phenomena" (Arthur, Hall, & Lawrence, 1989, p. 9), they were mostly based on men and ignored female career development (Cytrynbaum & Crites, 1989; Gallos, 1989; Tharenou et al., 1994). For instance, even though Super (1984) and Levinson (1986) confirm that their theories were applicable to women, research shows inconsistent results (Cytrynbaum & Crites, 1989; Smart, 1998). Ornstein and Isabella (1990) identify only a moderate degree of support for Levinson's theory and were unable to find any connection between women and Super's theory. In addition, Bardwick (1980) identifies different phases within men and women´s lives, and adds important information to Levinson's (1978, 1996) idea about women’s life stages. Nevertheless, although this contribution is important, the modification is still founded on male development patterns (Powell & Mainiero, 1992; Pringle & Dixon, 2003). Life-span theories also ignore the importance of biology (Rossi, 1980; Sheehy, 1976), with research emphasising that traditional career theories do not consider women´s development as having a different timetable to men´s (O’Neil et al., 2015; Sullivan, 1999). Hurley and Sonnenfeld (1997) assume that women might have different paths. Also, Powell and Mainiero (1992, 1993) expect that age-related stage models do not reflect the career paths of women in an appropriate manner. Betz and Hackett (1981) claim that women's career development differentiates from a male perspective. Thus, a broader continuum of time should be incorporated, that contains various aspects and differentiates between the life stages of the individual.

As an answer to the aforementioned disparity, several career development theories evolved that focus on female experiences (Farmer, 1997). In particular, the concept of self-efficacy within the social learning approaches occurs as an important advancement to assess and evaluate female career choice and development (Betz & Hackett, 1997; Brown, 2002a; Osipow & Fitzgerald, 1996). Self-efficacy beliefs mirror convictions about the individual's capabilities to perform a certain behaviour, and differentiate between several performance domains (Bandura, 1977a). The major theory of self-efficacy behaviour that tries to explain individual career development activities is the social cognitive career theory (SCCT) (Lent, Brown, & Hackett, 1994). Brown, Lent, Telander, and Tramayne (2011) add that SCCT helps to analyse individuals’ development of educational and occupational interests as well as several related achievements. Studies applied that theory to exhibit the important role of self-efficacy with respect to an individual’s career planning and development (Choi et al., 2012; Gushue & Whitson, 2006; Inda, Rodríguez, & Peña, 2013; Scheuermann, Tokar, & Hall, 2014). SCCT builds on Bandura´s (1986) social cognitive theory (SCT), which considers the mutual influences between the individual, their behaviour and the environment (Bandura, 1986, 2011). This model of triadic reciprocality reflects personal attributes, external factors and visible behaviour which impact each other bidirectionally. This view emphasises the momentum of interactions between the individual and contextual issues, which can lead to the execution of personal agency (Lent et al., 1994).

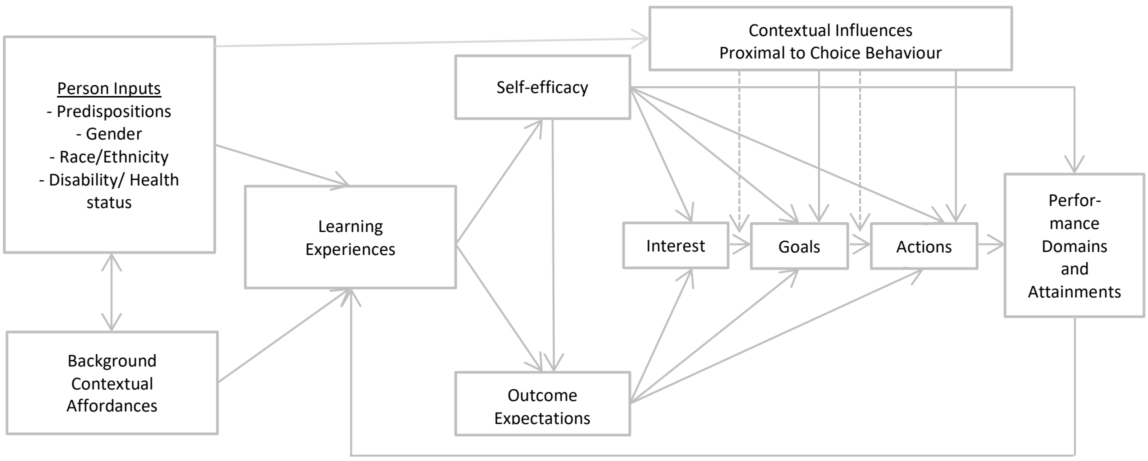
Bandura (2001) claims that SCT is based on an agentic perspective whereby individuals act as proactive persons in terms of their motivation and activities. In particular, the belief of personal efficacy is the most dominant mechanism (Bandura, 1997). The theory distinguishes between three agency models: direct personal agency, proxy agency and collective agency. Direct agency refers to cognitive, motivational, affective, and choice processes through which it is exercised to produce given effects; proxy agency meanwhile describes a mediated mode where individuals "…try by one means or another to get those who have access to resources or expertise or who wield influence and power to act at their behest to secure the outcomes they desire" (Bandura, 2001, p. 13). In contrast, collective agency involves mutual beliefs about the collective power to receive shared attainments which includes collective knowledge, skills as well as synergistic dynamics of their transactions (Bandura, 2001). Agentic behaviour has been identified as a career-relevant competency (Ancis & Phillips, 1996) and is reflected in self-efficacy beliefs which serve as an important factor for women's career advancements (Betz & Hackett, 1997). Bandura (2006b, p. 164) further insists that agency in particular means that "People are self-organising, proactive, self-regulating, and self-reflecting. They are not simply onlookers of their behavior. They are contributors to their life circumstances, not just products of them."

Building on the aforementioned, Lent and colleagues (1994) refine the social cognitive concept to be a career development process that involves cognitive parts, environmental influence, and contextual factors, which corresponds to the attributes of the aforementioned contemporary career models. Moreover, SCCT is a useful framework for career research as it explore the influence of sociocultural issues in career development processes. Within the personal determinants, Lent et al. (1994) highlighted three social cognitive mechanisms which appear to be important to the development of a career: a) self-efficacy beliefs, b) outcome expectations, and c) interest, goals and actions.

Self-efficacy beliefs represent individual expectations about their own capabilities to fulfil specific tasks and to perform a certain behaviour ("Can I do this?"), whereas outcome expectations are judgements about the output of executed tasks ("If I do this, what will happen?"). Interest referring to an active linking of subjects and goals was needed to insert more efforts in activities in order to achieve a specific objective and therefore to engage in a certain behaviour. Furthermore, goals are also linked to motivational factors as well as satisfaction that serves as a reward (Bandura, 1977a, 1986, 2006a; Lent et al., 1994; Lent et al., 2008, 2008).

The framework of SCCT is presented in figure 2-4 and proposes that self-efficacy beliefs influence outcome expectations, as individuals assume that to achieve a desirable outcome in activities they must feel capable. In short, SCCT aims to explain career development processes including cognitive and environmental parts that influence interest, goals and the development of choice (Bandura, 1986; Lent et al., 1994). Following the process, self-efficacy and outcome expectations are suggested to build a specific interest in establishing a career. Interests reflect a positive or negative attachment towards career activities (Lent et al., 1994). According to the model, interests help to build goals which can then be transformed into engagements. These activites are able to affect individuals' performances and may result in an adjustment of self-efficacy and outcome expectations if an adaption is necessary. Lent and colleagues (1994) additionally argue that in setting goals, individuals influence their behaviour too. Inda et al. (2013) further suggest that persons who face barriers are less likely to progress their interests towards goals and engagements. Gushue and Whitson (2006) add that socio-demographic and personal factors like gender, race, and culture have an impact on career self-efficacy beliefs and outcome expectations, which in turn determine career interests, goals, and therefore the applied career behaviour.

Figure 2-4: Model of social cognitive influences of career choice behaviour (Lent et al., 1994)



Besides the mentioned social cognitive mechanisms, SCCT also considers contextual determinants (e.g. gender, ethnicity, status, opportunities, supports, and barriers) that influence a person's career self-management behaviour (Lent et al., 1994; Lent, Brown, & Hackett, 2000). In particular, contextual factors can influence self-efficacy behaviour and outcome expectations which in turn have an impact on the person's interests and goals (Choi et al., 2012). Lent et al. (2000) identified two possible contextual influences: a) background affordances (e.g. emotional and financial support, opportunities for task and role model exposure, cultural and gender role processes) and b) proximal environmental variables (e.g. personal career network, structural barriers). This environmental influence can have an impact on career tenacity and "…serves to, determine who gets to do what and where, for how long, and with what sorts of rewards…" (Lent & Sheu, 2010, p. 692). Moreover, background affordances show a direct impact on career-relevant learning experiences, whereas proximal contextual affordances have direct and moderate effects on the interest-goal-action mechanism. Lent et al. (2000) further divide this environmental factor into objective and subjective parts. For instance, educational experiences as well as the financial support to participate in training are measurable factors, whereas given opportunities or occurring barriers are based on individual subjectivity. Furthermore, socio-demographic and environmental variables can influence cognitive determinants too (Inda et al., 2013).

In addition, Hackett and Betz (1981) identified socialisation processes and formed gender roles in our culture (see also chapter 2.4) as further influential factors that contribute to self-efficacy beliefs. Lent et al. (2000, p. 38) argue that "In individualistic cultures as well, career interests or goals often need to be subjugated to economic or other environmental presses…when confronted by such presses, an individual's choice behavior may be guided less by personal interests than by other environmental and person factors." The relationship between culture and career success has been already supported. For instance, Agarwala (2008) confirms that culture has an influence on career choices. Considering the German culture, research (Darwish & Huber, 2003; Hofstede Insights, 2019) identified a more individualistic stance, whereby personal advantage, career advancement and autonomy seem to be more important than collective attributes (Agarwala, 2008; Hofstede et al., 2010). Sullivan and Arthur (2006) propose that individualistic cultures more often show physical mobility, whereas collectivist cultures tend to apply psychological mobility. They also assume that women and men differentiate in the exhibition of mobility. Thus, women demonstrate more frequently psychological mobility, whereas men reflect a tendency to physical mobility.

Building on the ideas mentioned above, it appears that SCCT provides an solid explanation as to why women do not show the same career success as men: a) due to several barriers and obstacles, women might be less likely to translate their interests and goals towards career-related activities, b) the assumed socialisation process within our culture forms specific gender stereotypes which influence self-efficacy beliefs and outcome expectations, c) contextual impacts such as fewer opportunities, a scarcity of role models and career networks as well as structural barriers are additional reasons. Also, Betz and Hackett (1997) claim that SCCT (in particular the concept of self-efficacy beliefs) is appropriate as a means to explain the occurring career discrepancy of women in male-dominated work environments.

To summarise, SCCT can be seen as a useful theoretical framework considering internal and external factors that influence women´s interests, career goals, development and choice (Brown et al., 2011; Yeagley, Subich, & Tokar, 2010). Scheuermann et al. (2014) claim that due to the focus on individual and contextual factors, SCCT has been widely accepted as a way to explain the career development of women. Research also demonstrate that self-efficacy beliefs are able to predict women ´s career interests, goals, and actions (Betz & Hackett, 1997, 2006; Hackett & Betz, 1981; Lent et al., 2005; Quimby & O'Brien, 2004; Yeagley et al., 2010).

2.4 Women and Career Success

The career debate has long ignored women's occupational advancements. Denmark (1993, p. 345) noticed "…by ignoring gender as a variable (...), researchers created many blanks in theoretical and research design." Therefore, many studies focused only on male samples or included an unbalanced number of female managers in their observations (Sullivan, 1999; Tharenou et al., 1994; Yukl, 2010). One explanation for these circumstances might be the limited number of women holding decision-making positions. As Gutek and Larwood (1987, p. 8) emphasise "There was little reason to study the career development of women. It could be easily summarised: there was none. Men had careers; women had temporary employment or jobs that took second place to family interests and obligations."

Research shows that to date, both a career and related decision-making positions tend to be associated with men and masculine attributes rather than women and feminine characteristics (Koenig et al., 2011; Schein, 2007; Schneer & Reitman, 1995). With the exclusion of gender, the impact of socialisation on career success has been largely neglected (Denmark, 1993). Within the process of socialisation, each individual can learn certain traits, behaviours and characteristics which are seen as appropriate, especially with respect to their particular biological sex (Andersen & Taylor, 2007). Henslin (1999, p. 76) emphasises that "…an important part of socialisation is the learning of culturally defined gender roles." Gender roles describe the way that an individual should act and behave within a society in order to be accepted, identified and categorised by other members (Bem, 1993; Crespi, 2003). Moreover, gender roles are strongly linked to the typical assumption of perceived gender stereotypes which are formed by observations of women and men (Eagly & Steffen, 1984). Thus, our beliefs about women and men originate from social roles (Eagly, 1987; Eagly & Steffen, 1984). Eagly, Wood, and Diekman (2000) also argue that within our social role, gender is an expression of a specific culture. The concept of social role theory can be used to explain the phenomenon of the beliefs about male and female traits and characteristics (Eagly, 1987, 1997). As gender roles describe how women and men should behave with regards to their gender (Eagly, 1987), the ascribed behaviour is influenced through the socialisation processes where individuals learn their gender roles in accordance with social expectations. For instance, Judge, Livingston, and Hurst (2012) show that within the workplace women tend to engage in relationships with others, whereas men get more satisfied by competition, influence and power.

The idea of attributed behaviour which is considered appropriate for each gender is frequently described within management and leadership literature as communal or agentic (Bakan, 1966; Eagly, 1987). Moreover, social role theory also reflects common views about the breadwinner and homemaker roles that lead to social hierarchical constructs (Eagly et al., 2000). A communal behaviour is depicted as helpful, kind, emphatic, interpersonally related, and strongly ascribed to women. In contrast, agentic attributes are pictured as aggressive, competitive, dominant and self-sufficient and are associated with men (Eagly & Karau, 2002; Eagly & Wood, 1991; Helgeson, 1994; Powell & Butterfield, 1979). Furthermore, assumptions about leadership and management are traditionally associated with male characteristics. Consequently, agentic attributes are linked to career success, subsequently, to men rather than to women (Koenig et al., 2011). Interestingly, some studies reveal that the exhibition of identical roles for women and men is able to eliminate gender-stereotypes (Bosak, Sczesny, & Eagly, 2012; Steinmetz, Bosak, Sczesny, & Eagly, 2014).

One concept that tries to acknowledge the relationship between socially formed stereotypes, management attributes and success is the 'think-manager-think-male'-paradigm (Schein, 1973, 1975). Thus, the expression 'think manager' linked to 'think male' illustrates the possible obstacles women face in promoting processes and managerial positions (Schein, 2001). However, due to changing environments and the employee-employer relationship, research has identified traits and characteristics in the workplace which are becoming crucial and more frequently associated with women. Hence, some researchers (Eagly & Carli, 2003a, 2003b; Rosener, 1995) postulate that the alteration of the work environment over the last decades might now be assisting women to reach success. Notwithstanding, based on the social role theory, Eagly and Karau (2002) explain with their role congruity model unequal treatments women face in decision-making positions. Thus, discrimination of females at the workplace can occur due to the mismatch of the perceived attributes women held in our society compared to the perceived requirements of management roles (Eagly & Karau, 2002; Koenig et al., 2011). As a result, incongruence of females regarding their gender role and decision-making positions can lead to a decrease in their promotions as well as earnings (Garcia-Retamero & Lopez-Zafra, 2009).

A similar model which tries to describe the situation of disparity between genders and the work role with the lack-of-fit-model (Heilman, 1983, 1995). According to this model, success depends on the comparison between personal attributes and specific job requirements. Therefore, a 'lack of fit' between attributes and requirements could be responsible for sex-biased judgments, especially for women (Heilman, 2001). The dilemma women face is often described as a double bind which means "…contradictory frames or injunctions that signify neither traditional feminine behavior nor masculine behavior will be rewarded, and often these behaviors are penalised" (Brock, 2000,

p. 40). Thus, female leaders are perceived to be communal regarding their gender role and also to be agentic due to the occupation of a leadership position (Eagly & Carli, 2004; Shapiro, Ingols, & Blake-Beard, 2008).

To summarise, the theories, concepts, and models presented here build on a common view: culturally formed gender roles and ascribed gender stereotypes which influence career advancement of women. Ridgeway (2011, p. 88) argues that gender is a "…primary cultural frame for coordinating social relations." Therefore, people tend to categorise each other in sex types that unconsciously include gender stereotypes, so reflecting perceptions about status, attributes, abilities and specific roles in that society. Moreover, Mayrhofer, Meyer, and Steyrer (2007, p. 221) claim that culture is able to reflect embedded beliefs about gender which have an influence on individual careers and "…all members of societal structures actively or passively produce and reproduce gender-based inequity." In addition, Segers et al. (2008) emphasise that research should consider contextual factors like culture when studying career approaches. Furthermore, Brown (2002a) indicates that the culture in which a career choice occurs should be taken into account. However, a study of several countries shows that the decision to make a career is greater between cultures rather than gender (Malach-Pines & Kaspi-Baruch, 2008). Nevertheless, Hofstede et al. (2010) postulate that every society possesses a male and female culture that differ from each other. This disparity can lead to the creation and recognition of traditional gender roles. Hofstede's model uses the dimensions of masculinity and femininity that refer to socially and culturally determined gender roles. Considering the influence of cultural and societal norms on the career success of women, the most recent results of Hofstede's study indicate that Germany is depicted as a masculine society (Hofstede et al., 2010; Hofstede, 2016). Moreover, Hofstede et al. (2010, p. 140) claim that "A society is called a masculine when emotional gender roles are clearly distinct: men are supposed to be assertive, tough and focused on material success, whereas women are supposed to be more modest, tender and concerned with the quality of life." In addition, Segers et al. (2008) propose that cultures with a low masculinity score prefer relationships, quality of life and value-driven attributes, whereas cultures with a high masculinity demonstrate physical mobility and competition.

This leads to the assumption that the German culture asserts a more traditional career concept characterised by loyalty of the employee, long-term employment, job security and vertical promotion as well as the association with competition, success and masculinity. The aforementioned individualistic stance of the German culture supports also the association of a career with male attributes. Moreover, women in Germany still possess the main responsibility for care of the elderly and children, and therefore often hold part-time jobs which also hinders gender equality in the workplace (Bundesagentur für Arbeit, 2016; Weinkopf, 2014). The study of Rodrigues and Guest (2010) supports the existence of a traditional career view in Germany as job tenures increase for women over 25 years of age and remain remarkably stable. Furthermore, current data reveals that women's job tenure of 10 years and over occurs more frequently than shorter periods in Germany (OECD, 2016). A recent study of Towers Watson (2014) indicates that job security is a key aspect in deciding to join an organisation in Germany. Interestingly, Erlinghagen (2010) reveals in his study that job stability in Germany has remained constant even while the fear of job loss increases.

In addition, the mentioned career theories (see chapter 2.2), O'Neil *et al.* (2008, p. 735) argue that the traditional model fails to include concepts of women's careers, especially the 'complex and multi-dimensional' paths in comparison to men's. Career patterns of women show a far greater variance and range, including upward, downward and lateral mobility, more turnovers, increased career interruptions as well as labour market segregation (Gersick & Kram, 2002; Huang & Sverke, 2007; Kirchmeyer, 1998, 2002; Melamed, 1996a; Pringle & Dixon, 2003; Richardson, C., 1996). Mainiero and Sullivan (2005, p. 111) describe in their study the complexity of women´s career as "… normally part of a larger and intricate web of interconnected issues, people, and aspects that had to come together in a delicately balanced package." As opposed to men´s careers, those of women seem to be more influenced and driven by the reciprocity of work and private life (O'Neil et al., 2008; Powell & Mainiero, 1992). In addition, O'Neil et al. (2008, p. 727) characterise women´s career patterns as: "… embedded in women's larger-life contexts, families and careers are central to women's lives…" Furthermore, Hewlett (2007) portrays the paths of women´s careers as being a combination of off- and on-ramps. Moreover, additional studies support the variety of women´s career paths which are mostly identified as nonlinear (Hewlett, 2007; Madsen, 2008; Sullivan

& Baruch, 2009). Nonetheless, some researchers identified the same traditional career patterns existing for women as for men (Blair-Loy, 1999; Wajcman, 1998). Even Hall (2004) suggests that gender is unrelated to a person's career attitude. Notwithstanding, the majority of studies show that women's careers more often reflect contemporary career paths (Cabrera, 2009; Mainiero & Sullivan, 2005; O'Neil et al., 2008; Sullivan & Baruch, 2009).

Building on the aforementioned ideas, research shows no consistent picture of contemporary career models. Thus, ambiguous results regarding gender differences in the context of protean as well as boundaryless career orientation exist (Sullivan & Baruch, 2009). For instance, Briscoe et al. (2006) reported no gender differences with regards to the protean and boundaryless career, whereas other studies found some variations between women and men (Agarwala, 2008; Ng, Burke, & Fiksenbaum, 2008; Valcour & Ladge, 2008). Further studies support the argument that men focus more on vertical hierarchical-related movements and career patterns, whereas women tend to possess a more boundaryless view of a career (Inceoglu, Segers, & Bartram, 2012; Mainiero & Sullivan, 2005; Warr, 2008). Mainiero and Sullivan (2005) posited that women have to reconcile various components such as their career, family and further relationships in their life simultaneously. Gilligan (1982) also states that women´s identities are influenced by their relationships with others. Hence, the integration and management of different aspects of life seems to be a normality for women (O'Neil et al., 2008; Powell & Mainiero, 1992; Sandberg, 2013). O'Neil et al. (2015) state that both work and family are central issues in women´s lives. Moreover, O'Neil, Hopkins, and Bilimoria (2013, p. 74) claim that further research should close the gap between research and practice rather than there being a "…focus on the obstacles women face due to the compartmentalising of work and life, the challenges of balancing work and family, the persistent male model of career success." In addition, the literature review of Larwood and Gutek (1987) presents two main reasons as to why differences in the careers of women and men occur. Thus, women were confronted with an either-or-decision in terms of prioritising their career or family, as well as the discrimination they already face in promotion practices, career opportunities and development. This is supported by a study of Ziegler, Graml, and Weissenrieder (2015), who found that women in Germany still have to make a decision: career or family. Also, Friedman and Greenhaus (2000) state that women often feel they have to decide between their career and family at a certain stage in their life. Moreover, Belkin (2003, p. 85) implies with the expression 'opt-out revolution', that highly educated women are increasingly opting out of their careers due to family responsibilities or other personal reasons. This statement has been supported by a study of Antecol (2010), who found that in particular women with a specific race, marital status, and education subscribe to that phenomenon. In contrast, some authors claim that women do not desire to succeed to the same extent that men do (Cabrera, 2007; Catalyst, 2009; Gino, Wilmuth, & Brooks, 2015). For instance, Torres (2014) indicates that fewer women than men want to take on a decision-making position. However, her study also indicates the reason for this: the contradicting issues between career or family. Interestingly, Cabrera (2009, p. 186) postulates in her study that most women were forced to adopt a protean career to "…satisfy their need for balance in their lives." Moreover, responsibility for child and elderly care, or organising personal and household issues does often lead to lateral work patterns and careers (Mainiero & Sullivan, 2005). Also, Kirchmeyer (2002) confirms that women demonstrate more career interruptions in contrast to men as a result of family demands. Thus, career advancements seem to be harder to achieve for women, due to them frequently having to choose between pursuing their career or a family. This notion is supported by the nature of a career which could be seen as a long-term process that correlates with women's fertility (Ezzedeen & Ritchey 2009). It is therefore not suprising that research indicates that many successful women are unmarried and childless (Hewlett, 2002; Holst et al., 2015).

Researchers argue that utilising the traditional male career as the standard, women may be perceived as foreigners who are barely able to match the required demands (Powell, 1988; Valian, 1999). The traditional view of an ideal employee includes consistency, long working hours and commitment (Moen & Roehling, 2005). To underline the precarious position of women in the workplace, some studies show a tendency for females to change their employers more often (Dreher & Cox, 2000; Kirchmeyer, 2002), work fewer hours (Schneer & Reitman, 1995) and subsequently be sometimes perceived as less committed than men (Correll, 2007; Valian, 1999). However, the reasons for the illustrated discrepancy like discrimination at the workplace (Heilman, 2012; Oakley, 2000; Schein, 2007; Tharenou et al., 1994) and the higher responsibility of family demands and domestic work (O’Neil et al., 2008; Powell & Mainiero, 1992; Silver & Goldscheider, 1994) seem to be rarely taken into account.

Thus, some authors (Mainiero & Sullivan, 2005; O’Neil et al., 2008; Pringle & Dixon, 2003) claim that there is still a need for an appropriate model which considers the multiple forms of female career paths. Additional authors extend that proposition, arguing that career models should be expanded to include issues of women´s experience (Gallos, 1989; Woodd, 2000). This is especially as studies show that many women face problems such as stereotyping and discrimination in the workplace (Eagly, 2007; Heilman, 2012; Powell, Butterfield, & Parent, 2002), are paid and promoted less (Kirchmeyer, 2002; O’Neil et al., 2008; Schneer & Reitman, 1995) and have to cope with higher family responsibilities (Kirchmeyer, 1998; Schneer & Reitman, 1997). As a result, traditional career theories seem insufficient when it comes to explaining the reality of women's careers (Cytrynbaum & Crites, 1989; Powell & Mainiero, 1992, 1993; Tharenou et al., 1994). To support the need for different career success approaches for men and women, Melamed (1996a) found a high variance between women and men as career success factors of men were applied to women. Furthermore, Cox (1996) states that women´s feeling of inadequacy regarding their career might be a result of a male coded environment.

This leads to the assumption that the transfer and generalisation of the traditional career concept does not suit women in the manner that it does for men. However, there seems to be a huge gap between research and practice. Although research recognises the need for change in career theory and practice procedure, organisations still promote the notion of traditional career paths (O’Neil et al., 2008, 2013; O’Neil et al., 2015). Moreover, Mavin (2001) indicates that even though several female career models exist, their establishment in literature, research and practice is insufficient. Thus, the traditional career model seems still to be the prioritised approach (Vinkenburg & Weber, 2012). Nevertheless, other studies indicate a simultaneous and connected existence of traditional and contemporary career models. Hence, research shows that although women are more likely to choose non-traditional career paths, there is still a significant percentage of women who pursue a traditional career (McDonald et al., 2005). For instance, the study by O’Neil, Bilimoria, and Saatcioglu (2004) shows that approximately 1/3 of the observed women want to climb up the career ladder and achieve autonomy with which to pursue their career. In addition, Cabrera (2009) recognises that even though women are more likely to occupy contemporary careers, there are also females who manage a traditional career.

From the above, research investigating womens career success show that socialisation processes and formed gender roles strongly influence females´ career endeavours. Moreover, it occurs that the traditional career model fails to include female experiences and as a result seems to be limited to explain womens career success.

2.5 Career Success

Career success is often associated with the promotion process in an organisation as well as the individual's own perceived assumptions and is defined as "…positive psychological or work-related outcomes or achievements one has accumulated as a result of one's work experiences" (Judge et al., 1995, p. 486). Mavin (2001) adds that in particular, traditional definitions of a career describe an order of subsequent steps of personal development over a period that lead to an increase of responsibility. In addition, several authors (Jansen & Vinkenburg, 2006; Judge et al., 1995; Kirchmeyer, 1998; Luthans, 1988) insist that career success is illustrated by objective and subjective components. Objective career success describes visible determinants such as income, the number of promotions and the status of an individual (Gattiker & Larwood, 1990; Jaskolka, Beyer, & Trice, 1985; Ng et al., 2005). Moreover, according to the aforementioned changes in our social and economic environment, authors expand the traditional concept with an individual interpretation of career success in order to measure a person's intrinsic perception of what a career can mean. However, Harris and Ogbonna (2006, p. 46) claim that the construct of career success is still not fully evaluated as they drew attention to the "…poorly understood nature of the core concepts in this area." Heslin (2005) notes that a vast amount of studies look for determinants that predict a career, whereas little attention has been given to analysing the nature of career success. In particular, the classification in subjective and objective success as well as how the constructs can be operationalised is less evaluated.

2.5.1 Subjective Career Success

Subjective career success describes the perception concerning each individuals' occupational success (Gattiker & Larwood, 1989; Judge et al., 1995; Kirchmeyer, 2002) which covers feelings regarding the own career. These feelings are based on subjective judgments as well as on what someone considers to be accomplishments, according to psychological criteria (Hall & Chandler, 2005). Several authors (Dries et al., 2008; Dries, 2011; Hall, 2002b) realise that an evaluation of individual interpretation of career success provides an important added value to objective success measures which still dominate within literature (Heslin, 2005). This is unsurprising given that career paths and possibilities have changed significantly during the last three decades (Hall, 1996b; Richardson, 1996). For instance, companies tend to simplify organisational structures and hierarchies (Hall, 2002b), which also impacts objective career success elements like promotion rates and offered positions. Furthermore, the values and attitudes of our society have changed, which then influences general aspirations for success. For example, Dries et al. (2008, p. 263) argue that "…historical evolutions in society would cause inter-generational differences in conceptions of career and career success." Moreover, there might be a shift in the importance and meaning of a career between several generations as well as between the different life-cycle stages that each individual holds (Dries et al., 2008). Thus, research notes that contemporary career models are getting more important which include self-directed aspects (Briscoe & Hall, 2006b) and further meaningful characteristics (Arthur et al., 2005) like independence and values. Empirical studies observe the intrinsic components of a career by mainly measuring the career satisfaction or job satisfaction of the individuals (Gattiker & Larwood, 1988; Heslin, 2005; Judge et al., 1995). However, Heslin (2005) recognises that using job satisfaction as a representation of subjective career success alone reflects only a limited view. He claims that a successful career does not always correspond to satisfaction. In addition, Bailyn (1989, p. 482) states that "…'it would be a mistake … to assume that all members in a particular social category' would share the same subjective career orientations." Thus, the meaning of intrinsic career success can differ from individual to individual. Similarly, in order to assess subjective career success the career satisfaction scale developed by Greenhaus, Parasuraman, and Wormley (1990) has mainly been applied in empirical studies (Ballout, 2009; Judge et al., 1995; Maurer & Chapman, 2013; Seibert, Kraimer, &

Crant, 2001). However, standardised measurements sometimes show a limited content, as those items are not able to fully assess the individuals' subjective career success. This is most prevalent in the case of self-employment or work on temporay contracts (Heslin, 2005). Nicholson and Waal-Andrews (2005) state that it is not possible to fully assess subjective career success by observable determinants, as experience and attitude can also influence the perception of success.

Furthermore, subjective career success is influenced and moulded through time. Additional determinants like work-life-balance, relationships and reactions to career-related attainments also have an impact (Arthur et al., 2005; Heslin, 2005; Mainiero & Sullivan, 2005). Nevertheless, the review of Nicholson and Waal-Andrews (2005) shows that intrinsic success is also an outcome of objective success. They cite the study of Clark and Oswald (1996) who indicated that income and career satisfaction highly correlate with each other. In contrast, the study of Arthur et al. (2005) shows that subjective career success is able to initiate and contribute to objective career outcomes. In addition, a longitudinal study by Abele and Spurk (2009a) shows that subjective success factors influence following objective career success. In contrast, an extensive meta-analysis of Ng et al. (2005) found that objective and subjective career success are conceptually distinct constructs which led to the assumption that both constructs do not have similar antecedents.

Subjective career success can also be illustrated as self-referent and other-referent subjective success. Self-referent success refers to the comparison of the persons' career with personal standards and aspirations, whereas other-referent subjective career success relates to an individual's career comparison with external standards like a reference person (Abele & Wiese, 2008; Heslin, 2003, 2005). Furthermore, Heslin (2003) claims that people most frequently use other-referent criteria as a means to judge their careers. Unfortunately, existing measurement items tend to neglect those comparisons (Heslin, 2003). For instance, a study by Zanna, Crosby, and Loewenstein (1987) indicates that women are more likely to compare themselves to men rather than to other women. There also exists some evidence that women tend to assess their careers in more subjective forms in contrast to men. For example, Powell and Mainiero (1992) show that women focus more on subjective rather than objective measures of career success. In particular, being a female often means a higher level of perceived career success (Kirchmeyer, 2002). In addition, further authors (Kirchmeyer, 1998; O'Neil et al., 2008; Stumpf & Tymon, 2012) claim that women show the same amount of career satisfaction as men, even though their extrinsic successes often do not reflect the same level. A further interesting argument comes from Baruch and Bozionelos (2010) who state that perceived career success increases in importance in times when objective career factors remain static or delay. Thus, it could be argued that in times of reduced possibilities of objective success, companies should try to provide opportunities that create a positive perceived career success to retain promising talents.

2.5.2 Objective Career Success

A vast amount of literature still focuses on objective career success factors (O'Neil et al., 2008). This is interesting, despite some people primarily describing their career in subjective ways (Hall, 2002a; Ng & Feldman, 2014). This is particularly relevant in the case of women, with research claiming that objective career success factors are restricted and do not fit in the same manner that they do for men (O'Neil et al., 2008). Nevertheless, most studies rely on tangible indicators such as number of promotions, income, and position as key figures for extrinsic success (Judge et al., 1995; Maurer & Chapman, 2013; Melamed, 1995; Ng et al., 2005; Ng & Feldman, 2010). Arthur et al. (2005) explained that objective success builds a mutual social understanding rather than a distinctive individual view. Thus, objective success is a quantifiable value which refers to current benefits and economic status as well as reasonably expected utilities in the future. Moreover, contextual issues play an important role in assessing extrinsic success, which is based on (and therefore limited in terms of) resources as well as the particular environment which specify the kind of engagement to achieve success (Nicholson & Waal-Andrews, 2005). However, objective measures show also some advantages. Standardised measurements can be used to collect data easily and make things comparable (Heslin, 2005). In contrast, these measurements are also vulnerable to context and environment. For instance, Rasdi, Ismail et al. (2011) argue that income is fixed for positions in civil services. In addition, objective success criteria can also rely on profession. For example, the study by Kirchmeyer (2006) used the number of publications, department prestige and rank as objective career success measurement for academics.

Considering again the context of gender, further studies confirm differences between women and men with respect to objective and subjective career success (Dyke & Murphy, 2006; Kirchmeyer, 1995, 2002; Melamed, 1995; O'Neil et al., 2008). For instance, Konrad, Corrigall, Lieb, and Ritchie (2000) show in their work that men tend to evaluate career success more in objective terms such as income and advancement, whereas women emphasise their careers using more subjective patterns. These results are supported by additional research which demonstrates that women focus more on intrinsic success than men do (Kirchmeyer, 1998; O'Neil & Bilimoria, 2005; Powell & Mainiero, 1992; Sturges, 1999). Moreover, studies reveal that even when women obtain as many promotions as men, their advancements do not lead to an equivalent increase in management level and compensation (Kirchmeyer, 1999; Stroh, Brett, & Reilly, 1992). Furthermore, women are less likely to reach senior management positions (Kirchmeyer, 2002; Schneer & Reitman, 1995) and generally earn less income compared to their male counterparts (Kirchmeyer, 1998; O'Neil et al., 2008; Schneer & Reitman, 1997). However, Rasdi, Ismail et al. (2011) indicate in their study that women are more successful in objective terms than men. In addition, Burke and McKeen (1994) realise that women who reflect a career path that is connoted as masculine earn a higher income compared to women who experience interruptions. Notwithstanding, researchers (e.g. Arthur et al., 2005; Heslin, 2005) advocate the importance of measuring both, subjective and objective aspects as a career can only be understood if different criteria are taken into account.

2.6 Career Success Approaches

The literature available provides a broad number of different career success approaches, emphasising the importance of various career antecedents to determine career success. These approaches also demonstrate different views about the topic of career success itself (Dries et al., 2008; Kirchmeyer, 2002; Melamed, 1995; Ng et al., 2005; O'Neil & Bilimoria, 2005). Beside these existing views, researchers identify three main career success approaches which are dominant in current career literature. The approaches reflect individual, behavioural, or organisational aspects (Ballout, 2007; Nabi, 1999; Rasdi, Ismail et al., 2011; Rosenbaum, 1989). However, it seems that there is no consistent distinction between the approaches due to several overlapping dimensions.

2.6.1 Individual Approach

The individual approach is closely linked to the human capital theory (Becker, 1975) emphasising the importance of the education, traits and experiences of a person within the working environment (Ballout, 2007; Nabi, 1999). The theory postulates that those who invest more efforts in their human capital achieve a better outcome than those with lower investments (Becker, 1993). In addition to this, many studies mention human capital variables as being the most important factors influencing career success (Dreher & Ash, 1990; Gattiker & Larwood, 1988; Ng et al., 2005). Studies show that human capital variables have a significant effect on hierarchical progression and salary (Jaskolka et al., 1985; Judge et al., 1995; Ng et al., 2005; Tharenou et al., 1994). In addition, the individual approach covers also intrinsic factors such as ambition and work centrality as a means to measure the motivation of an individual (Nabi, 1999; Rasdi, Ismail et al., 2011; Wayne et al., 1999). The interplay of human capital and motivational aspects in the context of career success is frequently explained by one of the two systems of career mobility (Ng et al., 2005; Wayne et al., 1999).

To understand the role of human capital, the contest-mobility norm describes the situation in which individuals compete in an open and fair environment and exert efforts to obtain upward mobility (Turner, 1960). The person who is the most successful and productive gains rewards like a better income or higher position (Roberts & Biddle, 1994). As a consequence, the norm presumes that the accomplishments individuals achieve are attained due to work effort and motivation as well as human capital (Rosenbaum, 1984). Therefore, the individual approach reflects human capital as well as motivational aspects. The sponsored-mobility norm, on the other hand, postulates that rising up the career ladder is only possible through a selection process initiated by decision-makers within an organisation. Only selected individuals who were perceived as appropriate candidates, due to mutual shared attributes and characteristics, obtain special treatment (Ng et al., 2005; Turner, 1960; Wayne et al., 1999). As a result, the sponsored-mobility norm seems to be more greatly related to the organisational approach (see chapter 2.6.3) of career success (Ng et al., 2005).

Pursuing the contest-mobility norm, increased efforts lead to higher outputs in career advancement (Wayne et al., 1999). The most frequently cited determinants of investment are education, training and experience, which are related to the human capital theory (Becker, 1975; Tharenou, 1997a). In fact, a higher education and broader possession of knowledge and skills are considered to create an advantage in the working environment (Agarwal, 1981; Marginson, 1989; Tan, 2014). Research shows that education, training and experience are strong predictors of managerial progression (Dreher & Ash, 1990; Jaskolka et al., 1985; Judge et al., 1995). The study of Tharenou et al. (1994) also illustrates that education and training have a positive influence on managerial advancement. Moreover, educational achievements are said to predict increases in salary (Stroh et al., 1992). In addition, Blundell, Dearden, and Meghir (1999) explain an impact on salary due to training. Further studies also show there to be a positive influence of training on managerial progression (Tharenou et al., 1994; Wood, 2006). Furthermore, studies indicate that tenure has a positive influence on managerial advancement as well as income (Judge & Bretz, 1994; Ng & Feldman, 2010).

However, with respect to subjective career success, the influence of human capital factors demonstrate different results (Ng et al., 2005; Rasdi, Ismail et al., 2011). For instance, Judge et al. (1995) found only a weak correlation between human capital variables and subjective career success. In contrary, Cox and Harquail (1991) present in their study a positive correlation between experience and career satisfaction. Also training could influence job satisfaction in a positive way (Burke, 1995). Moreover, Aryee, Chay, and Tan (1994) revealed a significant relationship between position, competence and subjective career success. Furthermore, an analysis of managers in China indicated a positive relationship between career satisfaction and education, experience, and training (Guo, Xiao, & Yang, 2012). In addition, Maurer and Chapman (2013) identified a significant relationship between human capital factors and job satisfaction.

Considering motivational aspects within the individual approach, commonly used determinants to operationalise motivation are ambition and work centrality (Jaskolka et al., 1985; Judge et al., 1995; Maurer & Chapman, 2013; Nabi, 1999; Rasdi, Ismail et al., 2011). According to the expectancy theory (Vinnicombe, 1964), motivation can increase the effort of an individual to reach a higher outcome. Thus, career ambition can be defined as "… striving to develop capabilities in order to be engaged in a meaningful way, to earn a good salary…" (Kuijpers, Schyns, & Scheerens, 2006, p. 171). Work centrality refers to an individual's attitude towards work and the degree of importance it holds in their life (Ng et al., 2005; Rasdi, Ismail et al., 2011). Thus, individuals who show a high work centrality perceive work to be an important part in life (Brooke, Russell, & Price, 1988; MOW International Research Team Staff, 1987). Moreover, Kanungo (1982) claims that work centrality demonstrates normative beliefs which reflect the value and importance of work. Nevertheless, several studies show that ambition and work centrality are predictors of objective career success (Howard & Bray, 1988; Jansen & Vinkenburg, 2006; Jaskolka et al., 1985). As aspiration and ambition are often used synonymously (Ashby & Schoon, 2010), some studies show that managerial aspiration is a predictor of advancement in management (Callanan, 2003; Tharenou, 2001). Nevertheless, there is less evidence of a positive correlation between ambition and subjective career success (Judge et al., 1995; Nabi, 1999). Furthermore, Kuijpers et al. (2006) report no influence of ambition on career success. In contrast, work centrality has an positive influence on career satisfaction (Aryee, Wyatt, & Stone, 1996). In addition, Tziner, Ben-David, Oren, and Sharoni (2014) indicate a positive relationship between work centrality and career satisfaction. They argue that individuals high in work centrality gain pleasure and satisfaction due to the importance of work in their lives. Moreover, Nabi (1999) presents a negative relationship between ambition and both extrinsic and intrinsic career success, but a positive relationship between work centrality and subjective career success. This result might be an indication that high career aspirations can-not be easily satisfied which in turn leads to a lower feeling of success (Judge et al., 1995; Nabi, 1999).

Considering gender within the individual approach, research shows a heterogeneous picture (Kirchmeyer, 2002; Nabi, 1999; Rasdi, Ismail et al., 2011). The impact of human capital and motivational factors on career success demonstrate a tendency for there to be slightly more advantages for men. As a consequence, studies show that women in decision-making positions earn a lower income in comparison to men (Evers & Sieverding, 2014; Kirchmeyer, 2002; Ng et al., 2005). Nevertheless, only a moderate difference has been found with regard to starting salaries (Frieze, Olson, & Good, 1990; Manning & Swaffield, 2005), whereas differences increase with management level (Holst et al., 2015). In contrast, some studies report no disparities between the starting salary of men and women, although women obtain lower rewards and authority than men (Lyness & Thompson, 1997). In addition, studies indicate that women remain less likely to reach top managerial positions (Holst et al., 2015; Kirchmeyer, 2002; Schneer & Reitman, 1995, 1995).

One explanation that tries to illustrate the differences between women and men builds on the perceived distinctions regarding human capital as well as career motivation. Although the study of Stroh et al. (1992) shows that women 'did all the right stuff' inequality between men´s and women´s income and managerial progression persists. Studies indicate that the perceived value of women´s human capital and work commitment is rated to a lesser extent than men's (Burke, 1994; Stroh et al., 1992; Stumpf & Tymon, 2012). Furthermore, Tharenou et al. (1994) demonstrate that the beneficial influence of education, training and work experience is greater for men. There is additional evidence which supports a stronger impact of education and experience for male career progression (Cox & Harquail, 1991; Kirchmeyer, 1998; Simpson, 2000, 2000). With this in mind, Chênevert and Tremblay (2002) recognise in their study the positive influence of education on managerial advancement only for male managers. Moreover, women seem to be less likely to participate in training which enhances their career success (Evertsson, 2004). In addition, female managers tend to have more career interruptions than men (Cabrera, 2007; Kirchmeyer, 1998; Schneer & Reitman, 1990, 1997). This leads to fewer working experiences and a decrease in human capital as well as their managerial advancement (Ragins, Townsend, & Mattis, 1998). However, research also confirm that interruptions could create bigger opportunity costs and negative impacts for men (Kirchmeyer, 2002; Schneer & Reitman, 1990). In addition, tenure also appears to have a better effect on men´s careers than on women´s (Kirchmeyer, 1998, 2002). One often mentioned reason for this is the higher frequency of job changes for women (Dreher & Cox, 2000; Neumark & McLennan, 1994; Stroh et al., 1992). Kirchmeyer (2002) verifies a differential impact of tenure between women and men. Thus, tenure demonstrates a positive effect on the income of men and a moderate negative impact on the income of women. Consequently, an employer could assess women as a greater risk factor (Mavin, 2001; Tharenou, 1997a).

Several studies also try to analyse the reasons for the higher turnover rates of women or their decisions for self-employment. For instance, Mattis (2004) indicates four main explanations for why women choose to start their own businesses, these being: flexibility, barriers such as the glass ceiling, dissatisfaction with the work environment, and a lack of challenges within their current job. In addition, Mallon and Cohen (2001) identify both personal and organisational reasons. Furthermore, Neumark and McLennan (1994) mention women´s experiences of discrediting behavioural patterns as a reason for the higher rate of turnovers as opposed to men. These results emphasise that the causes of leaving could not solely be explained by family demands. In contrast to these findings, Rasdi, Ismail et al. (2011) discover a marginally more positive status of the objective and subjective career success of female managers. Moreover, Melamed (1995) reveals that human capital variables have a greater influence on women´s objective career success than on men´s. Also, Metz (2003) reports that training and development, as well as education and experience, are often more greatly related to women´s advancement.

When comparing the motivational aspects of both female and male managers, research points to a further controversial debate. Although literature presents the same level of relevance of work for men and women as well as work motivation (Astin, 1984; Schneer & Reitman, 1995), decision makers still estimate the career motivation and commitment of female and male managers differently (Adler, 2002; Correll, Benard, & Paik, 2007; Tharenou, 1997a). Van Vianen and Fischer (2002) support this view within their study, as their sample of women shows significantly lower ambition than men to obtain a higher management position. Also, Eagly, Karau, Miner, and Johnson (1994) found there to be marginally higher motivation to manage for men. However, Sools, Engen, and Baerveldt (2007, p. 430) argue that it could more difficult and time-consuming for women to show career ambition within their accepted social role as "men are … perceived as hierarchically ambitious … [so] they do not [need] to make their ambition explicit." Moreover, gender roles are evolved historically and ascribe responsible for family and private life to women whereas men are concerned with work, policy and public domain (Rybnikova, 2014). All the same, studies report an overall trend of a decreasing work centrality within western countries (Quintanilla-Ruiz & Wilpert, 1991; Wey Smola & Sutton, 2002). Nevertheless, further studies show no differences between the career ambition of women and men (Morrison et al., 1987). For instance, in her longitudinal study, Kirchmeyer (2002) presents that a similar work ambition exists during the first measuring period for women and men. Moreover, ambition has the same effect on men and women´s career outcomes and is a significant predictor of managerial progression. However, four years later, women were revealed to have lower career aspirations than men do (Kirchmeyer, 2002). This change could be explained through changing life events for women, the increase of family demands and more common responsibility for private issues during their middle life span (Cousins, 2004). However, a qualitative study of Ismail and Rasdi (2006) indicates that work centrality behaviours lead to women´s career success. Furthermore, Mayrhofer, Meyer, Schiffinger, and Schmidt (2008) show that the influence of work centrality on objective career success is greater for women than for men.

Regarding subjective career success, there seems a tendency for women to have slightly higher intrinsic career success than men (Kirchmeyer, 1998, 2002; Orser & Leck, 2010; Rasdi, Ismail et al., 2011). A meta-analysis of Konrad et al. (2000) show that women are more likely to assess their career in subjective ways. Also Powell and Mainiero (1992) indicate that women give most attention to subjective career success. An often mentioned explanation for this is that women might be more easily satisfied with their careers compared to men (Heslin, 2005; Judge et al., 1995; O'Neil et al., 2008). Furthermore, Gallos (1989) postulates that a reason for the different perception of women and men regarding their success might stem from differing in different ambitions. Igbaria, Kassicieh, and Silver (1999) reveal that career aspirations have a significant influence on intrinsic career success. Furthermore, Pachulicz, Schmitt, and Kuljanin (2008) found that work centrality was more closely related to the subjective career success of men than women. In contrast, Mayrhofer et al. (2008) show that the effect of centrality of work on subjective career success is stronger for women.

In conclusion, research demonstrates that individual attributes (in particular, education, personality traits, working experiences and motivational characteristics) are essential factors for career advancement (Kirchmeyer, 1998, 2002; Ng et al., 2005; Rasdi, Ismail et al., 2011). However, although current data shows that women in Germany have a similar human capital profile to men (Busch & Holst, 2009; Holst et al., 2015; Holst & Friedrich, 2017), they still do not demonstrate the same extent of career achievements. Moreover, females' career ambitions and work centrality are guided by either-or-decisions. This leads to the assumption that other factors influence women's career success to a greater extent (O'Neil et al., 2008) and that the human capital approach cannot adequately explain differences between women and men (Busch & Holst, 2010). Plus, past research tended to focus on gender differences regarding human capital and motivational attributes. However, it seems that they neglected behavioural and organisational factors which help women to succeed.

2.6.2 Behavioural Approach

The behavioural approach supposes that individuals can take an active role in their career success by having some kind of control over their career choice and advancement. It specifies that persons who want to progress should proactively engage in behavioural career strategies and tactics (Aryee et al., 1996; Ballout, 2007; Nabi, 1999; Pazy, 1988; Rasdi, Ismail et al., 2011). Research further emphasises that people should play an active role in their career advancement rather than relying solely on organisational procedures (Nabi, 1999). However, authors (Gunz & Jalland, 1996; Gunz, Jalland, & Evans, 1998) suggest that an individual's career strategies should align with the strategies of the institution. Within the behavioural stance, proactive individuals seem more likely to demonstrate initiative, show political savvy and influence their environment as a means to increase their career opportunities (Bateman & Crant, 1993; Seibert, Crant, & Kraimer, 1999; Stumpf, 2009). Crant (2000, p. 436) defines proactive behaviour as "…taking initiative in improving current circumstances or creating new ones; it involves challenging the status quo rather than passively adapting to present conditions." Research into proactive behaviour supports the relevance of proactivity with respect to different career outcomes (Rasdi, Garavan et al., 2011; Seibert, Kraimer, & Crant, 2001). Bateman and Crant (1993) indicate that proactive people obtain more support in the workplace. In addition, Ng and colleagues (2005) realise in their study that proactivity is moderately related to objective career success and strongly related to subjective career success. Additional studies confirm that proactivity has a positive influence on salary and promotion as well as subjective career success (Seibert et al., 1999; Seibert, Kraimer, & Crant, 2001). Also, Converse, Pathak, DePaul-Haddock, Gotlib, and Merbedone (2012) note that proactivity corresponds with objective career success. Following this argument, researchers (Lungu & Ali, 2012; Orpen, 1994; Pazy, 1988) postulate on the various ways to implement and carry out individual career management strategies to improve career success. Moreover, some authors (Orpen, 1994; Pazy, 1988; Roehling, Cavanaugh, Moynihan, & Boswell, 2000) claim that employees' career management activities are the joint responsibility of both the individual and the organisation. The increasing individual responsibility of career management is strongly supported by contemporary career models which claim a growing obligation of the employee to apply career self-management activities (Hall, 2002b; Sturges, Conway, & Liefooghe, 2008).

The most frequent strategies mentioned within existing literature are a range of career self-management behaviours such as career planning and tactics, networking behaviour and skill development (Ballout, 2007; King, 2004; Rasdi et al., 2011; Sturges et al., 2010; Tharenou, 1997a). Greenhaus and colleagues (2010, p. 12) describe career management as "…a process by which individuals develop, implement, and monitor career goals and strategies." Research further emphasises that the impact of individual career strategies on career success had long been ignored (Aryee et al., 1996; Maurer & Chapman, 2013). The significance of the behavioural approach increases in line with the importance of contemporary career paths and the transition of the responsibility for career development (Hall, 2002a; Hall & Moss, 1998). Literature provides a vast range of different strategies which could be categorised in the behavioural approach (Ballout, 2007; King, 2004; Rasdi et al., 2011; Sturges et al., 2010; Tharenou, 1997a). Gould and Penley (1984, p. 244) define a career strategy as "…behaviour which may be utilised by an individual to decrease the time required for, and uncertainty surrounding the attainment of important career objectives."

Furthermore, a career strategy comprises several activities that help to reach a certain career goal (Greenhaus & Callanan, 2006). In addition, Noe (1996, p. 119) describes individual career management as "…career strategies that increase the probability that career goals will be achieved." This covers the awareness of the interests, abilities and attitudes of a person as well as the development of career aims and strategies to achieve those goals and so increase individual satisfaction (Greenhaus et al., 2010). In addition, individual activities in career development are able to expand the career within an organisation or outside of it, depending on the individual's needs (Kossek, Roberts, Fisher, & Demarr, 1998; Noe, 1996). Furthermore, personal efforts and proactive behaviour to realise career attainments and developments are identified as important characteristics too (King, 2004; Kossek et al., 1998; Sturges et al., 2010). Moreover, career self-management reflects the individual's responsibility to engage in career enhancing activities regardless of the employing company (De Vos, Dewettinck, & Buyens, 2006). Behavioural strategies and attributes within the career self-management frame commonly build on proactivity which leads to several activities with which to achieve the envisaged career outcomes (De Vos & Soens, 2008; King, 2004; Sturges, Guest, Conway, & Davey, 2002; Sturges, Guest, & Mac Davey, 2000).

Another line of research identifies also skill development as a career self-management behaviour through which individuals try to achieve specific career goals. There is some evidence that building up human capital through training and education is an important career strategy (Sturges, 2008; Sturges et al., 2010). Therefore, Rasdi and colleagues (2011) emphasise the importance of proficiency in computer skills in achieving objective and subjective career success. Also, Nabi (1999, p. 214) mentions the strategy "skill development for further posts" as a behavioural career success factor. This dictates that individuals need to improve and build up their skills to be competitive and more visible in order to advance (Eby, Butts, & Lockwood, 2003). Greenhaus et al. (2010) also indicate skill development as a career strategy that covers participation in trainings and workshops as well as the acquisition of additional projects and responsibilities. King (2004) emphasises behaviour that covers contacts, manipulation issues, skills and experiences as well as work and non-work areas as important career management strategies. Furthermore, Gould and Penley (1984) also underline the importance of the development of skills and expertise as a means to accelerate visibility and rewards. With respect to objective career success, Tharenou (1997a) insists that managerial skills are positively related to progression as well as income. Furthermore, research confirms the positive influence of skilled individuals on objective career outcomes (Eddleston et al., 2004; Hurley & Sonnenfeld, 1998). Interestingly, Nabi (1999) determines that people who report a lack of skill development but apply network behaviour feel more successful. That result also underlines the importance of relationships and alliances regarding career success. In this vein, De Vos, Hauw, and van der Heijden (2011) show that competency development is positively related to individuals perception of employability and career satisfaction. Even though skill development and therefore an increase of human capital is an important factor to succeed, research show that women demonstrate quite similar education, skills and attributes to men (Busch & Holst, 2009; Holst & Friedrich, 2017).

As aforementioned, a further strategy to accelerate career success while utilising the behavioural approach is the ability to build strong networks. Luthans, Hodgetts, and Rosenkrantz (1988, pp. 119–120) define networking as “…a system of interconnected or cooperating individuals. It is closely associated with the dynamics of power and the use of social and political skills.” Research mostly differentiates between two kinds of relationship resources: mentoring and networking. Thus, mentoring relates to an intensive relationship between an individual and a powerful senior manager and refers to the structural approach. In contrast, network resources describe the whole range of interpersonal networks and multiple relationships (Bozionelos, 2003; Higgins & Kram, 2001; Kram, 1985). As a result of networking, an individual can build solidarity, trust and promote mutual support like the exchange of information, resources and informal procedures (Cohen & Prusak, 2001). Research further shows, that a network could support objective and subjective career success (Bozionelos, 2003). Furthermore, Bozionelos (2006) draws attention to the contribution of network resources towards career success. Also, Luthans (1988) demonstrates that successful managers spend more time in networking activities. Research often allocates networking behaviour to the construct of social capital that describes the individual´s networking ability which can be based on equivalent information, ideas, opportunities, power and goodwill (Stumpf, 2009). Cohen and Prusak (2001, p. 4) illustrate that social capital “…consists of the stock of active connections among people: the trust, mutual understanding, and shared values and behaviours that bind the members of human networks and communities and make cooperative action possible.” Moreover, social capital theory postulates that the quality of social relationships is an important determinant that influences the perception of well-being (Cole, Daly, & Mak, 2009; Requena, 2003). In a working context, beneficial relationships help to reduce the effects of stress and so lead to greater effectiveness (Harris & Kacmar, 2006).

Seibert, Kraimer, and Liden (2001) reveal that social resources are positively related to salary, promotion and career satisfaction. Furthermore, Ng et al. (2005) demonstrate that a positive relationship exists between career planning, political knowledge and skills and social capital towards career success. However, Rasdi and colleagues (2011) suggest in their study of Malaysian managers that networking behaviour is positively connected to the number of promotions and negatively related to subjective career success. On the contrary, De Vos, Clippeleer, and Dewilde (2009) indicate in their sample only a positive relationship between networking behaviours and career satisfaction. Although research shows different results regarding networking behaviour and gender, O'Neil et al. (2008) highlight social capital as being one of the most important factors which contributes to females career development. Also, Seibert, Kraimer, and Liden (2001) emphasise the necessity of the integration of social capital theory within career success research. However, Forret and Dougherty (2004) show that some networking behaviour strategies are positively related to the career success of men but not of women. In addition, having a mentor and network is considered to be more beneficial to men´s career advancement (Kirchmeyer, 1998). Furthermore, the exclusion of female managers within informal networks can limit their objective career success (Lyness & Thompson, 2000). Also, Markiewicz, Devine, and Kausilas (2000) indicate that men experience better results from participating in networking and show a greater network reward than women do. Cannings and Montmarquette (1991) reveal that men possess more informal network relationships which in turn have a positive impact on their promotion potential. In contrast, Forret and Dougherty (2001) highlight no differences between men and woman regarding their engagement in networking behaviour.

In addition, research also indicates that proactive individuals invest more efforts in their career planning (Greenhaus & Callanan 2006). Individual career planning refers to self-empowerment and control of one's own career. It contributes job mobility and advancement through the identification of opportunities. Moreover, career planning assists each individual through various life stages and also supports the compatibility of career and non-work roles (Aryee & Debrah, 1993; Gray, Gault, Meyers, & Walther, 1990). Abele and Wiese (2008) indicate a positive relationship between career planning and both objective and subjective career success. In contrast, Wayne et al. (1999) demonstrate that career planning fails to be a significant predictor of objective career success. Nevertheless, they indicate a positive relationship between career planning and career satisfaction.

The literature pertaining to the behavioural approach shows that career planning and management are often accompanied by career tactics (Pazy 1988; Orpen 1994;

Rasdi et al. 2011b), so reflecting the engagements of an individual to influence and manipulate the system that is responsible for their career decisions (Orpen 1994; Pazy 1988). Pazy (1988) indicates that career-related processes within organisations are politically influenced. This argument builds on the work of Pfeffer (1981, 1992) and Mintzberg (1983, 1985) who state that companies are political arenas. By this, it is meant that companies reflect a social construct with different interest groups which compete for resources, power and influence. As a result, persons who want to gain success within an organisation have to develop political skills to obtain a desired reward. Political skill in this context refers to "…the ability to effectively understand others at work and to use such knowledge to influence others to act in ways that enhance one's personal and/or organisational objectives…'' (Ahearn, Ferris, Hochwarter, Douglas, & Ammeter, 2004, p. 311; Ferris, Treadway et al., 2005, p. 127). Tharenou (1997b) discovers in her review that the use of political tactics helps to accelerate advancement to higher managerial positions. However, political behaviour can be classified as either positive or negative (with the negative aspects including manipulation, control of information, blaming or attacking others). Illegitimate political tactics do not reflect social desirability and can be sanctioned if detected (Kapoutsis, Papalexandris, Thanos, & Nikolopoulos, 2012). Ferris, Perrewé, Anthony, and Gilmore (2000) postulate that negative political behaviour can result in resignation, termination, or career failure. On the contrary, positive political tactics are accepted as a way to support personal and organisational objectives (Kapoutsis et al., 2012). Thus, political skill can be categorised as a positive tactic as it attempt to enhance individual and/or organisational aims due to the conceptualisation of Ferris, Davidson et al. (2005).

In addition, Ferris et al. (2007, p. 292) further claim that "Political skill (…) reflects both dispositional antecedents and situational variability. Although the variance because of dispositions is more stable, the variance attributable to situations can be affected through training, practice, and experience (...) individuals benefit from experiences that cultivate the development of political skill, regardless of their inherent political capabilities." Thus, politically qualified individuals scan their environment to determine situational requirements and modify their behaviour accordingly to impact others (Todd et al., 2009). Moreover, research confirms that political skill emerges within the social effectiveness competencies as an important predictor of work outcomes (Ferris, Davidson et al., 2005; Jawahar et al., 2008; Semadar, Robins, & Ferris, 2006). Hence, political skill is conceptualised as an interpersonal influence style that possesses the contextual selection of influence tactics as well as the successful execution of those tactics (Ferris, Davidson et al., 2005).

Several authors have analysed the validity of political skill and conclude that the construct could relate to and overlap with other social capacities such as political savvy, social and emotional intelligence and general mental ability and social self-efficacy (Ferris et al., 2007; Ferris, Perrewé, & Douglas, 2002; Ferris, Treadway et al., 2005). On the contrary, Perrewé and Nelson (2004, p. 367) claim that "Political skill differs from other types of social effectiveness competencies, in that political skill is specific to interactions aimed at achieving success in organisations." Todd et al. (2009) emphasise political skill as an attribute that differs from other social capabilities as political skill refers particularly to workplace interactions. Ferris et al. (2007, p. 292) propose that "Political skill, then, is about competencies that are manifested in work-relevant situations…" Moreover, Ferris, Treadway et al. (2005) confirm a correlation between political skill and further social capabilities, but only on a modest level. These relationships are at such low levels that each competency retains the right to exist (Ferris, et al., 2005).

To further understand the mechanism of political skill, Ferris and colleagues (1999) developed a model of political skill which constitutes four subgroups: social astuteness, interpersonal influence, networking ability, and apparent sincerity. Social astuteness describes the "…understanding of social situations as well as the interpersonal interactions that take place in these settings" (Ferris, Treadway et al., 2005, p. 129). Interpersonal influence refers to the individual style used to influence other people. Networking ability, meanwhile, comprises the development of strong ties between the individual and other people. Finally, apparent sincerity outlines "…appearing to possess high levels of integrity, authenticity, sincerity, and genuineness" (Ferris, Treadway et al., 2005, p. 129). Ferris, Davidson et al. (2005) argue that sincerity merges as the most import dimension. Appearing genuine creates trust and confidence because the actor high in sincerity is not associated with a manipulative character (Ferris et al., 2007). However, Todd et al. (2009) argue that even though four dimensions were developed, studies often measure political skill as a single construct.

An individual's political skill ability contains cognitive, affective and behavioural parts which can each have an affect on the owner as well as on the environment (Ferris et al., 2007). Hence, political skill shows effects on oneself (e.g. goals), on others (e.g. networking) and on groups (e.g. vision) (Ferris et al., 2007). Judge and Bretz (1994) demonstrate that political influence behaviour has a positive influence on career success. Furthermore, a study carried out by Seibert, Kraimer, and Crant (2001) indicated a relationship between objective and subjective career dimensions and the political skill of an individual. A further investigation confirms that political behaviour tactics are positively related to objective and subjective career success (Kapoutsis et al., 2012). Also, Breland, Treadway, Duke, and Adams (2007) show that politically skilled individuals feel more successful. Several additional studies confirm the positive influence of political skill on career success (Judge & Bretz, 1994; Ng et al., 2005; Seibert, Kraimer, & Crant, 2001), whereas Blickle et al. (2008) demonstrate that political skill behaviour corresponds to a higher job performance. Ferris, Treadway et al. (2005) reveal that political skill can predict the performance ratings of managers. In addition, the study by Ahearn and colleagues (2004) indicates that the political skill of a leader is connected with team performance. Brouer, Douglas, Treadway, and Ferris (2012) suggest political skill to be an important factor to improve the effectiveness of both leader and followers.

The theoretical explanation for the contribution of political skill towards career success can be drawn from the social influence theory (SIT) (Levy, Collins, & Nail, 1998; Treadway et al., 2014; Treadway, Breland et al., 2013). In particular, the social influence theory can be used to explain the positive relationship between political skill and work related outcomes, such as promotions and promotability ratings (Gentry, Gilmore, Shuffler, & Leslie, 2012; Snell, Tonidandel, Braddy, & Fleenor, 2014; Todd et al., 2009). A review in light of studies into social influence reveals that persons are "…motivated to form accurate perceptions of reality and react accordingly, to develop and preserve meaningful social relationships, and to maintain a favorable self-concept" (Cialdini & Goldstein, 2004, p. 591). SIT considers the mechanism of social influence and how it can be used to explain the way in which politically skilled individuals influence their work environment in order to succeed (Treadway et al., 2014). Levy et al. (1998) describe SIT as a decision tree that covers four distinctive types of influence. To simplify the theory to career success, the first decision, labelled 'level of cognitive processing' deals with an attempt at influence that is conscious or unconscious and describes whether the influencee notices the influence mechanism. The second interpersonal influence distinction, 'perceived intentionality' questions whether intentionality is intentional or unintentional. Thus, it constitutes the influencee´s interpretation of purposiveness on the part of the influencer. The third type, 'relative social status' compares the prestige of both influencee and influencer within a social hierarchy. In particular, the distinction relates the social status of the influencer and influencee in terms of high, low, and peer. The final decision part, titled 'direction of change' can be evaluated as either positive or negative. Thus, any social influence can create a response from the influencee, and so determine whether it reflects conformity or rebellion according to the influence mechanism (Levy et al., 1998). Moreover, influence efforts are prosperous if the motives are not interpreted as negative (Jones, 1990). To illustrate an example, political skill has been identified to contribute to individuals' career successes. Individuals who possess high political skill appear as sincere, authentic and genuine and are not seen to be trying to influence others (Ferris, Davidson et al., 2005). Todd et al. (2009, p. 196) summarise that "…political skill is a conscious and intentional attempt at interpersonal influence that results in positive career-related outcomes …the very definition of the construct in the literature suggests its intentionality." Thus, applying political skill to succeed, the influencee (e.g. supervisor): (a) might be consciously aware of the influence mechanism, (b) sense the influence as intentional, (c) perceive the social status of the influencer (e.g. lower in the hierarchy), and (d) behave consistently with the agents position. In the case of females' career success, women who posses high political skills might be seen as authentic and genuine and therefore receive substantial support in their career endeavours. McAllister, Ellen, and Ferris (2016) indicate that although plenty of different theoretical social influence frameworks exist, the models share a common view: the agentic nature of the individuals. Therefore, human agency recognises that individuals show an inherent self-responsibility to create their environment. Thus, people act autonomously to achieve a desired outcome (Bandura, 2006a; Treadway, Breland et al., 2013). Moreover, political skill is a behaviour that helps people to develop and preserve fruitful relationships.

With respect to gender, Kanter (1977) has already shown that political factors exclude women from managerial positions. Therefore, the use of career tactics like political skill can be an important determinant for women´s career success. Moreover, a high level of political skill is helpful in deciding how to act sincerely in various situations (Ferris, Davidson et al., 2005; Ferris, Treadway et al., 2005). In addition, research shows that various relationships and networks within the working environment are important in order to find success. Thus, understanding people and establishing relationships with influential persons can be essential for individuals who are otherwise without sufficient power and authority. Furthermore, political behaviour might be beneficial for aiding women to act strategically and gain access to positions with authority (Baskerville Watkins & Smith, 2014). Snell et al. (2014) also insist that one aspect of political skill relates directly to the ability to develop useful networks. Tharenou (1997a) meanwhile emphasises in particular the importance of interpersonal factors with respect to women´s career success, such as politics, networks and similarity to the dominant group. Likewise, Mann (1995) emphasises the importance for women to engage in organisational politics so as to assist their future progression. Dreher, Dougherty, and Whitely (1989) found that the use of influential behaviour explained more variance in salary for women than for men. Additionally, Mainiero (1994) argues that political skill is an important factor for women to achieve managerial advancement. For instance, Baskerville Watkins and Smith (2014) report that women with a considerable degree of political skill have better chances of achieving decision-making positions than females with low levels of political skill. Moreover, Snell et al. (2014) argue that in particular the dimension "apparent sincerity" closely aligns with the ascribed characteristics of women. White, Cox, and Cooper (1997) recognise in their study that successful women show attributes that are associated with political behaviour.

Nonetheless, Perrewé and Nelson (2004) indicate that women are not used to engaging in political influence tactics and tend instead to view career success as a result of their accomplishments and expertise rather than an outcome of networking with powerful people. However, Buchanan (2008) claims that even though women tend to engage to an lesser extent in politics, both male and female managers consider politics to be an important factor. The qualitative study of Mackenzie Davey (2008) reveals that women do not feel direct discrimination in male-dominated organisations, but rather can identify the inherent patterns of politics and their masculine connotations which consequently limit their careers. As a result, Mackenzie Davey (2008, p. 650) claims that "…Organisational political processes are seen as fundamental to gender in organisations, (…) political activity is seen as gendered and masculine and contrary to female identity; (…) politics is part of the informal system which constructs organization (…) political activity is linked to the performance, achievement and maintenance of power." Moreover, Rudman (1998) argues that influence tactics are only fruitful when the person acts within the expectations of their given gender role. Thus, gender role expectations can hinder the efficacy of influencing behaviour. Interestingly, Brass (1985) recognises that even though women have been judged as being less influential, measurements show other results. In addition, Ewen et al. (2014) indicate in their study that gender is not related to participants political skill. Thus, political skill emerges as a promising approach for women to enhance their career success. However, Todd and colleagues (2009) show in their study no relationship between political skill and compensation, but rather a positive influence on promotion as well as subjective career success for women and men. O'Neil (2004, p. 135) recognises in her study that "There is no difference in tactic usage between men and women nor does gender predict upward influence tactics." Interestingly, Doldor (2011, p. 43) postulates that the majority of the literature observes political tactics as a "…gender-neutral phenomenon…" Thus, research should focus on analysing the relationship between political skill and career success contextually. To underline this argument, some literature indicates the requirement to conduct further research into career tactics and behaviour (Harris & Ogbonna, 2006), in particular political skill (Semadar et al., 2006). In addition to this, Todd et al. (2009) claim that to date a lack of research has been carried out to analyse the direct relationship between political skill and several career outcomes, whereas many studies use political skill as a moderating variable (Ferris et al., 2007; Harris, Kacmar, Zivnuska, & Shaw, 2007; Perrewé et al., 2004; Perrewé et al., 2005). Thus, the current study assumes that political skill might be a key determinant for women´s career advancement in Germany. Furthermore, Harris and Ogbonna (2006) suggest that very few studies have examined proactive behaviour that enhance career success. Therefore, the present study aims to analyse the relationship between political skill and intrinsic and extrinsic career success. This relationship is listed in table 2-1 which show the derived hypotheses H1a-H1d.

Table 2-1: Hypothesis 1

	Hypotheses
H1a	Political skill has a significant positive impact on the career satisfaction of women in Germany.
H1b	Political skill has a significant positive impact on the income of women in Germany.
H1c	Political skill has a significant positive impact on the position of women in Germany.
H1d	Political skill has a significant positive impact on the promotion of women in Germany.

Another line of thought on proactive behaviour is introduced by King´s (2004) model of career self-management which considers a set of three similar occurring habits. These behaviours reflect the ability to build important relationships, skills and experience in order to achieve a certain career outcome. Moreover, the applied behaviours influence decision-makers and create a balance between work and non-work demands. Furthermore, King (2004) argues that the term 'behaviour' could be equated to strategy. However, King (2004, p. 122) includes further determinants that influence career self-management behaviours in order to analyse "…what causes that behaviour (…), and the consequences of engaging it…". The model suggests that desire for control (Greenberger & Strasser, 1986; Greenhaus & Callanan, 2006; Seibert et al., 1999), career anchors (Schein, 1996), and self-efficacy (Bandura, 1986, 1997) are each connected with career management behaviours which in turn have an impact on engagement with desired career outcomes.

First, desire for control over career outcomes refers to a motivation in controlling mechanisms to navigate one's own career (Greenhaus & Callanan, 2006; King, 2004). London (1983, p. 620) defines career motivation as "…the set of individual characteristics and associated career decisions and behaviors that reflect the person's career identity, insight into factors affecting his or her career, and resilience in the face of unfavorable career conditions." In particular, career insights reflect the individual's assumptions about their career, including awareness of strengths and weaknesses alongside identifying personal career goals (Eby et al., 2003; London, 1983). Furthermore, King (2004) argues that career self-management behaviours can be applied to obtain and increase the specific career relevant control. Greenberger and Strasser (1986, p. 164) refer to personal control as "… individual's beliefs, at a given point in time, in his or her ability to effect a change, in a desired direction…" In addition, Guest and Rodrigues (2015) argue that people with a high internal locus of control and proactive behaviour are more engaged in career controlling activities. Thus, as derived from the social learning theory, Rotter (1966) defines internal locus of control as expectations about potential achievements that are influenced by the individual's behaviour, whereas external locus of control refers to rewards that are controlled by other factors.

Second, Schein (1978b) has developed a model of career anchors, which reflect self-perceived abilities, motives, and values, and so can affect career-related decisions. Thus, eight factors have been identified: (1) technical/functional competence: satisfaction through applying competences and skills; (2) managerial competence: satisfaction through leadership and achieving defined goals; (3) security and stability: job security and long-term employment; (4) entrepreneurial creativity: satisfaction through innovation and/ or developing one´s own business; (5) autonomy and independence: satisfaction about independent decisions and minds; (6) service and dedication to a cause: satisfaction through meaningful work and societal impact; (7) pure challenge: satisfaction through problem solving and being competitive; and (8) lifestyle: satisfaction through a balance of career and private life (Schein 1978a, 1990, 1996). Lee and Wong (2004) reveal that career anchors develop due to several work experiences over a specific period. Furthermore, career anchors reflect the internal perspectives of those involved in a career which relates to individual career management (King, 2004; Schein, 1996). Gubler, Biemann, Tschopp, and Grote (2015) note that the model is also suitable for career counselling and organisational career management. Nonetheless, although Schein´s theory contributes to the surrounding literature (Feldman & Bolino, 1996), some limitations also arise. Therefore, critics postulate that Schein has not sufficiently considered the importance of non-work related dimensions, which is an important issue in assessing female career development. Furthermore, the development process of the proposed career anchors does not fit with the idea of contemporary careers models (Rodrigues, Guest, & Budjanovcanin, 2013; Suutari & Taka, 2004) and therefore to the career reality of women.

Third, the self-efficacy approach (see also the chapter 2.3) garners significant interest in explaining individual career development and career decision making in general (Anderson, Krajewski, Goffin, & Jackson, 2008; Gist, 1987; Spurk & Abele, 2014), as well as among women and minorities (Dempsey & Jennings, 2014; Rivera, Chen, Flores, Blumberg, & Ponterotto, 2007; Yeagley et al., 2010). Self-efficacy is the core component in Bandura´s (1977b) social learning theory and describes an individual's beliefs and assumptions about their own capability to fulfil specific tasks; as such it is directly linked with persons-related performance (Bandura, 1986, 2006a). Moreover, Wood and Bandura (1989a, p. 408) claim that "…self-efficacy refers to beliefs in one's capabilities to mobilize the motivation, cognitive resources, and courses of action needed to meet given situational demands". Bandura (1977a, 1977b) meanwhile presents self-efficacy expectations in three differing dimensions. First, *magnitude* describes tasks at different levels of difficulty that a person is aiming to attain. Second, *generality* refers to self-efficacy beliefs and if they are sufficient to cope with more general or specific situations. Third, *strength* indicates the power of expectations. Strong self-efficacy beliefs are able to cope with drawbacks, whereas low self-efficacy expectations debilitate individuals (Bandura, 1977a; Gist, 1987).

In addition, persons handle and balance different sources of data simultaneously with regards to their specific task capabilities, which in turn lead to an adjustment of behaviour. Bandura (1982) further identifies four dimensions of information that influence self-efficacy assumptions: enactive mastery, vicarious experience, physiological arousal and verbal persuasion. Enactive mastery refers to the individual's former performance achievements and is considered to be the most influential source. In contrast, Dempsey and Jennings (2014) indicate in their study that they deem the psychological state of a person to be the most influential source. Successful experiences help to increase self-efficacy beliefs, whereas failures constrain the assumptions (Bandura, 1986, 1997; Gist, 1987; Gist & Mitchell, 1992; Wood & Bandura, 1989a). Vicarious experience explains the process of assessing other individuals' successes or failures and how these can be transferred to themselves. As with enactive mastery, observed success can raise judgements of self-efficacy in the same way that negative observations can decrease an individual's self-efficacy perceptions (Bandura, 1986, 1997; Gist, 1987; Gist & Mitchell, 1992; Wood & Bandura, 1989a). Furthermore, it can be claimed that physiological state can also influence self-efficacy expectations and their performance. Thus, a person's feeling in a tense situation is able to rebut self-efficacy expectations (Bandura, 1986, 1997; Gist, 1987; Gist & Mitchell, 1992; Wood & Bandura, 1989a). Lastly, verbal persuasion describes the appraisals of others regarding the individual's capability to perform well in several tasks (Bandura, 1986, 1997; Gist, 1987; Gist & Mitchell, 1992; Wood & Bandura, 1989a).

Literature suggests that self-efficacy measurements should be constructed closely to the specific environment in order to be analysed (Bandura, 2006a; Gist, 1987). With this in mind, Bandura (2006a, p. 307) claims that the "…efficacy belief system is not a global trait but a differentiated set of self-beliefs linked to distinct realms of functioning." In addition, Betz and Hackett (2006) also reveal that self-efficacy is an information process regarding performance and does not refer to a global trait concept. Furthermore, Lent and Brown (2006) differentiate between several self-efficacy categories. Therefore, self-efficacy behaviour that is related to a career, deals with the belief to cope successfully with relevant career and job circumstances (Spurk & Abele, 2014). The assimilation of self-efficacy within career-related models relates career developing issues to career choice and the required adjustments (Lent & Hackett, 1987). Furthermore, Lent et al. (1994) provide support for career self-efficacy and its relationship to career preferences, performance and tenacity. Furthermore, they argue that career development involves individual cognitive processes, environmental issues, and contextual factors. Reviewing the literature, two categories of career self-efficacy occur: the content/task-specific dimension that refers to the selection of specific career choices, and the investigation of efforts to build a career in a particular domain. Moreover, the content domain refers to one's own expectations of capabilities to execute specific tasks in a certain field. In contrary, the process domain of career self-efficacy relates to successful strategies of career selection and implementation (Betz, 1992, 2000; Hackett & Betz, 1981; Lent & Brown, 2006) such as career-decision-making (Choi et al., 2012), and career search behaviour (Solberg, Good, & Nord, 1994). As Bandura (1997, pp. 2–3) claims "People make causal contributions to their own psychosocial functioning through mechanisms of personal agency. Among the mechanisms of agency, none is more central or pervasive than beliefs of personal efficacy." This makes clear that personal agency refers to the belief that one should assume responsibility for one´s life (Bandura, 2001).

Furthermore, Crant (2000) argues that self-efficacy is related to proactive behaviour. Chiaburu, Baker, and Pitariu (2006) claim that proactivity is positively related to career self-management behaviours such as job mobility, and developmental seeking of feedback. In addition, Gist (1987) reveals that self-efficacy relates to several concepts of motivation. For instance, Stajkovic and Luthans (2002) indicate in their study that self-efficacy has a positive influence on performance as well as on work motivation. Also, Anderson et al. (2008) summarise that strong self-efficacy behaviours are linked with higher motivation which leads in turn to more efforts to achieve certain career goals. Moreover, research indicates that individuals with a high occupational self-efficacy level reflect greater career goals as a result of investing more efforts in their career (Abele & Spurk, 2009b). In addition, Wood and Bandura (1989a, p. 408) posit that "…self-efficacy can influence organisational performance both directly and indirectly through its effects on personal goal setting and use of analytic strategies…". Gist and Mitchell (1992) suggest a comparison of self-efficacy with other self-constructs such as self-esteem so as to create conceptual and theoretical clarity. Thus, self-esteem can be defined as a personal belief about self-worth (Bandura, 2006a). Bandura (1986, p. 391) states that "…judgements of self-worth and of self-capability have no uniform relation." Furthermore, self-efficacy has been compared to the model of internal locus of control. Research indicates that despite some kind of similarity, self-efficacy relates to specific circumstances whereas locus of control incorporates several situations (Gist, 1987). Thus, Bandura (2006a, p. 309) claims that "…High locus of control does not necessarily signify a sense of enablement and well-being." Additionally, the literature mentions self-concept as a related construct to self-efficacy. Distinct from the judgement about one´s capabilities to perform a specific task, self-concept is a broader, less detailed approach which considers skills and abilities in general (Bandura, 1986; Bong & Skaalvik, 2003; Pajares & Miller, 1994).

With respect to gender, Hackett and Betz (1981) transferred Bandura's self-efficacy construct to women's career issues, and so analysed the under-representation of women in male dominated career fields. In particular, women's socialisation and communicated gender role seem to influence the deficiency of strong self-efficacy beliefs regarding career-related behaviour. To underline the importance of self-efficacy within female careers, Betz and Hackett (1997) emphasise two assumptions based on Bandura´s (1977a, 1986) theory. First, self-efficacy expectations can influence vocational choice and performance. Second, gender role and the inherent information within socialisation can lead to gender differences in self-efficacy expectations and applied career behaviour, especially in traditional career fields (Betz & Hackett, 1981, 1997). Moreover, the study of Yeagley et al. (2010) shows that SCCT could be used to analyse the internal expectations that support women's leadership interests and goals. In addition, Sullivan and Mahalik (2000) indicate that low self-efficacy beliefs support the intrinsic barriers facing women and limit their career endeavours. Furthermore, Anics and Philips (1996) indicate in their study that women who experience gender prejudice show lower self-efficacy beliefs. In addition, Carter and Silva (2011) make clear that the use of proactive strategies could accelerate the managerial advancement of female managers. However, Abele and Spurk (2009b) claim that a lack of research exists that analyses the impact of self-efficacy on career success. Just two longitudinal studies show the impact of self-efficacy on intrinsic career success (Higgins, Dobrow, & Chandler, 2008; Saks, 1995). In addition, further studies (Abele & Spurk, 2009b; Day & Allen, 2004; Valcour & Ladge, 2008) reveal positive relationships between career self-efficacy and objective and subjective career success. Ballout (2009) argues that individuals with high career self-efficacy behaviour raise their performance and involvement, which can in turn become considerable elements for career outcomes.

Thus, career self-efficacy deals with the belief to cope with career relevant issues (Spurk & Abele, 2014), and in particular the process domain of career self-efficacy refers to the application of several career enhancing strategies (Betz, 1992, 2000; Hackett & Betz, 1981; Lent & Brown, 2006). Arguably, self-efficacy might be able to accelerate other determinants due to its focus on moderation (Ballout, 2009). On this note, Jiang and Soo Park (2012) claim that self-efficacy has often been used as a key moderator between independent and dependent variables. For instance, the study of Ballout (2009) demonstrates that self-efficacy moderates the relationship between career commitment and career success. Moreover, career self-efficacy and political skill are both deemed to be social effectiveness constructs (Ferris et al., 2002) which build on an agentic view whereby individuals function as "…anticipative, purposive, and self-evaluating proactive regulators of their motivation and actions" (Bandura & Locke, 2003, p. 87). Therefore, career self-efficacy may interact with political skill to affect career success because as employees show political behaviour, they are more likely to develop a plan for influencing tactics and networking endeavours, and to increase their belief about inherent capabilities and competencies. As a result, this study assumes that a strong career self-efficacy belief has the ability to strengthen the relationship between the political skill and career success of career-oriented women in Germany. Moreover, politically skilled individuals feel capable to create their work environment (Ferris & Treadway, 2011). The competency to understand social relations and influence others may create self-efficacy in social work contexts (Ferris et al., 2007).

On top of this, research indicates that self-efficacy beliefs are able to predict women´s career interests, goals, and actions (Betz & Hackett, 1997, 2006; Hackett & Betz, 1981; Lent et al., 2005; Quimby & O'Brien, 2004; Yeagley et al., 2010). With this in mind, studies reveal a relationship between political skill and constructs of control like self-efficacy (Ferris et al., 2008), as individuals with high political skill show strong beliefs in control (Perrewé et al., 2004). Further studies confirm a positive relationship between political skill and self-efficacy (Blickle, Ferris et al., 2011; Ferris & Treadway, 2011; Munyon, Summers, Thompson, & Ferris, 2015). Ferris, Perrewé et al. (2002) also suggest that social effectiveness constructs can serve as moderator variables. Therefore, it is proposed that career self-efficacy moderates the relationship between the political skill and career success of women. This relationship is listed in table 2-2 which show the relevant hypotheses H2a-H2d.

Table 2-2: Hypothesis 2

	Hypotheses
H2a	Career self-efficacy moderates the relationship between political skill and career satisfaction of women in Germany.
H2b	Career self-efficacy moderates the relationship between political skill and income of women in Germany.
H2c	Career self-efficacy moderates the relationship between political skill and position of women in Germany.
H2d	Career self-efficacy moderates the relationship between political skill and promotion of women in Germany.

2.6.3 Organisational Approach

The organisational approach focuses on internal structures and paths that highlight the facilitating role of organisations. This approach considers internal possibilities, such as vacancy availability and promotional practices, the size of an organisation as well as organisational sponsorship (Ballout, 2007; Nabi, 1999; Ng et al., 2005; Rasdi, Ismail et al., 2011). The vacancy-chain model supports the organisational approach by analysing organisational mobility processes. Thus, a vacancy-chain describes the frequency of moves from the entry of the individual till their retirement (Rosenfeld, 1992; White, 1970). Furthermore, the model emphasises the opportunity of hierarchical progression due to the availability of unoccupied positions. Thus, managerial advancement is supported by internal progression structures, the size of an organisation as well as internal sponsorship (Nabi, 1999; Ng et al., 2005). The model postulates, that climbing up the career ladder depends on the availability of vacancies within an organisation (Melamed, 1996b). Research also suggests that the size of an organisation is positively related to objective career success. In particular, large institutions offer more possibilities for managerial advancement (Ballout, 2007; Melamed, 1996b; Whitely, Dougherty, & Dreher, 1991). In addition to this, larger organisations seem to offer more monetary incentives than smaller institutions (Brown & Medoff, 1989; Kalleberg & van Buren, 1996; Mellow, 1982). However, Cox and Harquail (1991) show within their study no relationship between objective career success and organisation size. Tharenou (1997b) demonstrates inconsistent results between the relationship of organisational size and promotional practices with respect to managerial level and income.

In addition, organisational sponsorship has been identified as a further variable within the structural approach. It involves the special treatments of an institution towards the employees such as training and development opportunities, sponsorship and supervisor support (Ng et al., 2005; Rasdi, Ismail et al., 2011). An often-linked theory is the sponsored-mobility-norm (see chapter 2.6.1). According to the sponsored-mobility-norm, only appropriate candidates receive special treatment. The model claims that not every person is able to advance within the organisational structure (Turner, 1960; Wayne et al., 1999). Therefore, only selected participants obtain supervisory support or sponsorship treatments from senior-level managers as well as access to training and development opportunities (Ng et al., 2005). Ragins and Sundstrom (1989) also emphasise that investigations in training and development increase the career success of individuals. Further results confirm the influence of organisational support on managerial advancement too (Rasdi, Ismail et al., 2011; Rhoades & Eisenberger, 2002). Moreover, organisational opportunity structures could penalise career paths if the individual has breaks or considers private obligations to be of equal importance to organisational issues (Melamed, 1996a).

Furthermore, researchers argue that organisational career management activities help to increase the organisational commitment of employees as well as the effectiveness of the institution (Bambacas, 2010; De Vos et al., 2006; Pazy, 1988; Rhoades & Eisenberger, 2002). In contrast to individual career management, organisational career management tries and manage activities and policies that will help and support employees to achieve their stated career outcomes (Baruch, 2003; Sturges et al., 2002) as well as to enhance organisational effectiveness (Pazy, 1987). Moreover, organisational career management "…is concerned with the organisation carrying out activities relevant to the career development of its employees…" (Baruch & Peiperl, 2000, p. 349). De Vos et al. (2008) point out that although the responsibility for career success shifts slightly more towards the individual, organisations are usually still involved as career development mainly happens within the institutions. In lieu of this, researchers argue that the mentioned adjustment of environment, organisational restructuring and decentralisation, as well as a shift towards a more flexible and boundaryless relationship between employees and institutions, promotes the development of a new psychological contract with a more balanced obligation (Hall, 2002b; Rousseau, 1995). Shields (2007, p. 49) describes a psychological contract as "…filling in the gaps left by the formal legal contract of employment to constitute a more complete account of the entire range of mutual obligations between employer and employee." In addition to this, Herriot, Manning, and Kidd (1997) reveal that organisational support and reward systems are important means by which to analyse individuals' psychological contracts. Also, Sturges, Conway, Guest, and Liefooghe (2005) support the notion of considering the intrinsic contract to understand the relationship between career aspirations and promises of a career. Moreover, Cavanaugh and Noe (1999) argue that the psychological contract model helps to reflect the relationship between organisational support and employees' behaviours.

Thus, organisational career management consists of a variety of activities, practices and policies such as training, workshops, mentoring, coaching, career development plans and further enhancement activities (Baruch, 1999, 2003; Baruch & Peiperl, 2000; Bing et al., 2011; Minor, 1986). Besides the formal issues such as individual career plans, informal support like mentoring and networking is also considered (Barnett & Bradley, 2007; London, 1988; Sturges et al., 2002). In this vein, De Vos et al. (2008) indicate that activities are separated into practices that support the institution by providing and developing human capital to ensure continuous existence as well as practices that satisfy the employees by delivering development and supporting strategies. Also, Orpen (1994) indicates that employees have greater career outcomes in organisations that apply career management activities. Furthermore, the study of Pazy (1988) supports the positive influence of organisational career management towards the employee too. Sturges et al. (2002) reveal that applying several career management activities could in turn increase organisational sources of career development. However, Granrose and Portwood (1987) reflect in their study the negative effects of organisational support if the expectations of employees do not fit with current outcomes. In addition, Noe´s (1996) findings show there only to be reduced support for the relationship between career management activities and performance. Furthermore, researchers indicate that theory within organisational career management research still does not fully understand the mechanisms (Baruch, 2003; Baruch & Peiperl, 2000; Segers & Inceoglu, 2012). However, Bao (2009) confirms that organisational support positively influences managerial effectiveness. Furthermore, Bamel, Rangnekar, Stokes, and Rastogi (2013) reveal that organisational policies and practices contribute to managerial effectiveness too. The study of Sturges et al. (2005) shows a relationship between informal organisational support and commitment as well as performance. With respect to men and women's career success, Tharenou et al. (1994) reveal that training and development has a greater positive impact on career advancement for men than it does for women. Moreover, Hoobler et al. (2014) report that women gain fewer training and development opportunities. Konrad et al. (2000) further indicate that women are offered less responsibility and value earnings compared to men. In addition, Sturges (2008) assumes that women must show more engagement to maintain their careers compared to men. However, Rowley´s (2013) study contributes the opportunity for training and development activity as well as diverse work experience as the results show a positive relationship to the objective and subjective career success of women.

There still exists insufficient empirical research about the influence of internal progressions channels and organisation size towards subjective career success (Nabi, 2003). Dutton (1993) argues that assumptions about structural opportunities held by the employees can build a framework when they observe their own career success.

Therefore, it can be assumed that employees who experience beneficial organisational structures might feel more successful within their careers (Nabi, 1999). The study of Judge et al. (1995) confirms a positive relationship between organisation size and subjective career success. Aryee et al. (1994) meanwhile indicate a favourable influence of internal labour markets on career satisfaction. Also Rasdi, Ismail et al. (2011) show there to be a positive relationship between organisational support and subjective career success. In addition, Byrne, Dik, and Chiaburu (2008) report a positive interplay between supervisor career support and subjective career success. Additional studies confirm that mentoring is also positively related to intrinsic career success (Fagenson, 1989; Turban & Dougherty, 1994). In addition, Bozionelos (2003) shows that mentoring relates to both objective and subjective career success. Similarly, Allen, Eby, Poteet, Lentz, and Lima (2004) indicate in their meta-analyses that mentoring predicts subjective and objective career success, although the relationship to perceived career success is stronger. In contrast, Rowley (2013) shows no influence of mentoring on career success. As contemporary employment concepts provide limited job security, some researchers claim that organisations have to invest in the employability of their employees (Baruch, 2001) as well as giving 'opportunities for development' (Herriot & Pemberton, 1995; Rousseau, 1995) in order to fulfil the balance within the psychological contract. Furthermore, organisations should offer career management plans and activities in order to attract and retain qualified employees during times of uncertainty (Baruch, 2006). In addition, van Dam´s (2004) study demonstrates that individuals who obtain organisational support increase their career self-management behaviour. Moreover, Verbruggen, Sels, and Forrier (2007) show that the career satisfaction of employees increases and external mobility aspirations decreases when they obtain organisational support. Furthermore, Herriot, Gibbons, Pemberton, and Jackson (1994) reveal that organisational career management activities contribute to employees' satisfaction more than career advancement.

With respect to gender, current studies show again various results. Some authors reveal that organisation size has an impact on objective career success (Lambert, Larcker, & Weigelt, 1991). For instance, large organisations have fewer women in management positions as well as a higher gender pay gap (Hallock, 2002; Holst, Busch, & Kröger, 2012; Kirchmeyer, 1998; Tharenou et al., 1994). On the contrary, Adams, Gupta, Haughton, and Leeth (2007) found that women who reach a CEO position receive the same compensation as men. Melamed (1995) indicates a significant negative influence of organisational size on men´s salary. Nevertheless, Burke and McKeen (1994) indicate that female managers who work in small organisations were more satisfied with their jobs. Following the arguments of better payments and promotional possibilities in major organisations (Ballout, 2007; Brown & Medoff, 1989; Kalleberg & van Buren, 1996; Whitely et al., 1991), men might benefit more from working in large institutions than women would. To emphasise this, research shows that the gender pay gap relates to organisation size (Bertrand & Hallock, 2001) and reveals there still to be an unequal distribution between women and men, particularly in senior management positions (Holst et al., 2015; Holst & Kirsch, 2016; Schulz-Strelow & Falkenhausen, 2015). These observations might lead to the assumption that discriminatory practices against women still exist (Oakley, 2000). In addition, promotional processes seem to influence men´s managerial advancements to a greater extent. Thus, Hoobler et al. (2014) identify a lack of organisational development opportunities for women in comparison to men. Furthermore, some studies demonstrate that men benefit more from mentoring relationships than women do (Kirchmeyer, 1998; Koberg, Boss, Chappell, & Ringer, 1994; Lyness & Thompson, 2000). Some researchers argue that women more often attend formal mentoring programs instead of cultivating informal relationships which seem to be less beneficial to career-related outcomes (Meyerson & Fletcher, 2000; Ragins & Cotton, 1991).

Furthermore, studies show that training and development opportunities are strongly associated with the career success of female and male managers (Lyness & Thompson, 2000; Tharenou et al., 1994). Also Tharenou (2001) confirms that women who receive support early in their careers more often move into managerial positions than other women do. In addition, Rowley (2013) reports that training and development opportunities have a positive impact on the objective and subjective career success of women. Metz and Tharenou (2001) also identify training and development opportunities as being positive predictors for women´s advancement. Kirchmeyer (1998) reveals that the support of a supervisor significantly predicts men and women´s subjective career success. Furthermore, training and development activities are seen to have a positive influence on women´s career satisfaction (Burke & McKeen, 1994). In contrast, Nabi (2001) shows that promotion structures in organisations favour the perceived career success of men slightly more than they do women. Also, Greenhaus and colleagues (1990) indicate that supervisory support relates more to men's career satisfaction than to women's. Ragins et al. (1998) identify mentoring as being an important factor within women's career advancement. In addition, women mention supportive relationships as being one of the most important influencing factors regarding their career success (Morrison, White, van Velsor, & Center for Creative Leadership, 1992). Burke and McKeen (1994) indicate sponsorship, mentorship and involvement in career paths as the most important training and development factors affecting women. Also, Gardiner, Tiggemann, Kearns, and Marshall (2007) show there to be a positive relationship between the mentoring of women and their objective career success. However, Kirchmeyer (1998, 2002) reveals that a mentor has a stronger influence on men´s managerial advancement and salary. Moreover, Ragins, Cotton, and Miller (2000) show that women who participated in formal mentorship were less satisfied than men. On the other hand, Wallace (2001) confirms that mentoring is positively related to the subjective career success of women. Also, Nabi (2001) indicates that personal support is more beneficial to women´s subjective career success than it is for men.

Several theories try to explain the phenomena within the structural approach regarding why women do not advance to the same extent as men. For instance, Larwood and Blackmore (1978) use the Similarity-Attraction-Theory to explain gender discrimination in promotion practices. The theory suggests that supervisors tend to support individuals who are similar to themselves in terms of age, ethical background, work history and gender (Byrne & Neuman, 1992; Smith, 1998). Moreover, further studies have confirmed that managers favour working with individuals of the same sex (Larwood & Blackmore, 1978; Mavin & Williams, 2013; Tsui & O'Reilly, 1989). An recurring explanation for gender discrimination regarding managerial advancement at the workplace is the glass ceiling phenomena (Cotter et al., 2001; Kumra & Vinnicombe, 2008; Morrison et al., 1987). In this context, the term 'glass ceiling' is used to describe "… a barrier so subtle that it is transparent, yet so strong that it prevents women (…) from moving up in the management hierarchy…" (Morrison & Glinow, 1990, p. 200). The glass ceiling appears mainly in large institutions which is reflected in the fact that less women hold senior management positions (Oakley, 2000). In addition, literature often mentions barriers that relate to categories of corporate culture and corporate practices (Jackson, 2001; van Vianen & Fischer, 2002). In particular, the barriers occur in processes and procedures within organisations, which regulate recruitment and promotion as well as behavioural patterns such as gender stereotypes, prejudice against women and the support of homosociality by the elite (Oakley, 2000; Sabharwal, 2015; Tharenou, 2005). Research reveals that recruitment and promotion practices in organisations do not assist women to the same extent as men. Women are more often placed in supporting 'staff' positions rather than in occupations with which to gain line experience which is typically needed for senior management positions. Furthermore, the initial starting point of women and men seems to be different: men start more often in higher management levels and progress more swiftly than women (Jackson, 2001; Oakley, 2000; Tharenou, 1997a, 2005). Eagly and Carli (2007b) introduced the 'labyrinth of leadership' a metaphor which describes the difficulties women in management positions face. They argue that the glass ceiling does not consider the variety of obstacles women confront at different stages of their career. Therefore, the paradigm of a labyrinth contains multifaceted factors that influence women´s managerial advancement, such as prejudice and gender stereotypes, a perceived different leadership style, responsibility for family demands and less social capital of women than men.

On analysing the last few decades, studies show that women have started to climb up several stages within the organisational hierarchy, even at times to top-management positions (Eagly & Carli, 2007b; Holst & Wrohlich, 2019b; Kanter, 1977). Interestingly, women at higher levels face implicit obstacles that often influence their further career paths. To emphasise this, Ryan and Haslam (2005) introduced the term 'glass cliff' which describes precarious top management positions where women have frequently been placed, obtaining higher risk and negative consequences as well as the expectation of their failure. In these situations, women experienced discrimination patterns such as less career opportunities, fewer powers and a lack of support. As a result, female managers tend to leave the organisations more often than men do (Ryan & Haslam, 2005, 2007; Sabharwal, 2015). In addition, research identifies further structural factors that influence the non-advancement of women. A phenomenon at the lower level is called the 'sticky floor' and describes low-level jobs and the impossibility of reaching prestigious management positions. In particular, it reflects mostly administrative, paraprofessional and service positions, including those accompanied by a low salary and poor mobility which are predominantly occupied by women (Laabs, 1993). The 'sticky floor' is often used to emphasise the range of the gender pay gap, whereby women with lower job levels commonly experience a greater pay gap in contrast to women at the 'glass ceiling' (Arulampalam, Booth, & Bryan, 2007; Booth, Francesconi, & Frank, 2003; Chi & Li, 2007; Christofides, Polycarpou, & Vrachimis, 2010). An explanation for this unequal distribution often draws upon to the gender-specific labour market segregation which sees women and men segregated into different occupations, industries, specific jobs and hierarchical levels (Maume & Houston, 2001; Reskin, 1984). Occupational segregation can be divided into vertical and horizontal parts. Vertical segregation refers to the phenomenon that sees women work more often as members of staff as well as in lower management positions than men. On the other hand, horizontal segregation explain the classification of the labour market into typically male and female-oriented jobs, which tend to differ in prestige, industry and salary (Blackburn, Browne, Brooks, & Jarman, 2002; Budig, 2002; Busch & Holst, 2011). Kanter (1977) describes in her book 'Men and women of the corporation' barriers and prejudices women experience if they are working as minorities in male-dominated organisations. Women´s performances in token situations were often judged by stereotypes and gender expectations and re-sulted in unfair treatment (Greed, 2000; Landy & Farr, 1980). Furthermore, Kanter (1977) also indicates that women in token positions may enjoy their special status and therefore will not support future female leaders. However, there is also some criticism about tokenism, primarily that it does not consider the complexity of gender discrimination as well as research design (Yoder, 1991). The study of McDonald, Toussaint, and Schweiger (2004) also revealed that some groups of token women do not face the specific challenges that are typical of the category.

A further observed paradox within the structural approach is the description of the so-called 'Queen Bees'. The Queen-Bee-concept describes the 'bad behaviour' of fe-male top-managers towards other women within the organisation (Derks, Ellemers, van Laar, & Groot, 2011; Mavin, 2006a, 2006b, 2008). Mavin (2008, p. 75) characterises a Queen-Bee as "…a bitch who stings other women if her power is threatened and, as a concept, the Queen Bee blames individual women for not supporting other women." Staines, Travis, and Jayerante (1973) explain the Queen-Been syndrome in which women show rivalry towards other women. Abramson (1975) describes Queen-Bees as women in managerial positions who dispute the discriminatory practices in organisations towards women. In addition, studies show that women compete more with other women (Chesler, 2001). Moreover, research shows that senior female executives fail to support other female managers (Korabik & Abbondanza, 2004; Mavin, 2006a). Gini (2001, p. 99) argues that “Having achieved success by playing hardball and working hard, they expect the same from others…” That may emphasise the masculinity patterns senior women adhere to and further barriers that keep other women in lower management positions. However, Mavin (2008, p. 79) claims that “The Queen Bee concept is sexist; there does not appear to be an alternative term used to negatively label senior men in organisation and it succeeds in reproducing the gendered status quo for women in management.” In contrast, Korabik and Abbondanza (2004) recognise the solidarity often present between women in management. Also, Rindfleish (2002) and McDonald et al. (2005) indicate in their study that the majority of females are willing to support other women.

As the structural approach reflects various practices, activities and policies that accelerate or hinder career advancements, the present study focuses on perceived organisational support which is described as “…the degree to which employees believe the organisation values their contribution and cares about their well-being…” (Robbins, Judge, Millet, & Boyle, 2013, p. 64). This occurs due to beneficial treatments, which can include material as well as psychological benefits (Yukl, 2010). Therefore, perceived organisational support aggregates organisational career management activities and stands for the different and various actions within the structural career approach. Hence, research confirms that perceived organisational support shows a positive relationship to performance and helps to decrease absenteeism and turnover rates (Rhoades & Eisenberger, 2002). Moreover, as perceived organisational support has a positive influence on performance (Rhoades & Eisenberger, 2002), performance can in turn positively influence career success (Ng & Feldman, 2010). For instance, Tremblay, Dahan, and Gianecchini (2014) confirm that a significant positive relationship exists between performance and objective career success. Based on the organisational support theory (OST), perceived organisational support can be seen as an answer to the organisations' beneficial assistance regarding employees' endeavours. OST is an application of the social exchange theory (SET) used to describe employer-employee relationships (Eisenberger et al., 1986) which considers the relationship between organisational input and employees' outcome (Blau, 1964). In this context, commitment plays an important role as it considers the relationship between individuals, groups or organisations and also influence the engagement of the employee in an organisational setting (Eisenberger et al., 1986). SET assumes that individuals contrast benefits and costs in decision-making processes to determine feasible positive or negative results such as supervisor support or barriers (Wang & Noe, 2010). Moreover, a key element in perceived organisational support is the norm of reciprocity, which assumes that favourable treatments by the organisation evoke a positive reaction from the employee (Wayne, Shore, Bommer, & Tetrick, 2002). Such recurring exchanges and reciprocations are able to influence trust and social relationships in the workplace (Cropanzano & Mitchell, 2005). Hence, the theory implies a beneficial mutual fertilisation between organisational career management support and an employee's performance (Sturges et al., 2005).

In particular, OST describes employees' perceptions regarding the extent to which the organisation values their contributions and increased work efforts are supported with appropriate rewards (Rhoades & Eisenberger, 2002; Shore & Shore, 1995). Moreover, the level of perceived organisational support relates to the employees propensity to attribute human characteristics to the organisation (Eisenberger et al., 1986). Levinson (1965) argue that actions by agents of the organisation were interpreted as actions by the organisation. Because supervisors act as organisational agents, the receipt of favourable or unfavourable treatments influences the level of the perceived organisational support of the employee. Furthermore, research indicates that positive treatments by the organisation which are perceived as voluntary contribute more to perceived organisational support than rewards which are a result of standards and regulations (Eisenberger et al., 1986; Rhoades & Eisenberger, 2002; Shore & Shore, 1995).

Rhoades and Eisenberger (2002) further suggest that perceived organisational support increases the affiliation of individuals to the organisation as well as the expectation that increased work effort will be rewarded. Moreover, greater material and symbolic rewards provided by the organisation will also increase perceived organisational support. Fair treatment, supervisory support, rewards and favourable job conditions are all associated with perceived organisational support (Rhoades & Eisenberger, 2002). For instance, Ballout (2007) predicts a positive relationship between perceived organisational support and career success, in particular through supportive relationships within the organisation. In addition, research indicates the positive influence of perceived organisational support on employees' commitment and job satisfaction (Rhoades & Eisenberger, 2002). The study of Wayne, Shore, and Liden (1997) reveals a relationship between perceived organisational support and training and development opportunities, as well as number of promotions. Rhoades and Eisenberger (2002) further argue that socio-emotional needs like affiliation and role status can be positively influenced by perceived organisational support.

Armstrong-Stassen and Cameron (2005) show a significant relationship between perceived organisational support and the career satisfaction of managerial women. Moreover, Jawahar and Hemmasi (2006) discover a relationship between perceptions of support and the turnover intentions of highly educated women. In addition, individuals who show high levels of perceived organisational support, feel reassured that the organisation stands behind them (George, Reed, Ballard, Colin, & Fielding, 1993). Thus, it could be assumed that supportive relationships reflect the fact that high levels of perceived organisational support have an influence on women's career success.

To further understand the role of perceived organisational support, several studies analyse it´s mediating effect on various outcomes (Hochwarter et al., 2003), such as organisational citizenship behaviour (Moorman, Blakely, & Niehoff, 1998), organisational commitment (Kim, Eisenberger, & Baik, 2016), politics perceptions and work outcome relationships (Hochwarter et al., 2003) and job satisfaction (Harris et al., 2007; Rhoades & Eisenberger, 2002; Zorluai & Baştemurb, 2014). Moreover, studies support the use of perceived organisational support as a mediator and highlight its potential to influence work relationships (Hochwarter et al., 2003; Weaver [JR.], 2015). However, limited research has been done to thoroughly examine the influence of perceived organisational support on the career success of women (Jawahar & Hemmasi, 2006). In particular, research on the mediating role of perceived organisational support between political skill and career success is lacking within the literature. Thus, research has already shown that political skill is a reliable predictor of the career success of women (Baskerville Watkins & Smith, 2014; Mainiero, 1994; Mann, 1995). However, it can be questioned whether perceived organisational support can also offer an explanation as to why political skill predicts career success. The present study proposes that political skill may affect women´s perception that they are valued and supported by their organisation. Eisenberger, Fasolo, and Davis-LaMastro (1990, p. 51) posit that possible antecedents of perceived organisational support can be summarised as "…positive discretionary activities by the organisation that benefited the employee would be taken as evidence that the organisation cared about one's well-being and therefore could be counted on for subsequent rewards." In particular, fairness, supervisory support, rewards and favourable job conditions were highlighted as antecedents of perceived organisational support (Rhoades & Eisenberger, 2002). Following this, political skill may work as an antecedent of perceived organisational support as political skill describes several issues like the use of influence tactics and networking to gain support. Ballout (2007, p. 754) also assumes a stimulating effect of perceived organisational support on career success through supportive relationships within the organisation as "…perceived organisational support may enhance the individual's personal competence…" Moreover, perceptions of organisational support are linked to the contextual environment of the employees (Treadway et al., 2004), which also indicates a possible relationship with political skill.

In addition to this, Jawahar and Hemmasi (2006) advocate the innovative nature of perceived organisational support for women's career advancement. Academic literature proposes that one reason for why women do not advance in the same manner as their male colleagues comes from their lower dedication and commitment to their employing organisation (Adler & Izraeli, 1994; Burke, 1994; Mainiero & Sullivan, 2005) and their tendency to opt out (Belkin, 2003; Cabrera, 2007). According to the social exchange process, individuals build their commitment on the basis of perceived organisational support which means that an employee´s beliefs regarding how far the organisation values their contribution will influence their commitment and efforts (Eisenberger et al., 1986). Moreover, research has found that career management activities contribute to the commitment of individuals to the organisation they work for (Sturges, Guest, Conway, & Davey, 2001). Considering the norm of reciprocity, women who feel well supported and kindly treated by their organisation may sense more potential for success and so enhance their performance. On the contrary, it could be assumed that less support from the employer is able to influence women's attachment, efforts and contribution. Ng et al. (2005) confirm that organisational career management variables such as sponsorship, supervisor support, and training and skill development opportunities relate to career success. What's more, research identified supportive relationships like mentoring, supervisor support, and networking (Eddleston et al., 2004; Kirchmeyer, 1998; O'Neil et al., 2008; Timberlake, 2005) as accelerating factors of career success. Furthermore, O'Neil et al. (2008) highlights social capital as being one of the most important influencing factors within women´s career development. Hence, the present study proposes that in general perceived organisational support is able to lead to greater career success. In particular, the study assumes that perceived organisational support is able to mediate the effect of political skill on the career success of women. Table 2-3 illustrates the derived hypotheses H3a-H3d based on the literature review.

Table 2-3: Hypothesis 3

	Hypotheses
H3a	Perceived organisational support mediates the relationship between political skill and career satisfaction of women in Germany.
H3b	Perceived organisational support mediates the relationship between political skill and income of women in Germany.
H3c	Perceived organisational support mediates the relationship between political skill and position of women in Germany.
H3d	Perceived organisational support mediates the relationship between political skill and promotion of women in Germany.

2.7 Conceptual Framework

Despite an increasing body of literature which addresses the career success of women, little research exists that explores the relationship between political skill, and the intervening variables of career self-efficacy and perceived organisational support on the subjective (career satisfaction) and objective (income, position, promotion) career success of career-oriented women in Germany.

To date, research has shown that proactive individuals who take initiative and show political savvy are more likely to influence their environment and increase their career opportunities, while evidence also attests the positive relationship between organisational support and managerial advancement (Rasdi, Ismail et al., 2011; Rhoades & Eisenberger, 2002). Moreover, career self-efficacy has been identified as an further key factor within the career literature which promote females career success. Thus, the conceptual framework reflects supportive determinants as well as possible causes for work related career outcomes.

Figure 2-5 outlines the conceptual framework as the theoretical underpinning for this study derived from the literature review. It illustrates the potential success factors for career-oriented women in Germany. Plus, the framework shows control and socio-demographic variables which have been identified in further studies as factors that should be controlled. Table 2-4 shows the hypotheses of the doctoral study.

Figure 2-5: Conceptual Framework

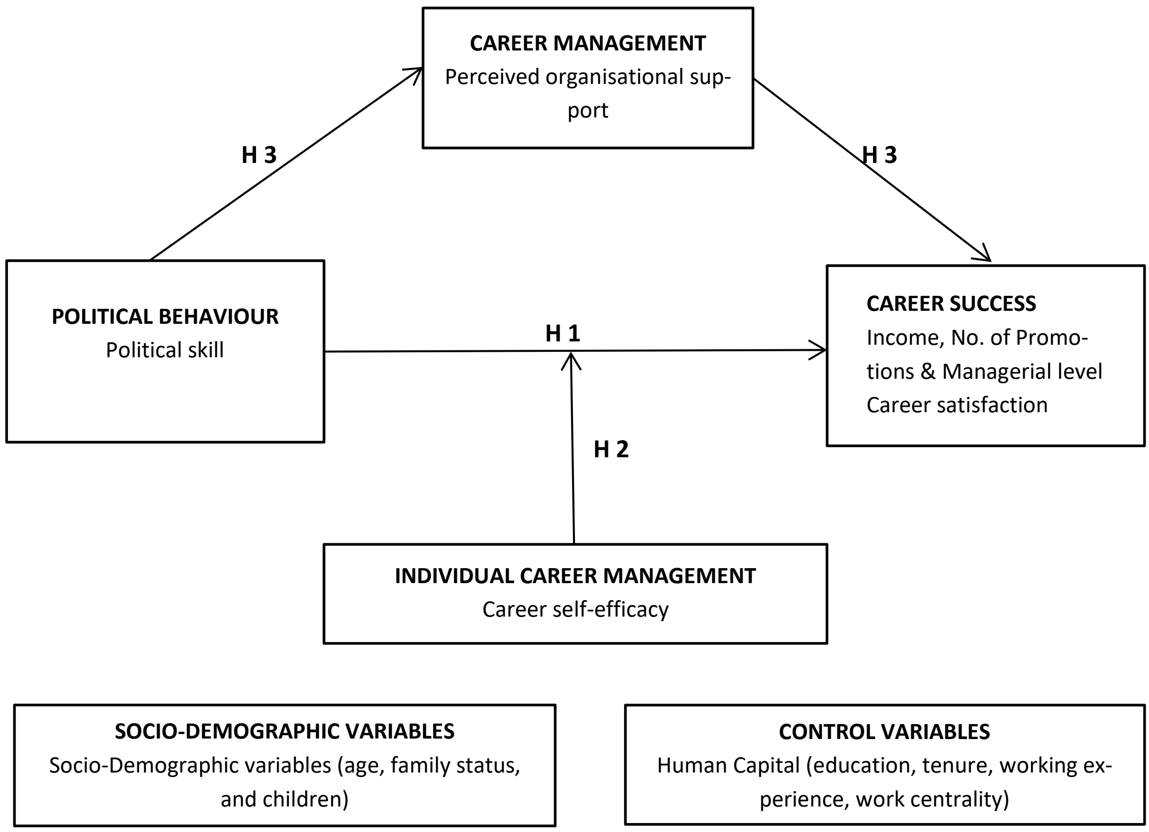


Table 2-4: Hypotheses of the study

	Hypotheses
H1a	Political skill has a significant positive impact on career satisfaction of women in Germany.
H1b	Political skill has a significant positive impact on income of women in Germany.
H1c	Political skill has a significant positive impact on position of women in Germany.
H1d	Political skill has a significant positive impact on promotion of women in Germany.
H2a	Career self-efficacy moderates the relationship between political skill and career satisfaction of women in Germany.
H2b	Career self-efficacy moderates the relationship between political skill and income of women in Germany.
H2c	Career self-efficacy moderates the relationship between political skill and position of women in Germany.
H2d	Career self-efficacy moderates the relationship between political skill and promotion of women in Germany.
H3a	Perceived organisational support mediates the relationship between political skill and career satisfaction of women in Germany.
H3b	Perceived organisational support mediates the relationship between political skill and income of women in Germany.
H3c	Perceived organisational support mediates the relationship between political skill and position of women in Germany.
H3d	Perceived organisational support mediates the relationship between political skill and promotion of women in Germany.

2.8 Summary

The literature review investigated concepts of interest within this study and explored the dominant theoretical perspectives that focus on the issue of career success. Moreover, significant gender-related career differences were elaborated upon through the question of how cultural and institutional context is able to influence the career success of women. Thus, research and practice were both engaged in several issues that deal with women's career development. Furthermore, considering contextual factors, the German government passed a new law in 2016 that should motivate the journey towards equal participation of women and men in management positions. However, current data still shows that women earn a lower income than men and are less likely to climb up the organisational hierarchy, even though they feel as successful as men do.

Furthermore, authors emphasise the importance gender plays in several career and life segments. Thus, research provides various explanations for career differences between women and men, which often build on a common view: the influence of culturally informed socialisation processes that shape gender roles and related stereotypes. In addition to this, culture seems to reflect embedded beliefs about gender, which have an influence on the careers of women. Assessing the German cultural context, research verifies that a traditional view of one's career remains characterised by loyalty, long-term employment, job security and vertical career progression. This is a contradiction to several studies which claim that contemporary career models are growing in importance, which also seem to be more appropriate in reflecting women's career paths. Thus, it appears that no theoretical perspective provides an absolutely truthful reflection of today's career realities. In addition, each career concept seems to reflect a part of the truth but none are able to explain the career success of women solely by themselves, which makes it difficult to make reasonable statements.

Nevertheless, there exists joint convictions that work and family aspects remain prominent issues within women's careers. Furthermore, a career is a long-lasting process that corresponds with women's fertility. Therefore, several authors have claimed that future research should investigate factors that help women to advance, rather than focusing on explaining the barriers and obstacles that women face. In particular, within a German context very little research is done to elaborate determinants that support women's career success in a traditional setting. Notably, the issue of proactive behaviour and human agency to accelerate career development seems to be an important factor. Moreover, within a male environment, women ought to adapt tactics that are connoted as masculine as a means to succeed. Therefore, political skill reflects several influence tactics that have a positive impact on relationships. In particular, informal networks and supervisory support are helpful determinants for women's career success. Thus, political skill has been identified as a crucial competency that might be helpful for women to achieve success in organisations. However, only a few studies address the impact of political skill on the career success of women.

Career self-efficacy is determined as a further social effectiveness competency that appears fruitful regarding women's career advancements. The self-efficacy concept covers environmental, cognitive and contextual components that influence career development processes. Again, contextual factors have been identified as important while analysing issues about women's careers. Career self-efficacy deals with the ability to cope successfully with career relevant issues. Moreover, the concept refers to the application of several career-enhancing strategies. It can be assumed therefore that career self-efficacy interacts with other constructs of control, such as political skill, to promote career success. Specifically, women might benefit from a moderating effect of high career self-efficacy beliefs. Career self-efficacy as a moderator might be able to strengthen the use of political tactics to accelerate the career success of women. Even though research identifies the self-efficacy concept as helpful to explain women's career advancement, only a few studies address the moderating effects.

The current review also confirms that organisational practices, activities and policies have an impact on the careers of individuals. Like self-efficacy beliefs, perceived organisational support has a positive influence on performance and helps to decrease absenteeism and turnover rates. As research indicates that women tend to leave more frequently their employers than men, a certain level of perceived organisational support might be helpful to counter this phenomenon. Perceived organisational support describes the perceptions of individuals about the attitudes of their employees towards their well-being. These perceptions include positive treatments and rewards, largely through supportive organisational relationships. However, until now less research has been done to assess the mediating effect of perceived organisational support in general and in particular in the context of the relationship between political skill and career success. In addition, although several authors support the analysis of perceived organisational support, no study in Germany was found which addresses the positive influence on females' career success.

Moreover, the literature review shows that the majority of studies have been conducted in the US and have a quantitative cross-sectional research design. Furthermore, while many studies have highlighted the significance of coaching and mentoring for women, this study underlines the importance of human agency to women's career success. Thus, this study contributes research and practice by analysing the direct influence of political skill as well as the mediating effect of perceived organisational support and the moderating effect of career self-efficacy towards women´s career success in a German context.

3 Methodology

3.1 Introduction

This chapter discusses the methodological approach of the doctoral study. Based on a realist ontology and a post-positivist epistemological position, the study focuses on an examination of the relationship between determinants that may accelerate women´s careers. Moreover, this section covers explanations of the utilised research design, the development of the applied instrument, a description of the translation process, and how validity and reliability of the instrument can be assessed. In addition, the chapter covers the sampling and data collecting process and ends with ethical considerations.

3.2 Research Paradigm

The literature emphasises the importance of identifying an appropriate ontological and epistemological position while doing research. Easterby-Smith, Thorpe, and Jackson (2015) support the importance of a philosophical worldview to clarify roles, methods, research design and the avoidance of repetitions. Furthermore, an inherent philosophical view helps to indicate limitations and supports the determination of new solutions. The specific research philosophy which is applied reflects "…your assumptions about the way in which you view the world. These assumptions will underpin your research strategy and the methods you choose as part of that strategy" (Saunders, Lewis, & Thornhill, 2012, p. 128). However, Tashakkori and Teddlie (1998, p. 21) claim that "…for most researchers committed to the thorough study of a research problem, method is secondary to the research question itself, and the underlying worldview hardly enters the picture, except in the most abstract sense." Nevertheless, the literature provides a selection of definitions which describe various philosophical approaches. Moreover, paradigm, epistemology and ontology, worldview as well as research methodology are often used to express similar content (Creswell, 2013).

Ontology describes a belief about the nature of social reality and being. In particular, an ontological view characterises assumptions of an individual and the world works, as well as, how our society is constructed (Grix, 2010; Saunders et al., 2012; Schwandt, 2007). Blaikie (2000, p. 8) describes ontology as "…claims and assumptions that are made about the nature of social reality, claims about what exists, what it looks like, what units make it up and how these units interact with each other. In short, ontological assumptions are concerned with what we believe constitutes social reality." The ontological view is reflected by two major positions: objectivism and subjectivism (McLaughlin, 2011). While objectivism supports the idea that social phenomena are independent of actors, subjectivism considers that reality is a social construct and created by actors (Saunders et al., 2012). Furthermore, the objective approach presents reality as observable and measurable as the natural world is. In contrast, a subjective view constitutes reality as a replication of an individual's awareness. However, different nuances exist between both positions (Morgan & Smircich, 1980).

Epistemology is concerned with the process of generating knowledge and theories of knowledge or how knowledge in the specific reality can be produced (Grix, 2010; Saunders et al., 2012). Blaikie (2000, p. 8) describes epistemology as "…ways of gaining knowledge of social reality, whatever it is understood to be. In short, claims about how it is assumed to exist can be known." Various epistemological positions exist along the objective-subjective continuum. With this in mind, the ontological view can be reflected in the epistemological dimension an individual demonstrates (Morgan & Smircich, 1980). Furthermore, the ontological and epistemological position an individual adopts influences the method. Thus, Morgan and Smircich (1980, p. 491) postulate that "…the choice and adequacy of a method embodies a variety of assumptions regarding the nature of knowledge and the methods through which that knowledge can be obtained, as well as a set of assumptions about the nature of the phenomena to be examined." All the same, key epistemology positions within the social sciences differentiate. Thus, the main epistemological perspectives - positivism, realism, post-positivism and interpretivism - are discussed here, as business management research indicates them as being the main epistemological views (Bryman & Bell, 2011; Creswell, 2014; Grix, 2010).

Positivism is based on a realist, foundationalist epistemology; derived from the natural sciences, it views the world as existing independently of our knowledge of it. Positivists explain the social world by observations and the use of laws and mechanisms. The analysed subject could be generalised objectively and remains value-free and independent of the researcher. The theory is applied to develop the hypothesis which will be tested, causality should be demonstrated and facts presented (Bryman & Bell, 2011; Guba & Lincoln, 1994; Saunders et al., 2012). Additionally, Hollis (1994, p. 41) claims that

“Positivism is a term with many uses in social science and philosophy. At the broad end, it embraces any approach which applies scientific method to human affairs conceived as belonging to a natural order open to objective enquiry.” Denscombe (2007, p. 332) meanwhile argues that positivism assumes the social world contains similar attributes to the natural world which could be explained by “…patterns and regularities, causes and consequences.” Furthermore, individual activities and social dynamics could be seen as measurable behaviour (Blaikie, 1993; Holm, 2013). Methods that are mainly applied show typically an analogy to natural sciences like experiments or surveys. However, even though the positivistic view is very common in management research (Grix, 2010; Johnson & Duberley, 2000), positivism receives a lot of criticism due to the ignorance of social interaction and the claim of total objectivity (Blaikie, 1993; Morgan & Smircich, 1980; Saunders et al., 2012).

In contrast to positivism, interpretivism is based on an anti-positivism epistemology and considers that the world does not exist independently of social actors. Interpretivists believe in subjectivity and dissociate from thinking that the world is explainable through the methods of natural science. Furthermore, they try to understand the world and its situations rather than to explore it. This world view considers social reality as being constructed by humans and how people think, feel, and communicate. In addition, social collaboration should be studied with methods that aim to understand and interpret the situation. Being value-free and objective is not feasible (Easterby-Smith et al., 2015; Grix, 2010). Unlike positivists, interpretivists believe in multiple-realities that will be constructed and interpreted through each individual which then leads to high levels of complexity (Denzin & Lincoln, 2011). However, interpretivism has received criticism due to the influence of the researcher on interpreted data as well as there being less controllability (Easterby-Smith et al., 2015).

Both philosophical stances in their purest forms can be seen as mutually exclusive (Gilbert, 2001). A positivistic view follows a deductive process, which starts by assessing a theory, developing hypotheses and then collecting data to prove the aforementioned assumptions. In contrast, an interpretivist applies induction. This procedure starts with limited cases, observing relationships to find deep underlying mechanisms which help to finally develop a theory that covers rules for all cases in that specific field (Bryman & Bell, 2015; Saunders et al., 2012). Cavana, Delahye, and Sekaran (2001) describe a quantitative research design as starting with theory, developing hypotheses, collecting and analysing data, and finally accepting or rejecting the hypotheses. However, qualitative research starts from observing phenomena to analyse hidden patterns, which leads to the formulation of relationships, followed by theory development.

Realism is a further philosophical view that can be located between the continuum of positivism and interpretivism. Realism can be defined as "…the view that scientific theories refer to real features of the world, or the view that real things are just exactly as science takes them to be. 'Real' here refers to whatever it is in the universe (i.e., forces and structures) that causes the phenomena that we perceive with our senses. Scientific realism argues that what is 'real' is not necessarily only that which we can directly observe" (Schwandt, 2007, p. 257). However, the most prominent form of realism within social science is critical realism (Maxwell, 2008), which is strongly linked with the work of Roy Bhaskar (1975, 2011). Critical realism combines a positivist ontology that the world exists independently of us, as well as an interpretivist epistemology which sees the world as a social construct (Maxwell, 2008; Schwandt, 2007). To emphasise this, critical realism tries to incorporate understanding into explanation. In addition to this, critical realists believe that social constructs show a kind of causality (Grix, 2010). Nevertheless, critical realism distinguishes itself from the positivist view in terms of the inclusion of an interpreting part in exploratory areas of observable outcomes. Furthermore, as positivism is limited to direct observability, critical realism includes a subjective part as well (Kerr, 2003). Plus, critical realism also differentiates itself from interpretivism due to the acceptance of causality and the ontological assumption that the social world exists independent of our knowledge of it (Maxwell, 2008; Peters, Pressey, Vanharanta, & Johnston, 2013; Schwandt, 2007). Even though critical realism accept several research methods, it is important to be aligned with the analysed object and what the researcher wants to know (Sayer, 2000). However, critical realism is also considered to be controversial within the literature due to the competing dimensions of positivism and interpretivism (Maxwell & Mittapalli, 2010).

In a similar vein, post-positivism can also be understood to be a research paradigm between positivism and interpretivism. Some authors take "realism" as a synonym for post-positivism to describe the paradigm between both extreme approaches of the continuum (Grix, 2010). A post-positivist view demonstrates a critical stance towards objectivity and the influence that each individual has on knowledge generation. Moreover, post-positivism recognises that the knowledge and theory that is proofed today could be found to be wrong in the future as no complete truth could be ever achieved (Phillips, 1990; Phillips & Burbules, 2000). Post-positivists reflect a non-foundationalist concept and hold fallibilism to knowledge (Phillips & Burbules, 2000). What's more, it is not possible to reach absolute certainty while studying the behaviour and activities of humans. Denzin and Lincoln (2005, p. 27) claim that "Post positivism holds that only partially objective accounts of the world can be produced, for all methods for examining such accounts are flawed". Moreover, the ontological position is characterised as critical realism due to the claims about reality (Guba & Lincoln, 1994). The post-positivistic world view focuses on causes that affect specific outcomes. Thus, the identification and assessment of causes is central for the researcher (Creswell, 2014). Henderson (2011) also claims that the post-positivistic approach considers knowledge to be a social construct and not neutral. Both, researcher and observed persons can be said to be connected through "common humanity" (Ryan, 2006, p. 18). In addition, researchers' assumptions are not detached from the process and are considered throughout the complete study (Phillips & Burbules, 2000). The literature postulates that triangulation and a mixed method approach is common to a post-positivistic stance (Phillips & Burbules, 2000). Moreover, this philosophical stance focuses on a deductive approach whereby theory builds the basis and influences the whole research process. In addition, Clark (1998) emphasises that post-positivism focuses on quantitative methods and the acceptance of existing knowledge. Post-positivism still emphasises parts of positivism, but also offers an additional view that something exists subsequent to positivism (Henderson, 2011).

Several authors often mention the term "research paradigm" to describe shared beliefs and agreements in a discipline as well as appropriate processes, methods and theories based on ontology, epistemology, and methodology (Creswell, 2013; Guba & Lincoln, 1994; Kuhn, 1962; Laudan, 1977). Nevertheless, various competing paradigms within the social sciences exist (Creswell, 2013; Guba & Lincoln, 1994; Mertens, 2009; Perry, Riege, & Brown, 1999). Although this is a controversial issue, research emphasises the possibility to combine a number of paradigms within a single research approach (Grix, 2010; Johnson & Duberley, 2000; Saunders et al., 2012). Thus, table 3-1 provides an overview of the main research paradigms within social sciences and business management research.

Table 3-1: Core research paradigms in social sciences

Author(s)	Core Research Paradigms			
Bryman and Bell (2011)	Functionalism	Interpretivism	Radical Structuralism	Radical Humanism
Creswell (2014)	Post-Positivism	Constructivism	Pragmatism	Transformativism
Easterby-Smith et al. (2015)	Functionalism	Interpretivism	Radical Structuralism	Radical Humanism
Grix (2010)	Positivism	Post-Positivism		Interpretivism
Guba and Lincoln (1994)	Positivism	Post-Positivism	Critical Theories	Constructivism
Guba and Lincoln (2005)	Positivism	Critical Theories	Constructivism	Participatory
Mertens (2009)	Post-Positivism	Constructivism	Pragmatism	Transformativism
Perry et al. (1999)	Positivism	Realism	Critical Theories	Constructivism

In general, authors (Denzin & Lincoln, 2011; Saunders et al., 2012) recommend adopting a strategy that links the philosophical view with associated methods to collect and analyse data. A research strategy can be envisaged in two ways. First, the individual is influenced by a pragmatic view, which emphasises the importance of the research question and how the problem can be solved. Second, the person is directed due to their own ontological and epistemological worldview. Although the pragmatic way is initially selected, research is always influenced by the particular beliefs and assumptions a person holds (Blaikie, 1993). Following this, a post-positivist view appears to be appropriate due to its advanced development of positivistic beliefs and compatibility with the main purpose of the current study to build a picture of females' perceptions and evaluate the relationships between variables assumed to be associated with career success. Furthermore, it is also important to consider the specific field where the study will take place (Sayer, 2000) and the researcher should consider the nature of the topic which will be analysed. Thus, a post-positivistic worldview emphasises the importance of determination, reductionism, empirical observation and the measurement of phenomena, as well as the verification of theory. In addition, specific research questions obtain a valuable meaningfulness within the post-positivistic approach (Creswell, 2014; Ryan, 2006). Therefore, the current study is guided by a pragmatic post-positivistic view and seeks to analyse the behaviour and perceptions of career-oriented women in Germany. In particular, the assumed relationships between political skill, career self-efficacy, perceived organisational support and subjective (career satisfaction) and objective (income, promotion, position) career success will be evaluated. Importantly, the post-positivistic approach also attaches value to culture and individual experience that in turn influence objective perceptions of reality. Moreover, contextual factors can also impact the research process (Phillips & Burbules, 2000), which seems to be a key consideration while analysing females' career success.

According to Creswell (2014) applying a single quantitative method can be useful when the aim of the study is to test relationships among variables. However, the choice of the right method depends also on the type of research question (Ryan, 2006). Furthermore, Creswell (2014, p. 7) indicates that "…the intent is to reduce the ideas into a small, discrete set to test, such as variables that comprise hypotheses and research questions…" Drawing from the aforementioned reasons, this study adopts a pragmatic post-positivistic approach and a quantitative mono-method for data collection. First, the study seeks to measure the relationship between several latent constructs. Second, the ontological view within the objective position suggests an observation, collection and measurement of reality. Research that considers gender and workplaces suggests a quantitative procedure if the aim is to provide statistical measures (Bronstein & Farnsworth, 1998). Third, the epistemological position also reflects the ontological view and allows knowledge generated by observation. Lastly, methodological considerations are influenced by the philosophical stance which leads to a quantitative measurement of the theoretical assumptions. Hence, a survey questionnaire has been applied to data collection.

3.3 Research Design

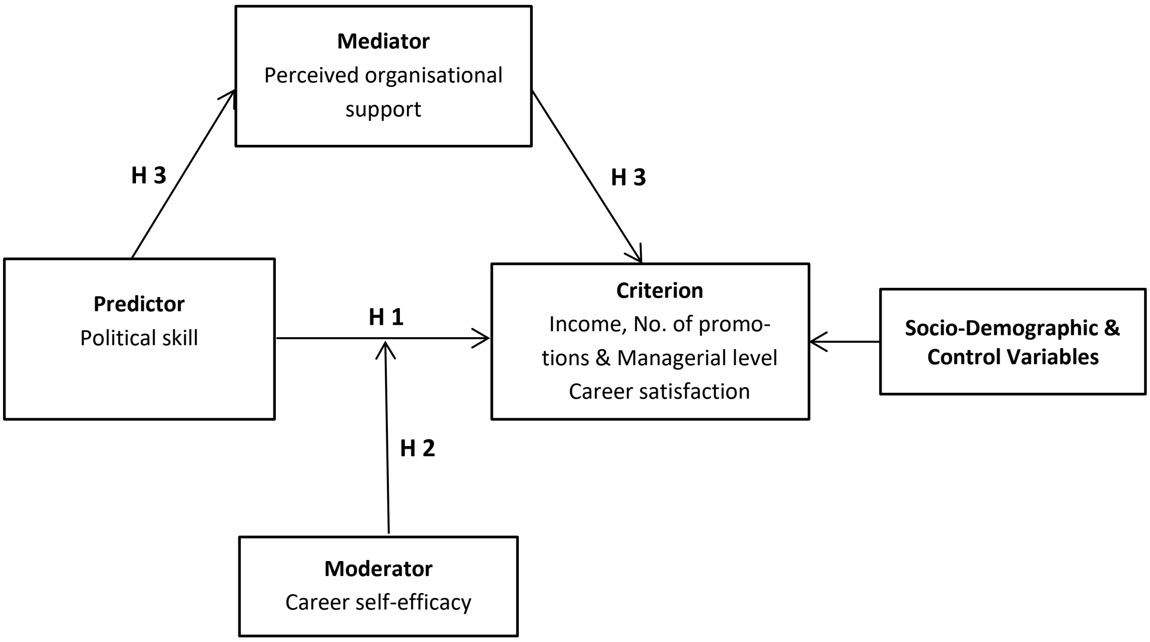
In general, a research design describes the procedure by which the research questions will be answered (Saunders et al., 2012). In this vein, Yin (2008) compares a research design with a plan that act as guidance, which is initiated with questions and results in a response to these questions. In addition, literature requires a consideration of the specific philosophical stance, while answering research questions which in turn will lead to an appropriate methodological choice (Maxwell, 2005; Saunders et al., 2012). As the purpose of the study is to gain a picture of females' perceptions and the examination of the effects between variables associated with career success, the current investigation has a descriptive and explanatory nature. In particular, the study seeks to determine whether women perceive there to be a benefit in their career through engagements in influencing tactics. Moreover, the study investigates potential obstacles impeding the career advancement of women that may result from a lack of support, proactive behaviour, and beliefs about their own capabilities. Thus, the study attempts to explain the benefits of women in different hierarchical positions in Germany using proactive behaviour to accelerate their careers. Hence, an objective is to determine whether political skill has an impact on different career outcome variables, such as income, number of promotions, managerial level and career satisfaction. Therefore, the main intent is to justify and estimate the effect of political skill on the subjective and objective career success of women. In particular, the study investigates the effect of political skill, mediated by perceived organisational support, and moderated by career self-efficacy on the career success (see figure 3-1) of females working in various industries in Germany. Derived from the literature review, the main research questions are:

RQ 1: What effect does political skill have on the subjective and objective career success of women in Germany?

RQ 2: In what way does career self-efficacy influence (moderate) the relationship between political skill and the women's subjective and objective career success?

RQ 3: In what way does perceived organisational support influence (mediate) the relationship between political skill and the women's subjective and objective career success?

Figure 3-1: Research model



Easterby-Smith et al. (2015) suggest the employment of a survey research design, if the research aims to determine the relationships between variables. Moreover, surveys often reflect a realist ontology which is accompanied by a positivistic epistemology. This study aims to contribute research to the current existing body of knowledge by the determination and evaluation of factors that may help women to advance in Germany. Thus, a quantitative approach seems appropriate as a means to analyse the outlined concept (Baskerville Watkins & Smith, 2014; Bryman & Bell, 2011; Saunders et al., 2012). Meanwhile, a mono quantitative method is chosen to fulfil the research objective while using statistical methods to analyse the data (Creswell, 2014; Saunders et al., 2012). Additionally, a survey strategy is often subsequent to a deductive approach (Saunders et al., 2012) which is concerned with "…developing a hypothesis (or hypotheses) based on existing theory, and then designing a research strategy to test the hypothesis" (Wilson, 2010, p. 7).

In addition, Groves et al. (2009) postulate that quantitative research mirrors a systematic way to quantify and measure the attitudes, behaviours, and opinions of a sample. With respect to the main intent of the study, Reinharz and Davidman (1992) claim that no one best single method exists to develop knowledge of gender issues. Thus, research about gender discrimination at the workplace has been largely quantitative if it aims to provide statistical measures whereas qualitative studies provide in-depth individual information (Bronstein & Farnsworth, 1998). Moreover, Bryman and

Bell (2015, p. 631) claim that "…although there is undoubtedly a general tendency for specific paradigm communities to favour certain research methods, the reality is more complex than this picture at first suggests." Richardson (1996) argues that the choice of methods should always be linked to philosophical and pragmatic considerations in terms of the specific research question that will be answered. In fact, as the aim of the study is to measure the impact of certain variables on the career success of women, a quantitative approach seems appropriate to analyse the phenomena of the female career experience.

Common surveys adopt longitudinal or cross-sectional designs. Within a longitudinal design, the sample will be surveyed at least at two different points in time. This procedure facilitates causal inferences (Bryman & Bell, 2015). However, as longitudinal studies are timely and costly, business research usually applies cross-sectional designs in order to analyse a constituted phenomenon (Bryman & Bell, 2011; Shanahan, 2010). Cross-sectional studies are often used within a survey strategy and describe a data gathering process at a single moment (Bryman & Bell, 2011; Saunders et al., 2012). Nevertheless, there are some limitations to cross-sectional studies. The main restrictions are the non-consideration of time and the derivation of causation (Shanahan, 2010; Vogt, 2005). Therefore, cross-sectional designs can only indicate a relationship between variables. Moreover, researchers have to infer on the basis of theoretical ideas that it is not possible to make directional statements of causal influence (Bryman & Bell, 2011).

As mentioned, a cross-sectional design is often utilised in business and management research. Thus, the current study adopts a cross-sectional design in the form of a web-based self-completed questionnaire. A self-completed questionnaire is useful in the case of time and cost restrictions and to avoid interviewer effects (Bryman & Bell, 2011). However, self-report surveys can also be fragile as common method bias can occur (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Moreover, Saunders et al. (2012) postulate that questionnaires are commonly used in descriptive and explanatory research. In addition to this, Denscombe (2014) argues that although some constraints of quantitative analysis generally exist, the advantages of objectivity, confidence and credibility, precise measurements and the evaluation of a large body of data is quite valuable. Baruch and Holtom (2008, p. 1140) argue that "Questionnaires can provide insight into individual perceptions and attitudes as well as organisational policies and practices." Nevertheless, this study wants to evaluate females' perceptions about their political skills, career self-efficacy and perceived organisational support as career predictors which are related to their behaviour and beliefs regarding their individual careers. This intention refers to a quantitative approach (Collis, Hussey, & Hussey, 2003).

3.4 Instrument

The questionnaire consists of a total of 57 items (see table 3-2) and is divided into five sections. The different sections examine the variables under investigation: political skill, career success (objective and subjective), career self-efficacy, perceived organisational support, control, and demographic variables. Rating questions are coded on a 5-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree) (Likert, 1932). The scales are rated, in such way that high values represent high levels of the constructs. Reverse coded items were transformed after the data collection process. As suggested by Greving (2007), the categories were described verbally in order to avoid any misinterpretation. The items within the questionnaire were originally prepared in English, and then translated into German based on the team translation procedure (Brislin, 1970; Harkness & Schoua-Glusberg, 1998; McGorry, 2000) (see chapter 3.5), except from the Political Skill Inventory (PSI) which has been already translated and is used in Germany (Blickle & Gläser, 2009; Blickle, Oerder, & Summers, 2010; Ferris et al., 2008). For an overview of all items, see Appendix 1.

To measure political skill, the instrument created by Ferris, Treadway et al. (2005) has been used. However, as political skill is measured in a different cultural context, the existing and approved German version of the PSI was utilised (Blickle et al., 2008). Political skill reflects the ability to understand social interactions and to adapt specific behaviours that build trust, assurance, and help to influence others (Ferris et al., 2007; Ferris, Treadway et al., 2005). The PSI contains 18 items (Ferris et al. 2005; $\alpha = .89$). Several authors have confirmed the reliability of the scale (Baskerville Watkins & Smith, 2014; Brouer et al., 2012; Watkins & Smith, 2014). Example questions include "I am able to communicate easily and effectively with others" and "I understand people very well". According to Treadway, Witt, Stoner, Jansen Perry, and Shaughnessy (2013), items were measured on a 5-point scale (1 – strongly disagree, 5 – strongly agree). Baskerville Watkins and Smith (2014) and Todd et al. (2009) report an internal consistency reliability of the scale of α= 0.93. Furthermore, Gentry et al. (2012) report a reliability value of α= 0.90. The Cronbach alpha in this study was α= 0.80.

According to the literature, current income, number of promotions and hierarchical level have each been identified as the most common variables to indicate objective career success. Income is measured by self-reported annual salary that includes commissions and bonuses. Self-reports of income have been shown to correlate highly with company records (Boudreau, Boswell, & Judge, 2001; Turban & Dougherty, 1994). However, to compare income, research suggests the use of average income per hour, worked out from the hourly wage rate (Lemieux, 2006). Thus, the author divided the annual income by 12 months and the working hours per month. Promotion is defined as "…any increases in level and/or any significant increases in job responsibilities or job scope" (Seibert, Kraimer, & Liden, 2001, p. 227) and is operationalised by the number of promotions each participant has received throughout their entire career (Day & Allen, 2004; Judge et al., 1995; Kirchmeyer, 2002; Maurer & Chapman, 2013; Melamed, 1995; Rasdi, Garavan et al., 2011; Tharenou, 2001). Kirchmeyer (2002) suggests calculating the promotion rate as the number of promotions divided by years since graduation. With this in mind, the participants were asked to indicate their total years spent in the workforce, which is a continuous variable. To determine the hierarchical level, each individual was then asked to classify their position which is operationalised as an ordinal variable (1= non-management; 2= lower-management; 3= middle-management; 4= higher-management; 5= top-manage-ment).

Subjective career success can be measured through several intrinsic components. The current study utilised the 5-item career satisfaction scale developed by Greenhaus et al. (1990), which is an approved and often used scale in research (Abele & Spurk, 2009a; Judge et al., 1995; Maurer & Chapman, 2013; Seibert, Kraimer, & Crant, 2001). Ballout (2009, p. 661) states "…such scale was/still the most widely used measure in the career literature." Further authors have used this scale and reported an equally high internal consistency (Armstrong-Stassen & Cameron, 2005; Todd et al., 2009). The career satisfaction scale is operationalised as an ordinal variable and the items were measured on a 5-point scale (1 – strongly disagree, 5 – strongly agree). Example statements included, “I am satisfied with the success I have achieved in my career” and “I am satisfied with the progress I have made toward meeting my goals for income”. Greenhaus et al. (1990) report an internal consistency reliability of the scale of α= 0.88; Ballout (2009) reports a reliability value of α= 0.80. The Cronbach alpha for this measure in this study was α= 0.87.

Career self-efficacy has been suggested as a moderator variable that might influence the impact of political skill on the career success of women. With this in mind, it is assumed that career self-efficacy also has a direct effect on the success of women, not solely through its effect on political skill. Hence, several studies use the self-efficacy concept to explain career development and the decisions of women in management positions (Anderson et al., 2008; Gist, 1987; Rivera et al., 2007; Spurk & Abele, 2014; Yeagley et al., 2010). Additionally, self-efficacy has been utilised as a moderator between several independent and dependent variables, such as career intention, intrapersonal intelligence and interpersonal intelligence (Jiang & Soo Park, 2012). Thus, in order to describe the specific environment to be analysed (Bandura, 2006a; Gist, 1987), the literature recommends the use of a measurement that reflects self-efficacy behaviour in a career context (Lent & Brown, 2006; Spurk & Abele, 2014).

The current study utilises the 11-items long measurement of career self-efficacy developed by Kossek et al. (1998) which is an ordinal variable. The items use a 5-point scale (1 – strongly disagree, 5 – strongly agree). Example questions are “When I set important career goals for myself, I rarely achieve them” or “When I decide to do something about my career, I go right to work on it”. Ballout (2009) reports an internal consistency reliability of the scale of α= 0.78, whereas Day and Allen (2004) reveal a Cronbach Alpha score of α= 0.81. The Cronbach alpha for the measure in this study was α= 0.72 which is also acceptable as the suggested cut-off value is below α= 0.70.

Table 3-2: Overview of selected items

Instrument/ Scale	Total Items	Variable under Investigation	Source	Cronbach's α
Political skill	18	Independent variable	Ferris et al. (2005)	α= .80
Income	1	Dependent variable Objective career success	Various sources	-
No. of promotions and position	2	Dependent variable Objective career success	Various sources	-
Career satisfaction	5	Dependent variable Subjective career success	Greenhaus et al. (1990)	α= .87
Career self-efficacy	11	Moderator variable	Kossek et al. (1998)	α= .70
Perceived organisational support	6	Mediator variable	Eisenberger et al. (1986)	α= .90
Socio-demographic variables (age, family status, children, employment status, industry, organisational size, working hours and career network)	9	Control variables	Various sources	-
Human capital (education, working experience, tenure, work centrality)	5	Control variables	• Various sources • MOW International Research Team Staff (1987)	-
Total	**57**			

In addition, perceived organisational support has been identified as a mediator variable that might influence the impact of political skill on the career success of female executives. Perceived organisational support is characterised as "…the degree to which employees believe the organisation values their contribution and cares about their well-being…" (Robbins et al., 2013, p. 64). Studies confirm the application of perceived organisational support as a mediator and highlight its influence on work relationships (Hochwarter et al., 2003; Weaver [JR.], 2015). The current study adopts a 6-item scale from the short form of the survey of perceived organisational support (Eisenberger et al., 1986). Items were measured on a 5-point scale (1 – strongly disagree, 5 – strongly agree). Example statements included, "The organisation is willing to help me when I need a special favour'" and "The organisation takes pride in my accomplishments at work". Studies reveal the scales reliability and predictive validity range from α= 0.88 to α= 0.90 (Colakoglu, Culha, & Atay, 2010; Kim et al., 2016; Rhoades & Eisenberger, 2002). The Cronbach alpha for this measure in the current study was α= 0.90.

According to Creswell (2014, p. 53) control variables are "…demographic or personal variables (e.g., age or gender) that need to be 'controlled' so that the true influence of the independent variable on the dependent can be determined." In order to avoid the 'omitted variable bias' all potential exogenous variables affecting career success should be included as control variables (Antonakis, Bendahan, Jacquart, & Lalive, 2010). Thus, the study considers the demographic factors of age, marital status, and children as control variables (Blickle, Wendel, & Ferris, 2010; Callanan, 2003; Smith et al., 2013). The demographic variables marital status (1= I am single and live alone and 2= I live in a partnership) and children (1= yes and 2= no) were presented as dichotomous variables. The age of the women was depicted as an interval variable (Kirchmeyer, 1998, 2002; Valcour and Tolbert, 2003). Several authors claim that age, family status, and children should be controlled because these factors influence career success. For instance, age is positively related to compensation and promotion. Moreover, research shows that parental and family status affects career advancements (Baskerville Watkins & Smith, 2014; Judge & Bretz, 1994; Kirchmeyer, 1998; Melamed, 1995; Tharenou et al., 1994). Literature has also revealed that children have an influence on career success, especially women's (Kirchmeyer, 2002, 2006; Tharenou et al., 1994).

The participants were also asked to state their current employment status according to the demographic standards of the German Federal Statistical Office (2016). The variable is operationalised as an ordinal variable and is useful to determine the extent and kind of employment (1= full-time; 2= part-time; 3= marginally employed; 4= retraining; 5= maternity leave; 6= non-employed; 7= other) and to build social groups to differentiate between prestige and status. Plus, the female participants were invited to state their average working hours per week which is depicted as an interval variable to calculate hourly wage. Research already shows that women, especially those with children, work reduced hours which in turn influences their career success (Biemann, Zacher, & Feldman, 2012; Schneer & Reitman, 1995). In addition, Shapiro et al. (2008) reveal that long working hours are associated with commitment towards the organisation. Furthermore, the women were also asked to indicate the industry of their current employer (1= agriculture, forestry, fishery; 2= manufacturing; 3= mining; 4= energy supply; 5= water supply; 6= construction, building construction and civil engineering; 7= trade, merchandise; 8= transportation and storage; 9= hospitality; 10= information and communication; 11= banks, finance and insurance services; 12= property and housing; 13= freelance, academic, technological, and other services; 14= public administration, defence, social insurance; 15= education, teaching; 16=health and social service; 17= other). In addition, the women were asked to indicate the size of the company. The item company size is classified as a categorical variable (1= 0-9; 2= 10-49; 3= 50-249; 4= 250-499; 5= 500 and more). Lastly, as the study is interested in the number of females who are members of a women's career network, a nominal variable (1 = yes, 2 = no) was used to asked the participants, "Do you belong to a female (career) network?"; the women who indicated being a member of a network were additionally asked to name their network.

According to prior research, human capital variables are often mentioned as being one of the most important influencing factors of career success (Judge et al., 1995; Ng et al., 2005; Tan, 2014). Several studies controll for human capital variables as these affect outcomes in career advancement (Gentry et al., 2012; Judge et al., 1995; Kim et al., 2016; Wayne et al., 1999). Thus, education, working experience, tenure and work centrality are selected as additional control variables. Education level could be operationalised by the highest level of education and is therefore classified as an ordinal variable (Ng et al., 2005; Rasdi, Ismail et al., 2011). According to the German Federal Statistical Office (2016), the level of education holds more significance if the participants were asked for the highest school leaving degree (1= without a school-leaving exam; 2= secondary general school; 3= intermediate school; 4= applied sciences university entrance qualification; 5= higher education entrance qualification; 6= other) and highest level of vocational training (1= without vocational training; 2= vocational training; 3= bachelor's degree; 4= diploma; 5= master's, MBA, state examination; 6= PhD; 7= other). To obtain an accurate picture and so ensure equal comparability, the author calculated a new metric variable 'years of schooling' which sees the total sum of years for highest school leaving degree and highest level of vocational training based on the suggestions of Franz (2013) and Lemieux (2006). The reason for this approach is to reduce the number of explanatory variables (increase the degree of freedom) in comparison to using six dummy variables instead.

Work experience was measured by the total number of years in the workforce whereas tenure was calculated in terms of the total number of years with the current employer. Therefore, work experience and tenure are presented as interval variables (Kirchmeyer, 1998; Ng & Feldman, 2010; Rasdi, Ismail et al., 2011). To measure work centrality, the participants answered two items of the Meaning of Work (MoW) instrument (MOW International Research Team Staff, 1987). MoW has been widely used in research (Judge et al., 1995; Nabi, 1999; Rasdi, Ismail et al., 2011). The original instrument applies two questions to measure the relative and absolute value of work centrality. However, the current study uses an adjusted form of the decision orientation question. The original version asks participants to assign one hundred points to five different areas of their life, including leisure, community, work, religion, and family. Value orientation towards working as a life role is reflected as an ordinal variable with the question, "How important and significant is working in your total life?" To guarantee consistency, the question is represented in line with the other rating questions and is coded on a 5-point Likert-type scale. Both questions apply a scale using 1 for "one of the least important things in my life" to 5 for "one of the most important things in my life". Judge et al. (1995, p. 499) state that "Most of the research on this scale has been conducted cross-culturally, and, due to its ipsativity, internal consistency estimates of reliability are inappropriate in evaluating the measure." In addition, Riordan (2007) claims high test-retest reliability. The Cronbach alpha for the decision orientation variable for the present study was $\alpha = 0.26$ which is not satisfactory and was hence excluded for further analysis. Thus, only the question about the value orientation towards working as a life role remained as a control variable.

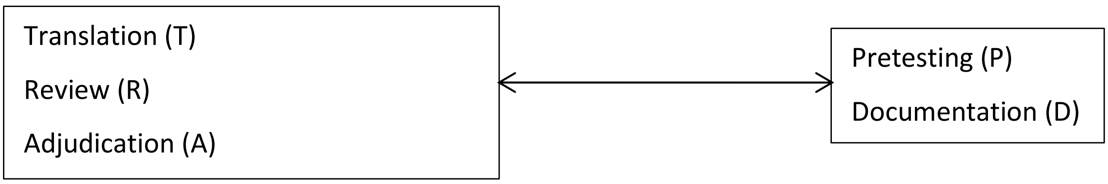
3.5 Translation of Questionnaire

As the scales were initially prepared in English and the survey was conducted in Germany, the items were translated into German. The reason for accurate item adaption into a foreign language is based on a desire to achieve comparability of cross-cultural research as well as item equivalence to keep the items as similar as possible. In particular, translations can be based on a kind of equivalence like culture, concept and measurement (van de Vijver & Leung, 2011). In addition, van Widenfelt, Treffers, Beurs, Siebelink, and Koudijs (2005) claim that a translated scale must show constructional equivalence to measure the same concept as the original scale. Thus, translators have to work accurately to incorporate culture and language differences to ensure comparability (Geisinger & McCormick, 2013). Therefore, different approaches towards survey translation can be adopted. The most common procedures that are mentioned in literature are back translation and the committee or team approach (Brislin, 1970; van de Vijver & Tanzer, 1997). Authors agree that back translation is important to ensure the validity of the instrument (Cha, Kim, & Erlen, 2007). Even though the back translation procedure is often applied in research, several authors suggest the use of models that involve a team of translators of a means to ensure consistency and quality (Geisinger, 2005; van de Vijver & Tanzer, 1997). Moreover, Cha et al. (2007) propose that due to a lack of sources in the back-translation process, researchers are forced to apply modified versions that lead to inappropriate translations. Furthermore, several authors claim that comparisons of original and back translated sources show sometimes only moderate comparability (Harkness, 2003; Harkness & Schoua-Glusberg, 1998; Harkness, Villar, & Edwards, 2010).

In contrast to the back translation approach, team based translations include several persons who translate the original items into the target language (Geisinger & McCormick, 2013). Compared to other translation concepts, team approaches provide less individual and more robust translation adaptation (Harkness & Schoua-Glusberg, 1998; Harkness, van de Vijver, & Mohler, 2003; Jowell, 2011). Hambleton (2005, p. 10) claims that "… translators can protect against the dangers of a single translator and his or her preferences and peculiarities." Thus, Harkness et al. (2003) developed a team translation model differentiating between a committee and expert team approach. Harkness (2003) meanwhile suggests three different roles that are needed in order to apply the model: translators, translation reviewers, and translation adjudicators. Translators should be trained specialists for translating processes. Reviewers are supposed to be also familiar with questionnaire and study design principles as well as the topic in question. Final decisions about the translation lies in the responsibility of the adjudicator, preferably in consultation with reviewers and translators (Harkness, 2003; Harkness et al., 2010).

Within the committee model, translators work together in a group, whereas expert teams work individually or as couples. Additionally, authors (Harkness, 2003; Harkness & Schoua-Glusberg, 1998) distinguish between parallel and split translations. Within parallel translations all items are translated independently by at least two persons. In the next step, the translated text is discussed between the translator and reviewer until a final version is achieved. An adjudicator can attend the process or can be a reviewer. Split translations describe the distribution of the questionnaire into several units and each part will be translated only by one translator. Thus, a minimum of two translators, including a reviewer, is needed. At the review meeting translators and reviewers discuss the translation until a final version has been reached. The adjudicator can attend the meeting (Harkness, 2003). In particular, the framework identifies five stages (see figure 3-2) of the translation process: translation (T), review (R), adjudication (A), pretesting (P), and documentation (D) (TRAPD model) (Forsyth, Kudela, Levin, Lawrence, & Willis, 2007).

Figure 3-2: Basic procedures of the TRAPD model (Harkness, 2003)



For the current study, the author decided to apply the committee-based approach based on practicability, as well as reasons regarding monetary and time restrictions. For the translation part, a professional translation agency was engaged to translate the questionnaire from English into German, with the exception of the PSI which had been already translated into German and used in several research studies (Blickle et al., 2008; Blickle & Gläser, 2009; Neuberger, 2006). According to the TRAPD model (Harkness, 2003, 2008; Harkness et al., 2010) the translated questionnaire has been used for the discussion and review process on a second step. The reviewers were a professional teacher of German as a foreign language with a masters degree in linguistics and sociology as well as the adjudicator who was familiar with the research topic. The role as an adjudicator has been adopted by the author of this doctoral study. According to the TRAPD model, the adjudicator is capable of having a dual role of both reviewer and adjudicator.

3.6 Validity and Reliability

Assessment of the quality of a research instrument is expressed by validity and the reliability of a measurement (Denscombe, 2014; Saunders et al., 2012). In this context, researchers are often concerned with how research can be accurate and provide an applicable benefit (Drucker-Godard, Ehlinger, & Grenier, 2007). Therefore, validity is concerned with what the test is actually measuring and refers to the accuracy and appropriateness of data. In addition, validity asks if a determinant that specifies a concept really measures that concept (Denscombe, 2014). However, there exist different kinds of validity within research. Internal validity enquires whether the items are accurate and stable, and really measures the content that is being investigated. Meanwhile, internal validity relates to causality and is in particular used in explanatory studies (Bryman, 2011; Saunders et al., 2012). On the contrary, external validity deals with generalisation and transferability towards other settings (Easterby-Smith et al., 2015). Tharenou (2005) suggests using a sample that has volunteered to participate in order to preserve external validity. Nevertheless, research differentiates mainly between three types of validity: 1. content validity, 2. criterion-related validity, and 3. construct validity.

Content validity refers to the reflection of the content domain that is associated with the analysed construct. In addition, content validity asks how accurately the questions reflect the model which is under investigation. Secondly, criterion-related validity or predictive validity describes the ability of a measurement to be precise and predict a future event accurately. However, criterion-related validity does not imply causality as the time relationship is not the most important aspect. Thirdly, construct validity deals with theoretical relationships between the measurement and other variables. Thus, the conceptual model must be downsized into variables which theoretically reflect the construct that is to be analysed (Blumberg, Cooper, & Schindler, 2014; Bryman & Bell, 2015;

Denscombe, 2014; Drucker-Godard et al., 2007; Saunders et al., 2012). Furthermore, Cronbach and Meehl (1955, p. 282) suggest that construct validity must be assessed if no characteristic alone is able to measure the demanded concept. In addition, Drucker-Godard et al. (2007, pp. 198–199) claim that "Testing construct validity in a quantitative research project consists most often in determining whether the variables used to measure the phenomenon being studied are a good representation of it." Variables that measure the same concept converge, and differ from variables that measure different concepts.

In addition, reliability is concerned with internal consistency and whether the measurement produces stable findings even if it is replicated in other settings. Therefore, reliability reflects the robustness of a measurement. However, literature mentions several threats towards reliability that should be considered. As such, participants can cause threats due to 'error' like factors that interrupt their behaving, or 'bias' which are factors that induce a false response. Moreover, researcher can also produce threats towards reliability caused by elements that influence the interpretation capacity or parameter that have an impact on researchers' recording of responses. Thus, it is important to provide an accurate report of the study for evaluation and replication purposes. To test reliability, researchers often use Cronbach's coefficient alpha (Bryman & Bell, 2015; Creswell, 2014; Easterby-Smith et al., 2015; Saunders et al., 2012) that "…depends on the average correlation among the observed variables…" (Easterby-Smith et al., 2015, p. 238). Moreover, the questions must relate to each other if utilising a multiple-item measurement that forms a total score and is calculated by split-half reliability coefficients (Bryman & Bell, 2015). Bryman and Bell (2011) note, that a Cronbach's coefficient alpha of 0.80 characterises a reasonable degree of internal reliability. Meanwhile, Saunders et al. (2012) and Easterby-Smith et al. (2015) claim that a Cronbach's alpha of 0.70 indicates the consistency of a measurement. Therefore, the current study proposes a Cronbach's alpha of 0.70 as an appropriate level of internal reliability. Notably, a valid measurement appears to be reliable, on the other side reliability does not necessarily predict validity. However, some authors criticise Cronbach's alpha as a measure that suffers from major problems (Sijtsma, 2009) and suggest instead using composite reliability (CR) to prove reliability (Shook, Ketchen, Hult, & Kacmar, 2004). CR is widely accepted as it recognises standardised regression weights and measurement correlation errors for each item. Hence, the current study proposes a CR of 0.5 or higher as an appropriate level to measure internal reliability (Anderson & Gerbing, 1988; Hair, Black, Babin, & Anderson, 2014; Shook et al., 2004).

3.7 Sampling and Data Collection Procedure

3.7.1 Sampling Procedure

As the research project aims to analyse whether women perceive a career advancement through the application of political skill behaviour, the relevant population of the current study are women in different hierarchical positions working in Germany. On this note, the study focuses on women in management and decision-making-positions as well as future female executives and professionals who are employed in the private industry and can be classified as career-oriented women. Blumberg et al. (2014) recommend selecting participants who are more likely to show the variables under investigation. According to the variables under investigation, political skill aims to "…position people to be competitive and successful in the promotion process" (Ferris, Davidson et al., 2005, p. 85). This subsequently leads to the assumption that career-oriented women more often show a political behaviour (Baskerville Watkins & Smith, 2014). It is assumed that career-oriented individuals are more proactive and reflect a higher career self-efficacy behaviour (Ballout, 2009). Research also reveals a positive relationship between perceived organsiational support and the career success of women (Armstrong-Stassen & Cameron, 2005). Furthermore, studies identified male-dominated environments to be a major challenge for women forging a career (Baskerville Watkins & Smith, 2014; Hackett & Betz, 1981; Zeldin, 2000). A male-dominated environment can occur at a micro-level, as reflected in labour market segregation, but also at a macro-level in our society. Hence, management and professional levels are still connoted as male-dominated environments (Holst & Friedrich, 2017; Kirchmeyer, 1999; Stroh et al., 1992). Thus, career-oriented women occur as an appropriate sample.

The current study applies a non-probability sampling design. Several authors claim that choosing a non-probability sample is an often applied strategy within business and management research. In addition to this, the lack of resources and access to conduct research on the entire population leads to a sampling method that does not use a random selection procedure (Cascio, 2012; Easterby-Smith et al., 2015; Salkind, 2010). However, general limitations occur as a non-probability sample cannot be used to draw inferences from findings to the whole population. Within a non-probability sample design, the author utilised a purposive sampling technique. Again, even though purposive sampling does not portray an accurate representation of the population, it allows the researcher to choose the sample members that are needed according to the purpose of the study (Bryman & Bell, 2015; Clark-Carter, 2004; Denscombe, 2014; Easterby-Smith et al., 2015; Saunders et al., 2012). Saunders et al. (2012, p. 283) postulate that within non-probability sampling "…generalisations are being made to theory rather than about a population." Cascio (2012) highlights the benefits of non-probability sampling, even though the researcher should be aware of its limitations.

Within purposive sampling, the author of the doctoral study applied a snowball sampling technique. Researchers promote the usefulness of snowball sampling to achieve a broader picture across different demographic and industrial attributes instead of analysing participants from a single company or branch (Martins et al., 2002; Maurer et al., 2008). The results reflect a broader range of the working population and the diversity of today's employees (Maurer et al., 2008; Maurer, Weiss, & Barbeite, 2003). In addition to this, Salkind (2010, p. 924) argues that "…homogeneous samples generated by a non-probability sampling procedure might produce more accurate predictions about sample subjects. Therefore, if the task is not to infer statistics from sample to population, using a nonprobability sample is a better strategy than using a probability sample." Also, Maurer et al. (2008) support the use of an employer independent sample to avoid favourable response behaviour from the participants.

In addition, snowball sampling is often applied if the envisaged population is hard to identify or if the researcher wants to analyse delicate issues. Several authors suggest using a snowball sample in the context of participation of elite groups, such as career-oriented women (Atkinson & Flint, 2001; Cascio, 2012; Davies-Netzley, 1998; Jandeska & Kraimer, 2005). Moreover, Bryman & Bell (2015) claim that the envisaged population should reflect the set of factors that the research questions are trying to analyse. Thus, the author of the doctoral study contacted several women focused career networks, alongside female career information platforms and initiatives (see Appendix 2) that support females' career advancements in Germany, and asked them to forward the survey to their members. The female members were also informed that they could forward the survey link to women reflecting the attributes of the desired sample. The selection is also based on the proposed networking behaviour of career-oriented individuals. Research confirms that networking is an essential antecedent of career development (Spurk, Kauffeld, Barthauer, & Heinemann, 2015). Thus, it could be assumed that women who are interested in career relevant issues are more likely to join career networks as well as being interested in career platforms and other career-related initiatives.

Limitations can occur as literature also indicates possible selection bias if only a selected environment is used. Thus, due to the utilisation of social networks and the identification process within the snowball sampling procedure, potential participants might be excluded (Browne, 2005; Metz & Tharenou, 2001). Nevertheless, Atkinson and Flint (2001) argue that selection bias can be reduced by using a larger sample. Referring to an appropriate sample size that reflects an accurate picture of women and the relationship between the identified variables, Saunders et al. (2012) state that decisions about the sample size within non-probability sampling are made based upon the aim and focus of the project rather than considerations of representativeness. Therefore, it is important to note, that the sample in this study is not representative with regards to an underlying population (e.g. female employees in Germany) and all results are only relevant for the sample which was analysed. In addition, Denscombe (2014) suggests the application of a pragmatic approach involving a comparison with other surveys, a minimum of 30 participants including a consideration of subdivisions, and an awareness of potential restrictions.

Sample size plays also a key role within the data analysis process. As the current study applies a structural equation modelling technique (SEM), authors (Aichholzer, 2017; Urban & Mayerl, 2014) suggest a minimum case number of between 200 and 400 for construct validation and hypothesis testing. Tabachnick and Fidell (2014) claim that SEM is sensitive to sample size and so suggest using a large sample while analysing the data with SEM. In addition, Bentler and Chou (1987) reveal that the ratio of sample size to number of free parameters should be considered.

3.7.2 Data Collection Procedure

Data was collected via a web-based online questionnaire. Converse, Wolfe, Xiaoting Huang, and Oswald (2008) as well as Denscombe (2014) determine that this method allows the participants the considerable advantages of easy access, saving of costs and time, faster responses, quicker potential problem solving, scoring and reporting possibilities and an environmentally friendly approach. With this in mind, Saunders et al. (2012) claim that questionnaires are often used for descriptive or explanatory purposes. The survey provider 'SurveyMonkey®' was used to create the online survey.

To assess the consistency of the questionnaire a pilot test was conducted in advance. Pilot studies are important for the research process as they support consistency, readability and the clarity of a questionnaire. Moreover, the researcher is then able to identify potential challenges regarding the use of the instrument. Thus, the pilot sample was asked to provide comments regarding the structure of the questionnaire, as well as its comprehensebility, and readability (Rutherford-Hemming, 2018; van Teijlingen & Hundley, 2002). A pilot study with members of the women's career network 'Die Wirtschaftsweiber e.V.' was envisaged. Unfortunately, the author of this study received no feedback which led to the decision to forward the survey to seven female professors at the author´s home university (Frankfurt University of Applied Sciences) who work at the Faculty of Business and Law. The advantage of the new pilot sample was based on their experience, as all of the women had worked in various industries and management positions prior to their professorship. The professors were each experienced researchers in different fields of business and management research, like gender studies, hospitality and tourism, and management skills. The data protection supervisor of the Frankfurt University of Applied Sciences also verified the information sheet and consent form as well as the survey in advance. Based on the comments, minor wording and stylistic changes were made. In total, the pilot study was carried out over a one week period.

After a successful pilot testing of the web-based questionnaire, the survey was distributed via email to several female networks, career information platforms and initiatives (see Appendix 2) that support women´s career advancements in Germany, with a request to forward the survey link to their members. All of the networks and initiatives were contacted in advance to ask for their participation and distribution. The email used for the first contact contains a short description of the project and its aim, as well as an introduction from the author (see Appendix 3). The initiatives who agreed to forward the survey to their members received a second email that contained the introductory letter which explained in more depth the aim and purpose of the study. It also provided a description of the procedure as well as the consent form. Voluntary participation and anonymity were emphasised and a hyperlink was forwarded to participants on the survey website (see Appendix 4). The literature claimed that due to the involvement of representatives (e.g. the female networks), the confidence of participants increased which in turn could help to raise response rates (Easterby-Smith et al., 2015). The data collection took place between September and December 2017. In total, 680 women from various industries and different hierarchical positions participated in the survey.

3.8 Ethics

Conducting any kind of research requires a consideration of the possible ethical issues affecting the study (Adams, Khan, & Raeside, 2014). In particular, in business research, studies often relate to humans participants which in turn can create several ethical concerns (Saunders et al., 2012) and so the values within the research environment should always be taken into account. Bryman and Bell (2015, p. 129) summarise the concerns as “How should we treat the people on whom we conduct research?” and “Are there activities in which we should or should not engage in our relations with them?” In addition, Saunders et al. (2012) and Creswell (2014) note that ethical issues arise within several stages of a research process, but especially when people and organisations are involved. Furthermore, ethics relates to the adequate behavioural standards that influence researcher activities to maintain the rights of the involved participants. Therefore, literature provides key principles (see table 3-3) in research ethics which should be taken into account from the respective researcher.

Table 3-3: Overview of ethical key principles (Bryman & Bell, 2011; Creswell, 2014; Saunders et al., 2012)

Ethical principle	Brief Rationale
Honesty and transparency	Honest and transparent communication about the study. Avoidance of falsifying, dishonesty and trimming.
Harm	Avoidance of all kinds of harm both towards participants (such as physical harm, stress, harm to career prospects) and towards the researcher (such as emotional harm).
Lack of informed consent	Participants should be provided with as much information about the study as possible to decide if they want to participate.
Invasion of privacy	Privacy of study stakeholder should be guaranteed, including also respect for others, anonymity, management of data and reporting of findings.
Deception	Prevention of deception about the nature and aims of the study.
Data management	Providing anonymity and reliability of data. No alternations and falsification are allowed. Consideration of law regulations.
Values and norms	Values and norms should are also considered. Furthermore, the author will provide access to data and analysed results if requested.

Mertens (2015) postulates that considering the philosophical stance within research ethics, the post-positivistic view refers in particular to an applied methodology. Thus, the current study undertook an honest handling of content and data, objectivity, report of limitations, and a truthful and protective interaction with participants and acceptance of their privacy. Informed consent refers to respondents' agreement to participate voluntarily in the study after having been informed about its nature and purpose (Saunders et al., 2012). This was achieved prior to taking the questionnaire by actively activating a checkbox on the first page of the survey. On this first page, participants were informed about the study content as well as about their right to withdraw at any time. Participants that did not agree to give informed consent were not able to progress with the survey and were not traced or identified in any form.

Moreover, the study proposal received ethical approval from the ethics committee of the Business School of Edinburgh Napier University. The current study follows the suggestions of Creswell (2014) who provides a useful approach to ensure adherence to ethical procedures during the entire research process. Participants had the possibility to contact the author afterwards and receive the results after evaluation. Decisions about data storage were also taken into account to show responsibility for data management and an application of the principles of data protection (Easterby-Smith *et al.*, 2015; Saunders *et al.*, 2012). The data was stored in a password protected system and files were accessible only to the research team which included the principal investigator and the supervisory team. According to the ethically approved application, data was to be kept at least until the end of the PhD-project and then destroyed.

4 Data Treatment and Preparation

4.1 Introduction

This chapter provides an overview of the applied data treatment techniques used to test and prepare the variables for the following multivariate statistical analyses via confirmatory factor analysis (CFA) and structural equation modelling (SEM). The data preparation was conducted in consecutive stages to ensure consistency and to describe the sample as well as the estimation techniques used. Data screening must be considered in advance of the main analysis in order to deal with any issues and solve potential problems. Tabachnick and Fidell (2014) suggest different procedures if the evaluation is based on factor analysis and structural equation modelling, which has been applied for the current study. The data preparation process includes procedures such as the assessment of missing data, outliers, tests for normality and linearity, as well as the valuation of homoscedasticity and multicollinearity. Moreover, this chapter also addresses the challenge of common method variance which can occur within empirical studies. Finally, the chapter concludes with a description of the applied analysis techniques using a CFA to assess the validity and reliability of the model as well as a SEM to test the hypothesis. The data was analysed using the Statistical Package Stata/MP (Version 15.1 Stata CorpLLC, Texas).

4.2 Missing Data

Data preparation processes not only ensure the usability of the data set, but also provide the requirements to test reliability, validity and the applied theory utilising the empirical data. Prior to the to recommended data preparation, the researcher should screen the data for obvious errors and inconsistencies (Acock, 2014; Hair et al., 2014; Tabachnick & Fidell, 2014). As the focus of the study is to analyse the relationship between the behavioural latent variables of career-oriented women who are employed in the private sector in Germany towards their objective and subjective career success, it was necessary to exclude participants that rated themselves as self-employed or unemployed (Kirchmeyer, 2002) as well as individuals who work in the public sector. In total, 64 self-employed, one unemployed, and 46 participants working in the public sector were removed in advance from the data set. After removing women who did not reflect the required attributes, the sample showed a total of 569 individuals.

The next steps involve the examining of data for missing values. If missing data exists, it can be in the form of information for an item, variable or case not being available which often occurs when respondents fail to answer a question (Hair et al., 2014). Participants of this doctoral study were able to refuse to answer survey questions in order to ensure adequate behavioural standards and ethical consistency. Thus, the first analysis of missing patterns shows that 46 individuals failed to answer all the questions and were thus removed from the data set which led to a revised total sample size of 523 women. According to several authors, this number is considered an adequate base for conducting SEM (Breckler, 1990; Kline, 2016; Shah & Goldstein, 2006) to analyse the relationships between latent and manifest variables.

As missing data can impact applied analysing techniques and affect the generalisability of results if they occur non-randomly (Tabachnick & Fidell, 2014), it is important to evaluate the extent to which patterns and relationships exist within the missing data process (Hair et al., 2014; Tabachnick & Fidell, 2014). To identify patterns and relationships within the missing data, as well as potential remedies, the current study followed the process suggested by Hair et al. (2014). As a first step, the researcher determined the type of missing data in order to address potential impacts. In particular it is necessary to assess if the missing values are ignorable or non-ignorable. Ignorable missing data is mainly based on non-sampled observations, questionnaire design, and censored data, whereas non-ignorable missing data reflects known or unknown processes which influence the outcome. Thus, missing values can be characterised as MCAR (missing completely at random), MAR (missing at random, but ignorable nonresponse), and MNAR (missing not at random, or not ignorable) (Allison, 2001). Within the non-ignorable missing data, the known missing data processes can be identified due to data collection procedures such as the failure to answer all questions or errors in data entry. In comparison, unknown missing data processes are hard to detect as these patterns often relate to the individual and are based on insufficient knowledge or a non-willingness to answer sensible questions (Eid, Gollwitzer, & Schmitt, 2013; Hair et al., 2014; Tabachnick & Fidell, 2014). Missing data that is classified as MCAR shows the fewest problems as it is totally non-systematic and ignorable. In contrast, values that are identified as MAR can be remedied through imputation processes. Allison (2001) states that MCAR also includes assumptions of MAR. Whereas missing data that is not at random depends on unobserved data and can create biased parameter estimates (Graham, 2009). Eid et al. (2013) claim to include variables that explain the default within their analysis. In addition, Leonhart and Hoelzenbein (2013) state that, in reality, most missing values can be classified as MAR which leads to the application of an imputation technique.

The second step involves the assessment of the extent and impact of missing values on the data set. Here, several authors have agreed that an amount of missing data of up to 20% for an individual case or variable can be ignored (Acock, 2014; Enders, 2003; Hair et al., 2014; Tabachnick & Fidell, 2014). Thus, table 4-1 provides an overview of the amount of missing data for each variable of the study. Considering only variables without missing data (list-wise deletion), the sample size declines to 188 cases. Hair et al. (2014) suggest assessing patterns which occur non-randomly in the data, such as the high amount of missing data for a specific variable. If such a pattern occurs, the researcher should mark this information for further consideration. However, if the amount of missing values is too high, specific procedures for imputation can be applied. Nevertheless, if the dependent variable shows a high amount of missing data, some authors (Allison, 2001; Hair et al., 2014) recommend deleting cases with missing values to avoid an increase in relationships with the predictor variables instead of using an imputation technique. Moreover, if the missing data can be identified as MAR and no auxiliary variables exist, no imputation should be applied as this procedure can increase sampling variability (Little, 1992). Allison (2001) suggests that an imputation technique on dependent variables should only be applied if auxiliary variables exist which are often the same variables measured at a different time. In contrast, other authors argue that an imputation procedure on dependent variables can be useful to support efficiency and reduce bias. For instance, Tabachnick and Fidell (2014) suggest replacing missing values if the variable is important to the proposed hypotheses.

To find the missing data and analyse potential hidden patterns and relationships, the study used the software Stata/MP (Version 15.1 Stata CorpLLC, Texas) to detect the range of missing data within all variables which lie between 0.76% - 61.57% (see table 4-1). However, Enders (2003) claims that a rate of 15% - 20% is usual in behavioural studies. In addition to this, Tabachnick and Fidell (2012) reveal that the missing data mechanisms and patterns have greater impact on results than the proportion of missing data.

Table 4-1: Missing data

Variable	Total Sample	Total Missing Data	Remaining Sample	Missing Data %
Managerial level	523	4	519	0.76
Income	523	322	201	61.57
Number of promotions	523	89	434	17.02
Career satisfaction	523	26	497	4.97
Career self-efficacy	523	42	481	8.03
Perceived organisational support	523	47	476	8.99
Political skill	523	59	464	11.28
Tenure	523	63	470	12.05
Work experience	523	63	470	12.05
Children	523	65	468	12.43
Education	523	86	437	16.44
Work centrality	523	21	502	4.02
Age	523	78	445	14.91
Marital status	523	68	455	13.00

Particularly in the case of the dependent variable income, list-wise deletion would lead to a reduction of 322 individuals out of 523, which translates to 61.57% of the participants. However, Acock (2014) reports an average of 20-30% of non-responses for questions on income in national surveys. Gobo (2004) shows the results of a study (Gobo, 1997, p. 177) which identifies missing data from 5% up to 60%. Meanwhile, a study by Lillard, Smith, and Welch (1986) indicates an increase of non-responses with an increase in income. In contrary, Schräpler (2001) claims that individuals in low social positions often omit salary information. To test the pattern of missing data for the variables which show more than 20% of missing data, some authors (Hair et al., 2014; Tabachnick & Fidell, 2014) suggest constructing a dummy variable that reflects cases with missing and non-missing data, and to then perform a test of mean differences across the groups. A t-test is recommended to assess potential significant differences between the groups if the variable is parametric. If there are no differences, decisions regarding how to handle missing data are not critical. However, if differences occur, a non-random missing data process could be suspected. Leonhart and Hoelzenbein (2013) suggest modern imputation techniques like Maximum-Likelihood and Full-Information-Maximum-Likelihood approach (FIML) when applying a SEM. Nevertheless, as already mentioned, imputation techniques on dependent variables are not recommended (Allison, 2001). Thus, no imputation will be applied in this study. Moreover, the missing data on income can be classified as MAR, as Allison (2001) has already assumed that the reporting of salary depends on the status of the individual. An independent t-test was conducted on the sample to determine if differences in comfort discussing annual income is based on an individual's job position. Results indicated that the group that most often answers the income question is in a management position (3.16 ± .074 SD) compared to the group that refused to answer the question (1.78 ± .057 SD, $t(517) = 14.6507$, $p= 0.000$). Thus, women in management positions tend to more frequently answer the income question than women in non-management positions.

Several solutions to resolve the missing data issues are suggested within literature. The usual procedures are the list-wise and pair-wise deletion. The list-wise deletion process describes the approach to exclude whole observations from the analysis should they show one or more missing data points. However, this procedure can create essential problems for the following analysing techniques as it shows significant great impact on sample size, external validity and generalisation (Acock, 2014; Leonhart & Hoelzenbein, 2013). For instance, list-wise deletion can account in a reduction of more than 50% of the former sample. Moreover, this procedure can create several kinds of bias as no differences between individuals with missing data were considered, in contrast to persons without missing values. In contrast, authors (Allison, 2003; Schreiber, Amaury, Stage, Barlow, & King, 2006) claim that list-wise deletion will not create biased estimates if the missing data process can be classified as MCAR. In addition, list-wise deletion can be applied if the probability of missing data does not depend on the dependent variable (controlling other variables). Thus, estimates of regression coefficients will not be biased (Allison, 2003). On the other hand, pairwise-deletion considers all values of an individual and excludes the person only if the value is missed within a specific calculation. However, this procedure can lead to a different number of subsamples and results which potentially describe different groups (Acock, 2014; Leonhart & Hoelzenbein, 2013). Graham (2009, p. 554) states that "The issue with defaultwise deletion is that different correlations (and variance estimates) are based on different subsets of cases. Because of this, it is possible that parameter estimates based on pairwise deletion will be biased. However, in my experience, these biases tend to be small in empirical data". In addition, if the missing data process is classified as MCAR, pairwise deletion does not affect parameter estimates. Based on these argumentations, the current study used a list-wise deletion procedure.

4.3 Outliers

Outliers describe values that are very different from other values of a particular variable, reflecting an extreme point on a single variable or a pattern between two or more variables that are atypical. Univariate outliers can be detected by the visual inspection of the distribution and assessment of frequency distribution scores for each variable, wheras the Mahalanobis D^2 measure has been mostly suggested to detect multivariate outliers (Hair et al., 2014; Kline, 2016). In fact, outliers cannot characterised as either beneficial or problematic, but they can bias the mean and inflate the standard deviations (Hair et al., 2014). Moreover, after checking the data for patterns of missing data, distribution and univariate outliers, Tabachnick and Fidell (2014) suggest transforming variables prior to searching for multivariate outliers as the calculations to reveal them are sensitive to failures of normality.

Tabachnick and Fidell (2014) recommend calculating the standardised scores (z-scores) to indicate univariate outliers. Thus, values of above 3.29 for continuous variables are potential outliers, whereas outliers of dichotomous variables could be analysed via frequency distributions. On the contrary, Kline (2016) argues that using a z-score might be problematic due to masking. However, z-scores above 3.29 are not unusual in datasets with large samples (Tabachnick & Fidell, 2014). Thus, this study opted to examine the data for univariate and multivariate outliers by visual elements using box plots. Moreover, questionable cases for univariate outliers will be analysed by their standardised z-scores. In order to detect potential multivariate outliers, the bacon algorithm was used, which is an advancement of the classic detecting methods (Billor, Hadi, & Velleman, 2000; Hadi, 1992, 1994).

Table 4-2 shows the examination of the z-scores to detect univariate outliers. In total, the analysis identified 12 cases with a value greater than 3.29 (cases 12, 19, 87, 89, 127, 131, 210, 265, 331, 347, 374, and 509).

Table 4-2: Univariate outliers

Univariate Outliers	
Cases with a z-score > + 3.29	
Managerial level	no case
Income	87, 131, 509
Number of promotions	19, 89, 127, 210, 265, 331, 347, 374
Career satisfaction	no case
Career self-efficacy	no case
Perceived organisational support	no case
Political skill	no case
Tenure	12
Age	no case
Children	no case
Education	no case
Working experience	no case
Work centrality	no case
Marital status	no case

The z-score of annual income shows three cases with a score greater than 3.29 (cases 87, 131, 509). All these cases were examined via a visual inspection of box-plots as well as checked for potential inconsistencies due to incorrect data entries. However, all the answers from each participant fit together and build a consistent story-line even though the responses differ in comparison to the general income observed in the sample. Nevertheless, case 509 showed an extreme data point compared to all other answers with a z-score of 11.63, and was therefore excluded from further analyses. Hair et al. (2014) recommend that outliers be assessed individually within the context of the study. Cases 87 and 131 remained in the study. An analysis of the z-score of the number of promotions indicates eight cases with a score of 3.31 (cases 19, 89, 127, 210, 265, 331, 347 and 374) which is very close to the suggested cut-off value. All the cases mention the number ten in terms of the amount of promotions they received during their career. Moreover, no evidence for error outliers can be indicated (Aguinis, Gottfredson, & Joo, 2013). Therefore, the eight cases remained in the study. Due to the sampling approach, a correction of the values via a follow up data collection is not feasible. The last z-score which has a value greater than 3.29 is case 12 in relation to the total number of years with the current employer. However, after a review of the data, no inconsistencies could be found. The case was retained in the data. Referring to the suggestions of Tabachnick and Fidell (2014), income, number of promotions and tenure were each transformed after the outliers were deleted to support normal distribution and check for multivariate outliers.

Most researchers suggest the Mahalanobis D^2 measure as a means to uncover multivariate outliers which relies on a multivariate assessment of each observation across a set of variables (Field & Iles, 2016; Hair et al., 2014). However, the current study applies the BACON algorithm (see table 4-3) which uses the Mahalanobis distances measure as a criterion (Billor et al., 2000; Weber, 2010).

Table 4-3: BACON algorithm (Billor et al., 2000)

Total number of observations:	170
BACON outliers (p = 0.15):	0
Non-outliers remaining:	170

The BACON algorithm is an advancement of existing outlier detection methods. In particluar, it outweighs classic methods (e.g. Mahalanobis distance and Wilks' test) which have been criticised to have lost power due to masking problems that could happen if more than one outlying observation is present (Hadi, 1992, 1994). Thus, the result of the BACON test shows that no multivariate outliers exist.

4.4 Normality

Applying multivariate techniques requires several assumptions of the utilised data set. The most fundamental assumption is the normal distribution of a continuous variable. Some authors also claim that ordered categorical items (i.e. Likert) can be treated as continuous if they show at least five scale points (DiStefano & Hess, 2005; Muthén & Kaplan, 1985). The residuals of the SEM should also show a normal distribution and independence, as non-normality can result in invalid statistical tests (Hair et al., 2014; Tabachnick & Fidell, 2014). In addition, the requirements of multivariate analytics also apply to continuous outcome variables within a structural equation modelling approach (Kline, 2016). In particular, the ungrouped data used in SEM analysis, should show a normal distribution as well as a linear and homoscedastic relationship between each variable (Tabachnick & Fidell, 2014).

The normality of variables can be analysed with visual tools as well as statistical tests. The most common procedure used to examine the existence of normality is a graphical assessment and calculation of the skewness and kurtosis of the variables. Hair et al. (2014) suggest a diagnostic test via histograms, followed by an assessment of the shape of the distribution. The shape of normality refers to the kurtosis or peakedness which describes the height of the distribution, whereas skewness characterises the balance of the data points. A normal distribution is reflected in values of skewness and kurtosis near to zero. A value between +/- 2.58 (p-value < 0.01) and +/- 1.96 (p-value < 0.05) of the z-distribution, which is based on the preferred significance level, is suggested by several authors (Hair et al., 2014; Leonhart & Hoelzenbein, 2013). Moreover, a statistical examination of the distribution via the Shapiro-Wilk test (S-W) to evaluate the variables for normal distribution has been applied (Field & Iles, 2016; Leonhart & Hoelzenbein, 2013; Tabachnick & Fidell, 2014). Thus, a significant result (p-value < 0.001) indicates a non-normal distribution. In addition, Tabachnick and Fidell (2014) argue that a sample size of 100 can already influence the significance level of skewness and kurtosis. Moreover, Leonhart and Hoelzenbein (2013) indicate that the violation of normal distribution can be ignored at a sample size of over 200. Further authors also indicate that significant tests have their limitations due to the amount of participants (Hair et al., 2014; Tabachnick & Fidell, 2014). Moreover, several authors (Aichholzer, 2017; DiStefano & Hess, 2005; Finney & DiStefano, 2006; Urban & Mayerl, 2014) suggest using a robust maximum likelihood estimation (ml robust) method if the data does not accurately follow a normal distribution or use ordinal variables. Also, DiStefano and Hess (2005) recommend applying a Weighted Least Squares Mean and Variance (WLSMV) or robust Maximum-Likelihood (ML) technique if the data is non-normally distributed or ordered categorical. Thus, the current study assesses the values of skewness and kurtosis (see table 4-4) and the S-W tests (see table 4-5) to detect if the variables show a normal distribution. In addition, a visual assessment via Q-Q plots was applied (see Appendix 5). Furthermore, as suggested, a robust maximum likelihood estimation (sbentler) was applied within the CFA and SEM to ensure unbiased standard errors.

Table 4-4: Assessment of skewness and kurtosis

Variable	N	Min	Max	Mean	Std. Deviation	Skewness	Kurtosis
Managerial level	519	1	5	2.31	1.23	.68	2.44
Income per hour	201	2.5	5.4	3.77	0.44	.49	4.29
Number of promotions	395	-3.7	.69	-1.67	0.73	-.06	3.04
Career satisfaction	497	1	5	3.76	0.84	-.45	2.80
Career self-efficacy	481	1.8	5	4.04	0.54	-.47	3.39
Perceived organisa-tional support	476	1	5	3.43	0.85	-.42	2.69
Political skill	464	1.8	4.6	3.35	0.53	-.41	2.80

Variables which were negatively skewed (promotion: S=-.06; PS: S=-.41; POS: S=-.42; CSE S=-.47; career satisfaction=-.45) indicate that there are more responses towards the higher end of the scale (Tabachnick & Fidell, 2007), whereas a positively skewed value (position=.68, income=.49) indicates more responses towards the lower end of the scale.

As the kurtosis describes the height of the distribution, data shows a positive value for all variables which indicates heavier tails respectively a high peak. In addition to the analysis of the skewness and kurtosis of the variables distribution, the S-W test alongside the z-distribution (see table 4-5), was applied to indicate a potential discrepancy from normal distribution. A significant result of the S-W test as well as the z-distribution refers to a non-normal distributed sample.

Table 4-5: Assessment of normality by S-W test and z-distribution

Variable	z statistic	Shapiro Wilk	p-value
Managerial level	4.6	0.98	0.000
Income	2.4	0.98	0.007
Number of promotions	-0.2	0.99	0.578
Career satisfaction	4.4	0.98	0.000
Career self-efficacy	4.6	0.98	0.000
Perceived organisational support	3.8	0.98	0.000
Political skill	3.6	0.99	0.000

$p<0.001$

Thus, the applied tests indicated that except for promotion, all other variables of the model differ from a normal distribution. Therefore, a graphical assessment was necessary. Hair et al. (2014) advocate the use of normal probability plots of the residuals as a more reliable approach compared to other graphical analyses. Also, Tabachnick and Fidell (2014) advocate a screening of the residuals via a normal probability plot. Thus, the visual inspections were performed with P-P-plots, which were standardised normal probability plots that compare sample values against the data that would be expected if the data was normally distributed. The results suggests that the data is almost normally distributed (see Appendix 5).

4.5 Linearity and Homoscedasticity

Like other multivariate analysis, the envisaged SEM technique examines linear relationships, which are associated with the correlation between variables. Non-linear effects will not be represented within the correlation value and can be identified either from scatterplots or by Pearson's correlations (Field & Iles, 2016; Hair et al., 2014; Tabachnick & Fidell, 2014). A non-linear relationship is reflected within the distribution of the residuals as they account for the unexplained part of the dependent variable. As far as non-linearity occurs, some authors suggest the modification of one or both variables (Hair et al., 2014; Tabachnick & Fidell, 2014). Thus, this study applied a visual assessment via scatterplots to indicate if linearity between independent and dependent variables exists. The results indicate that linearity exists (see Appendix 6).

Homoscedasticity refers to the assumption of variance and describes the dependence relationship between variables and is also related to normality. In particular, the dependent variable shows the same level of variance across the predictor variables. A desirable result is reflected by a variance across the dependent variable which is explained with a dependence relationship and is not concentrated in only a limited range of the independent variables (Hair et al., 2014; Tabachnick & Fidell, 2014).

Homoscedasticity can be examined by graphical and statistical methods; scatterplots are a useful tool to indicate if the variables show a similar width. If the analysis detects heteroscedasticity, a transformation of the variable similar to those used to achieve normality can be applied (Field & Iles, 2016; Hair et al., 2014). Hair et al. (2014) claim that in the case of heteroscedasticity only the dependent variable should be modified. However, heteroscedasticity can also be caused by a transformation of a related variable. Considering ungrouped data analysis within the SEM approach, the variability in scores for a continuous variable is similar to other continuous variables. Nonetheless, Tabachnick and Fidell (2014) point out that heteroscedasticity can be neglected within the analysis of ungrouped data as the linear relationship between the variables is captured by the analysis. Within the current study, an ungrouped data analysis within the SEM approach was applied. In addition, Aichholzer (2017) and White (1980), as well as Urban and Mayerl (2018), claim that the application of a robust max. likelihood estimation will provide reliable standard errors even though heteroskedasticity may exist (Savalei, 2014). Thus, robust standard errors are able to correct the potential problems of heteroskedasticity. Moreover, authors (Aichholzer, 2017; Efron, 1979; Preacher & Hayes, 2008; Urban & Mayerl, 2018) suggest the use of a bootstrap technique to estimate correct standard errors. Thus, the author of this study applied a robust max. likelihood estimation as well as a bootstrap technique within the SEM analysis to react also towards the possible challenges of heteroskedasticity.

4.6 Multicollinearity

Multicollinearity describes an often underestimated linear dependence of two or more independent variables within the multivariate analysis. A desirable output is a number of independent variables that correlate highly with a dependent variable, but with little correlation among each other. Collinearity between several indicators can affect the meaningfulness of a regression model. This is based on the assumption that independent variables should not show a linear relationship among each other as it complicates the identification of the importance of each single variable as a predictor. This results in redundancy because different variables measure the same thing (Acock, 2014; Kline, 2016; Schneider, 2009). In addition, multicollinearity can also occur due to the integration of a moderator variable (Cortina, 1993). Multiple reasons for multicollinearity exist, but it usually increases as a result of the inclusion of additional independent variables (Schneider, 2009). Three main issues occur if collinearity occurs: 1) increases in the standard errors of the parameters and therefore a decrease in representativeness of the population value, 2) limitation of the overall fit of the model, and 3) difficulty in assessing the individual importance of a predictor (Field & Iles, 2016). A first indication of potential correlations can be a correlation coefficient upwards of 0.8 between independent variables. Moreover, a standard indication value is the variance inflation factor (VIF) or tolerance statistic (1/VIF) value of independent variables to assess the extent to which multicollinearity occurs. A value of VIF>10.0 indicates a problem with collinearity. A tolerance statistic which is below 0.1 shows a serious problem, whereas a value between 0.1

and 0.2 suggests a potential problem (Acock, 2014; Hair et al., 2014; Kline, 2016). If multicollinearity exists, Acock (2014) and Kline (2016) suggest deleting the variable with a high VIF or to combine the redundant variables into a composite variable.

To diagnose potential multicollinearity (see table 4-6), the researcher compared the variance inflation factor (VIF) of the model with suggested threshold values (Hair et al., 2014). Other than some of the demographic variables that were expectedly highly correlated (e.g. age and work experience), the correlations among political skill, career self-efficacy and perceived organisational support ranged from .02 to .44, which indicates that multicollinearity does not exist. In addition, the values of VIF respectively 1/VIF also did not suggest a problem with multicollinearity.

Table 4-6: Collinearity statistics

Variable	VIF	1/VIF
Political skill	1.23	0.812
Career self-efficacy	1.52	0.658
Perceived organisational support	1.23	0.812
Work experience	9.36	0.107
Tenure	1.85	0.542
Age	8.69	0.115
Children	1.32	0.758
Marital status	1.06	0.939
Education	1.33	0.752

Based on the dependent variable “Career Satisfaction”

The collinearity analysis (see table 4-6) shows that the tolerance values for the variables are between 0.812 for political skill, 0.658 for career self-efficacy, and 0.812 for perceived organisational support. In addition, all VIF values are below the cut-off criterion of a VIF of 10. Based on this outcome, no collinearity among the independent variables is assumed.

4.7 Data Transformation

Multivariate analysis requires four important assumptions of the variables: normality, homoscedasticity, linearity and the absence of correlated errors (Hair et al., 2014). However, data in social sciences often does not follow these requirements. Therefore, to correct the non-compliance of assumptions for multivariate analysis or to improve correlation, variables must be modified (Hair et al., 2014; Tabachnick & Fidell, 2014). Transformations should be applied to independent variables except in the case of heteroscedasticity. Kline (2016) points out that two cases within the SEM technique require a transformation: application of a method that requires normal distribution, and if multiple observed measures of the same construct show a curvilinear relationship with each other. However, researchers should always verify in advance if a transformation is needed, as some variables are expected to have non-normal distribution. In fact, an estimation method that does not assume normality like the robust max. likelihood technique should be applied (Aichholzer, 2017; Kline, 2016). In particular, authors recommend the robust Satorra-Bentler model when estimating a linear SEM with non-normal or ordinal data (Aichholzer, 2017; Urban & Mayerl, 2014). Hair et al. (2014) suggests the use of log or square root transformation for positively skewed data, whereas squared or cubed transformation is recommended for negatively skewed data. Moreover, for flat distribution, the most common transformation is inverse. However, Weston and Gore (2006) claim that transformation has an impact on interpretation. According to Tabachnick and Fidell (2014) income and the number of promotions were transformed after the outliers were deleted to support normal distribution. In this manner, a significant skewness of a variable in large samples is negligible as "…underestimation of variance associated with positive kurtosis disappears with samples of 100, with negative kurtosis with samples of 200 and more" (Tabachnick & Fidell, 2014, p. 738). In addition, if non-normality occurs, an appropriate estimation method should be applied (Tabachnick & Fidell, 2014). Authors (Ballout, 2009; Rasdi, Ismail et al., 2011; Seibert, Kraimer, & Crant, 2001) suggest using a natural logarithmic transformation of income and the number of promotions for all analyses that z-tests indicate a non-normal distribution. Following the suggestions above, a natural logarithmic was applied to income and promotion to transform the variables. In addition, tenure is transformed with a square root transformation to ensure normal distribution.

4.8 Common Method Variance

Applying a mono method research design requires a critical investigation of potential bias. Common method variance is frequently mentioned within business and social research and occurs if multiple constructs are measured with the same measurement which can create a covariance between those constructs (Podsakoff, MacKenzie, & Podsakoff, 2012). In particular, if independent and dependent variables are collected simultaneously from the same source, researchers should consider common method variance (CMV). CMV is a distortion of the correlation between exogenous and endogenous variables that does not account for the relationship between these variables, but rather on the implemented method (Podsakoff et al., 2003). Considering potential bias is important as this can influence the reliability and validity of the measurement, respective of the significance of the result. In particular, methodological errors can affect the validity of a measurement, which is an important quality criterion to assess if a test is capable of measuring the analysed phenomena (Söhnchen, 2009).

In order to address the potential problem of CMV, several researchers (Podsakoff et al., 2003; Podsakoff et al., 2012; Söhnchen, 2009) suggest procedures for its reintroduction when it is not possible to obtain data from different sources. First, survey items which were used in the study should show an order corresponding to a cover story to create a psychological separation. Second, participants were informed about their voluntary participation and anonymity in advance. Moreover, they were able to skip questions and finish the questionnaire at any time. Third, when Likert-scales were used for all independent variables and one dependent variable, the scale descriptions varied. Thus, the variables were collected from 1 (strongly disagree) to 5 (strongly agree). In addition, income was collected as a continuous variable whereas managerial level was measured as an ordinal scale. Fourth, some variables were negatively coded to avoid automatic response patterns. With this in mind, even though Podsakoff et al. (2003) also recommended reducing social desirability bias in item wording, Spector (2006) found no evidence that social desirability generally increases CMV when self-reports are used. Furthermore, all employed items and scales are those frequently used within business and career research and were also monitored for potential social desirability bias during the translation process.

As an additional procedure, researchers suggest a statistical test to detect and control common method bias (CMB). Thus, the most frequently applied technique is the Harman's one-factor test which involves an exploratory factor analysis of all operationalised variables simultaneously. If a dominant single factor in the unrotated factor matrix accounts for the majority of covariance among the measures, a CMB is possible (Podsakoff et al., 2003; Podsakoff et al., 2012). In addition, Fuller, Simmering, Atinc, Atinc, and Babin (2016) suggest a possible indicator, if all variables of the study load for more than 50% on the first factor. However, many authors criticise the one-factor-test and suggest using other techniques like a CFA to assess construct validity (Conway & Lance, 2010; Fuller et al., 2016; Söhnchen, 2009). Thus, the current study applied a CFA to evaluate the validity and reliability of the measurements (see chapter 5.4).

In contrast, several authors (Conway & Lance, 2010; Söhnchen, 2009; Spector, 2006) neglect to discuss CMB and argue that certain self-reports and single method measures are appropriate to illustrate a particular construct. Moreover, Söhnchen (2009) argues that single-source-designs are useful, if specific questions are asked (e.g. attitudes, emotions, values). Fuller and colleagues (2016, p. 3197) claim that "Researchers should not automatically conclude that CMV biases data unless viable evidence suggests the presence of CMB. Survey research should not be presumed guilty of CMB. Only when researchers face specific situations should they present elaborate and lengthy reports of steps to assess CMV needed to allay fears of consequent misleading results." In addition, Conway and Lance (2010) support the use of self-evaluation if it is used to analyse private events and perceived behaviour. For instance, they mentioned a study by Judge, Bono, and Locke (2000) who focused on perceived job characteristics and identified self-reports as being the most relevant measurement method. Moreover, Judge et al. (2000) claim that individuals with a positive experience tend to respond more favourably to situations than those with an opposite experience. In addition, Ballout (2009) refers to studies which show an adequate relationship between self-evaluation and archival data. Thus, this study addressed the potential for CMV due to the suggested adjustments within research design. In addition, a CFA (see chapter 5.4) to assess the validity of measurement has been applied to ensure that variables capture the phenomena which were intended to be analysed.

4.9 Confirmatory Factor Analysis

Confirmatory factor analysis (CFA) is a technique used to examine whether empirical data corresponds to a theoretical model (Hair et al., 2014; Leonhart & Hoelzenbein, 2013). A central concern of CFA is the examination of measurement models with latent variables which are not directly observable. This is an important advantage compared to other means of multivariate analysis as, for example, a regression model usually analyses observable variables (Arzheimer, 2016). In a similar vein, Brown (2015) claims that CFA considers measurement errors which provide a better analytical framework compared to other common methods. The technique is frequently applied to test construct validity in order to determine the quality of a measurement. As mentioned above, it is possible to test how well the presumed constructs are reflected in the collected data. Thus, the assumptions a researcher makes are a-priori and based on theory (Hair et al., 2014). The consequence of this is that the hypothesised model will be utilised to compare the estimated population covariance matrix with the observed covariance (Brown, 2015; Schreiber et al., 2006). One of the biggest advantages of a CFA is the possibility to estimate models with corrected measurement errors as social measures like attitude or behaviour tend to reveal a high number of errors (Urban & Mayerl, 2014).

In addition, a CFA is often used as a first step to assess the measurement model in order to obtain an acceptable model fit before constructing the full structural model. Brown (2015) reveals that a poor model fit results mainly from misspecification within the measurement model, rather than from the structural part which examines the relationship between the latent constructs. Thus, authors (Hair et al., 2014; Kline, 2016; Tabachnick & Fidell, 2014) suggest that at least three items are used per construct to ensure statistical identification which corresponds to existing information about a set of structural equations. At least as many pieces of information as parameters which are desired to be estimated are needed (Acock, 2013). If a model is under-identified and shows more parameters that have to be estimated compared to observed variances and covariances, a solution is not achievable. In contrast, just-identified models have the correct amount of degrees of freedom to estimate all free parameters and show a perfect fit. However, these models are not appropriate to test a theory as their fit is determined by the provided information. Therefore, researchers are looking for overidentified models and recommend at least three items per construct. Nevertheless, too many items per construct contradicts to the idea of parsimony, which claims to use the smallest number of indicators to present a construct and needs larger samples to produce unidimensional factors (Hair et al., 2014; Kline, 2016; Weston & Gore, 2006). Weston and Gore (2006) suggest that a parsimonious model that fits the data reflects a greater degree of freedom and indicates a substantial relationship between observed and latent variables. Even though this study uses measurements which have already been used in several studies, Schreiber et al. (2006) argue that a researcher should not assume that the items reproduce a valid and reliable construct in a new analysis. Thus, on any occasion where a study uses a different data set despite the theoretical stance being similar, a CFA has to be applied to assess validity and reliability.

When analysing latent constructs, it is important to distinguish between two different kinds of concepts: the formative and reflective models. Formative constructs imply that indicator variables reflect the dimensions of the latent variables. Consequently, a latent construct is seen as a dependent variable that is influenced by observed variables. In contrast, the reflective measurement model assumes that changes of indicator variables are induced by the latent construct. These considerations are important, as the techniques to examine a formative or reflective model differ (Hair et al., 2014). Recently, literature has criticised that many studies in the past have applied techniques for reflective models without discussing potential alternatives (Eberl, 2004). Therefore, a CFA is associated with reflective constructs, whereas formative models can be analysed by a partial least square regression analysis (Backhaus, Erichson, & Weiber, 2013). Reflective models assume that high correlations between indicators exist which is caused by a latent construct. Hence, changes in the latent variable result in a modification of the indicator variables (Backhaus et al., 2013; Diamantopoulos & Siguaw, 2006). Moreover, Borsboom, Mellenbergh, and van Heerden (2003, p. 209) claim that "The realist interpretation of a latent variable implies a reflective model, whereas constructivist, operationalist, or instrumentalist interpretations are more compatible with a formative model." On the basis of these considerations, a reflective model is assumed for this study as modifications of the latent constructs lead to changes of the indicator variables. For instance, if an individual shows a high degree of political skill (latent construct), the probability is also higher that the person will act astutely in various situations, show a high degree of interpersonal influence, as well as a distinct networking ability, and possess high levels of integrity, authenticity, and sincerity (indicators). Furthermore, a person's response to each question of the political skill scale is influenced by how pronounced - or not - the individual's political behaviour. Thus, the level of political skill predicts the score of the indicators. That means that the latent variable is the predictor; the observed variable is the outcome.

Several authors (Anderson & Gerbing, 1988; Hair et al., 2014; Urban & Mayerl, 2014) recommend a two-step approach to estimate the full structural equation model. In the first step, the fit and validity of the measurement model can be analysed by a CFA. Hence, the goodness-of-fit indexes were assessed for each latent variable as a distinct structural model (Schreiber et al., 2006). If the measurement model is valid and fits the data, the full structural model follows in the second step (Hair et al., 2014). Consequently, this study applied a CFA in to order assess the construct validity of the measurement for each latent model. Construct validity is essential as it relates to theory (Drucker-Godard et al., 2007) and is made up of four components: convergent validity; discriminant validity; nomological validity; and face validity (Hair et al., 2014). In addition, it is important to assess the unidimensionality of the measures if more than two constructs are involved. Unidimensionality means that observed items of a construct measure the same attribute and are externally distinct from other measures (Anderson & Gerbing, 1988; Hattie, 1985) and that no cross-loadings between the variables of different constructs exist. The existence of significant cross-loadings indicates a lack of construct validity (Hair et al., 2014). Moreover, a unidimensional measurement indicates a valid instrument which is a crucial in theory testing (Anderson & Gerbing, 1988). Following the recommendations of Hair et al. (2014, p. 606) no cross-loadings between items and error terms of different constructs were allowed.

First, convergent validity (CV) refers to the relationship between the indicators of the same construct as they share, ideally, a high level of variance. Therefore, researchers can assess the factor loadings as an indicator for an appropriate CV. However, authors suggest different values for factor loadings. Thus, some researchers (Hair et al., 2014; Jöreskog & Sörbom, 1996) claim that results should be significant and the standardised loading estimates values of 0.50 or higher, whereas Osborne and Costello (2005) report values of 0.40. Furthermore, Brown (2015) and Guadagnoli and Velicer (1988) indicate that factor loadings of 0.30 and above are appropriate, especially in applied research, and again so if the latent variable consists of many items and the sample size is not lower than N<150. In contrast, standardised factor loadings of above 1.0 or below -1.0 indicate a problem (Hair et al., 2014). However, factor loadings below 0.70 correspond to a low average variance extracted (AVE) which is also an indicator for CV. AVE reflects a proportion of variance interpretation contrary to the measurement error.

Thus, the larger the AVE is, the larger is the amount of indicator variance that could be interpreted by the latent variables, and the smaller the relative measured error is. In general, AVE should achieve a value of ≥0.50 to reflect a satisfactory CV (Hair et al., 2014). Moreover, CV can be assessed by the reliability of the items. In particular, construct reliability (CR) has often been used within SEM analysis which should ideally have a size of 0.60 or higher (Anderson & Gerbing, 1988; Hair et al., 2014). The level of CV for the doctoral study is illustrated in table 4-7.

Second, discriminant validity (DV) describes the extent to which constructs can differ. Consequently, indicators from distinct constructs are not allowed to correlate highly with each other. Poor discriminant validity usually reflects a factor intercorrelation of distinct constructs that exceeds a size of 0.80 (Brown, 2015; Hair et al., 2014). Moreover, the AVE value can also be used to assess the discriminant validity of a measurement. Thus, the researcher should compare the AVEs of different constructs with the square correlation estimate. Some authors suggest that the variance-extracted estimates should be greater than the squared correlation estimates (Fornell & Larcker, 1981; Hair et al., 2014). The level of DV for the doctoral study is illustrated in table 4-7.

The third component refers to nomological validity which is tested by examining whether the correlations among the constructs in a measurement theory make sense when supported by theoretical explanations. Thus, relationships must be consistent with the theory (Hair et al., 2014). In addition, Diamantopoulos and Winklhofer (2001, p. 273) claim that "…nomological aspects involves linking the index to other constructs with which it would be expected to be linked (i.e. antecedents and/or consequences)…Validation along these lines requires…that a theoretical relationship can be postulated to exist between the two constructs." According to Hair et al. (2014), a correlation matrix of the utilised constructs can be used to assess the nomological validity of a measurement.

Lastly, face validity refers to the instrument and the individual items to assess the degree of transparency and support the understanding of a test. It also describes how clearly the measurement reflects the construct. Thus, instruments with high face validity mirror a clear purpose. Face validity should be assessed during test development and can be conducted for each single measurement independently (Diamantopoulos, 2005; Hair et al., 2014; Lewis-Beck, Bryman, & Futing Liao, 2004). Face validity for the current study was assessed in two stages: firstly in the translation process and then again during the pilot study. In each stage, the individuals involved were able to evaluate each measurement item.

Table 4-7: Indexes to assess validity and reliability

Category	Index	Level of Acceptance	Literature
Convergent Validity	Factor Loading	Should be statistical significant; standard-ised loading ≥0.3 – 0.7	Brown (2015, p. 27) Guadagnoli and Veli-cer (1988, p. 274)
	Cronbach Alpha Construct Reliability (CR)	α ≥0.7 CR ≥0.6	Hair et al. (2014, p. 619)
	Average Variance Extracted (AVE)	AVE ≥0.5	Hair et al. (2014, p. 619)
Discriminant Validity	Comparison of AVE of different con-structs with square correlation estimate	AVE >SCE	Hair et al. (2014, p. 619)

In addition, Hair et al. (2014) suggest several diagnostic measures to solve potential problems or increase model fit. However, modifications of a model might have an im-pact on the underlying theory upon which the model was built and can result in a new measurement model. Thus, researchers should avoid modifying measurement models only on the basis of the diagnostics provided by the CFA. Hence, the changes should always make sense due to theoretical arguments.

In particular, an evaluation of the standardised residuals and modification indi-ces (M.I.) in addition to the fit indices (see chapter 4.10) is suggested. A residual de-scribes the difference between the observed covariance-matrix relative to the estimated covariance-matrix. A good fit is consistent with small residuals. Thus, a small value be-tween observed residual covariance-matrix and observed covariance-matrix implies a good fit. The standardised form does not depend on a measurement scale, which makes them useful for diagnosing problems with a measurement model (Acock, 2013; Hair et al., 2014). Values up to |2.5| are usually harmless, whereas values greater than |4.0| indicate a problem. However, 1-2 large residuals might be usual; the consistent pattern of the standardised residuals require special attention (Hair et al., 2014). Modification indices on the other hand are the "…estimate of the change in the χ^2 value that results from relaxing model restrictions by freeing parameters that were fixed in the initial specification" (Schermelleh-Engel, Moosbrugger, & Müller, 2003, p. 55). Large M.I. indicates the most improvable parameter and any modification that follows should be based on theoretical reasons (Hair et al., 2014; Schermelleh-Engel et al., 2003).

4.10 Structural Equation Modelling and Model Fit

Structural equation modelling (SEM) is a technique that analyses several multiple regression equations simultaneously and can be interpreted as a combination of factor and path analysis so as to examine relationships between constructs (Weston & Gore, 2006). In addition, SEM is able to evaluate theories by constructing a model that reflects assumptions of that theory measured with observable variables (Hayduk, Cummings, Boadu, Pazderka-Robinson, & Boulianne, 2007). Typically, SEM also assumes a linear relationship which leads to similar requirements like other multivariate techniques. Thus, issues related to data, such as sample size, multicollinearity, normality, handling of outliers and missing data, must be considered (Weston & Gore, 2006). However, in contrast to other multivariate techniques, SEM allows for the measurement of variables as well as latent factors. Latent factors are unobserved constructs which are represented by observable indicators and are based on theoretical assumptions (Hair et al., 2014; Kline, 2016; Weston & Gore, 2006). Moreover, as the study assumes mediation and moderation effects towards career success, SEM indicates more advantages compared to multiple regression analysis. For instance, SEM is able to control measurement errors, provide fit indexes and is more flexible than a regression (Frazier, Tix, & Barron, 2004, p. 128). In summary, SEM tries nothing less than to recreate a "data-generating process", which means that distribution (variance), and correlation in the data will be described and tested with a model (Aichholzer, 2017).

A structural equation model consists of two components: a measurement and a structural model. The measurement model is based on factor analysis and contains indicators for each latent factor that describe the relationship between latent and manifest variables as well as their errors. Moreover, measurement models can contain continuous or categorical variables. However, in all cases, researchers assume that the latent variables show parametric features (Eid et al., 2013). In contrast, the structural model specifies the relationship between the latent factors (e.g. direct/ indirect effects) due to a path model (Backhaus et al., 2013; Brown, 2015).

Moreover, SEM shows a confirmatory character to test an underlying theory that tries to explain social phenomena. In other words, the technique aims to test how appropriately the collected data fits a proposed model (Hair et al., 2014). Therefore, information about the model's goodness-of-fit is needed to assess the adequacy of the theory underlying the hypothesised model. Moreover, the fit indexes are influenced due to the accurate specification of the measurement and structural model (Brown, 2015). However, Kline (2016) argues that it is also important to report a poor model fit, as this result can challenge existing theories. Moreover, researchers show a tendency to report only models which fit the data, even though this procedure is not adequate (Kline, 2016). Weston and Gore (2006, p. 741) indicate that "…researchers should evaluate fit in terms of (a) significance and strength of estimated parameters, (b) variance accounted for endogenous observed and latent variables, and (c) how well the overall model fits the observed data (…) Although addressing the first two criteria is a fairly straightforward task, there exists considerable disagreement over what constitutes acceptable values for global fit indices. Similar to sample size, this is a controversial issue in SEM."

Following the arguments above, the doctoral study applies a two-step approach to determine the model fit (Anderson & Gerbing, 1988; Urban & Mayerl, 2014). In the first stage, the measurement model was examined to analyse the relationship between the observed and latent variables via a CFA. As mentioned above, CFA tests how far the observed variables represent the latent constructs as well as assessing the construct validity of the measurements. The second step involves the assessment of the structural model to detect casual relationships among the constructs with a path model. This separation is helpful to identify potential problems within the measurement model independently of the structural model (Urban & Mayerl, 2014). The evaluation of the structural model is based on the "…observed covariance matrix and on the significance and directions of the hypothesised paths. A good model fit is reflected if the hypothesised paths are significant. But good fit does not mean that some alternative model might not fit better" (Hair et al., 2014, p. 642). Consequently, the structural model should be compared with the CFA model to assess the theoretical fit as well as an alternative, as a recursive structural model cannot fit any better than an overall CFA (Hair et al., 2014).

The literature provides various methods with which to test the goodness of the model fit. However, no consistent opinions are offered about the best method to adopt (Hair et al., 2014; Kline, 2016). Additionally, Segers (2011, p. 147) claims that "There is consensus that one should not rely exclusively on a single goodness-of-fit measure to test the overall fit of the model(s)." Kline (2016) suggests using at least the Chi-square statistics (χ^2), Root Mean Square Error of Approximation (RMSEA) and its 90% confidence interval, the Comparative Fit Index (CFI), and Standardised Root Mean Square Residual (SRMR). In addition, Aichholzer (2017) indicates the CFI, Tucker-Lewis Index (TLI), RMSEA with its 90%-confidence interval, and the SRMR as being the most common indexes used in research. In contrast, Hair et al. (2014, p. 651) recommend one absolute index, one incremental index and the χ^2 as a minimum to assess overall structural fit. Moreover, several authors (Hooper, Coughlan, & Mullen, 2008; Tabachnick & Fidell, 2014; Williams & Holahan, 1994) also suggest reporting the parsimony fit indices.

Absolute fit indexes measures are used to explain how well a theory-based model describes the data. The logic of these measures relies on a comparison of how well the model fits in contrast to there being no model. Common measurements of the absolute fit are Chi-square statistics (χ^2), Root Mean Square Error of Approximation (RMSEA), Goodness-of-Fit statistic (GFI), and the Standardised Root Mean Square Residual (SRMR). Incremental fit indexes were utilised to compare the relative improvement of the researchers' model over a baseline model and assume that all variables are uncorrelated. The baseline model refers to the independent model, which anticipates a covariance of zero between the endogenous variables (Hooper et al., 2008; Kline, 2016). The baseline model in STATA is defined as to "…include(s) the means and variances of all observed variables plus the covariances of all observed exogenous variables" (StataCorp., 2017, p. 152). A common measurement for incremental fit is the CFI (Hooper et al., 2008). Parsimonious fit measures deal in general with the number of data elements used to estimate (Williams & Holahan, 1994). Moreover, Kline (2016, p. 266) states that they "…include in their formulas a correction or 'penalty' for model complexity." In particular, the aim is to compare models with a different number of parameters to differentiate between the proposed and alternative models (Meyers, Gamst, & Guarino, 2013). However, Weston and Gore (2006) state that the suggested cut-offs for parsimony fit indices vary highly, so that interpretations are difficult. If the aim is to compare competing models, additional fit indices, like the Akaike Information Criterion (AIC) were used (Weston & Gore, 2006).

It is important to note, that the suggestions for cut-off values of the indices vary between studies and are influenced by sample size, model complexity, and a degree of misspecification (Hu & Bentler, 1999; Weston & Gore, 2006). Moreover, Arzheimer (2016) reveals that the RMSEA, TLI and other indices are sensible in small samples and often show a bad fit even though the data fits to the model. In contrast, Martens (2005) insists that commonly used fit measures are sometimes influenced by misspecification (e.g. items per factor), whereas indices like the TLI, CFI, RMSEA, and SRMR are much less sensible. Following these recommendations, the study used χ^2, RMSEA, and SRMR to measure the absolute fit. CFI and TLI were assessed to capture the incremental fit. ACI, respectively the χ^2 difference test ($\Delta X^2(\Delta df)$) are often used to show the parsimonious fit of a model.

The $\boldsymbol{\chi^2}$ is the most common fit test in structural equation modelling and "…assesses the magnitude of discrepancy between the sample and fitted covariance matrices" (Hu & Bentler, 1999, p. 2). In other words, it determines if the variables are unrelated (Hair et al., 2014) and can be calculated as

$$(N-1)F_{ML}$$

where N is the sample size and F_{ML} the value of the fit function minimised in ML estimation (Kline, 2016). A good model fit shows an insignificant result. However, researchers claim that the χ^2 is particularly susceptible to sample size. Large samples tend to mistakenly estimate a significant population covariance matrix, whereas small samples show inaccurate probability levels. Additional indices are recommended to measure the absolute fit of a model (Kline, 2016; Tabachnick & Fidell, 2014; Weston & Gore, 2006). In addition, Weston and Gore (2006) reveal that due to the sensitivity of that measure, a non-significant χ^2 can arise despite a good fit existing in reality. A non-significant result of the χ^2 indicates that the model accurately represents the data. However, Hoogland and Boomsma (1998) claim that a significant result often occurs if the distribution shows a large kurtosis. Thus, researchers usually tend not to solely rely on the χ^2 measurement to decide whether the model fit is acceptable (Weston & Gore, 2006).

As already mentioned, the ***RMSEA*** is an often suggested index used to measure the absolute fit of a model. The RSMEA is based on population and shows how far the estimated parameters fit the population's covariance matrix. Moreover, the construction is based on the idea, that a perfect model fit is unlikely if the whole population were to be examined, as models reflect only a simplified image of reality. The index follows a parsimony nature as it favour the simpler model with less parameters within a comparison. Additionally, several studies have provided the 90% confidence interval to the RMSEA with a maximum upper bound of 0.10. The value of the RMSEA ranges between 0.05 to 0.10, whereas in recent years a value of 0.08 has been accepted (Arzheimer, 2016; Brown, 2015; Hooper et al., 2008; Hu & Bentler, 1999; Weston & Gore, 2006). Moreover, researchers claim that values between 0.08 and 0.10 can also be accepted as they reflect a more moderate fit (Schermelleh-Engel et al., 2003; Weston & Gore, 2006).

The ***SRMR*** is the difference between covariance residuals of the observed data and the theoretical covariance model. The SRMR is a positive square root average and can range between 0.0 and 1.0, whereas a value close to 0.0 indicates a good fit. The literature suggests values up to 0.10 as being appropriate results. However, it should be noted that a high amount of parameters and a large sample size support a low value of the SRMR (Brown, 2015; Hooper et al., 2008; Weston & Gore, 2006).

Bentler´s (1990) ***CFI*** relates to the "…improvement of the fit of the researcher's model over a null model, which assume no relationships among the variables" (Weston & Gore, p. 742) (Weston & Gore, 2006). With this in mind, the proposed one-factor model evaluates how well it fits the data (Acock, 2013). In addition, the assumption of the null model is that all latent variables are not correlated. Therefore, the CFI compares the sample covariance with the null model. Value ranges from 0.0 to 1.0, while greater values indicate a better fit. The CFI is recommended when the sample size is small as it avoids the underestimation of smaller samples (Hair et al., 2014; Weston & Gore, 2006). Values greater than 0.90 are recognised as a good fit for the model (Hooper et al., 2008; Tabachnick & Fidell, 2014; Weston & Gore, 2006). However, Schermelleh-Engel et al. (2003) suggest values ≥ 0.95. Arzheimer (2016) states that the CFI is related to the TLI and recommend to report either CFI or TLI.

The ***TLI*** is also a popular index and penalises model complexity like the RMSEA. Thus, the TLI limits models which estimate parameters that are not meaningful towards model fit. The cut-off values range between ≥0.90–0.95 (Arzheimer, 2016; Brown, 2015; Hooper et al., 2008; Hu & Bentler, 1999). Sharma, Mukherjee, Kumar, and Dillon (2005) reveal that TLI is influenced by sample size which means that the mean reacts negatively in relation to small samples. However, the TLI is particularly recommended if path estimates are large (≥0.5) (Sharma et al., 2005). In addition, Arzheimer (2016) states that a common practice in research is to report RMSEA as well as TLI.

To measure the parsimonious fit of two competing models, the ***AIC*** has been suggested by several authors (Schermelleh-Engel et al., 2003; Schumacker & Lomax, 2010; Urban & Mayerl, 2014; Weston & Gore, 2006). The AIC measure is used to compare models with differing numbers of latent variables and those which are not nested. The closer the value is to zero, the more parsimonious the model is. Moreover, the model with the smaller AIC value indicates a better model fit. However, if two or more models are nested, the literature suggests a ***χ^2 difference test*** ($\Delta X^2(\Delta df)$) (Urban & Mayerl, 2014; Weston & Gore, 2006). Models are nested if a "…specific model (Model A) is said to be nested within a less restricted model (Model B) with more parameters and less degrees of freedom than Model A, if Model A can be derived from Model B by fixing at least one free parameter in Model B or by introducing other restrictions, e.g., by constraining a free parameter to equal one or more other parameters" (Schermelleh-Engel et al., 2003, p. 33). The difference can be calculated by subtracting the χ^2 value of the less restrictive model from the χ^2 value of the more restrictive model. If the result is significant, the less restrictive model is preferred (Weston & Gore, 2006). Researchers advocate the use of more moderate cut-off criteria as restrictive versions frequently reject acceptable models when sample size is below n=500 (Hu & Bentler, 1999; Marsh, Hau, & Wen, 2004). Table 4-8 illustrates the applied fit indices and their level of acceptance for the doctoral study.

Table 4-8: Fitness indexes

Category	Index	Level of Acceptance	Literature
Factor Loading	Standardised Regression Weight	≥0.3–0.7	Brown (2015) Guadagnoli and Velicer (1988) Hair et al. (2014)
Absolute Fit	ChiSq RMSEA 90% CI to the RMSEA SRMR	insignificant result at a 0.05 threshold ≤0.08 good fit ≤0.10 moderate fit max. upper bound of the 90% CI of .10 ≤0.10	Backhaus et al. (2013) Hooper et al. (2008) Hu and Bentler (1999) Schermelleh-Engel et al. (2003) Weston and Gore (2006)
Incremental Fit	CFI TLI	≥0.90 ≥0.90	Aichholzer (2017) Brown (2015) Hu and Bentler (1999) Weston and Gore (2006)
Parsimonious Fit	AIC $\Delta X^2(\Delta df)$	Model with smaller AIC fits better $\Delta\chi^2$ =sign.; Model B should be retained	Meyers et al. (2013) Hooper et al. (2008) Schermelleh-Engel et al. (2003)

Special attention must be given to structural models that include single item measures. Kline (2016, p. 231) calls these constructs partially latent models because at least one variable in their structural part is a single indicator. However, using only a single indicator for a construct can lead to mis-identification. Again, identification of the model is an important step as it reflects the amount of information necessary to identify a solution to a set of structural equations (Hair et al., 2014; Kline, 2016; Weston & Gore, 2006). To avoid mis-identification, several authors recommended a minimum of three indicators per construct to ensure at least a just-identified model, even though the objective is to have an over-identified construct (Hair et al., 2014). However, the current study includes single-item measures within the structural model as objective career success is generally measured with just one observable indicator like income or promotion. Moreover, this study follows the suggestion of several authors (Hair et al., 2014; Seibert, Kraimer, & Crant, 2001) and sets the measurement error of single-item measures to zero.

According to the assumed moderating and mediation effects, the study will determine if career self-efficacy operates as a moderator and perceived organisational support as a mediator. A moderator is able to alter the direction or strength of the relationship between the exogenous and endogenous variable (Baron & Kenny, 1986; Holmbeck, 1997; Wu & Zumbo, 2008). Moreover, the moderator "…interacts with X in predicting Y if the regression weight of Y on X varies as a function of W" (Preacher, Rucker, & Hayes, 2007, p. 191). In contrast to mediation, the moderator is not responsible for the relationship between the independent and dependent variable, but rather for the influence of the nature of the relationship. In addition, changes to the mediator follow after changes to the predictor, whereas the moderator effect must be present prior to or at the same time as changes to the predictor variable (Breitborde, Srihari, Pollard, Addington, & Woods, 2010). Wu and Zumbo (2008) claim that a moderation tries to analyse "when" or "for whom" an independent variable most influences a dependent variable.

In particular, the present study assumes that career self-efficacy positively moderates the relationship between political skill and subjective (career satisfaction) as well as the objective (income, position, promotion rate) career success of women across various hierarchical levels in Germany. Baron and Kenny (1986) claim that moderator effects depend on the independent variable and the potential moderator variable. Thus, the moderator is an interaction between the independent variable (PS) and the moderator (CSE). To test the effect of a moderator, the path of the interaction term must be significant. As such, no correlation between the endogenous and exogenous variable should occur (Baron & Kenny, 1986; Hopwood, 2007). To obtain the moderator variable, a mean score for each latent variable was generated after conducting the final CFA. The product of the mean scores of political skill and career self-efficacy represents the interaction term.

With respect to the mediating effects, the study assumes that perceived organisational support mediates the effect of political skill on career satisfaction and the objective (income, position, promotion rate) career success of women. Mediation explains the effect of a predictor variable on a dependent variable through a third independent determinant (Baron & Kenny, 1986; Edwards & Lambert, 2007). So, a simple mediation model believes that the independent variable (PS) influences the mediator (POS), which in turn causes the dependent variable (income, promotion rate, position and career satisfaction) (Wu & Zumbo, 2008). Edwards and Lambert (2007, p. 1) postulate that "Mediation is illustrated by research on the theory of reasoned action, which stipulates that the effects of attitudes on behavior are mediated by intentions." Mediation is in this way able to explain the process of ''why'' and ''how'' a cause-and-effect happens. Thus, a mediation effect assumes that the predictor has an impact on the mediator which in turn causes the dependent variable (Wu & Zumbo, 2008).

Mediation often occurs when sociological and psychological aspects are of greatest significance (Müller, 2009). To test a meditation effect, Baron and Kenny (1986) suggest the following procedure: (1) the independent variable must relate to the mediator; (2) the independent variable must relate to the dependent variable; (3) the mediator must relate to the dependent variable; and (4) the effect of the independent variable on the dependent variable that is non-significant (full mediation) or less (partial mediation) after controlling the mediator. However, Müller (2009) claims that, in research practice, combinations of moderator and mediator effects can occur.

5 Results

5.1 Introduction

This chapter provides an overview of the study's results. After the data preparation process, an analysis of the dataset was conducted. This chapter starts with a report of the demographics and descriptive statistics, such as the mean, standard deviation and correlations of the variables to determine personal data and to explore the profile of the participants across different hierarchical levels. The second stage includes a validation of the instrument, using CFA to provide adequate information about the model fit of the construct. Finally, to evaluate the relationship between the variables and to verify the hypotheses, a SEM has been applied (Eid et al., 2013; Hair et al., 2014; Leonhart & Hoelzenbein, 2013; Tabachnick & Fidell, 2014). The survey data has been analysed with the Statistical Package Stata/MP (Version 15.1 Stata CorpLLC, Texas).

5.2 Demographics

The demographics of the sample are illustrated in table 5-1. It is demonstrated that, the mean age of women in the sample is 41.79 years (SD= 9.73), of which 78.90% live in a partnership (married, civil partnership, cohabitation). More than half (56.33%) of the participants have no children. 15.54% of the women who report they have children (43.67%) state that their children do not live in the same household. Thus, 28.13% of the women still share their households with children. Meanwhile, 32.12% of the participants live together with one child, 45.60% with two children, 4.66% with three children and 2.07% with four children. The average age of all children related to the sample is 11.65 years (SD= 9.65).

The majority of participants are very well educated and hold a university degree (91.92%). The sample shows an average working experience of 17.11 years (SD= 10.24) and also reflects a reasonable amount of working hours per week (M= 42.98, SD= 9.39), which indicates that the majority of women work in a full-time job (80.60%). Women who are working full-time, indicate an average of 46.04 working hours per week (SD= 7.00). In contrast, the average working hours per week of the women who are working in part-time jobs is 29.36 hours (SD= 5.93). The majority of women in the sample hold a managerial position (68.02%), with most women being in lower-management (31.02%)

or middle-management (17.73%) positions. 19.27% of the participants hold a position in the higher or top-management.

Work centrality has been measured on a 5-point Likert-scale and shows a high mean of 4.59 (SD= 0.57), which indicates that work is an important part of the participants' lives. Moreover, the sample reflects a high job stability with the current employer, with an average tenure of 9.49 years (SD= 8.02). This is consistent with the results of the OECD (2016) which reports an average female's job tenure to be 10 years or more in Germany.

Table 5-1: Demographic characteristics of participants

Demographic	Category	Frequency	Percent
Age	20-29	49	11.01
	30-39	155	34.83
	40-49	127	28.54
	50-59	100	22.47
	>60	14	3.15
		445	100
Marital Status	Partnership	359	78.90
	Single	96	21.10
		455	100
Children	Yes	200	43.67
	No	258	56.33
		458	100
Highest Educational Level	Without qualification	3	0.66
	Vocational training	34	7.42
	Bachelor	50	10.92
	Diploma	174	37.99
	Master, Magister, State examination	145	31.66
	PhD	52	11.35
		458	100
Present Employment Status	Full-time	374	80.60
	Part-time	75	16.16
	Marginally employed	3	0.65
	Retraining	1	0.22
	Maternity leave	11	2.37
		464	100
Years in the workforce	< 1 year	11	2.39
	1-5 years	63	13.70
	6-10 years	78	16.96
	11-15 years	61	13.26
	16-20 years	80	17.39
	21 and more	167	36.30
		460	100

Managerial Level	Non Management Lower Management Middle Management Higher Management Top Management	166 161 92 64 36	31.98 31.02 17.73 12.33 6.94
		519	100
Tenure	< 1 year 1-5 years 6-10 years 11-15 years 16-20 years 21 and more	60 139 97 56 58 50	13.04 30.22 21.09 12.17 12.61 10.87
		460	100
Industry	Manufacturing Mining Energy supply Water supply Construction, building construction and civil engineering Trade and merchandise Transportation and storage Hospitality Information and communication Banks, finance and insurance services Property and housing Freelancer, academic and technological service Public administration, defense and social insurance Education and teaching Health and social service	109 1 20 1 7 13 26 2 36 97 1 85 16 23 19	23.90 0.22 4.39 0.22 1.54 2.85 5.70 0.44 7.89 21.27 0.22 18.64 3.51 5.04 4.17
		456	100
Company Size (total number of employees)	0-9 10-49 50-249 250-499 > 500	9 33 54 42 318	1.97 7.24 11.84 9.21 69.74
		456	100
Member of a Female (career) Network	Yes No	278 180	60.70 39.30
		458	100

The majority of women are shown to work for a large company with more than 500 employees (69.74%). Consequently, 30.26% of the participants work for smaller corporations. The majority of women (23.90%) are employed in the manufacturing industry, followed by 21.27% who work for banks, finance and insurance services. 18.64% of women work in the service sector. The remaining 36.19% of participants were distributed across information and communication companies (7.89%), transportation and storage (5.70%), education and teaching (5.04%), energy supply (4.39%) and other industries (13.17%). 60.7% of the sample reported membership of a women's career network. This number is expected, as within the sampling procedure several women's networks were asked to distribute the survey among their members.

5.3 Descriptive Statistics

The descriptive statistics for all variables are listed in table 5-2. Table 5-2 illustrates the correlation matrix of all variables and indicates the statistical significance of the corresponding Pearson correlation coefficients at the 5%*/ 1%**/ 0.1%*** level. After data preparation, the final sample consists of 523 women working in different (non-) management levels across various industries in Germany.

In relation to the independent variables, which are all measured on a 5-point Likert-scale, all means are ranging between 3.35 and 4.04. Political skill (PS) shows a mean of 3.35 (SD= 0.53), whereas the moderator career self-efficacy (CSE) has a mean of 4.04 (SD= 0.54), and the mediator perceived organisational support (POS) shows a mean of 3.43 (SD= 0.85). The measures for the dependent variable career success can be separated into objective and subjective measures. Objective measures are managerial level, promotion and annual salary. In terms of hierarchical level, 31.98% of participants occupy a non-management position, whereas 31.02% of the women hold a lower management position, 17.73% have a position in middle-management, 12.33% are in a higher management position and 6.94% hold a top management position. The average annual income with all bonuses and incentives included is 118.250€ (SD= 76.469). The median income is 100.000€. Respectively, the mean hourly wage is 48.38€ (SD= 26.61) and ranges between 11.54€ and 224.36€. The third extrinsic career success measure refers to promotion rate, which is calculated as the ratio between number of promotions and years in the workforce, and has a mean of 0.22 (SD= 0.21) with a minimum of zero up to a maximum of two. Subjective career success is reflected in the career satisfaction scale, which is measured on a 5-point Likert-scale and shows a mean of 3.81 (SD= 0.79). Ng et al. (2005) claim that it is important to be aware that the objective and subjective measures of career success reflect different aspects. Nevertheless, the variables are positively correlated. For instance, the results of the current study show a statistically significant result between career satisfaction and promotion (r= 0.129; p<0.01) as well as managerial level (r= 0.417; p<0.001).

The correlation matrix (see table 5-2) shows that the age of the participants is statistically significantly at the 0.1% significant level and negatively correlated to having children (r= -0.362). In contrast, age shows a high positive correlation towards work experience (r= 0.884, p<0.001) and a moderate correlation to tenure (r= 0.588, p<0.001). This indicates that older women are less frequently mothers, compared to the younger participants of the study. This might reflect the self-selection process of mothers; in the past, it was less common to work as a mother compared with the current female employment situation. In addition, the correlation also indicates that work experience and tenure increase with age. The marital status of women shows a high statistically significant (p<0.001) and negative correlation (r= -0.226) with having children. This might indicate that women who are not in a relationship have fewer children. Having a child shows also a moderately statistically significant (p<0.01) and negative correlation coefficient towards education (r= -0.141), work experience (r= -0.301, p<0.001), marital status (r= -0.266, p<0.001), and tenure (r= -0.220, p<0.001). This indicates that there is a negative relationship between having children and time spent in education, occupational work and tenure, which has been confirmed in several studies (Biemann et al., 2012; Sullivan & Arthur, 2006; Tharenou et al., 1994). In addition, women without children are more often single (Tharenou et al., 1994). Education is highly statistically significant (p<0.001) and negatively correlated to work experience (r= -0.158) and tenure (r= -0.169). This indicates that with an increase in education, work experience and tenure decrease. This makes theoretical sense as time invested in education reduces the time available to gain experience. Tenure shows a highly statistically significant (p<0.001) and positive correlation towards work experience (r= 0.632).

Regarding the correlation between the control and demographic variables as well as the independent and dependent variables, a high statistically significant (p<0.001) but weak correlation coefficient exists between work centrality and CSE (r= 0.216), career satisfaction (r= 0.205) and managerial level (r= 0.228). Moreover, work centrality shows a moderate statistically significant (p<0.01) but weak correlation to PS (r= 0.152) and POS (r= 0.130). This indicates that an individual's positive attitude and degree of importance towards work increases with the level of the correlated variables. Furthermore, if an individual feels well supported (POS) within the organisation, it seems to influence the positive feeling towards work. Work experience shows a significant but weak positive correlation towards PS (r= 0.139; p<0.01) and CSE (r= 0.114; p<0.05). Assessing the dependent variables, results show that work experience correlates moderately (r= 0.131) and statistically significant with career satisfaction (p<0.01) and highly with income (r= 0.349, p<0.001). This finding corresponds to other studies (Biemann & Braakmann, 2013; Kirchmeyer, 1998). However, the outcome also shows a high statistically significant (p<0.001) and negative correlation coefficient between work experience and promotion (r= -0.416), which indicates that women with a high number of years in the workforce demonstrate fewer promotions. Respectively, women reveice more promotions at the beginning of their career. This result could be influenced by the calculation of promotion as the ratio between the number of promotion and number of years in the workforce.

Tenure shows several positive correlations with independent and dependent variables. Thus, there exists a weak correlation coefficient with career satisfaction (r= 0.105, p<0.05) as well as a high statistically significant but weak correlation with managerial level (r= 0.186, p<0.001). However, time spent with the current employer shows a high statistically significant (p<0.001) and weak negative correlation with promotion (r= -0.291), which is reasonable as the number of promotions is operationalised in increases in the hierarchical level, but also job changes and transfers (Kirchmeyer, 2002) each participant has received throughout their entire career.

The correlation matrix shows that marital status is weakly positive correlated to POS (r= 0.093, p<0.05), career satisfaction (r= 0.109, p<0.05), and income (r= 0.147, p<0.05). The age of the participants correlates weakly but positively with PS (r= 0.120, p<0.05), CSE (r= 0.111, p<0.05), and career satisfaction (r= 0.137, p<0.05). Moreover, age correlates highly statistically significantly (p<0.001) with income (r= 0.316) and managerial level (r= 0.421). However, a high statistically significant (p<0.001) negative correlation exists between age and promotion (r= -0.396). This might indicate that with increasing age, the number of promotions declines. Having children correlates as highly statistically significant ($p<0.001$) and positively with promotion ($r= 0.200$), which indicate that childlessness has a positive influence on the number of promotions.

Correlations between the independent variable, dependent variables and moderator as well as mediator variable generally support the assumed relationships of the conceptual model. PS is statistically significant ($p<0.001$) and positively correlated with career satisfaction ($r= 0.268$) and managerial level ($r= 0.246$) which is a first indication for H1. In terms of initial support of H2, PS is also positively correlated with CSE ($r= 0.437$, $p<0.001$). CSE shows a high statistically significant ($p<0.001$) correlation with career satisfaction ($r= 0.515$), promotion ($r= 0.165$), and managerial level ($r= 0.399$), assuming that CSE is able to strengthen the relationship between the independent and dependent variables. In line with H3, PS is high statistically significant ($p<0.001$) and positively correlated with POS ($r= 0.201$), which in turn is also positively correlated with career satisfaction ($r= 0.496$) and managerial level ($r= 0.274$) as well as being moderately statistically significant ($p<0.01$) and positively correlated with promotion ($r= 0.114$).

Table 5-2: Correlation matrix

		Mean	SD	Education	Work Centrality	Work experience	Marital Status	Tenure	Age	Children	1	2	3	4	5	6	7
Control Variables	Education	17,19	1,99	1.0													
Control Variables	Work Centrality	4,59	0,58	0.046	1.0												
Control Variables	Work experience	17,11	10,24	-0.158***	0.121	1.0											
Control Variables	Marital Status	NA	NA	0.043	-0.02	0.077	1,00										
Control Variables	Tenure	9,49	8,02	-0.169***	0.034	0.632***	0.077	1.0									
Control Variables	Age	41,79	9,73	-0.019	0.125**	0.884***	0.045	0.588***	1.0								
Control Variables	Children (yes/no)	NA	NA	-0.141**	0.063	-0.301***	-0.226***	-0.220***	-0.362***	1.0							
1	PS	3,35	0,53	0.019	0.152**	0.139**	-0.01	0.019	0.120*	-0.030	1.0						
2	POS	3,43	0,85	0.006	0.130**	0.008	0.093*	-0.017	-0.017	0,009	0.201***	1.0					
3	CSE	4,04	0,54	0.06	0.216***	0.114*	0.004	-0.035	0.111*	0.092*	0.437***	0.411***	1.0				
4	Career Satisfaction	3,76	0,84	-0.005	0.205***	0.131**	0.109*	0.105*	0.137*	0.023	0.268***	0.496***	0.515***	1.0			
5	Income per hour	48,38	26,61	0.0854	-0.014	0.349***	0.147*	0.194**	0.316***	-0.107	-0.003	0.106	0.072	0.147	1.0		
6	Promotion rate	NA	NA	0.03	-0.053	-0.416***	-0.006	-0.291***	-0.396***	0.200***	0.097	0.114*	0.165***	0.147**	0.026	1.0	
7	Managerial Level	NA	NA	0.024	0.228***	0.411***	0.077	0.186***	0.421***	-0.045	0.246***	0.274***	0.399***	0.419***	0.347***	-0.049	1.0

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

5.4 Confirmatory Factor Analysis of the Constructs

According to Anderson and Gerbing (1988), as well as Urban and Mayerl (2014), a CFA is applied as a first step to assess the validity and reliability of the study constructs. Therefore, the researcher calculated the model fit for each scale of the study. The most common estimation method in SEM is the maximum likelihood estimation (ml) which usually requires a multivariate normal distribution and continuous variables (Aichholzer, 2017; DiStefano & Hess, 2005; Martens, 2005). However, several authors (Aichholzer, 2017; DiStefano & Hess, 2005; Finney & DiStefano, 2006; Urban & Mayerl, 2014) suggest using a robust maximum likelihood estimation (ml robust) method if the data does not accurately follow a normal distribution or use ordinal variables. In this vein, Enders (2001, p. 368) claims that "…the robust standard errors (…) provided a dramatic improvement over unadjusted ML standard errors ..." In contrast, Reinecke (2014) reveals that parameter estimates of overidentified models are often similar, so that generally no differences in interpretation occur. Schermelleh-Engel et al. (2003) and other authors (DiStefano & Hess, 2005; Finney & DiStefano, 2006) suggest an asymptotically distribution free (ADF) method if the data is continuous and non-normally distributed. However, ADF needs large sample sizes (N>1000) to show undistorted results (Schermelleh-Engel et al., 2003; Urban & Mayerl, 2014). Moreover, ml estimators are more accurately compared to ADF if the sample size is moderate and the data shows a high level of kurtosis (Schermelleh-Engel et al., 2003; Urban & Mayerl, 2014). Urban and Mayerl (2014) suggest using the robust Satorra-Bentler (sbentler) estimation in addition to the traditional chi-squared test, as empirical data usually reveals poorer data quality which tends to imply an increased type-I error. So, on evaluating the measurement models in this study, the default estimation method, ml and also the sbentler estimation (Satorra & Bentler, 1994) were each applied for every scale of the study in order to identify the model fit. Both approaches use list-wise deletion (Acock, 2013). On applying the ml and sbentler estimation in the measurement model, the scales of the independent variables were first assessed. An estimation of the dependent variables of career satisfaction followed next. Thus, a CFA was conducted separately for each construct in this study, namely: PS, CSE, POS, and career satisfaction (CarSat) to test reliability and validity (see Appendix 7). In the next step, a pooled CFA model with all latent constructs was performed. The analysis starts with an evaluation of the PSI.

5.4.1 Measurement Models of all Constructs

The first model analysed is a one-factor CFA of career satisfaction with 29 indicators; a CFA with a ml (and ml sbentler) estimation was applied. Values of the model are reported in table 5-3. The fit for the one-factor CFA model is not satisfactory with a χ^2 (377)= 2961.23, p>0.000; RMSEA= 0.13, 90% confidence interval to the RMSEA= 0.12–0.13; SRMR= 0.12; CFI= 0.51 and TLI= 0.47. According to these results, the measurement model has been specified as a four-factor CFA model of career satisfaction with no constraints. The chi-squared test is still significant at the 0.001 level with a χ^2 (371)= 1048.29, p<0.001; RMSEA= 0.07, 90% confidence interval to the RMSEA= 0.06–0.07; SRMR= 0.06; CFI= 0.87 and TLI= 0.86. The RMSEA is now below the suggested cut-off value of 0.08 (Hooper et al., 2008). The 90% confidence interval to the RMSEA shows a satisfactory value below the suggested max. upper bound (≤0.10). The SRMR (0.06) is below the threshold of 0.10 and therefore indicates a good fit. According to the incremental fit, the CFI shows a value of 0.87, and the TLI a value of 0.86. Both values are just below the suggested cut-off of ≥0.90 and indicate an unsatisfactory fit.

Table 5-3: Measurement model of pooled CFA based on career satisfaction

Model Fit Indicators*	χ^2 (sbentler)	df	RMSEA (sbentler)	SRMR
1-Factor Model	2961.23 (2700.97)	377	0.13 (0.12)	0.12
4-Factor Model	1048.29 (957.89)	371	0.07 (0.06)	0.06
4-Factor Model with covariance	759.12 (693.46)	369	0.05 (0.05)	0.06

* χ^2 – Chi square; df – degree of freedom; RMSEA – Root mean square error of approximation; SRMR – Standardised Root Mean Square Residual

Model Fit Indicators*	CFI/TLI (sbentler)	AIC	$\Delta X^2(\Delta df)$
1-Factor Model	0.51 (0.51)/0.47 (0. 47)	33274.72	2202.11 (8)**
4-Factor Model	0.87 (0.87)/0.86 (0.87)	31373.78	289.17 (2)**
4-Factor Model with covariance	0.93 (0.93)/0.92 (0.93)	31088.61	

* CFI – Comparative Fit Index; TLI – Tucker-Lewis Index; AIC – Akaike's information criterion; ** p<0.001

The evaluation of the residuals indicates possible changes, allowing error covariance among items in the model. The highest value of error terms occur between items f14_n and f14_10_n (168.538) and f14_12_n and item f14_13_n (see table 5-4).

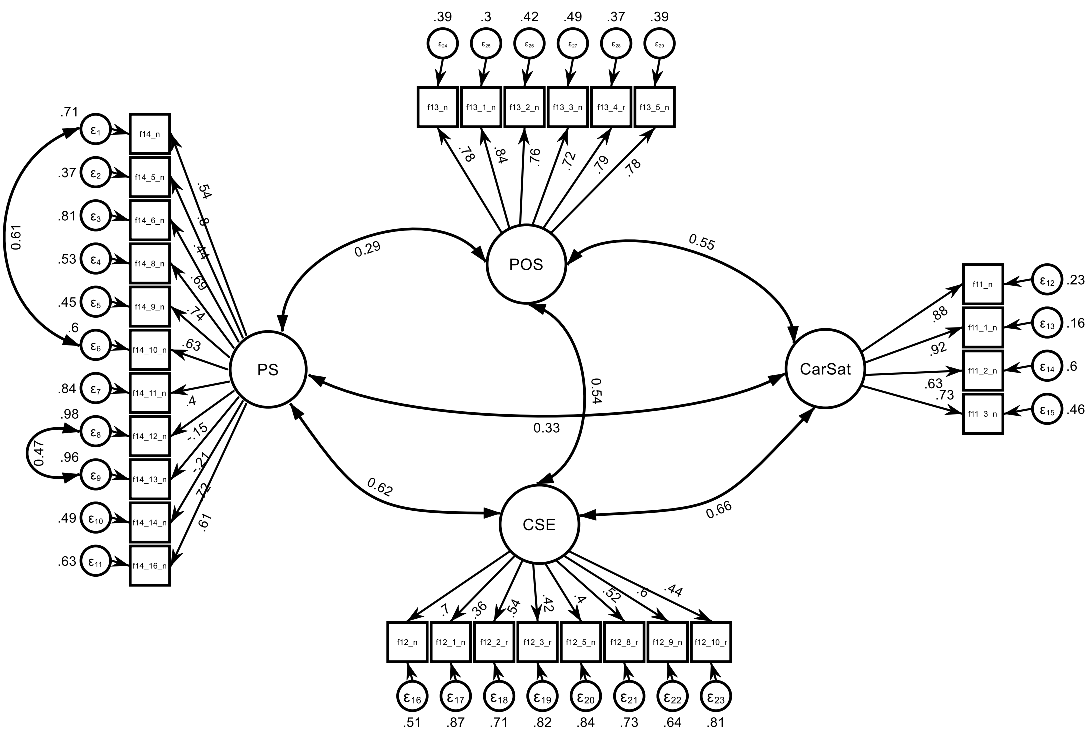
Table 5-4: M.I. of the 4-factor CFA model of career satisfaction

			M.I.	Comment
e.f14_n	<-->	e.f14_10_n	168.538	MI>15 indicates item f14_n and f14_10_n are redundant
e.f14_12_n	<-->	e.f14_13_n	96.978	MI>15 indicates item f14_12_n and f14_13_n are redundant

As already argued, it seems reasonable that items in the same construct show a high error variance. Thus, the modified model allowed an error covariance between item f14_n (I spend a lot of time and effort at work networking with others) and item f14_10_n (I spend a lot of time at work developing connections with others) as well as between item f14_12_n (It is important that people believe I am sincere in what I say and do) and item f14_13_n (I try to show a genuine interest in other people), which also makes conceptual sense as each pair of indicators measures the same dimension. Correlating the error terms improved the overall model fit, even though the chi-square statistics remained unsatisfactory.

Thus, the chi-squared test is still significant at the 0.001 level with a χ^2 (369)= 759.12, p<0.001; RMSEA= 0.05, 90% confidence interval to the RMSEA= 0.04–0.05; SRMR= 0.06; CFI= 0.93 and TLI= 0.92. The RMSEA is below the threshold of 0.08 (Hooper et al., 2008). The 90% confidence interval to the RMSEA shows a satisfactory value below the suggested max. upper bound (≤0.10). The SRMR (0.06) is below the suggested value of 0.10 and therefore indicates a good fit. According to the incremental fit, the CFI shows a value of 0.93 and the TLI a value of 0.92. Both values indicate a satisfactory result. To measure the parsimonious fit, the AIC and χ^2 difference test was used. The results show that the four-factor model with covariance was determined to have a better fit than the alternative models. Based on these results, the four-factor CFA model with a covariance between a pair of items (f14_n and f14_10_n as well as f14_12_n and f14_13_n) was retained. Figure 5-1 illustrates the final measurement model of career satisfaction.

Figure 5-1: Measurement model of career satisfaction, standardised estimates



The second model analysed is a one-factor CFA of income with 25 indicators; a CFA with an ml (and ml sbentler) estimation was applied. Values of the model are reported in table 5-5. The fit for the one-factor CFA model is not satisfactory with a χ^2 (299)= 1111.18, p>0.000; RMSEA= 0.12, 90% confidence interval to the RMSEA= 0.11–0.12; SRMR= 0.12; CFI= 0.50 and TLI= 0.46. According to these results, the measurement model has been specified as a four-factor CFA model of income with no constraints. The chi-squared test is still significant at the 0.001 level with a χ^2 (294)= 545.31, p<0.001; RMSEA= 0.07, 90% confidence interval to the RMSEA= 0.06–0.08; SRMR= 0.07; CFI= 0.85 and TLI= 0.83. The RMSEA is now below the suggested cut-off value of 0.08 (Hooper et al., 2008). The 90% confidence interval to the RMSEA shows a satisfactory value below the suggested max. upper bound (≤0.10). The SRMR (0.07) is below the threshold of 0.10 and therefore indicates a good fit. According to the incremental fit, the CFI shows a value of 0.84 and the TLI a value of 0.83. Both values are just below the suggested cut-off of ≥0.90 and indicate an unsatisfactory fit.

Table 5-5: Measurement model of pooled CFA based on income

Model Fit Indicators*	χ^2 (sbentler)	df	RMSEA (sbentler)	SRMR
1-Factor Model	1111.18 (1026.53)	299	0.12 (0.11)	0.12
4-Factor Model	545.31 (957.89)	294	0.07 (0.06)	0.07
4-Factor Model with covariance	432.08 (400.42)	292	0.05 (0.04)	0.07

* χ^2 – Chi square; df – degree of freedom; RMSEA – Root mean square error of approximation; SRMR – Standardised Root Mean Square Residual

Model Fit Indicators*	CFI/TLI (sbentler)	AIC	$\Delta X^2(\Delta df)$
1-Factor Model	0.50 (0.51)/0.46 (0.47)	12414.21	679.10 (7)**
4-Factor Model	0.85 (0.86)/0.83 (0.84)	11858.35	113.23 (2)**
4-Factor Model with covariance	0.91 (0.93)/0.90 (0.92)	11749.12	

* AIC – Akaike's information criterion; CFI – Comparative Fit Index; TLI – Tucker-Lewis Index; ** p<0.001

The evaluation of the residuals indicates possible changes, allowing error covariance among items in the model. The highest value of error terms occurs between items f14_n and f14_10_n (79.951) and f14_12_n and item f14_13_n (24.633) (see table 5-6).

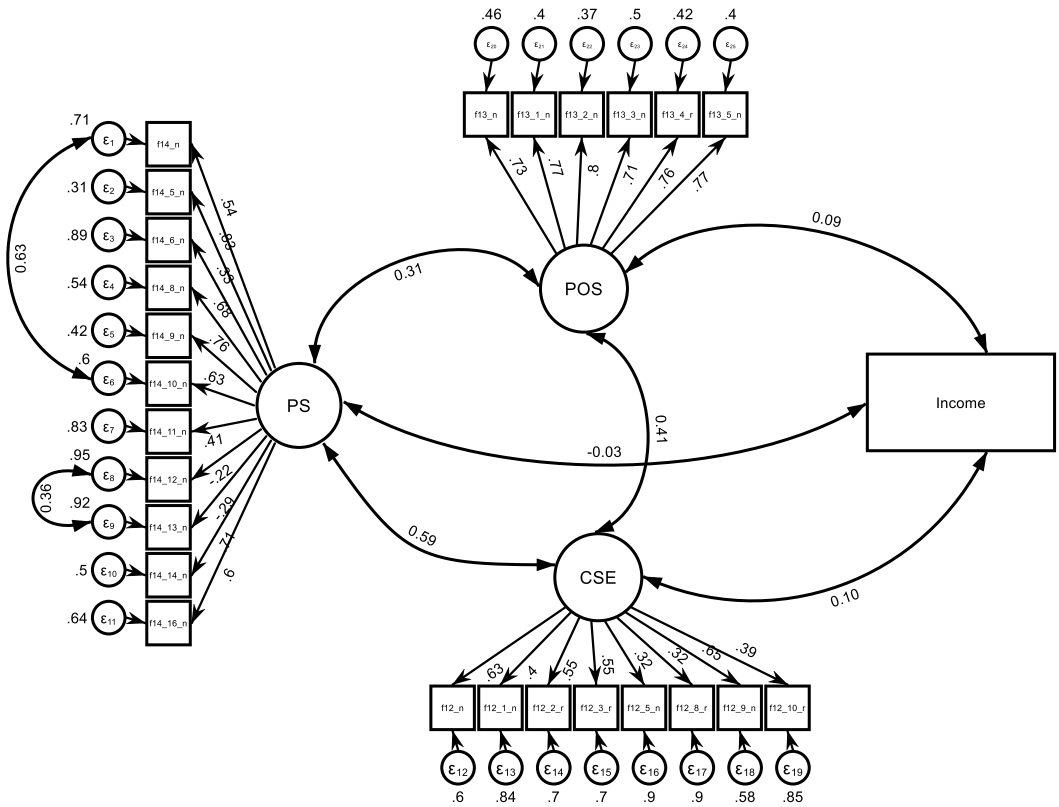
Table 5-6: M.I. of the 4-factor CFA model of income

			M.I.	Comment
e.f14_n	<-->	e.f14_10_n	79.951	MI>15 indicates item f14_n and f14_10_n are redundant
e.f14_12_n	<-->	e.f14_13_n	24.633	MI>15 indicates item f14_12_n and f14_13_n are redundant

As already argued, it seems reasonable that items in the same construct show a high error variance. Thus, the modified model allowed an error covariance between item f14_n (I spend a lot of time and effort at work networking with others) and item f14_10_n (I spend a lot of time at work developing connections with others) as well as between item f14_12_n (It is important that people believe I am sincere in what I say and do.) and item f14_13_n (I try to show a genuine interest in other people.) which also makes conceptual sense as each pair of indicators measures the same dimension. Correlating the error terms improved the overall model fit, even though the chi-square statistics remained unsatisfactory.

Thus, the chi-squared test is still significant at the 0.001 level with a χ^2 (292)= 432.08, p<0.001; RMSEA= 0.05, 90% confidence interval to the RMSEA= 0.04–0.05; SRMR= 0.07; CFI= 0.91 and TLI= 0.90. The RMSEA is below the threshold of 0.08 (Hooper et al., 2008). The 90% confidence interval to the RMSEA shows a satisfactory value below the suggested max. upper bound (≤0.10). The SRMR (0.07) is below the suggested value of 0.10 and therefore indicates a good fit. According to the incremental fit, the CFI shows a value of 0.91 and the TLI a value of 0.90. Both values indicate a satisfactory result. To assess the parsimonious fit, the AIC and χ^2 difference test was used. The results show that the four-factor model with covariance was determined to have a better fit than the alternative models. Based on these result, the four-factor CFA model with a covariance between a pair of items (f14_n and f14_10_n as well as f14_12_n and f14_13_n) was retained. Figure 5-2 illustrates the finale measurement model of income.

Figure 5-2: Measurement model of income, standardised estimates



The third model analysed is a one-factor CFA of position with 25 indicators; a CFA with an ml (and ml sbentler) estimation was applied. Values of the model are reported in table 5-7. The fit for the one-factor CFA model of position is not satisfactory with an χ^2 (299)= 2359.41, p>0.000; RMSEA= 0.12, 90% confidence interval to the RMSEA= 0.12–0.13; SRMR= 0.12; CFI= 0.51 and TLI= 0.46. According to these results, the measurement model has been specified as a four-factor CFA model with no constraints. The chi-squared test is still significant at the 0.001 level with a χ^2 (294)= 958.97, p<0.001; RMSEA= 0.07, 90% confidence interval to the RMSEA= 0.07–0.08; SRMR= 0.06; CFI= 0.84

and TLI= 0.82. The RMSEA is now below the suggested cut-off value of 0.08 (Hooper et al., 2008). The 90% confidence interval to the RMSEA shows a satisfactory value below the suggested max. upper bound (≤0.10). The SRMR (0.06) is below the threshold of 0.10 and therefore indicates a good fit. According to the incremental fit, the CFI shows a value of 0.84 and the TLI a value of 0.82. Both values are just below the suggested cut-off of ≥0.90 and indicate an unsatisfactory fit.

Table 5-7: Measurement model of pooled CFA based on position

Model Fit Indicators*	χ^2 (sbentler)	df	RMSEA (sbentler)	SRMR
1-Factor Model	2359.41 (2181.35)	299	0.13 (0.12)	0.12
4-Factor Model	958.97 (887.28)	294	0.07 (0.07)	0.06
4-Factor Model with covariance	675.75 (625.07)	292	0.06 (0.05)	0.06

* χ^2 – Chi square; df – degree of freedom; RMSEA – Root mean square error of approximation; SRMR – Standardised Root Mean Square Residual

Model Fit Indicators*	CFI/TLI (sbentler)	AIC	$\Delta X^2(\Delta df)$
1-Factor Model	0.51 (0.51)/0.46 (0.47)	30088.81	1683.66 (5)**
4-Factor Model	0.84 (0.85)/0.82 (0.83)	28698.38	283.22 (2)**
4-Factor Model with covariance	0.91 (0.91)/0.90 (0.90)	28419.16	

* AIC – Akaike's information criterion; CFI – Comparative Fit Index; TLI – Tucker-Lewis Index; ** p<0.001

The evaluation of the residuals indicates possible changes, allowing error covariance among items in the model. The highest value of error terms occurs between items f14_n and f14_10_n (165.326) and f14_12_n and item f14_13_n (94.545) (see table 5-8).

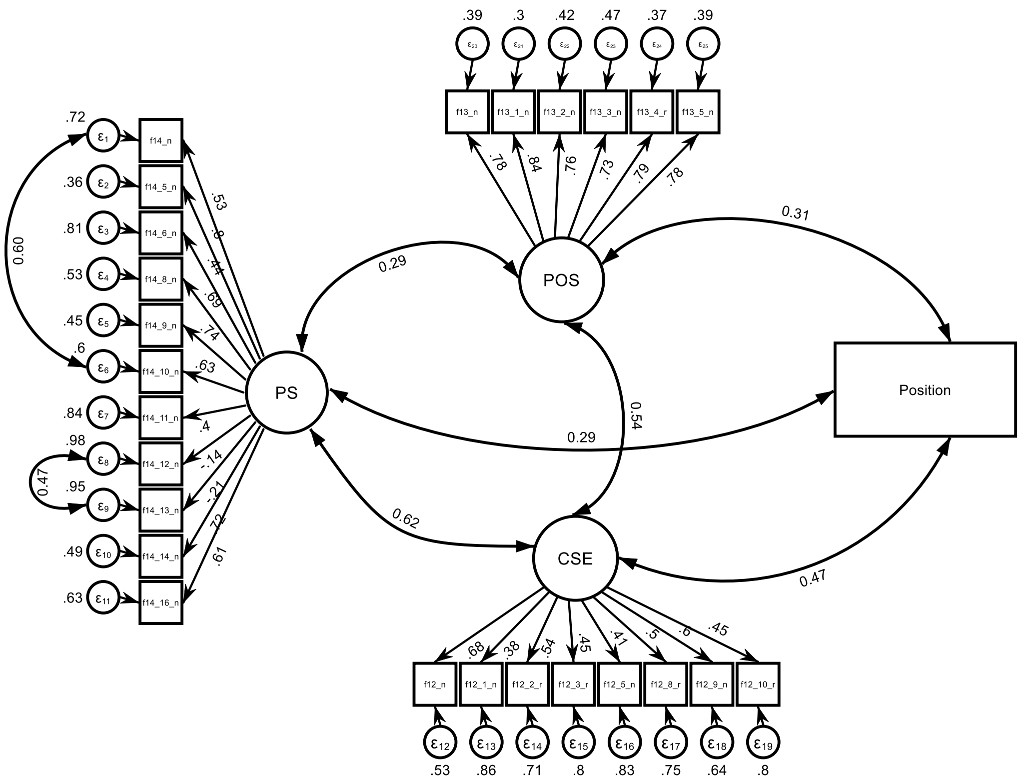
Table 5-8: M.I. of the 4-factor CFA model of position

			M.I.	Comment
e.f14_n	<-->	e.f14_10_n	165.326	MI>15 indicates item f14_n and f14_10_n are redundant
e.f14_12_n	<-->	e.f14_13_n	94.545	MI>15 indicates item f14_12_n and f14_13_n are redundant

As argued, it seems reasonable that items in the same construct show a high error variance. Thus, the modified model allowed an error covariance between item f14_n (I spend a lot of time and effort at work networking with others), and item f14_10_n (I spend a lot of time at work developing connections with others) as well as between item f14_12_n (It is important that people believe I am sincere in what I say and do) and item f14_13_n (I try to show a genuine interest in other people) which also makes conceptual sense as each pair of indicators measures the same dimension. Correlating the error terms improved the overall model fit, even though the chi-square statistics remained unsatisfactory.

Thus, the chi-squared test is still significant at the 0.001 level with a χ^2 (292)= 675.75, p<0.001; RMSEA= 0.06, 90% confidence interval to the RMSEA= 0.05–0.06; SRMR= 0.06; CFI= 0.91 and TLI= 0.90. The RMSEA is below the threshold of 0.08 (Hooper et al., 2008). The 90% confidence interval to the RMSEA shows a satisfactory value below the suggested max. upper bound (≤0.10). The SRMR (0.06) is below the suggested value of 0.10 and therefore indicates a good fit. According to the incremental fit, the CFI shows a value of 0.91 and the TLI a value of 0.90. Both values indicate a satisfactory result. To assess the parsimonious fit, the AIC and χ^2 difference test was used. The results show that the four-factor model with covariance was determined to have a better fit than the alternative models. Based on this conclusion, the four-factor CFA model with a covariance between a pair of items (f14_n and f14_10_n as well as f14_12_n and f14_13_n) was retained. Figure 5-3 illustrates the finale measurement model of position.

Figure 5-3: Measurement model of position, standardised estimates



The final model analysed is a one-factor CFA with 25 indicators of promotion rate; a CFA with an ml (and ml sbentler) estimation was applied. The values of the model are reported in table 5-9 . The fit for the one-factor CFA model is not satisfactory with a χ^2 (299)= 1929.34, p>0.000; RMSEA= 0.12, 90% confidence interval to the RMSEA= 0.12–0.13; SRMR= 0.12; CFI= 0.52 and TLI= 0.48. According to these results, the measurement model has been specified as being a four-factor CFA model with no constraints. The chi-squared test is still significant at the 0.001 level with a χ^2 (294)= 821.98, p<0.001; RMSEA= 0.07, 90% confidence interval to the RMSEA= 0.06–0.07; SRMR= 0.06; CFI= 0.84 and TLI= 0.83. The RMSEA is now below the suggested cut-off value of 0.08 (Hooper et al., 2008). The 90% confidence interval to the RMSEA shows a satisfactory value below the suggested max. upper bound (≤0.10). The SRMR (0.06) is below the threshold of 0.10 and therefore indicates a good fit. According to the incremental fit, the CFI shows a value of 0.84 and the TLI a value of 0.83. Both values are just below the suggested cut-off of ≥0.90 and indicate an unsatisfactory fit.

Table 5-9: Measurement model of pooled CFA based on promotion

Model Fit Indicators*	χ^2 (sbentler)	df	RMSEA (sbentler)	SRMR
1-Factor Model	1929.34 (1794.20)	299	0.12 (0.12)	0.12
4-Factor Model	821.98 (763.55)	294	0.07 (0.07)	0.07
4-Factor Model with covariance	568.18 (527.88)	292	0.05 (0.05)	0.06

* χ^2 – Chi square; df – degree of freedom; RMSEA – Root mean square error of approximation; SRMR – Standardised Root Mean Square Residual

Model Fit Indicators*	CFI/TLI (sbentler)	AIC	$\Delta X^2(\Delta df)$
1-Factor Model	0.52 (0.52)/0.48 (0.48)	25172.39	1361.17 (5)**
4-Factor Model	0.84 (0.85)/0.83 (0.84)	24075.03	253.81 (2)**
4-Factor Model with covariance	0.92 (0.93)/0.91 (0.92)	23825.23	

* CFI – Comparative Fit Index; TLI – Tucker-Lewis Index; AIC – Akaike's information criterion; ** p<0.001

The evaluation of the residuals indicates possible changes, allowing error covariance among items in the model. The highest value of error terms occurs between items f14_n and f14_10_n (151.904) and f14_12_n and item f14_13_n (79.502) (see table 5-10).

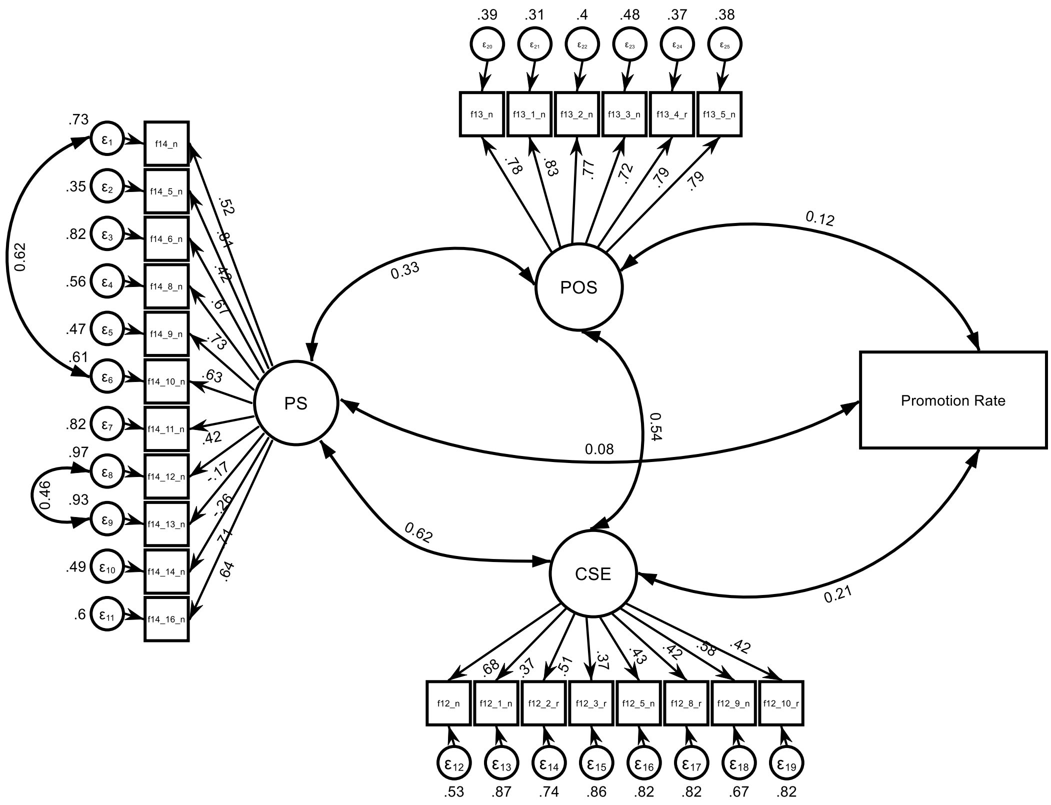
Table 5-10: M.I. of the 4-factor CFA model of promotion rate

			M.I.	Comment
e.f14_n	<-->	e.f14_10_n	151.904	MI>15 indicates item f14_n and f14_10_n are redundant
e.f14_12_n	<-->	e.f14_13_n	79.502	MI>15 indicates item f14_12_n and f14_13_n are redundant

As proposed, it seems reasonable that items in the same construct show a high error variance. Thus, the modified model allowed an error covariance between item f14_n (I spend a lot of time and effort at work networking with others) and item f14_10_n (I spend a lot of time at work developing connections with others) as well as between item f14_12_n (It is important that people believe I am sincere in what I say and do) and item f14_13_n (I try to show a genuine interest in other people) which also makes conceptual sense as each pair of indicators measures the same dimension. Correlating the error terms improved the overall model fit, even though the chi-square statistics remained unsatisfactory.

Thus, the chi-squared test is significant at the 0.001 level with an χ^2 (292)= 568.18, p<0.001; RMSEA= 0.05, 90% confidence interval to the RMSEA= 0.04–0.06; SRMR= 0.06; CFI= 0.92 and TLI= 0.91. The RMSEA is below the threshold of 0.08 (Hooper et al., 2008). The 90% confidence interval to the RMSEA shows a satisfactory value below the suggested max. upper bound (≤0.10). The SRMR (0.06) is below the suggested value of 0.10 and therefore indicates a good fit. According to the incremental fit, the CFI shows a value of 0.92 and the TLI a value of 0.91. Both values indicate a satisfactory result. To assess the parsimonious fit, the AIC and χ^2 difference test was used. The results show that the four-factor model with covariance was determined to have a better fit than the alternative models. Based on this result, the four-factor CFA model with a covariance between a pair of items (f14_n and f14_10_n as well as f14_12_n and f14_13_n) was retained. Figure 5-4 illustrates the final measurement model of position.

Figure 5-4: Measurement model of promotion, standardised estimates



The fit indices of the measurement models of objective and subjective career success indicate an acceptable fit for each model which gives first evidence that the proposed theoretical models fit the sample data and support the analysis.

5.4.2 Discriminant and Nomological Validity

Discriminant and nomological validity are both components of construct validity and describe the extent to which simultaneously used variables measure distinct phenomena and are therefore distinct from each other as well as whether correlations among the constructs in a measurement theory make sense when supported by theoretical explanations. Several authors suggest using AVE to measure discriminant validity. Moreover, the AVEs of different constructs should be compared with the square correlation estimate (SCE). If the variance-extracted estimates are greater than the SCE, discriminant validity is achieved (Drucker-Godard et al., 2007; Fornell & Larcker, 1981; Hair et al., 2014).

Table 5-11: Discriminant validity; AVE and SCE among latent variables

Constructs	Alpha	CR	AVE	1	2	3	4
1. PS	0.80	0.63	0.331	1.00			
2. CSE	0.72	0.73	0.257	0.388	1.00		
3. POS	0.90	0.90	0.608	0.084	0.294	1.00	
4. CarSat	0.87	0.87	0.638	0.107	0.432	0.308	1.00

The comparison of the AVEs with the SCEs (see table 5-11) indicates that PS and CSE have problems with discriminant validity. This is not surprising as both constructs reflect social effectiveness competencies. Moreover, some researchers suggest that social effectiveness competencies could relate to each other and overlap with other social capacities (Ferris et al., 2007; Ferris, Perrewé et al., 2002; Ferris, Treadway et al., 2005). Even though Ferris and colleagues (2005) claim that the correlation between PS and other social capacities only exists on a modest level and therefore each competency still has the right to exist, problems with discriminant validity arise within the current study. Correlation analysis shows that the latent variables PS and CSE, which were first created via the factor scoring technique after the CFA, correlate with each other (r= 0.72, p= 0.001). A deletion of items of the CSE and PS construct does not improve discriminant validity to an extent that an appropriate AVE score has been achieved. In addition, research recommends either to delete the variable or to merge the problematic constructs (Henseler, Ringle, & Sarstedt, 2015). However, an elimination of the problematic items results in a complete deletion of the CSE construct which is not desired as CSE is hypothesised as a moderator. Moreover, to merge both variables is also not achievable as this procedure leads to a change in the theoretical framework. In addition to the assessment of the correlation matrix of factor scores, a pre-analysis within the SEM of the direct effects reveals unexpected results. Thus, a negative significant direct effect was found between PS and career satisfaction (β= -.21; z= -2.12; p= 0.040) and between PS and income (β= -.18; z= -2.27; p= 0.023), which indicates that multicollinearity between both variables exists. To avoid the problem of multicollinearity (see chapter 4.6), the latent variables were then generated using the mean score technique (see table 5-13) rather than the generally favoured factor score approach (see table 5-12). Within the former technique, the items were averaged together with an equal weight. The advantage of mean scores is that the values are easier to interpret and preserve the variation in the original data (DiStefano, Christine, Zhu, Min & Mîndrilă, & Diana, 2009). In contrast, a factor score places more weight on items with higher loadings and therefore shows a greater contribution to the several factor scores (DiStefano et al., 2009; Tabachnick & Fidell, 2010). In addition, some studies use an explanatory factor analysis (EFA) to generate factor scores in advance to using a CFA. However, this practice holds controversy as an EFA is often applied in scale development, whereas a CFA is preferred to analyse a model based upon theory (Hurley, Scandura, Schriesheim, & Brannick, 1997). Moreover, DiStefano et al. (2009, p. 2) claim that "…many factor score methods are built on the assumption that the resulting factor scores will be uncorrelated; however, orthogonal factors are often the rarity rather than the norm…" Uluman and Doğan (2016) summarised that a mean score is appropriate if the used scale is well constructed, valid, and reliable. Furthermore, their stability across independent samples is also considered an advantage (DiStefano et al., 2009). However, it should be noted that the summed scores tend to correlate highly and will therefore be a less valid representation of the factors in comparison to the scores based on the factor score approach (Uluman & Doğan, 2016). Nevertheless, an analysis of the mean and factor scores shows that the mean scores of the independent variables have a lower correlation compared to the values of the factor scores. Thus, the author decided to use the mean score values for the following calculations.

Table 5-12: Correlation matrix of factor scores

	PS	CSE	POS
PS	1.00		
CSE	0.72***	1.00	
POS	0.35***	0.47***	1.00

p<0.001***

Table 5-13: Correlation matrix of mean scores

	PS	CSE	POS
PS	1.00		
CSE	0.44***	1.00	
POS	0.20***	0.41***	1.00

p<0.001***

Nomological validity can be assessed due to the evaluation of the correlation matrix of the constructs (Hair et al., 2014). Even though the correlation between PS and CSE can be theoretically explained as both constructs are measurements of social effectiveness competencies, multicollinearity is not a desired outcome. Therefore, nomological validity could be assumed by using the values of the generated mean scores of the latent variables. In sum, the overall results of construct validity by assessing nomological, convergent and discriminant validity provide statistically and theoretically valid constructs.

5.5 Structural Equation Model of the Constructs

A two-step approach (Anderson & Gerbing, 1988; Urban & Mayerl, 2014) was adopted in this study to assess the validity of the measurement models as well as the relationship between several latent constructs. Thus, subsequent to the measurement model estimation, a structural equation technique was utilised to analyse the potential relationships of independent and dependent variables based on theoretical assumptions. SEM allows several multiple regression equations simultaneously to test complex relationships a-priori, and deduce whether those relationships are reflected in the sample data (Tabachnick & Fidell, 2010; Weston & Gore, 2006). Moreover, with SEM it is possible to use latent variables to estimate the effects which produce more reliable values due to the consideration of measurement error in contrast to regression analysis (Hopwood, 2007). Thus, the career success model was tested using SEM via the Statistical Package Stata/MP (Version 15.1 Stata CorpLLC, Texas) and maximum likelihood (sbentler) estimation. As recommended, standardised coefficients were reported (Acock, 2013; Kline, 2016). The aim of the study is to assess a career success model for women holding different hierarchical levels in Germany. To achieve the objective, the direct and indirect effects of PS, POS, and CSE towards subjective and objective career success were tested with three main hypotheses (H1, H2, and H3).

Thus, to test the first hypothesis, the direct effect of PS towards career success (career satisfaction and income, position, and promotion) was assessed. Hypothesis two tests the moderation effect of CSE between PS and career success (career satisfaction and income, position, and promotion) of women. Hypothesis three analyses the mediation effect of POS between PS and career success (career satisfaction and income, position, and promotion) of women in Germany.

As a first step, authors (Diamantopoulos & Siguaw, 2000; Hair et al., 2014) suggest to identify the model fit of the structural part in order to assess the validity of the theoretical model by comparing the results with the estimated CFA which is based on observed indicators. In addition, Hopwood (2007, p. 268) claims that “To ensure interpretability of path coefficients, overall model fit statistics need to be assessed before testing moderation effects. Model fit statistics compare the specified model to one without any constrains, meaning that all variables in the correlation matrix are free to relate to one another." The previously mentioned fit indices used to measure the fit of the proposed measurement models were also applied. Thus, the structural models should be compared with the corresponding four-factor measurement models.

The result in table 5-14 shows, that the measurement model of career satisfaction provides a slightly better model fit compared to the structural model. Hair et al. (2014, p. 651) claim that a "CFA fit provides a useful baseline to assess the structural or theoretical fit. A recursive structural model cannot fit any better (have a lower chi2) than the overall CFA. Therefore, one can conclude that the structural theory lacks validity if the structural model fit is substantially worse than the CFA model fit." Thus, as the model fit of the structural model is quite similar when compared to the CFA, one can conclude that the theoretical model of career satisfaction provides an adequate structural fit.

The chi-squared test result of the structural model of career satisfaction is significant at the 0.001 level with an χ^2 (396)= 876.85, p<0.001; RMSEA= 0.05, 90% confidence interval to the RMSEA= 0.05–0.06; SRMR= 0.08; CFI= 0.91 and TLI= 0.90. The RMSEA is below the suggested cut-off value of 0.08 (Hooper et al., 2008). The 90% confidence interval to the RMSEA shows also a satisfactory value below the suggested max. upper bound (≤0.10). The SRMR (0.08) is also below the recommended value of 0.10 and therefore indicates a satisfactory fit. According to the incremental fit, the CFI shows a value of 0.91 and the TLI a value of 0.90. Both values show the suggested threshold of ≥0.90. Thus, absolute and incremental indices indicate an adequate model fit of the variables. Overall, the results demonstrate a good fit for the proposed structural model of career satisfaction. It can be concluded that the proposed theoretical model fits the sample data and supports the analysis.

Table 5-14: Structural and measurement model of career satisfaction

Fit Indices	Structural Model (ml) Satorra-Bentler (SB)	CFA Model (ml) Satorra-Bentler (SB)	Suggested Indices
χ^2	876.85 (396)*** 790.36 (396)***	759.12 (369)*** 693.46 (369)***	Insignificant result at a 0.05 threshold
RMSEA 90% CI to the RMSEA	0.05 (ml) 0.05 (SB) 0. 05–0.06	0.05 (ml) 0.05 (SB) 0.04–0.05	≤ 0.08 good fit ≤ 0.10 moderate fit max. upper bound of the 90% CI of .10
SRMR	0.07	0.06	≤ 0.10
CFI	0.91 (ml) 0.92 (SB)	0.93 (ml) 0.93 (SB)	≥ 0.90
TLI	0.90 (ml) 0.91 (SB)	0.92 (ml) 0.92 (SB)	≥ 0.90
AIC	31877.55	31088.61	small AIC fits better

p<0.05*/ 0.01**/ 0.001***

The results of the measurement model of income (see table 5-15) also provide a slightly better model fit in contrast to the structural model. The chi-squared is significant at the 0.001 level with an χ^2 (316)= 467.40, p<0.001; RMSEA= 0.05, 90% confidence interval to the RMSEA= 0.04–0.06; SRMR= 0.07; CFI= 0.91 and TLI= 0.90. The RMSEA is below the suggested cut-off value of 0.08 (Hooper et al., 2008). The 90% confidence interval to the RMSEA shows also a satisfactory value below the suggested max. upper bound (≤0.10). The SRMR (0.07) is also below the recommended value of 0.10 and therefore indicates a satisfactory fit. According to the incremental fit, the CFI shows a value of 0.91 and the TLI a value of 0.90. Both values show the suggested threshold of ≥0.90. Therefore, absolute and incremental indices indicate an adequate model fit of the variables. Overall, the results demonstrate a good fit for the proposed structural model of income. It can be concluded that the proposed theoretical model fits the sample data and supports the analysis.

Table 5-15: Structural and measurement model of income

Fit Indices	Structural Model (ml) Satorra-Bentler (SB)	CFA Model (ml) Satorra-Bentler (SB)	Suggested Indices
χ^2	467.40 (316)*** 436.62 (396)***	432.08 (292)*** 400.42 (292)***	Insignificant result at a 0.05 threshold
RMSEA 90% CI to the RMSEA	0.05 (ml) 0.05 (SB) 0. 04–0.06	0.05 (ml) 0.04 (SB) 0.04–0.06	≤ 0.08 good fit ≤ 0.10 moderate fit max. upper bound of the 90% CI of .10
SRMR	0.07	0.07	≤ 0.10
CFI	0.91 (ml) 0.92 (SB)	0.91 (ml) 0.93 (SB)	≥ 0.90
TLI	0.90 (ml) 0.91 (SB)	0.90 (ml) 0.92 (SB)	≥ 0.90
AIC	11914.39	11749.12	small AIC fits better

p<0.05*/ 0.01**/ 0.001***

The results in table 5-16 indicate that the measurement model of position is quite similar to the corresponding structural model. The chi-squared of the structural model of position is significant at the 0.001 level with a χ^2 (316)= 759.78, p<0.001; RMSEA= 0.06, 90% confidence interval to the RMSEA = 0.05–0.06; SRMR= 0.07; CFI= 0.89 and TLI= 0.88. The RMSEA is below the suggested cut-off value of 0.08 (Hooper et al., 2008). The 90% confidence interval to the RMSEA shows a satisfactory value below the suggested max. upper bound (≤0.10). The SRMR (0.07) is also below the recommended value of 0.10 and therefore indicates a satisfactory fit. According to the incremental fit, the CFI shows a value of 0.89 and the TLI a value of 0.88. Even through both values are below the suggested threshold of ≥0.90, the incremental fit is still acceptable. Thus, absolute and incremental indices indicate an adequate model fit of the variables. Overall, the results demonstrate a good fit for the proposed structural model of position. It can be concluded that the proposed theoretical model fits the sample data and supports the analysis.

Table 5-16: Structural and measurement model of position

Fit Indices	Structural Model (ml) Satorra-Bentler (SB)	CFA Model (ml) Satorra-Bentler (SB)	Suggested Indices
χ^2	759.78 (316)*** 702.54 (316)***	675.75 (292)*** 625.07 (292)***	Insignificant result at a 0.05 threshold
RMSEA 90% CI to the RMSEA	0.06 (ml) 0.05 (SB) 0. 05–0.06	0.06 (ml) 0.05 (SB) 0.05–0.06	≤ 0.08 good fit ≤ 0.10 moderate fit max. upper bound of the 90% CI of .10
SRMR	0.07	0.06	≤ 0.10
CFI	0.89 (ml) 0.90 (SB)	0.91 (ml) 0.91 (SB)	≥ 0.90
TLI	0.88 (ml) 0.89 (SB)	0.90 (ml) 0.90 (SB)	≥ 0.90
AIC	29191.51	28419.16	small AIC fits better

p<0.05*/ 0.01**/ 0.001***

The results of the measurement model of promotion (see table 5-17) provide just a slightly better model fit in contrast to the respective structural model. The chi-squared is significant at the 0.001 level with a χ^2 (316)= 642.07, p<0.001; RMSEA= 0.05, 90% confidence interval to the RMSEA= 0.05–0.06; SRMR= 0.07; CFI= 0.90 and TLI= 0.89. The RMSEA is below the suggested cut-off value of 0.08 (Hooper et al., 2008). The 90% confidence interval to the RMSEA shows also a satisfactory value below the suggested max. upper bound (≤0.10). The SRMR (0.07) is also below the recommended value of 0.10 and therefore indicates a satisfactory fit. According to the incremental fit, the CFI shows a value of 0.90 and the TLI a value of 0.89. Both values show the suggested threshold of ≥0.90. Thus, absolute and incremental indices indicate an adequate model fit of the variables. Overall, the results demonstrate a good fit for the proposed structural model of promotion. It can be concluded that the proposed theoretical model fits the sample data and supports the analysis.

Table 5-17: Structural and measurement model of promotion

Fit Indices	Structural Model (ml) Satorra-Bentler (SB)	CFA Model (ml) Satorra-Bentler (SB)	Suggested Indices
χ^2	642.07 (316)*** 598.12 (316)***	568.18 (292)*** 527.88 (369)***	Insignificant result at a 0.05 threshold
RMSEA 90% CI to the RMSEA	0.05 (ml) 0.05 (SB) 0. 05–0.06	0.05 (ml) 0.05 (SB) 0.04–0.06	≤ 0.08 good fit ≤ 0.10 moderate fit max. upper bound of the 90% CI of .10
SRMR	0.07	0.06	≤ 0.10
CFI	0.90 (ml) 0.91 (SB)	0.92 (ml) 0.93 (SB)	≥ 0.90
TLI	0.89 (ml) 0.90 (SB)	0.91 (ml) 0.92 (SB)	≥ 0.90
AIC	24401.29	23825.23	small AIC fits better

p<0.05*/ 0.01**/ 0.001***

The next part of the analysis involves an assessment of the assumed relationships between the independent and dependent variables including socio-demographic and control variables (age, family status, children, tenure, education, work experience, and work centrality). In particular, the study is interested in evaluating the relationship between PS and the subjective (career satisfaction) as well as the objective (income, position, promotion rate) career success of women holding various hierarchical positions in Germany. Moreover, it is assumed that the relationship between PS and subjective and objective career success is mediated through POS. In addition, the study also proposes that CSE moderates the relationship between PS and objective and subjective career success. To achieve the objective, direct and indirect effects of PS, CSE, and POS towards objective and subjective career success were evaluated.

The results in table 5-18 show the direct effects of PS in relation to the subjective and objective career success. In particular, H1 predicted that PS has a positive significant impact on the career satisfaction, income, position, and promotion of women in Germany. To test this hypothesis, a SEM for each full theoretical model was conducted. In each case, the mediator and moderator, as well as the socio-demographic and control variables of age, family status, children, tenure, education, work experience, and work centrality, were also included. Thus, a positive significant direct effect was found between PS and career satisfaction (β= .62; SD= .27; z= 2.26; p= 0.024) and between PS and income (β= .67; SD= 0.39; z= 1.70; p= 0.090). Further analysis revealed a negative but non-significant relationship between PS and position (β= -.18; SD= .27; z= -0.71; p=

0.481) as well as between PS and promotion (β= -.25; z= -0.67; p= 0.500). The analysis also showed that PS predicted position (β= .26; p= 0.011) and promotion (β= .15; p= 0.006) until CSE was entered, after which it became non-significant. Conversely, the relationship between PS and income (β= -.04; p= 0.476) disappeared when CSE was removed. Furthermore, PS showed no direct effect on career satisfaction (β= .41; z= 0.25; p= 0.101) and income (β= .62; z= 1.61; p= 0.108) until POS was entered, after which it became significant. As such, H1a and H1b were accepted, whereas H1c and H1d were rejected.

Table 5-18: Direct effects between PS and career success variables

Hypothesis H1				β	p
H1a:	PS	→	CarSat	.62	0.024
H1b:	PS	→	Income	.67	0.090
H1c:	PS	→	Position	-.18	0.481
H1d:	PS	→	Promotion	-.25	0.500

The fit indices of the structural models of objective and subjective career success indicate an acceptable fit for each model which provides evidence that the proposed theoretical models fit the sample data and support the analysis. Moreover, the analysis shows that a significant direct relationship between PS and career satisfaction as well as between PS and income exists.

5.5.1 Moderation

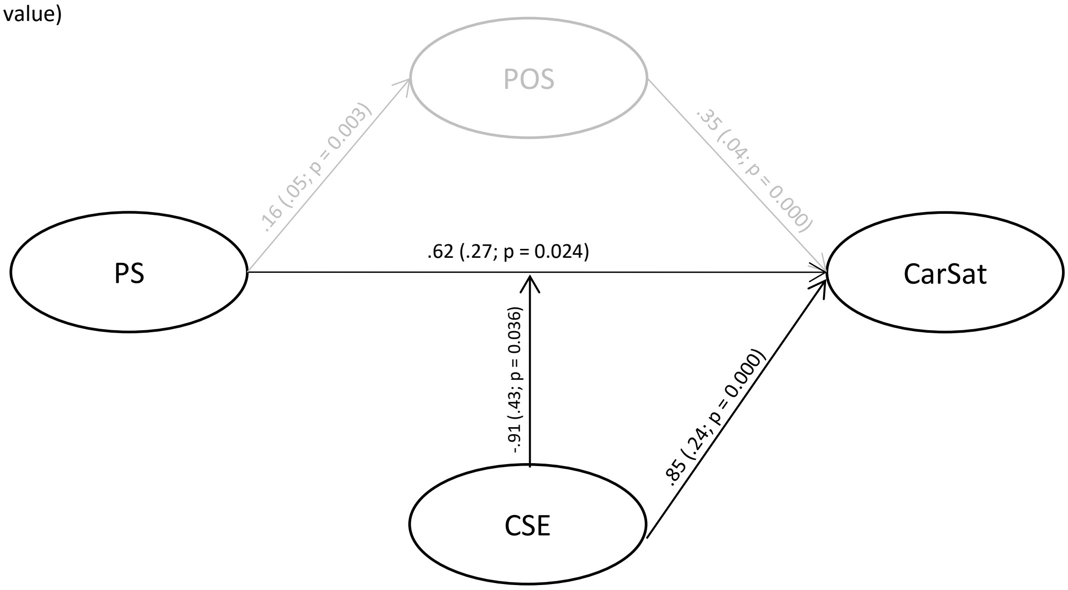
Moderation occurs when the relationship between an exogenous and endogenous variable is influenced by a third variable. In particular, the moderator interacts with the independent variable in predicting the dependent variable if the effect of the predictor varies as a function of the moderator (Bauer, Preacher, & Gil, 2006; Hayes & Preacher, 2014; Preacher, Curran, & Bauer, 2006). Interaction effects therefore occur if the effect of PS on career success depends on the value of the moderator (CSE).

To test a moderation effect, a new variable (CSE_PS) was created, representing the product of the independent variable (PS) and the identified moderator (CSE) (Cohen, Cohen, West, & Aiken, 2003; Frazier et al., 2004). The so-called 'interaction term' (CSE_PS) is also integrated within the structural equation model. A significant t-test indicates that the relationship between the independent and dependent variable depends upon the level of the moderator (Little, Card, & Bovaird, 2007). If evidence for a moderator effect exists, authors (Cohen et al., 2003; Holmbeck, 1997; Preacher et al., 2007) advocate applying a post hoc probing analysis. Thus, the values M - SD (low), M (mean) and M + SD (high), where M is the mean and SD the standard deviation of the moderator, were assessed to display the conditional indirect effect at three value stages of the moderator variable (CSE). In particular, the pick-a-point approach to examine interactions estimates different values of the predictor variable (PS) at three points on the moderator variable (CSE) and creates a confidence interval to see whether the effect of the focal predictor is different from zero at that point (Hayes & Matthes, 2009). As such, the aim of the analysis is to assess the effect of the PS on career success and if that effect depends on CSE.

In addition, Preacher et al. (2007) suggest verifing the results with a bootstrapping technique to receive a bias-corrected confidence interval (BC). Thus, CSE is assumed to moderate the effect of PS on career success (income, position, promotion rate, and career satisfaction). The latent variables PS, CSE, POS, and career satisfaction were generated via a mean score estimation. The product of the mean scores of PS and CSE represent the interaction term (CSE_PS).

H2 predicts that CSE moderates the relationship between PS and the subjective and objective career success of women in Germany. In particular, H2a tests whether CSE moderates the relationship between PS and career satisfaction. Thus, the results of the interaction effect of CSE_PS to career satisfaction show a moderate negative significant result with $\beta = -.91$, $SD = .43$, $z = -2.10$, $p = 0.036$ as illustrated in figure 5-5. PS and CSE do interact and a first evidence for a moderator effect exists. The interaction coefficient shows that as CSE increases by one unit, the coefficient of PS decreases by .91.

Figure 5-5: Structural component of the career satisfaction model; estimates are standardised (standard error; p-value)



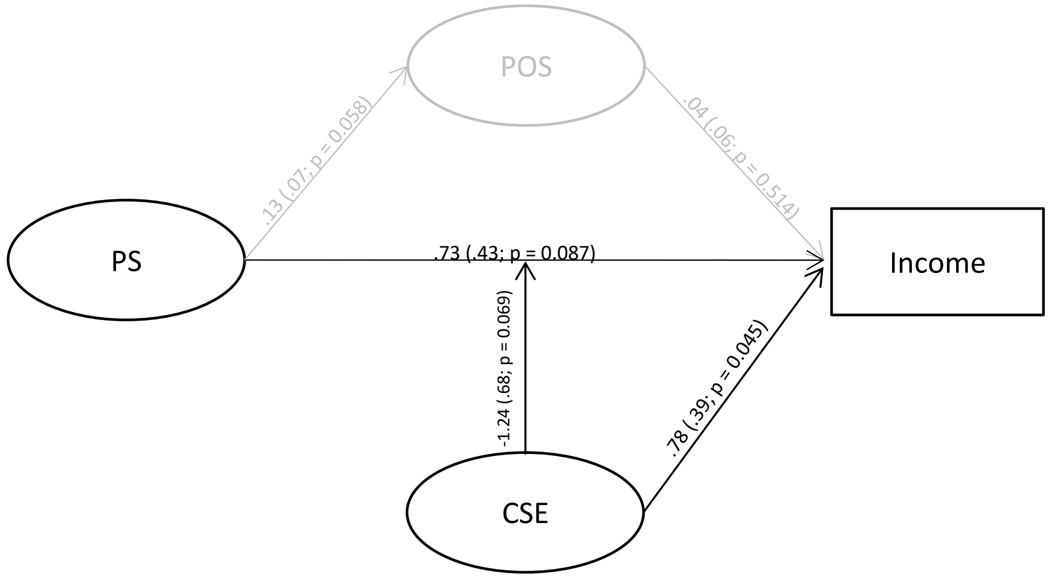
Moreover, moderation effects are obtained by multiplying coefficients from CSE x PS along with selected values of CSE; the mean (4.036; p= 0.090), one standard deviation above the mean (4.581; p= 0.918) and one standard deviation below (3.491; p= 0.003). Thus, it seems that among the participants who are relatively low (β= .25; z= 2.98; p= 0.002) and moderate (β= .13; z= 1.70; p= 0.070) in CSE, a statistically significant relationship between PS and career satisfaction exists, with a 95% BC ranging from -.02 to .42. Even though the coefficient of the total effect of PS on career satisfaction does change if CSE changes, the confidence intervals overlap, which indicates that there are no statistically significant differences between the estimated effects. Thus, no moderation of CSE on the relationship between PS and career satisfaction occurs as there is no meaningful effect noted. H2a therefore can be rejected (see table 5-19).

Table 5-19: Moderation effects of CSE on career satisfaction

Hypothesis H2a			95% CI Bootstrap	
	β	p	LB	UB
mean - 1 sd	.25	0.002	.09	.42
mean	.13	0.078	-.02	.28
mean +1 sd	.002	0.980	-.21	.21

H2b predicts that CSE moderates the relationship between PS and income. Thus, the results of the moderation model of the relationship between PS and income shows that the interaction effect of CSE_PS to income has a moderate significant negative effect with β= -1.24, SD= .68, z= -1.82, p= 0.069 as pictured in figure 5-6. The interaction coefficient shows that as CSE increases by one unit, the coefficient of PS decreases by 1.24.

Figure 5-6: Structural component of the income model; estimates are standardised (standard error; p-value)



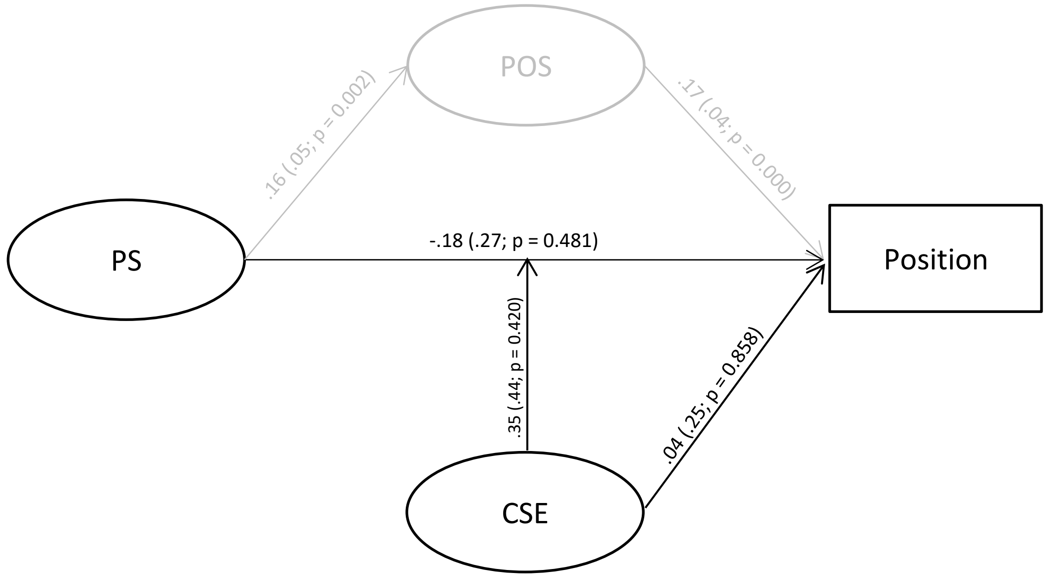
Additionally, the output displays the conditional indirect effect at three values of the moderator variable: the mean (4.219; p= 0.210), one standard deviation above the mean (4.701; p= 0.091) and one standard deviation below (3.737; p= 0.983), along with BCs for these conditional indirect effects to assess if the effect of the PS is different from zero at that point. Thus, it seems that only among the participants that are relatively high (β= -.17; z= -1.69; p= 0.091) in CSE, a statistically significant relationship between PS and income exists, with a 95% BC ranging from -.38 to .14. However, the confidence intervals do overlap, which indicates a non-statistically significant difference between the estimated effects. Thus, a moderation of CSE on the relationship between PS and income cannot be noted. H2b can therefore be rejected (see table 5-20).

Table 5-20: Moderation effects of CSE on income

Hypothesis H2b			95% CI Bootstrap (BC)	
	β	p	LB	UB
mean - 1 sd	.001	0.983	-.13	.14
mean	-.08	0.210	-.22	.04
mean +1 sd	-.17	0.091	-.38	.02

H2c predicts that CSE moderates the relationship between PS and position. To assess the moderation effect of CSE towards the relationship between PS and position, the results of the interaction effect of CSE_PS to position shows a non-significant result with β= .35, SD= .44, z= 0.81, p= 0.420 (see figure 5-7).

Figure 5-7: Structural component of the position model; estimates are standardised (standard error; p-value)



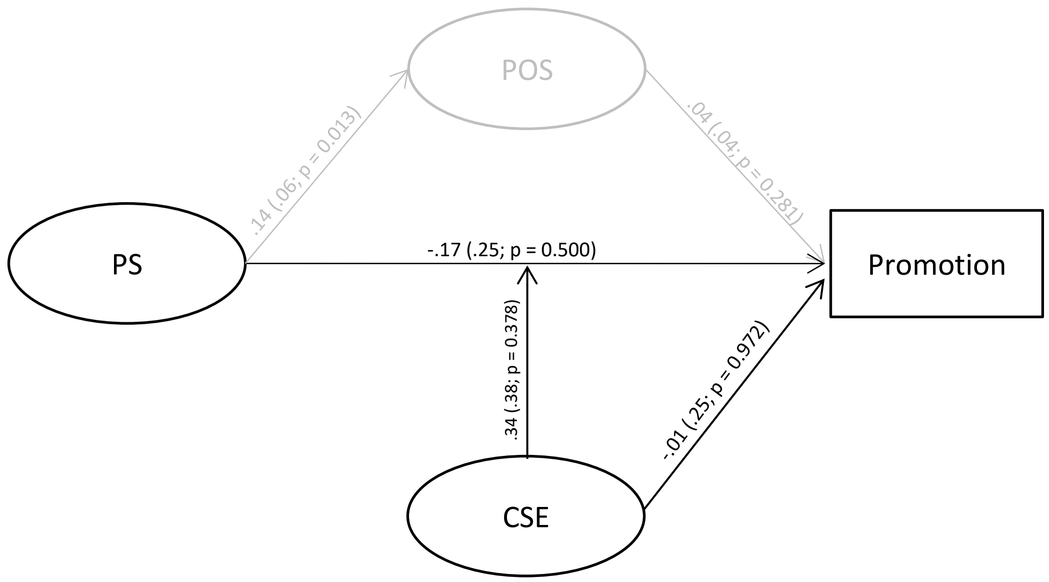
Even though no first evidence for a moderation effect exists, an analysis of the coefficients from CSE x PS along with selected values of CSE has been conducted. As already mentioned, the mean (4.037; p= 0.194), one standard deviation above the mean (4.583; p= 0.209) and one standard deviation below (3.491; p= 0.452) have been assessed. However, the bootstrap confidence intervals do overlap, with a 95% BC ranging from -.16 to .57 which still indicates that no statistically significant differences between the estimated effects exist. Thus, no moderation of CSE on the relationship between PS and position occurs as there is no meaningful effect noted. H2c can therefore be rejected (see table 5-21).

Table 5-21: Moderation effects of CSE on position

Hypothesis H2c			95% CI Bootstrap (BC)	
	β	p	LB	UB
mean - 1 sd	.09	0.452	-.16	.30
mean	.16	0.194	-.08	.39
mean +1 sd	.23	0.209	-.13	.57

H2d predicts that CSE moderates the relationship between PS and promotion rate. The result of the interaction effect of CSE_PS towards promotion shows also a non-significant outcome with β= .34, SD= .38, z= 0.88, p= 0.378, as illustrated in figure 5-8.

Figure 5-8: Structural component of the promotion model; estimates are standardised (standard error; p-value)



According to the analysis procedure, moderation effects can be assessed by analysing the coefficients from CSE x PS along with selected values of CSE; the mean (4.068; p= 0.153), one standard deviation above the mean (4.578; p= 0.122) and one standard deviation below (3.558; p= 0.523). Again, the confidence intervals overlap (from -.09 to .29) and contain zero, which indicates that no statistically significant differences between the estimated effects exist. Thus, no moderation of CSE on the relationship between PS and promotion occurs as there is no meaningful effect noted. H2d can therefore be rejected (see table 5-22).

Table 5-22: Moderation effects of CSE on promotion

Hypothesis H2d			95% CI Bootstrap (BC)	
	β	p	LB	UB
mean - 1 sd	.05	0.523	-.09	.20
mean	.09	0.153	-.03	.21
mean +1 sd	.13	0.122	-.03	.29

To conclude, the results of the moderation effect of CSE towards the relationship between PS and subjective and objective career success show that even though initial evidence for a potential moderator effect for the relationship between PS and career satisfaction as well as income exists, the analysis of the BC detects that no statistically significant differences between the estimated effects occur (see table 5-23).

Table 5-23: Hypotheses 2 of the study

	Hypotheses	Results
H2a	Career self-efficacy moderates the relationship between political skill and career satisfaction of women in Germany.	rejected
H2b	Career self-efficacy moderates the relationship between political skill and income of women in Germany.	rejected
H2c	Career self-efficacy moderates the relationship between political skill and position of women in Germany.	rejected
H2d	Career self-efficacy moderates the relationship between political skill and promotion of women in Germany.	rejected

Thus, no moderation effect of CSE on the relationship between PS and subjective and objective career success can be assessed.

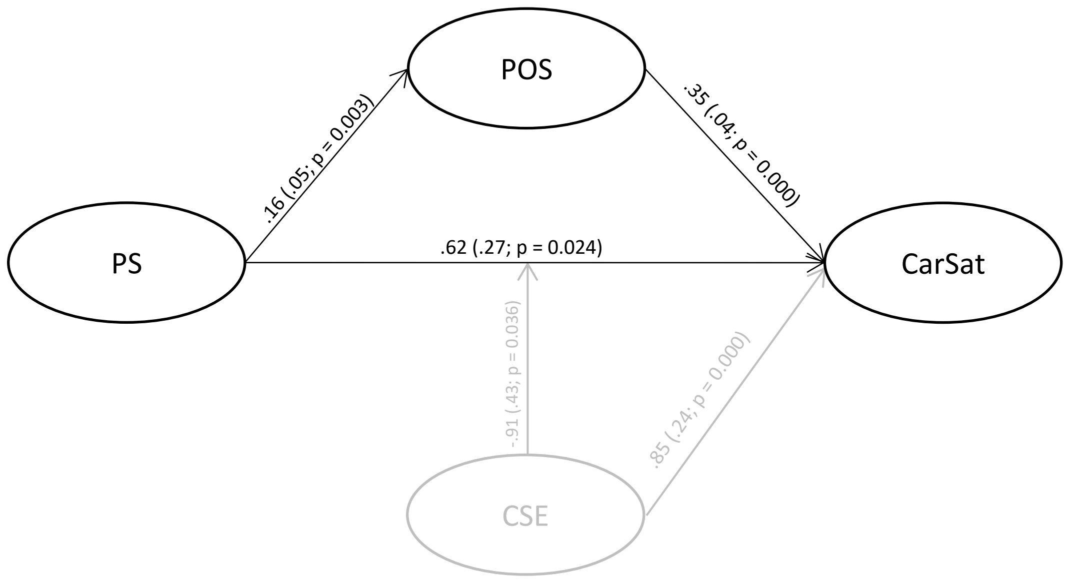
5.5.2 Mediation

The traditional approach evaluates the mediation process within a four step regression analysis, as described by Baron and Kenny (1986) (see chapter 4.10). Thus, to test a mediation effect, the requirements are: (1) the causal variable (PS) is correlated with the outcome (career success); (2) a significant relationship between the predictor (PS) and the mediating variable (POS); (3) the mediator (POS) shows an effect on the outcome variable (career success) after controlling for the independent variable (PS); and (4) the relationship between the predictor (PS) and outcome (career success) is non-significant (full mediation) or reduced (partial mediation) while controlling the mediator (POS) (Baron & Kenny, 1986; Hayes & Preacher, 2014; Hopwood, 2007). In contrast, SEM holds additional advantages and allows for an estimation of indirect and direct effects as well as the use of latent variables (StataCorp., 2017).

Furthermore, authors advocate SEM as a preferred technique for mediation analysis (Baron & Kenny, 1986; Frazier et al., 2004; Iacobucci, 2008). As opposed to multiple regression analysis, SEM allows for the separation of the mediator and the dependent variable from their measurement errors. Moreover, the traditional approach uses several regression equations where each coefficient has to be estimated and tested separately, whereas with SEM, the researcher is able to test the whole causal model simultaneously. In addition, an SEM provides information regarding the consistency of the model as well as model-fit-indices (Danner, Hagemann, & Fiedler, 2015; Gunzler, Chen, Wu, & Zhang, 2013). However, as with all statistical analysis, it is always possible that other variables which have not been observed in the study can account for the covariance of the constructs (Danner et al., 2015). Thus, Zhao, Lynch, and Chen (2010) argue that a mediation is mirrored in a significant indirect effect, which should be proofed with a bootstrap technique. Hayes (2013) suggests a 5,000 bootstrap sample to test the significance of the indirect effect of the mediating variable (POS). Bootstrapping is a recommended strategy particularly for hypothesis testing, as no assumptions about the shape of the sampling distribution must be made. As no symmetry assumption is required, the CI can be based on an unequal distribution. Research suggests the use of BC (Hayes, 2013; Preacher et al., 2007) which has been applied in the current study. Moreover, a BC above zero indicates a significant positive indirect effect. A 95% BC was used in this analysis.

H3 predicts that POS mediates the relationship between PS and the subjective and objective career success of women in Germany. In particular, H3a tests whether POS mediates the relationship between PS and career satisfaction. Thus, the mediation model of subjective career success is shown in figure 5-9 and displays the effect of PS on career satisfaction mediated by POS. The paths coefficients from PS to POS and from POS to career satisfaction are moderate and statistically significant. The direct effect of PS on career satisfaction is estimated to be $\beta = .62$, $SD = .27$, $z = 2.26$, $p = 0.024$. The direct effect of POS on career satisfaction is estimated to be $\beta = .35$, $SD = 0.04$, $z = 8.00$, $p = 0.000$. Both PS and POS have a significant effect on career satisfaction. The effect of PS on the mediator variable (POS) is measured as $\beta = .16$, $SD = .05$, $z = 2.99$, $p = 0.003$. The indirect effect, which shows the mediating effect of PS on career satisfaction via POS, is significant and estimated to be $\beta = .09$, $SD = .03$, $z = 2.78$, $p = 0.004$. Thus, the results suggest that POS mediates the relationship between PS and career satisfaction. In addition, the results for the equation-level goodness-of-fit to see how much variance is explained for the endogenous variables career satisfaction and POS shows, that 35.86% (R^2) of the variance in the latent variable career satisfaction and 6.15% (R^2) of POS was explained due to the independent variables.

Figure 5-9: Effect of PS on career satisfaction mediated by POS; estimates are standardised (standard error; p-value)



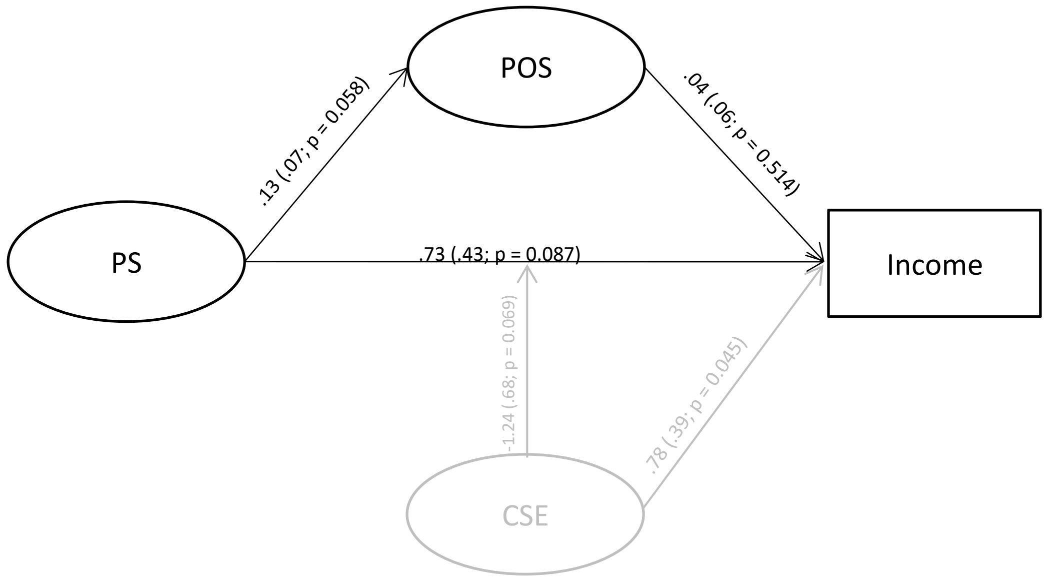
A bootstrap procedure on the 95% BC with a 5,000 bootstrap sample was also used to test the mediation effect of POS on the relationship between PS and career satisfaction. The results (table 5-24) show a mediation effect of β= .09, a lower bound estimate of .03, an upper bound .16 and a p-value of 0.006. The mediation model is compared with the direct model where the β and significance of the direct path (PS → CarSat) would be reduced and become insignificant in the mediation model. The result of this comparison shows that the beta in the mediation model of .09 (p= 0.006) was less compared to the beta of the direct model of .62 (p= 0.024). In addition, the 95% BC does not obtain zero. Thus, a partial mediation effect was detected; H3a is therefore accepted.

Table 5-24: Indirect effects

Hypothesis H3				95% CI Bootstrap (BC)		
Indirect model		β	p	LB	UB	Result
H3a: PS → POS →	CarSat	.09	0.006	.03	.16	Partial mediation
H3b: PS → POS →	Income	.01	0.535	-.01	.04	No mediation
H3c: PS → POS →	Position	.06	0.016	.02	.13	Full mediation
H3d: PS → POS →	Promotion	.01	0.377	-.01	.04	No mediation

The mediation models of objective career success show the effect of PS on income, position and promotion which is mediated by POS. In particular, H3b predicted that POS mediates the relationship between PS and income (see figure 5-10). Estimating the path coefficient from PS to POS of the income model, the analysis shows a moderate (β= .13, z= 1.89, SD= 0.71) and significant (p = 0.058) result, while the direct effect from POS to income is weak (β= .04, z= 0.65, SD= 0.06) and non-significant (p= 0.514). The direct effect of PS on income is estimated to be β= .73, z= 1.71, SD= 0.43, p= 0.087. The indirect effect, which shows the mediating effect of PS on income via POS, is not statistically significant and estimated to be β= .01, z= 0.62, SD= 0.01, p= 0.535. Thus, the results suggest that POS does not mediate the relationship between PS and income. In addition, the results for the equation-level goodness-of-fit which shows how much variance is explained for the endogenous variables income and POS indicates that 22.58% of the variance of income and 4.62% of POS was explained. The results (table 5-39) of the bootstrap procedure show a β= .01, a lower bound estimate of -.01, an upper bound .03 and a p-value of 0.535. The mediation model is compared with the direct model, where the β and significance of the direct path (PS → income) would be reduced and become insignificant in the mediation model. The comparison of the direct income model with the mediated income model reveals that the beta in the mediation model of .01 (p= 0.535) was below compared to the beta of the direct model of .73 (p= 0.087). In addition, the 95% BC contains zero. Thus, no mediation effect occurs (table 5-24). Thus, H3b is therefore rejected.

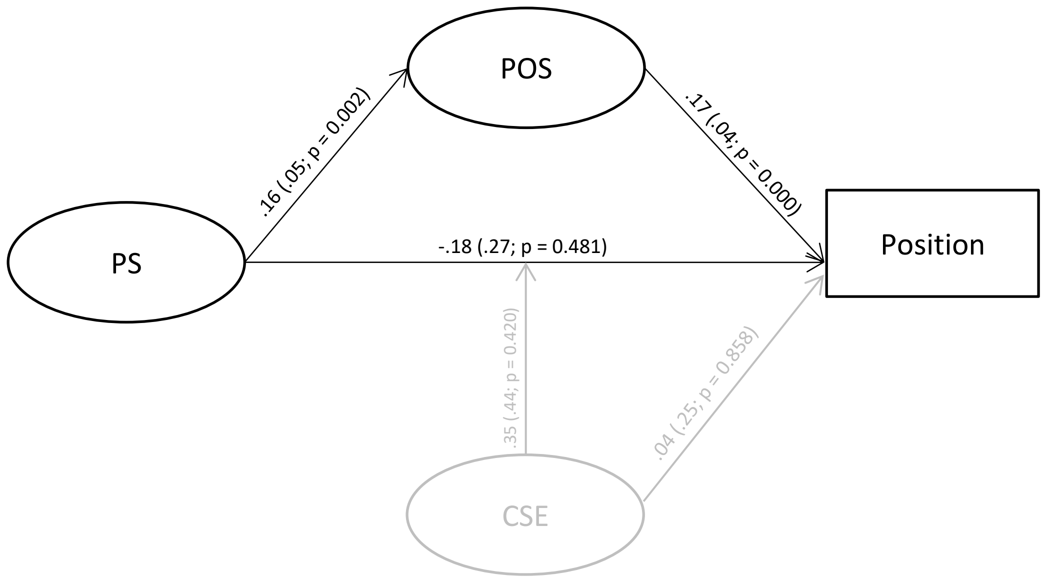
Figure 5-10: Effect of PS on income mediated by POS; estimates are standardised (standard error; p-value)



H3c predicts that POS mediates the relationship between PS and position. Thus, the mediation model of position (see figure 5-11) shows that the paths coefficients from PS to POS and from POS to position are not strong, but statistically significant. The direct effect of PS on position is estimated to be β= -.18, z= -0.62, SD= 0.61, p= 0.481. The direct effect of POS on position is estimated to be β= .17, z= 4.02, SD= 0.06, p= 0.000. The effect of PS on the mediator variable (POS) is measured as β= .26, z= 3.05, SD= 0.09, p= 0.002. The indirect effect, which shows the mediating effect of PS on position via POS, is significant and estimated to be β= .06, z= 2.60, SD= 0.02, p= 0.010.

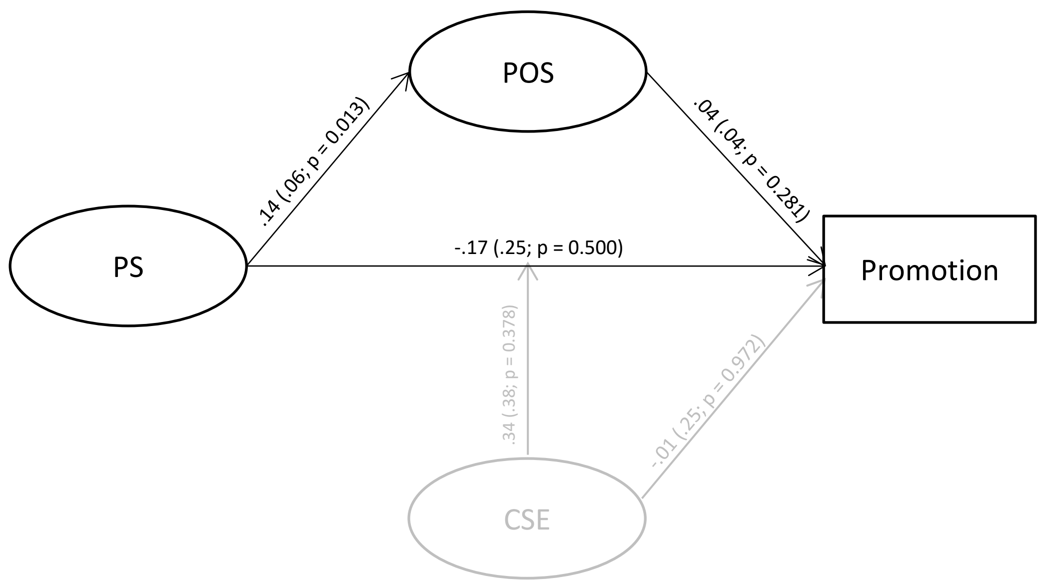
Thus, the results suggest that POS mediates the relationship between PS and position. In addition, the results for the equation-level goodness-of-fit which shows how much variance is explained for the endogenous variables position and POS indicates that 33.23% of the variance in the latent variable position and 6.36% of POS was explained. The results (table 5-39) of the bootstrap procedure show a mediation effect of β= .06, a lower bound estimate of .02, an upper bound .13 and a p-value of 0.016. The mediation model is compared with the direct model (PS → position) and shows that the beta in the mediation model of .06 (p= 0.016) was higher compared to the beta of the direct model of -.43 (p= 0.481). In addition, the 95% BC does not contain zero. Thus, a full mediation effect is determined (table 5-24) and H3c is therefore accepted.

Figure 5-11: Effect of PS on position mediated by POS; estimates are standardised (standard error; p-value)



H3d predicts that POS mediates the relationship between PS and promotion. Thus, the mediation model of promotion (see figure 5-12) shows that the path coefficient from PS to POS is low (β= .14) and significant (p= 0.013) while the path from POS to promotion is low and non-significant (β= .04, p= 0.281). The direct effect of PS on promotion is estimated to be β= -.17, z= -0.68, SD= 0.25, p= 0.500. The direct effect of POS on promotion is estimated to be β= .04, z= 1.08, SD= .04, p= 0.281. Both PS and POS have a non-significant effect on promotion. The effect of PS on the mediator variable (POS) is measured as β= .14, z= 2.48, SD= 0.06, p= 0.013. The indirect effect, which shows the mediating effect of PS on promotion via POS, is non-significant and estimated to be β= .01, z= 0.88, SD= 0.01, p= 0.381. Thus, the results suggest that POS does not mediate the relationship between POS and promotion. In addition, the results for the equation-level goodness-of-fit which show how much variance is explained for the endogenous variables promotion and POS indicates that 44.87% of the variance in the variable promotion and 7.12% of POS was explained. The results (table 5-39) of the bootstrap procedure show a β= .01, a lower bound estimate of -.01, an upper bound .04 and a p-value of 0.377. The mediation model is compared with the direct model and shows that the beta in the mediation model of .01 (p= 0.377) was higher compared to the beta of the direct model of -.16 (p= 0.500). In addition, the 95% BC obtain zero. Thus, no mediation effect occured (table 5-24) and thus H3d is rejected.

Figure 5-12: Effect of PS on promotion mediated by POS; estimates are standardised (standard error; p-value)



To conclude, the analysis of the data highlights several interesting results which contribute to the theoretical framework of the study. First, the validity and reliability of the study constructs are confirmed by testing the measurement components via a CFA which provides an appropriate model fit for each construct as well as for the full four-factor-model. Second, SEM also confirms the validity of the theoretical models of the subjective and objective career success of the participants. Third, the results of the proposed hypotheses of the doctoral study are summarised in table 5-25.

Table 5-25: Hypotheses and results of the study

	Hypotheses	Results
H1a	Political skill has a significant positive impact on career satisfaction of women in Germany.	accepted
H1b	Political skill has a significant positive impact on income of women in Germany.	accepted
H1c	Political skill has a significant positive impact on position of women in Germany.	rejected
H1d	Political skill has a significant positive impact on promotion of women in Germany.	rejected
H2a	Career self-efficacy moderates the relationship between political skill and career satisfaction of women in Germany.	rejected
H2b	Career self-efficacy moderates the relationship between political skill and income of women in Germany.	rejected
H2c	Career self-efficacy moderates the relationship between political skill and position of women in Germany.	rejected
H2d	Career self-efficacy moderates the relationship between political skill and promotion of women in Germany.	rejected
H3a	Perceived organisational support mediates the relationship between political skill and career satisfaction of women in Germany.	accepted
H3b	Perceived organisational support mediates the relationship between political skill and income of women in Germany.	rejected
H3c	Perceived organisational support mediates the relationship between political skill and position of women in Germany.	accepted
H3d	Perceived organisational support mediates the relationship between political skill and promotion of women in Germany.	rejected

In particular, PS shows a positive significant direct effect on career satisfaction and income, even though no relationship can be detected between PS and position as well promotion. Moreover, the analysis also reveals that PS predicted the position and promotion until CSE was entered, after which it became non-significant. Fourth, in contrast to the theoretical framework of this study, no moderation effect of CSE occurs towards the relationship of PS and subjective and objective career success. However, the results demonstrate that CSE has a significant direct effect on career satisfaction and income of the participants of this study. Fifth, POS partially mediates the relationship between PS and career satisfaction as well as fully mediates the relationship between PS and position. Nevertheless, no mediation of POS can be detected between the relationships of PS and income as well as promotion. However, the results also indicate a significant positive direct effect of POS on career satisfaction and position.

6 Conclusions

6.1 Introduction

This chapter provides a discussion on the main findings of the doctoral study presented in chapter 5; these findings are considered in relation to previous research. This chapter brings together the key findings on the relationship between the direct and indirect effects of PS moderated by CSE and meditated by POS on the subjective (career satisfaction) and objective (income, position, promotion) career success of career-oriented women in Germany. Significant agreements and differences are discussed. Thus, the study highlighted the impact of proactive behaviour, human agency and perceived organisational support on females career outcomes and answered the following three main research questions:

(1) What effect does political skill have on the subjective and objective career success of women in Germany?

(2) In what way does career self-efficacy influence (moderate) the relationship between political skill and the women's subjective and objective career success?

(3) In what way does perceived organisational support influence (mediate) the relationship between political skill and the women's subjective and objective career success?

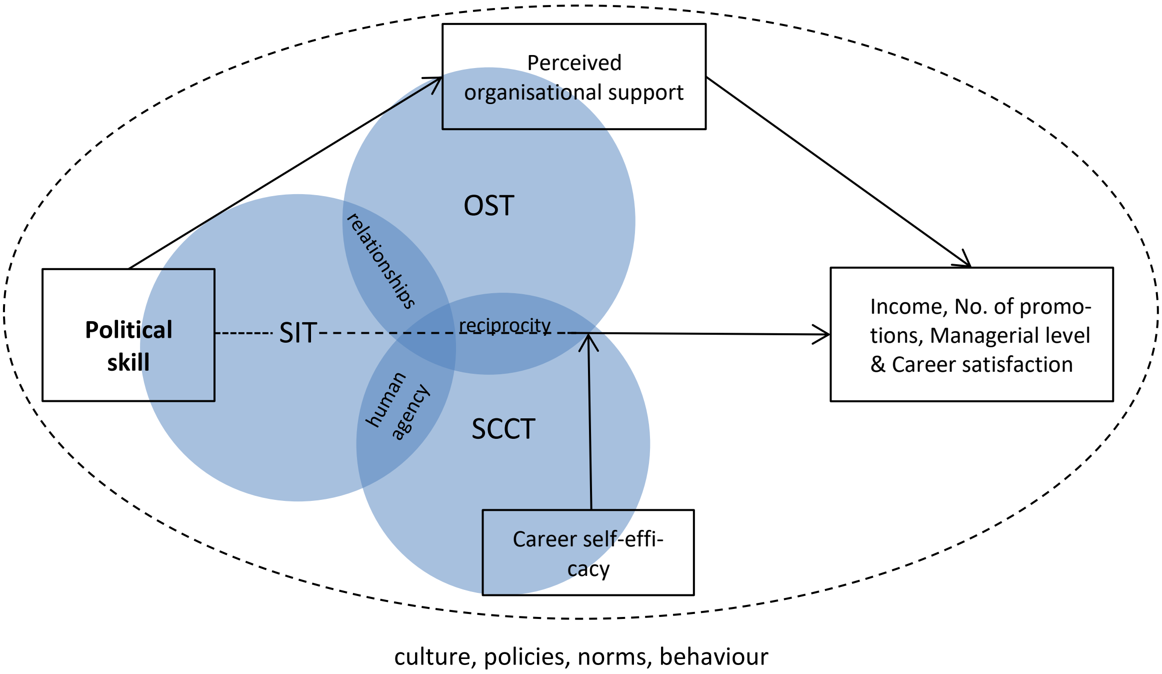
6.2 Discussion of Main Findings

The main objective of the study is to investigate factors that help women to succeed in Germany. In particular, this study analyses the extent to which PS predict career outcomes of women. To achieve that, the study evaluated the relationship between PS and the intervening variables of POS and CSE on the career success of women in Germany and provide possible explanations as well as recommendations and implications (see chapter 7).

An identified limitation of career success literature is that very few studies address factors that help women to proceed, especially in a traditional context. The German culture still maintains a more traditional understanding of a career, in that it is associated with competition and male hegemony. As a result of this, leadership and management positions tend to be viewed through a masculine lens. This notion is supported by attributes of the German working culture which prioritise loyalty, long-term employment, job security and vertical promotion, as well as an association with rivalry and masculinity. Furthermore, little knowledge about behavioural determinants that focus on proactive behaviour and human agency to enhance the careers of females is available. In particular, minimal research has been conducted to elaborate upon the determinants that support women's career success in a workplace setting. Thus, a central proposition underpinning this research is that rather than describing the obstacles women face, research should instead analyse the factors that help women to advance (Baskerville Watkins & Smith, 2014; Shaw & Leberman, 2015). To address this, the first objective of this study was to conduct a critical review of the existing literature related to career success with a particular aim to identify factors that contribute to females' career outcomes. This objective has been met due to a comprehensive review of literature within the career success field and adjacent research domains (e.g. psychology, sociology).

Echoing relevant research findings (Ballout, 2007, 2009; Greenhaus et al., 2010; Rasdi, Garavan et al., 2011), successful individuals demonstrate proactive behaviours to positively influence their career endeavours and to affect the system that is responsible for career decisions (Orpen, 1994; Pazy, 1988). In addition, influence tactics are found to be associated with enhanced career outcomes (Judge & Bretz, 1994). Also Harris and Ogbonna (2006) state that past research has focused too much on career predictors that are external rather than on the proactive actions of individuals and their behaviours. These ideas build on the notion of Mintzberg (1983, 1985) and Pfeffer (1981, 1992) who argue that organisations are political operating environments where individuals need to act influentially and hold political savvy in order to be successful. Research indicates that individuals should develop PS within competitive environments as a means to enhance their careers (Judge & Bretz, 1994; Kapoutsis et al., 2012; Ng et al., 2005). This competency seems considerably important for women as prior research suggests that they often face barriers and disadvantages in terms of corporate policies, limited training and career development activities, as well as promotional practices, and compensation (Garcia-Retamero & Lopez-Zafra, 2009; Hoobler et al., 2014; Oakley, 2000). In addition, political processes are connoted as masculine and are a part of the informal system which is linked to performance, achievement and power (Mackenzie Davey, 2008). The theoretical explanation can be drawn from SIT which suggests the application of influence tactics to achieve a desired career outcome. A central role within SIT is human agency that recognises an individual's proactive behaviour (McAllister et al., 2016). For instance, Todd et al. (2009, p. 196) refer PS as a "…conscious and intentional attempt at interpersonal influence that results in positive career-related outcomes." They also postulate that limited research exists which analyses the direct relationship between PS and several career outcomes, whereas many studies use PS as a moderating variable (Todd et al., 2009). Moreover, previous research has not fully examined the relationship between PS and career success in line with various contextual issues (Ferris et al., 2007; Todd et al., 2009) such as culture and gender. Based on proactive behaviour (Harris & Ogbonna, 2006; Seibert et al., 1999; Seibert, Kraimer, & Crant, 2001) and SIT (Levy et al., 1998; McAllister et al., 2016), this doctoral study views PS as a main competency that helps women to achieve their desired career outcomes. To achieve a deeper understanding of the mechanism of PS, the literature review identified POS and CSE as intervening variables to analyse "why" and "when" PS mostly influences the career success of women. The theoretical explanation for the proposed usefulness to integrate POS and CSE in the conceptual model of this study can be drawn from OST and SCCT, which both also reconcile behavioural aspects of the individual as well as contextual issues. In addition, each theory shares similar characteristics (relationship, human agency, reciprocity) with another and all consider the influence of culture, policies, norms and behaviour within social structures and interactions (Eisenberger, Huntington, Hutchison, & Sowa, 1986; Ferris & Treadway, 2011; Lent & Hackett, 1987). Following this argument and to further understand the impact of behavioural and organisational factors on the career success process of women in Germany, figure 6-1 presents the theories and key variables which are used in this study.

Figure 6-1: Theories and related key variables



Further objectives of this study deal with the development of a conceptual framework and related hypotheses to assess the direct and indirect effects of PS, as well as the interaction effect of CSE and meditating effects of POS on the subjective (career satisfaction) and objective (income, position, promotion) career success of career-oriented women in Germany. These objectives have been met due to the creation of a conceptual framework and related hypotheses based on the literature review. In addition, the proposed hypotheses were tested to assess the direct and indirect effects. The results will be discussed in the following section.

H1: Political skill has a significant positive impact on subjective (career satisfaction) and objective (income, position, promotion) career success of women in Germany.

The first set of hypotheses (H1a, H1b, H1c and H1d) predicted a direct relationship between PS and subjective (career satisfaction) and objective (income, position, promotion) career success of women. In particular, H1 state that there exist a positive relationship between PS and career satisfaction, income, position and promotion which can be partly supported. Thus, the finding of the positive relationship between PS and career satisfaction was not surprising, based on support in previous research. For instance, the conclusions of Breland et al. (2007) show that highly politically skilled individuals perceive themselves to be more successful. Also, Seibert et al. (1999) confirm a positive relationship between proactive personality and subjective measures of career success. The assumed positive relationship between PS and income is also consistent with those of earlier research. For instance, Ng et al. (2005) found no significant effect between PS and promotion, but saw PS to show a positive significant effect on career satisfaction and salary. One explanation regarding the positive significant relationship between PS and income refers to the availability of objective career factors - that frequent changes in the business envirnonment lead to a streamlining of hierarchies, positions and promotions which now occur as limited goods. For instance, Melamed (1996b) states that promotions depend on the availability of vacancies. In addition, income usually appears as a flexible variable which is negotiable on a regular time basis (Nier, 2017), whereas career advancements into higher positions only take place periodically. Thus, the results suggest that moderate political behaviour is sufficient to influence career satisfaction and income, but probably not for hierarchical advancements. Baskerville Watkins and Smith (2014) state that women in male-dominated organisations need higher levels of PS to receive positions with responsibility and authority.

Interestingly, the findings of the study found no evidence of a direct relationship between PS and the objective career success factors position and promotion. In contrast, Todd et al. (2009) indicate in their study that PS has a positive influence on promotion and subjective career success, but no effect on income. Tharenou (1997b) argued in her review that the use of political tactics helps to accelerate advancements to higher managerial positions. Also, the meta-analysis of Munyon et al. (2015) showed that PS is positively associated with income, position, and career satisfaction. Mainiero (1994) meanwhile recognised PS as a main competency for women to 'break the glass ceiling'.

One possible explanation for the non-significant results of the direct relationship between PS and position as well as promotion might be the phenomenon of the aforementioned glass ceiling. The current data on the number of women in top management positions in Germany supports this argument as just 8% of the 160 listed companies include women in their management boards (AllBright Stiftung, 2018; Holst & Wrohlich, 2019a). An additional analysis of management positions in Germany reveals that just 22.6% of all management positions across different industries are occupied by women (CRIF Bürgel GmbH, 2018). Typical barriers specified within the glass ceiling argument were found in recruitment and promotion practices as well as behavioral patterns (Oakley, 2000; Sabharwal, 2015; Tharenou, 2005). In addition, past research indicates that promotion practices were politically influenced and that informal factors gained importance (Pazy, 1988). Ferris and Kacmar (1992) summarised that the higher you progress in the organisational hierarchy, the more political behaviour is needed. Thus, one can assume that additional factors within promotion practices influence females endeavours to reach higher management positions. The results also suggest that PS is not an artefact of objective career success alone. Breitborde et al. (2010) claim that most social phenomena have multiple causes and that models with single determinants oversimplify these phenomena. Additional research reveals that the complexity of women´s careers and their advancements are not solely explained by single influencing factors. For instance, Mainiero and Sullivan (2005, p. 111) describe a woman's career as "… normally part of a larger and intricate web of interconnected issues, people, and aspects that had to come together in a delicately balanced package."

Another explanation for the non-significant relationship between PS and position as well as promotion could be women's lesser use of career tactics (Pazy, 1987). Considering relevant literature, it appears that the majority of studies support the idea that women utilise political behaviour less frequently than men. For instance, Buchanan (2008) claims that women do not engage in organisational politics in the same manner that men do. In addition, Perrewé and Nelson (2004) show that women are not used to engaging in political influence tactics and tend to view success instead as a result of accomplishments rather than relationships. Smith et al. (2013) conclude that influence tactics differentiate between women and men in terms of frequency and therefore produce differing outcomes. Moreover, White et al. (1997) assert in their study that even though women are sensitive to political games, they try to avoid applying political strategies. Thus, if it is to be determined that political behaviour is in fact gendered and associated with masculine qualities, women might feel uncomfortable in using political behaviour to succeed (Doldor, 2011; Mackenzie Davey, 2008). Even though research suggests that differences based on gender alone are minimal, societal expectations may provide an appropriate explanation (Post, DiTomaso, Lowe, Farris, & Cordero, 2009). The contrasting expectations of gender roles can lead to women feeling divided between their assumed social role and decision-making positions, a conflict that can result in disadvantages when it comes to promotion (Garcia-Retamero & Lopez-Zafra, 2009; Heilman, 2001). Rudman (1998) confirms that women experience drawbacks by applying a specific behaviour and attitude that is not congruent with their gender role. Moreover, Shaughnessy, Treadway, Breland, Williams, and Brouer (2011) assume that the beneficial outcome of influence behaviour is constrained by social norm expectations which are usually associated with gender. In agreement, Mackenzie Davey (2008) claims that political activities are frequently connoted as masculine which stands in opposition to female identity. Ferris and colleagues (2005) argue that PS is able to guide the effectiveness of influence tactics, but no study provides insight about the intensity of the applied behaviour and in what dimension differences between men and women exist. Thus, women may need more advanced PS to gain a beneficial reward. In addition, applying political behaviour might be viewed as masculine which creates incongruence if women use such stratregies. In addition, Smith et al. (2013) reveal in their study that gender has indeed an impact on the use and effectiveness of influence tactics. Moreover, their analyses show that women applying communal tactics benefit more (e.g. personal advancement) than women who used agentic tactics. Thus, it seems that gender role-aligned behaviours are important for women.

Furthermore, Brouer, Duke, Treadway, and Ferris (2009, p. 64) state that “Those individuals with low political skill might not realise the importance of developing and maintaining high-quality relationships, nor possess the skills to do so.” In addition, Snell et al. (2014) recognise that PS directly relates to the development and maintenance of fruitful networks. This corresponds to the argument that women’s exclusion from networks significantly negatively impacts their careers (Hopkins & Bilimoria, 2008; Lyness & Thompson, 2000). In addition, Ferris, Davidson et al. (2005) claim that women invest more time on getting things done as well as good working results instead of networking and the use of informal systems to receive important information. Therefore, it could be assumed that the lesser use and manifestation of PS as well as the non-consideration of gender can influence the relationship between PS and career success. In particular, PS seems to affect position as well as promotion due to good relationships and networks.

An further possible explanation for this is that PS indeed has no effect on position and promotion. The estimated effect without controlling for CSE might be spurious, because it is based on an omitted variable bias or the estimated coefficient of PS after controlling for CSE is biased due to multicollinearity. Moreover, the findings also show that the relationship between PS and income (β= -.04; $p = 0.476$) disappears when CSE was removed. This may be also explained by an omitted variable bias. Alternatively, the disappearing effect may result from multicollinearity. Therefore, further research is needed to understand this relationship. In conclusion, it can be said the majority of studies confirm a positive significant relationship between PS and subjective career success, but show also inconsistency towards extrinsic career success measures.

H2: Career self-efficacy moderates the relationship between Political Skill and subjective (career satisfaction) and objective (income, position, promotion) career success of women in Germany.

The second set of hypotheses (H2a, H2b, H2c and H2d) is concerned with the moderating role of CSE that is assumed to strengthen the relationship between PS and the subjective and objective career success of women in Germany. In particular, H2 state that there exists a moderating effect of CSE on the relationship between PS and career satisfaction and income, position as well as promotion. However, this hypothesis was not supported and the findings of the study found no evidence for a moderating effect of CSE, even though a direct positive significant relationship between CSE and career satisfaction as well as income exists.

Thus, the results indicate a positive direct relationship between CSE and career satisfaction as well as income which was also supported by previous research. Hence, research confirms the direct effect of CSE in relation to career success. For instance, O’Neil et al. (2015) suggest that high self-efficacy beliefs are crucial for females´ leadership development and positions. In contrast, low self-efficacy can hinder women´s success rates (Sullivan & Mahalik, 2000). Moreover, several studies confirm that self-efficacy beliefs can influence women´s careers positively (Betz & Hackett, 1997, 2006; Hackett & Betz, 1981; Lent et al., 2005; Quimby & O'Brien, 2004; Yeagley et al., 2010). Also, Carter and Silva (2011) indicate that the use of proactive behaviour supports women´s career advancements. Wood and Bandura (1989b) show that strong managerial self-efficacy beliefs influence managers' organisational attainments.

Nevertheless, the study found no evidence for the assumed moderating effect of CSE on the relationship between PS and subjective and objective career success of women in Germany. This was surprising as research confirms multiple moderating effects of self-efficacy. For example, Pasha, Hamid, and Shahzad (2017) show that self-efficacy moderates the relationship between career commitment and career success. In addition, high self-efficacy beliefs moderate the effect of career commitment towards career satisfaction and income. Thus, individuals who show high CSE will increase their commitment to attain success in contrast to those who are less efficacious (Ballout, 2009). The findings from DiRenzo, Linnehan, Shao, and Rosenberg (2010) provide additional support for the moderating effect of self-efficacy on mentoring relationships. However, in this study no moderation effect of CSE on the relationship between PS and career success can be confirmed. This is despite that fact that Ballout (2009, p. 656) claims that "Self-efficacy, for example, could boost the impact of other determinants of career success by way of moderation."

A possible explanation for the non-significant moderating role of CSE may lie in the proximity of the construct to other social effectiveness models like PS, although some researchers (Ferris et al., 2008; Perrewé & Nelson, 2004) claim that PS and CSE can be clearly distinguished. For instance, Harris et al. (2007, p. 279) claim that "…political skill is a more precise construct, appropriate for examining workplace interactions and the ability an individual has to use his or her understanding of other people at work to his or her advantage." However, Ferris and colleagues (2007) discuss the potential correlation between self-efficacy and interpersonal influence as well as networking ability. These behaviours deal with the perception that an individual is able to control the environment as well as the people in that environment. Moreover, even though theoretical explanations for moderator effects exist, in practice it is not unusual if no relationships are detected (Müller, 2009).

A further explanation may be grounded in the specific continuums of both constructs. Thus, some authors (Bing et al., 2011; Jawahar et al., 2008) advocate that self-efficacy relates to task-specific issues, whereas PS is often associated with contextual patterns (Harris et al., 2007; Jawahar et al., 2008). Moreover, self-efficacy is frequently linked to performance and PS to social interactions (Ballout, 2009; Ferris et al., 2007; Ferris, Perrewé et al., 2002; Harris et al., 2007; Jawahar et al., 2008; Judge, Jackson, Shaw, Scott, & Rich, 2007). However, a clear distinction between both constructs is not straightforward to establish, as both behaviours are social effectiveness competencies which recognise human agency (Bandura, 2006b; Treadway, Breland et al., 2013). For example, individuals who feel efficacious increase their efforts to receive expected outcomes (e.g. career success), whereas people who perceive themselves as inefficient are more likely to cease their efforts prematurely and fail at their task (Bandura, 1986). By comparison, individuals with high levels of PS increase their influence tactics and build sufficient networks to enhance their personal and/or organisational objectives (Ahearn et al., 2004; Ferris, Davidson et al., 2005), whereas individuals' with low PS rarely engage in proactive behaviour that promotes their career. Furthermore, SCT involves collective agency (Bandura 1997) which describes the shared beliefs of a community and their collective power to produce desired results (Bandura, 2001). This corresponds to the idea of powerful networks and alliances which help individuals to succeed. However, a question which demands attention here is whether gender is able to influence shared beliefs. In contrast, it might be conceivable that socially formed gender roles influence shared beliefs and also the desired outcomes. Thus, in individualistic cultures women may face more barrieres and receive less support than men.

To conclude, the results of the study show that women rate themselves on average at the higher end of the CSE scale (mean of 4.04). This indicates that they possess sufficient self-efficacy beliefs about their own capability to fulfil career-related tasks. Therefore, the results may suggest that even though women show high self-efficacy beliefs, those assumptions do not influence the relationship between PS and career success. It may be possible to conclude that women do not apply appropriate strategies to enhance their careers. In addition, the strategies which were applied may not sufficient within a traditional career environment. A contrasting explanation could be that women were satisfied with their careers and do not see any need to raise their career-related efforts, as research indicates that women focus more on the subjective aspects of a career (Kirchmeyer, 1998; O'Neil & Bilimoria, 2005; Powell & Mainiero, 1992; Sturges, 1999) in comparison to men (Konrad et al., 2000).

H3: Perceived Organisational Support mediates the relationship between Political Skill and subjective (career satisfaction) and objective (income, position, promotion) career success of women in Germany.

The third set of hypotheses (H3a, H3b, H3c and H3d) predicted a mediating effect of POS on the relationship between PS and the subjective and objective career success of women in Germany. In particular, H3 states that POS positively mediates the relationship between PS and career satisfaction and income, position as well as promotion. Thus, PS may work as an artefact of POS and affect women´s perception that they feel supported.

The study found a full mediation effect for POS on the relationship between PS and position. Moreover, POS had a partial mediation effect on the relationship between PS and career satisfaction. The results also show a direct effect of POS towards career satisfaction and position. Thus, the findings indicate that POS is the mechanism through which PS influences the career satisfaction and position of the participants. This is particularly evident in the case of position, as the relationship becomes significant and the coefficient changes from a negative (β= -.18; p= 0.481) to a positive (β= .06; p= 0.009) value. This finding is consistent with the result of Eisenberger, Stinglhamber, Vandenberghe, Sucharski, and Rhoades (2002) who show that POS is able to alter the relationship between perceived supervisor support and voluntary turnover. Thus, PS is transmitted to an outcome (career success) through POS which occurs as an intervening variable (Kossek et al., 1998).

Former research also confirms the mediating effects of POS. For example, Hochwarter et al. (2003) show that POS mediates the relationship between levels of political activity and several work outcomes. In addition, the results of Treadway et al. (2004) indicate that POS partially mediates the relationship between leaders' PS and trust, organisational cynicism, and also job satisfaction. Similarly, Baranik**,** Roling, and Eby (2010) confirm the mediating role of POS. In their study, mentoring support was passed to protégé work attitudes through perceptions of organisational support. Lastly, Zorluai and Baştemurb (2014) found that perceptions of organisational support provide a good mediator in removing negative effects between workplace deviance behaviours, organisational citizenship and job satisfaction.

An explanation for why POS works as a mediator regarding the relationship between PS and the subjective and objective career success of women may be based on reciprocity. Furthermore, the results suggest that with an increase in PS, perceptions of organisational support were created, in which the individual seems to increase their performance which in turn influences the outcome positively. Thus, the results suggest that POS appears to be a promising explanatory mechanism for understanding why PS predicts some career outcomes. Namely, PS creates an exchange process in which perceptions of organisational support were generated, which in turn predict women's career satisfaction and positions. Furthermore, the results indicate that, according to the reciprocal nature, it is likely that the women will continue with favourable treatments to help the company reach its objectives as a consequence of the organisation's welfare and support. The findings of Ferris, Davidson et al. (2005) support this assumptions. They claim that PS serves as a predictor of job performance. However, high performance ratings alone are not sufficient enough for women to succeed. For instance, the study of Zenger and Folkman (2019) show that women scored on a statistically higher performance level than men, but did not reflect the same career success.

An additional explanation for the mediating effect of POS on the relationship between PS and career satisfaction and position might be grounded in the establishment of (perceived) commitment. Research indicate that POS serves to fulfill socio-emotional needs which is able to build commitment (Eisenberger et al., 1986). In addition, research shows that PS is able to influence perceptions of commitment (Ferris, Hochwarter et al., 2002). Furthermore, Cohen and Prusak (2001) argue that networks generate commitment and loyality. Thus, it could be assumed that women who feel well supported are more commited and probably raise their performance. In addition, women who show PS are perceived as more ambitious and commited. This might be especially important as research indicates that commitment is "…an essential component in the 'work is primary' model" (Shapiro et al., p. 318).

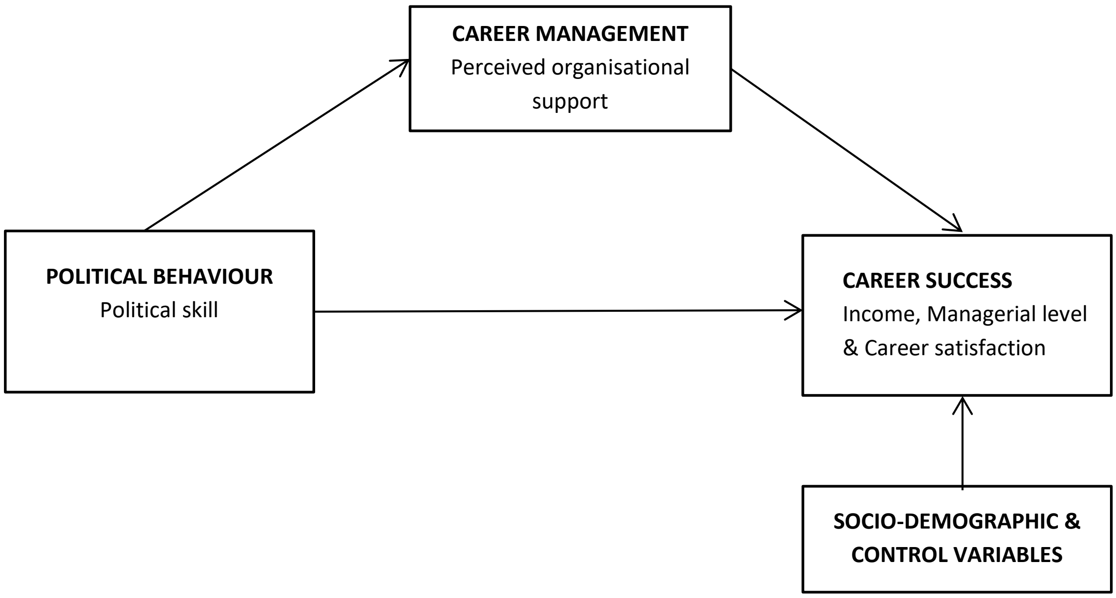
A possible explanation for the non-significant mediating role of POS regarding the relationship between PS and income as well as promotion may be grounded in methodological issues. Müller (2009) claims that both time and the analysis process play a crucial role in detecting mediation effects. In particular, challenges can occur if the mediator is measured at the same time as the criteria. Blickle, Schneider, Liu, and Ferris

(2011) posit that the measurements of a mediator, predictor and dependent variable should differ in time. Additional challanges in mediation analysis are grounded in multi-collinearity, the mis-specification of causality or non-consideration of further impact variables. Moreover, potential bias can occur if the mediator does not show perfect reliability (Müller, 2009). Further authors criticise the phenomena of partial mediation. For instance, Zhao et al. (2010) reveal that in the case of partial mediation, the likelihood of an omitted mediator exists.

The results of the positive direct effect of POS towards career satisfaction and position can also be supported by previous research. For instance, Armstrong-Stassen and Cameron (2005) show a positive influence of POS on the career satisfaction of women. Also, Jawahar et al. (2008) claim that research should more often consider the potential of POS to accelerate women's career success. The study of Hochwarter et al. (2003) meanwhile indicates that POS relates to job satisfaction, performance, commitment and job tension. Munyon et al. (2015) claim that organisations that appreciate employees' efforts and performance influence subjective and objective career success positively. Thus, the results of the study show that women rate themselves on average at a moderate value on the POS scale (mean of 3.43). This indicates that they feel moderately supported by their organisations. Moreover, it can be said the majority of studies confirm the positive character of POS, even though research claim that more studies are needed that analyses the relationship between political behaviour, POS as a mediator and several outcome variables (Hochwarter et al., 2003) as well as the role of POS in women's advancements (Jawahar et al., 2008).

Building on the discussion of the main results, the findings also suggest a modified conceptual framework of actual relationships between the variables used in this study. As such, PS indeed matters, but does not affect all aspects of womens career success outomes in Germany. For instance, the proposed moderating effect of CSE on the relationship between PS and several career success outcomes has been rejected as no evidence for an intervening effect of CSE occur. Thus, figure 6-2 presents the revised version of the conceptual model and show actual relationships supported by this study.

Figure 6-2: Modified Conceptual Framework



The final objective of this study was to provide recommendations and implications for research and practice. This objective has been met due to the consideration of recommendations and potential implications for research and practice in chapter 7. An overview of the studies objectives and how they have been met is listed in table 6-1.

Table 6-1: Realisation of the studies objectives

Objective	Objective has been met due to …
1. Conduct a critical literature review to identify factors that contribute to females' careers.	… a comprehensive review of literature within the career success field and adjacent research domains.
2. Develop a conceptual framework and related hypothesis to provide a deeper understanding of the key antecedents affecting women's career success.	… the development of a conceptual framework and related hypotheses based on the literature review.
3. Test the hypothesis by investigating the direct and indirect effects.	… a test of the proposed hypotheses to assess the direct and indirect effects.
4. Provide recommendations and implications for research and practice	… the consideration of recommendations and implications for research and practice in chapter 7.

In conclusion, this chapter provides a discussion on the main findings of the doctoral study. All key findings and related hypotheses were discussed with previous literature followed by an interpretation presented after each assumed relationship. Moreover, based on the results and discussion above a revised version of the conceptual model were developed which subsequently might also suggest a blended theory for future research.

7 Recommendations and Implications for Practice and Research, and Limitations

7.1 Introduction

This chapter provides recommendations and implications for theory and practice, while also highlighting the contribution of this doctoral study towards the body of knowledge and presenting approaches for future research. Moreover, the chapter also presents potential limitations of the study. Finally, the chapter ends with a conclusion which summarise the contribution of the study towards the body of knowledge.

7.2 Recommendations and Implications

This study provides recommendations and implications not only for career-oriented women, but also for companies in Germany. Although, research claims that individuals should take responsibility for their own career, institutions should also be interested in providing an environment to achieve success. Furthermore, if gender equality is taken seriously and career development is thus detached from gender aspects, supportive treatments by the employer may facilitate the attainment of company targets. Moreover, this study also provides an avenue for future research and makes several important contributions to career success research, especially within the German context.

First, this study investigates the direct relationship between political skill and several females' career success outcomes as well as the influence of the intervening variables career self-efficacy and perceived organisational support as limited research exist in that field. This study found a positive direct relationship between political skill and career satisfaction and income. In addition, the results also show that perceived organisational support mediates the relationship between political skill and career satisfaction as well as position. Moreover, the study is unique in integrating the perspectives of social influence theory, social cognitive career theory and organisational support theory in a German context. Through this perspective, this research contributes to the career success literature by extending knowledge on the use on influence tactics and the beneficial impact of relationships and (perceived) commitment on females´ career success outcomes in Germany.

Second, this study extends the results of previous research and contributes to empirical research in Germany, not only through considering context and culture as important influence factors within the career success approach, but also through the use of a snowball sampling technique. Moreover, this empirical study supports the validation of research instruments in a German context. Even though the instruments used in the study were developed and tested in Western countries, less research still exists in Germany. Thus, more empirical research is needed in different cultural environments to identify the impact of culture and validate prominent research instruments.

Third, in this study the values of VIF and 1/VIF indicate the distinctiveness of the concepts of political skill and career self-efficacy. Also the four-factor model with covariance fits the data better than a one-factor model which subsequently support the distinctiveness of both concepts. Thus, the study responds to the need for further studies to determine if social effectiveness competencies, in particular the concepts of political skill and career self-efficacy can be distinguished.

Fourth, the effect of political skill on several career success outcomes is still not fully understood. Hence, the study also supports a deeper understanding of behavioural and organisational career success approaches by extending knowledge on the influence mechanism of political skill on several career outcomes. In particular, this study highlights our understanding of why and how political skill affects a certain career outcome due to mediation effects of perceived organisational support on the relationship between political skill and career satisfaction as well as position.

7.2.1 Recommendations and Implications for Practice

The results suggest that enhancing political behaviour offers implications for organisations and individuals as well as recommendations for future research. In particular, the findings indicate that political skill can play an important role in women´s careers in Germany. The results demonstrate that those women who show a higher level of political skill experience more positive career outcomes. Based on this, political skill may enable women to build fruitful networks and influence others so as to receive career-related outcomes. Therefore, women may benefit from training that focuses on improving their political skill. However, a significant amount of the literature (Buchanan, 2008; Mackenzie Davey, 2008; Perrewé & Nelson, 2004; Rudman, 1998) makes clear that women prefer not to engage in organisational politics and believe instead that success is a result of performance, hard work and accomplishments. Hence, women should try to cultivate their influencing tactics and see political skill more as a competency which is able to support their career endeavours and also company targets.

To improve influence competencies, women should participate in leadership training sessions which involves activities like role-playing, problem solving and communication excercises. In addition, women should observe other professionals in work situations and how they influence subordinates and peers. In addition, working with an successful mentor might be helpful in analysing social situations and learning to develop social influence tactics (Ferris, Davidson et al., 2005).

According to the literature (Ferris et al., 2007; Munyon et al., 2015), political skill shows dispositional and developmental parts which can be influenced through training, practice, and experience. Moreover, women should be aware that upward mobility and hierachical movements are one of the most political decisions in organisations. Even though offical criteria and requirements for promotion processes exist, responsible decision-makers are often unconsciously influenced through cultural norms and are attracted by individuals who show similar characteristics and qualitites (Smith, 1998). Based on this, women should develop and practice political skill to get noticed and transmit information of ability and fit for the desired position. For instance, women can participate in executive coaching and drama-based training programs to become more politically savvy. Training and coaching sessions support the increase of social awareness and understanding as well as the effective use of interpersonal relationships (Ferris, Davidson et al., 2005).

Following this perspective, research also support the benefits of network building for career success. In particular, informal networks, alliances and sponsorship of decision-makers can lead to greater career success (Seibert, Kraimer, & Crant, 2001; Seibert, Kraimer, & Liden, 2001). As network-building is one dimension of political skill, women should practice influence tactics on a regular basis. For instance, the skillful use of ingratiation can help to receive visibility and increase career success (Ferris, Davidson et al., 2005). To develop and maintanance social capital, women can also engage a professional counsellor or coach who help to improve the understanding of social relations. In addition, to increase networks, coalliations and alliances, Ferris, Davidson et al. (2005) suggest being generous, delivering work-outcomes timely so that others are excited to work with you.

Even though this study found no evidence for a moderating effect of career self-efficacy, prior research demonstrates that self-efficacy is able to moderate several relationships involving career success (Ballout, 2009; Pasha et al., 2017). In addition, self-efficacy can work as a predictor of performance (e.g. Stajkovic & Sommer, 2000) and career success too (O'Neil et al., 2015; Wood & Bandura, 1989b). Thus, it appears reasonable that individuals should enhance their self-efficacy beliefs in order to increase success. This is of particular relevance as the results of this study indicate that women can benefit from self-efficacy beliefs regarding their career success, even though no moderation effect occurs. Thus, the findings of the direct effect suggest that women with a higher level of career self-efficacy experience positive career outcomes. Self-efficacy beliefs can also be enhanced through training, which results in an increase in job performance and visibility (Betz & Hackett, 1981; Jawahar et al., 2008). In particular, women can participate in executive coaching sessions to increase self-efficacy beliefes, influence tactics and authenticity (O'Neil et al., 2015)

In addition, this research should also encourage organisations to provide training that engages in intervention programmes to educate their employees regarding unconscious bias, especially training which builds awareness of existing discrimination practices against women. Moreover, companies should assess their procedures to uncover any deeply embedded judgements, stereotypes or prejudices that may be hindering women's potential to succeed. In doing so, organisations can also provide policies on developing women leaders to support equal opportunities. In addition, if the company offers benefits and training regardless of gender, this will probably impact women's perceptions that their employer supports and values them. According to the reciprocal nature of perceived organisational support, individuals might be willing to increase their performance so as to support the organisation too. However, two studies conducted in Germany provide an indication of women's perceptions of structural support. The study of Weissenrieder, Graml, Hagen, and Ziegler (2017) shows that women feel less supported by their supervisors compared to men. Not only this, but women perceive that men still have better career opportunities. In addition, a study of 1,700 managers illustrates that women feel that it still remains easier for men to succeed (Weissenrieder, 2018).

Furthermore, companies should assess the whole employer lifecycle: Starting with recruiting processes (e.g. does employer branding adress and attract female applicants? Does recruitment practices discriminate women? How flexible are contract designs?). Continuing to verify performance and reward systems (e.g. any performance rating or salary differences?) as well as promoting and development procedures (e.g. talent management, internal mobility and promotion) to engaging and retaining practices (e.g. insufficent engagement during maternity leave). Organisations can also consider long-term succession planning for female candidates to support women. As mentioned above, companies should also provide mentoring programs for women to enhance their possibility not only to train and develop political skill, but also to increase their network and career endeavours.

Again, the findings of this study further reveal valuable practical insights of the promoting character of perceived organisational support. The results suggest that political skill is related to subjective and objective career success; this relationship is mediated by perceived organisational support. This means political skill is able to increase women's perceptions of organisational support, which in turn influences their career success. Thus, organisations can regulate career outcomes by providing support which also influences company targets positively. Companies' beneficial treatments can include actions that prevent barriers and prejudices (e.g. structural and behavioural barriers). For instance, organisations should increase their efforts to reach gender equality and provide training and workshops for women that strenghten their competencies. In addition, workshops to educate the whole workforce to raise awareness regarding unconscious bias are suggested too. Companies should also consider equal financial treatments of women and men.

7.2.2 Recommendations and Implications for Research

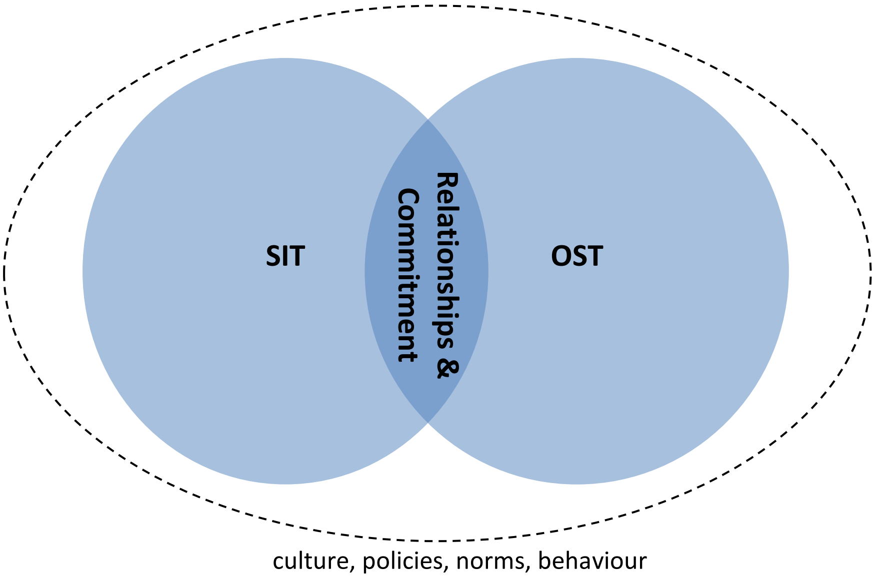
One avenue for future research involves the elaboration of several social effectiveness constructs. Ferris, Perrewé et al. (2002) argue that these constructs demonstrate mutual cognitive parts together with executed behaviour and therefore reflect a higher-order construct. Consequently, Ferris et al. (2007) claim that more research is needed that evaluates the relationship between the social effectiveness constructs. This might be helpful as a means to demonstrate that the constructs of career self-efficacy and political skill differentiate. Ferris, Perrewé et al. (2002, p. 60) argue that more work is needed that "…progress from more general findings of effects to more precise investigations of how particular influence tactics or forms of influence interact with particular types of social effectiveness constructs." Future research should assess the reciprocal influences of career success, self-efficacy, and career goals (Abele & Spurk, 2009b), as the self-efficacy theory postulates the cyclical nature of these determinants (Bandura, 1986). Research should look to identify the potential differences between the content and process domain of self-efficacy to create a deeper understanding of contextual influences. In particular, authors (Betz, 2000; Lent & Brown, 2006) describe the content domain as their own expectations of capabilities to execute specific tasks in a certain field. In contrast, the process domain of career self-efficacy refers to successful strategies. Thus, more research is needed that analyses the potential moderation effects of career self-efficacy on the relationship between political skill and several career outcomes. Furthermore, as this study considered self-efficacy to be a moderator variable, future research may consider other social effectivenes variables that have the potential to strengthen the positive effect of political skill on female career success.

It appears that fewer studies address the issue of women, political skill and career success (Baskerville Watkins & Smith, 2014; Mainiero, 1994; Perrewé & Nelson, 2004; Smith et al., 2013). Furthermore, there is still a need to analyse whether differences between the self-perception of females' political behaviour and that of others in their corporate environment exists (Westbrook, Veale, & Karnes, 2013). Moreover, researchers also indicate an overreliance on the self-reported data of the political skill construct (Ferris et al., 2008; Munyon et al., 2015). At the same time, very few studies address the impact of the four dimensions of political skill (Todd et al., 2009) as a means to elaborate upon how they serve as antecedents of career success in different contexts.

Even though Ferris et al. (2007) stress that the political skill construct can be measured as a whole, it is rare that research investigates single dimensions as separate predictors. Therefore, research should consider the importance of the political skill dimensions as well as which roles the different levels play, in order to understand why political skill works as an antecedent of females' career success.

For future research, this study also suggests investigating a blended theory of SIT and OST (see figure 7-1) for a better understanding of the impact of social phenomena. In particular, as both theories consider the influence of policies, norms and behaviour (Eisenberger et al., 1986; Levy et al., 1998) as well as the value of relationships and commitment for career success procedures.

Figure 7-1: Suggestion for a blended theory



Building on the idea above, SIT and OST value the importance of relationships, which has been identified by several authors (Luthans, 1988; O'Neil et al., 2008; Seibert, Kraimer, & Crant, 2001) as a beneficial career success factor. In addition, it might be helpful to understand which policies, norms and behaviour are needed. For instance, commitment seems to play an important role within career success processes. First, previous authors argue that a traditional view of careers exists in Germany. Second, the definition of commitment is based on a traditional concept of an ideal worker who see work as primary, whereas private and family demands are subordinate (Rapoport, Bailyn, Fletcher, & Pruitt, 2002). Third, commitment occurs by the fulfillment of socio-emotional needs (OST), but also due to networks and good relationships (SIT). All the same, future research should develop a blended theory of SIT and OST to verify the proposed interrelations and usefullness.

Future research should investigate the mediating effects of perceived organisational support on career success and therefore its importance towards women's advancement as more research is needed that analyses the relationship between the different dimensions of political skill and career success mediated by perceived organisational support, suggesting that the mechanisms between the dimension of political skill towards females' career success is more complex than first thought. Moreover, the theoretical and empirical results of this study suggest that political skill and perceived organisational support precede career success. However, these variables could in turn be affected by career success as well. For instance, if women feel satisfied with their career, it might be possible that this impacts their perception of organisational support. Therefore, future research should extent the body of knowledge by analysing how indicators of career success affect perceived organisational support in order to understand how career success can affect an individual´s perception.

A further recommondation for future research stems from the review of the literature. It still appears that limited research exists that fully analyses the nature of career success. In particular, the classification of subjective and objective success, as well as how these constructs can be operationalised, requires further examination (Harris & Ogbonna, 2006; Heslin, 2005). Moreover, the literature review also demonstrates that the majority of empirical studies are conducted in the US, with a limited number taking place in Germany, suggesting that more research in different national contexts is needed. Furthermore, research should also start to assess the impact of political skill in context of different industries and their inherent culture on the career success of women. In addition, future research schould investigate longitudinal studies that may help to determine if causality between the relationships exists. However, this study also suggests applying qualitative measures alongside survey questionnaires which may infer a deeper understanding about individuals' attitudes and behaviours.

7.3 Limitations of the study

The current study faced a number of limitations which warrant discussion. To begin with, the chosen population and context limited the generalisability of the study. Participants were selected using a snowball-sampling technique and were mostly members of female career networks. Corresponding to a non-probability sampling approach, no inference from the findings and generalisations could be drawn across the whole population (Bambacas, 2010). Moreover, a large proportion of the respondents were highly educated and work full-time, which thus held potential to limit the generalisability of the findings (Abele & Spurk, 2009b). In addition, the study focused on career-oriented women which therefore reflects a selected sample of the population of working women (O'Neil et al., 2008) and can create possible selection bias if only a certain environment is used (Browne, 2005; Metz & Tharenou, 2001). Furthermore, sample size may in itself be also a limitation. Even though the sample was sufficient as a means to find statistically significant results, research generally suggests a bigger sample size for SEM, especially in the case of the income question as many respondents refused to answer. Further studies should replicate the findings using a larger sample of women to assess generalisability.

Another limitation comes from the use of self-reported measures. Several authors indicate that this kind of data can affect the results due to common method variance (Allen, 2006; Bambacas, 2010; Chudzikowski, 2012; Podsakoff et al., 2003; Podsakoff et al., 2012). Despite these claims, some previous studies show that self-report indicators correlate highly with additional records and archival sources (Ferris et al., 2008; Judge et al., 1995; Turban & Dougherty, 1994). In addition, Feldman and Lynch (1988) claim that self-report measures of an attitudinal predictor and moderator which use similar scales might lead to responses that are created by measurement alone and therefore limit the response to other questions. Nevertheless, the author applied several recommendations (Podsakoff et al., 2003; Podsakoff et al., 2012; Söhnchen, 2009) to address the potential problem of CMV. Siemsen, Roth, and Oliveira (2010) reveal that same-source bias seems not to contribute substantially to interaction effects.

The use of the career satisfaction scale to measure subjective career success may be another limitation of the study. Even though the scale is widely accepted and shows appropriate validity and reliability (Greenhaus et al., 1990), authors (Barnett & Bradley, 2007; Heslin, 2005) argue that the scale might be not able to assess the entire range of each individual's interpretation of subjective career success, especially in times when contemporary career paths become more relevant. However, researchers (Hair et al., 2014; Kline, 2016; Weston & Gore, 2006) have always to decide between the reliability and validity of a construct and parsimony. Moreover, current studies still use single measurements to assess subjective career success (Ballout, 2009; Maurer & Chapman, 2013; Todd et al., 2009). Additionally, Dries et al. (2008, p. 263) claim that "However, even if it were possible to come to a list of ''all possible" idiosyncratic criteria used by people to evaluate career success, transforming this knowledge into a workable measure of career success would still remain quite difficult."

Furthermore, the measure used to assess political skill has limitations as, due to sample size, it was not possible to measure the four dimensions exclusively (McAllister et al., 2016). Thus, no inferences can be made about the roles played by the individual dimensions. There is still a need to expand the literature with results regarding several dimensions; in particular, to understand their contribution towards women's career success. For instance, the study of McAllister and colleagues (2016, p. 20) contributes theory-based knowledge, as they show that several dimensions of political skill support the assumption of perceived control which in turn "…allows them the ability to choose their next best step from a multitude of possibilities." Yet, in contrast to other studies (Ahearn et al., 2004; Perrewé et al., 2004), the 18-items multidimensional measure of political skill (PSI) was used, which is a more precise measurement.

A potential further limitation stems from the application of structural models which include single-item measures, as these models can lead to misidentification. The current study includes single-item measures within the structural model as objective career success is generally measured with just one observable indicator like income or promotion.

Another limitation of the study concerns the issue of causal priority. Like all cross-sectional studies, causality between the independent and dependent variables cannot be concluded. Questionnaires with the participants were conducted at one point in time. Therefore, the results cannot be inferred with a causal effect and thus might be influenced through common source bias (Allen, 2006; Barnett & Bradley, 2007). For instance, even though the results suggest that political skill causes objective and subjective career success, this research design is not able to permit such implications as it is also likely that women rate their abilities higher (e.g. social desirability). Interpretations of the results should be made with caution. Thus, further research is needed to address this issue. Future research should employ longitudinal designs to assess the impact of infuential behaviour on career outcomes. In particular, the literature review shows that the majority of studies use cross-sectional research designs.

An additional limitation stems from methodological considerations, as the theoretical model considers mediator and moderator effects. These effects can be influenced due to challenges of multicollinearity, model misspecification, measurement errors, sample size, as well as inappropriate scales or only a moderate reliability. However, the study tries to address these issues due to the incorporation of appropriate theories, consideration of research design, and the application of standardised scales alongside the testing of alternative models within SEM (Müller, 2009).

A final limitation comes from the potential analogy between the constructs of political skill and career self-efficacy. In particular, the high correlation between both constructs and an indication of non-discriminant validity lead to this assumption. Thus, the author decided to create a mean score rather than a factor score to reduce collinearity between the variables.

7.4 Concluding Remarks

Research into women's career success shows that women still remain under-represented in higher positions in Germany. To achieve success, it appears that women need to negotiate informal gendered political processes within organisational structures which in turn influence their own career success. Research still shows that career processes are politically influenced, with individuals needing to consistently navigate, influence and manipulate the system to overcome male privilege within the workplace. Nevertheless, while many studies have highlighted the significance of coaching and mentoring for women, this study underlines the importance of political skill, self-efficacy and perceived organisational support towards women's career success and as a result, to close the aforementioend research gaps. Thus, figure 7-2 provides an overview of the studies contribution towards the body of knowledge.

In addition, this study goes on to provide evidence that proactive behaviour is able to support females' career success endeavours. Specifically, it has shown that a women's political behaviour is able to influence career satisfaction and income positively. This dissertation not only demonstrates that political skill can work as an important competency that helps women to succeed, but also shows that a consideration of the context and situation is crucial. Thus, the findings in this study may also lead to statements about the whole society. Especially, the literature review demonstrates that culture influences the career success of women. In particular, the German society shows a subconscious traditional view which also form specific gender roles that are reflected in corporate culture. Based on that, policies and norms in organisations are often seen as masculine which leads to male hegemony and the discrimination of women. For instance, studies show that less support of women by organisations can result in societal consequences. In particular, highly educated women tend to opt out of their careers or leave companies (Belkin, 2003; Ryan & Haslam, 2005; Sabharwal, 2015).

Moreover, discrimination practices lead to female disempowerment and may contribute the still existing socio-economic differences between women and men. Even though supportive governmental laws were introduced within the last years (Bundesministerium für Familie, Senioren, Frauen und Jugend, 2017; Gesetz für die gleichberechtigte Teilhabe von Frauen und Männern an Führungspositionen, 2015) these intervention programmes are not sufficient enough to alter deep embedded behaviour, processes and activities in our society. This may be based in the scope of the governmental programmes as most of them are obligatory only for a limited number of organisations. Thus, more activitites and programmes which were mandatory for a bigger range of companies are needed to alter existing norms, policies and behaviour.

Furthermore, this study should also encourage women to value the importance of influence tactics and also to stop denying the importance of corporate politics. Women should start to apply political tactics as key competencies to build beneficial alliances and social capital to receive important information. Also, Baskerville Watkins and Smith (2014) suggest that political skill allow to influence others in an authentic and genuine way that decline assumptions of dissimilarity. Hence, the tendency of women to use the formal organisational procedure to receive information and support are not adequate enough to succeed. As such, women should start to train their political skills and participate in training sessions or just to observe successful individuals to learn how to apply social influence tactics.

Research has also indicated the importance of high self-efficacy beliefs as a means to career success, yet socialisation and gender roles seem to influence the deficiency of strong self-efficacy beliefs amongst many women. This in turn affects how women see themselves, leading to the formation of intrinsic career barriers and reduced career ambitions. Nevertheless, even though a direct effect of career self-efficacy towards women's career success can be detected, the assumed moderating effect has to be rejected. However, there is still a need for female role models who show other women how to open the doors into the higher echelons.

Finally, the study explores the importance of perceived organisational support to women's career development. Perceived organisational support was found to mediate the relationship between political skill and career satisfaction as well as position. Therefore, this dissertation contributes to the body of knowledge by explaining how perceived organisational support can act as a mechanism through which political skill influences the career satisfaction and position of the participants. Nevertheless, this study wants also to inspire organisations and their agents for a need to change the system. In particular as companies can benefit from supporting women and providing policies to develop women leaders to support equal opportunities. Thus, if gender equality is taken seriously stakeholders, decision-makers and management board have to show more comittment and should act as role models in the equal treatment of all genders.

Figure 7-2: Contribution towards the body of knowledge

	Contribution	Research gap
Less examined	This study investigates the direct relationship between PS and females' career success outcomes and the relationship between PS, CSE and POS and females' career success. *Key findings:* • Positive direct relationship between PS and career success. • POS mediates the relationship between PS and CarSat as well as position. • CSE does not moderate the relationship between PS and career success.	Limited research that analyses the direct relationship between PS and females' career success outcomes. Lack of research that analyses the relationship between social influence theory, social cognitive career theory and organisational support theory. In particular, the relationship between PS, CSE and POS and females' career success.
Contextual-based	This study considers PS, CSE and POS in Germany. This study used a snowball sample of career-oriented women in Germany.	Limited research in a German context which considers PS, CSE and POS. Less studies exist that use a snowball sampling technique of career-oriented women in Germany.
Concept-based	VIF and 1/VIF values indicate distinctiveness of concepts. The four-factor model with covariance fits the data better than a one-factor model.	The distinctiveness of the concepts of PS and CSE needs further investigation.
Nature of relationship	Investigation of effects of PS on several career success outcomes. *Key findings:* • Results indicate that POS is the mechanism through which PS influences CarSat and position. • CSE does not show a moderating effect on the relationship between PS and career success.	The effect of PS on several career success outcomes is not fully understood.

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Appendices

Appendix 1: Overview of Items

No.	Description	Variable
1	Managerial level	Position
2	Annual salary	Income
3	No. of promotions	No. of promotions
4	How important and significant is working in your total life?	Work centrality
5	I am satisfied with the success I have achieved in my career	Career Satisfaction
6	I am satisfied with the progress I have made towards meeting my overall career goals.	
7	I am satisfied with the progress I have made towards meeting my goals for income.	
8	I am satisfied with the progress I have made towards meeting my goals for advancement.	
9	I am satisfied with the progress I have made towards meeting my goals for the development of new skills.	
10	When I make plans for my career, I am confident I can make them work.	Career self-efficacy
11	If I can't do a job the first time, I keep trying until I can.	
12	When I set important career goals for myself, I rarely achieve them.	
13	I avoid facing career difficulties.	
14	When I have something unpleasant to do that will help my career, I stick with it until I am finished.	
15	When I decide to do something about my career, I get right to work on it.	
16	When trying to learn something new in my job, I soon give up if I am not initially successful.	
17	I avoid trying to learn new things that look too difficult for me.	
18	I feel insecure about my ability to get where I want in this company.	

19	I rely on myself to accomplish my career.	
20	I do not seem capable of dealing with most problems that come up in my career.	
21	Please indicate the extent to which you agree or disagree: The organisation values my contribution to its well-being.	Perceived organi-sational support
22	The organisation strongly considers my goals and values.	
23	The organisation really cares about my well-being.	
24	The organisation is willing to help me when I need a special favor.	
25	The organisation shows very little concern for me.	
26	The organisation takes pride in my accomplishments at work.	
27	Please indicate the extent to which you agree or disagree I spend a lot of time and effort at work networking with others.	Political skill
28	I am able to make most people feel comfortable and at ease around me.	
29	I am able to communicate easily and effectively with others.	
30	It is easy for me to develop a good rapport with most people.	
31	I understand people very well.	
32	I am good at building relationships with influential people at work.	
33	I am particularly good at sensing the motivations and hidden agendas of others.	
34	When communicating with others, I try to be genuine in what I say and do.	
35	I have developed a large network of colleagues and associates at work whom I can call on for support when I really need to get things done.	

36	At work, I know a lot of important people and am well connected.	
37	I spend a lot of time at work developing connections with others.	
38	I am good at getting people to like me.	
39	It is important that people believe I am sincere in what I say and do.	
40	I try to show a genuine interest in other people.	
41	I am good at using my connections and network to make things happen at work.	
42	I have good intuition or savvy about how to present myself to others.	
43	I always seem to instinctively know the right things to say or do to influence others.	
44	I pay close attention to people's facial expressions.	
45	Please indicate your employment situation.	Employment status
46	Please indicate your average working hours per week.	Working hours/ week
47	Please indicate the industry/branch of your current Employer.	Industry
48	Company size	Size
49	Please indicate your total years with your current employer.	Tenure
50	Please indicate your highest school-leaving qualification.	Education
51	Please indicate your highest vocational training.	
52	Please indicate your total years in the workforce.	Working Experience
53	Please indicate your age.	Age
54	Please indicate your marital Status.	Marital status
55	Do you have children?	Children
56	Do you belong to a female (career) network?	Career network
57	If yes = which one?	

Appendix 2: Female Career Networks, Information Platforms and Initiatives

No.	Network, Initiative
1	Business & Professional women Germany (BPWG)
2	Zonta Germany
3	EWMD Germany
4	Femtec
5	webgrrls.de
6	Fondsfrauen
7	Deutscher Juristinnenbund
8	Generation CEO
9	women&work
10	Mentoring Hessen
11	NUT e.V.
12	WOMAN´s Business Club
13	W.I.N Women in Network
14	women in mobility
15	Soroptimist International Deutschland
16	career-women.org
17	Käthe Ahlmann Stiftung
18	Deutsche Physikalische Gesellschaft (DPG)
19	Alumni Fb3
20	Baden-württembergischen Mentoring-Netzwerk
21	Frauennetzwerk Connecta
22	Femalemanagers
23	Führungskräfteschmiede
24	Allbright Stiftung
25	Companies listed in Gender Dax
26	Companies listed in Total E-Quality
27	Xing: Women's Business

Appendix 3: Email Example

Sehr geehrte Damen,

ich bin wissenschaftliche Mitarbeiterin im Bereich Personal und Organisation an der Frankfurt University of Applied Sciences. Neben meiner beruflichen Tätigkeit promoviere ich koopertiv an der Napier University in Edinburgh im Themengebiet "Frauen und Karriere". Meine Promotion „Beruflicher Erfolg von Frauen in Deutschland – die Bedeutsamkeit von Einflusstaktiken“ setzt sich mit verhaltens- und einstellungsbasierende Variablen auseinander, die einen positiven Einfluss auf die Karriere von Frauen haben können. Dazu plane ich mittels Snowballsampling-Verfahren eine große Anzahl von Frauen in Führungspositionen, sowie weibliche Nachwuchsführungskräfte und AT-Mitarbeiterinnen zu erreichen. Die Sampling-Methode würde ich sehr gerne über den Zugang zu Frauennetzwerken durchführen, da hier die potentielle Möglichkeit besteht, eine breite Masse meiner gewünschten Zielgruppe zu erreichen.

Ich würde mich sehr freuen, wenn Sie mich in meinem Bestreben unterstützen könnten und meinen Befragung an ihre Mitglieder zum gegebenen Zeitpunkt weiterleiten könnten. Sehr gerne kann ich Ihnen mein Projekt auch persönlich vorstellen.

Nachfolgend ein paar kurze Fakten zu dem Forschungsprojekt:
Ziel der Studie ist es herauszufinden, inwieweit die Faktoren Politisches Geschick und Selbstwirksamkeit (Konzept der Erwartungen einer Person an sich selbst, Ziele zu erreichen und gewünschte Handlungen erfolgreich auszuführen) sowie die wahrgenommene Unterstützung durch das jeweilige Unternehmen einen Einfluss auf die Karriere von Frauen haben. Es soll eruiert werden, inwieweit Frauen durch die Änderung ihres Verhaltens bzw. durch den Einsatz von Einflusstaktiken sowie die persönliche Einstellung ihre Karriere gestalten und lenken können. Die geplante Studie zeichnet sich u.a. durch ihren besonders innovativen Charakter aus. Bisherige Studien beschreiben mehrheitlich die Barrieren welche Frauen begegnen, anstatt die Faktoren zu identifizieren, welche förderlich sind.

Zielgruppe für die quantitative Befragung: Frauen in Managementpositionen (unterschiedlicher Hierarchieebenen), gerne auch Potentialträgerinnen/ AT-Mitarbeiterinnen. Dabei spielt die Branche oder auch Größe des Unternehmens keine Rolle.

Befragungszeitraum: 4-6 Wochen (Start ab Herbst 2017).

Es handelt sich um eine standardisierte Online-Befragung mit anschließender deskriptiver & inferenzstatistischer Auswertung. Die Ergebnisse der Studie können nach Auswertung gerne als Kurzzusammenfassung für das Netzwerk aufbereitet werden.

Herzliche Grüße,

Caprice Oona Weissenrieder, Dipl.-Bw. (FH)
Forschungspromotorin Fb 3 | Research Coordinator Fb 3

Fachbereich 3: Wirtschaft und Recht | Business and Law
Frankfurt University of Applied Sciences
+49 (0)69-1533-3836 • weissenrieder@fb3.fra-uas.de
Nibelungenplatz 1 • 60318 Frankfurt
www.frankfurt-university.de

Appendix 4: Introduction and Consent Form

Vorschau & Test   Einladen

Beruflicher Erfolg von Frauen in Deutschland

Liebe Teilnehmerin,

mein Name ist Caprice Oona Weissenrieder. Ich bin Doktorandin an der Frankfurt University of Applied Sciences und promoviere kooperativ an der Edinburgh Napier University in Schottland. Der Titel meines Promotionsprojektes lautet: "Beruflicher Erfolg von Frauen in Deutschland".

Hiermit bitte ich Sie um Ihre Mithilfe! Sie tragen nicht nur zum Gelingen der Studie bei, sondern profitieren im Anschluss von den Handlungsempfehlungen, die aus den Ergebnissen abgeleitet werden. Ich würde mich freuen, wenn Sie sich ca. 15 Minuten Zeit nehmen, um den nachfolgenden Fragebogen auszufüllen. Die Studie untersucht, inwieweit Frauen durch die Änderung ihres Verhaltens bzw. durch den Einsatz von Einflusstaktiken sowie die persönliche Einstellung ihre Karriere gestalten und lenken können. Insbesondere wird analysiert, welchen Einfluss folgende Faktoren auf die Karriere von Frauen haben:

- politisches Geschick
- Selbstwirksamkeit (eigene Erwartungen Ziele zu erreichen und gewünschte Handlungen erfolgreich auszuführen)
- wahrgenommene Unterstützung durch das Unternehmen

Die Ergebnisse des Projektes sollen u.a. dazu dienen Handlungsempfehlungen zu entwickeln und natürlich auch einen Beitrag zum aktuellen Wissensstand liefern.

Ich suche nach Teilnehmerinnen, die folgende Merkmale aufweisen: Frauen in bzw. auf dem Weg zu Führungspositionen, gerne auch außertarifliche Mitarbeiterinnen aus der Wirtschaft und dem öffentlichen Dienst, die in Deutschland arbeiten. Wenn Sie einwilligen an der Befragung teilzunehmen, werden Sie gleich an den Fragebogen weitergeleitet.

Sofern Sie weitere Informationen zur Studie möchten, können Sie mich gerne unter weissenrieder@fb3.fra-uas.de kontaktieren. Alle Daten werden anonym aufgenommen und können nicht zurückverfolgt werden. Aufgenommen Daten werden an einem sicheren Platz verwahrt und sind passwortgeschützt. Die Ergebnisse werden in der Doktorarbeit und Fachzeitschriften anonymisiert veröffentlicht.

Sofern Sie eine unabhängige Person kontaktieren möchten, können Sie sich gerne an Frau Dr. Gerardine Matthews-Smith (g.matthews-smith@napier.ac.uk; Tel.: + 44 131 455 5615) wenden.

Ich habe die Informationen gelesen, verstanden und keine weiteren Fragen. Hiermit erkläre ich meine freiwillige Teilnahme an diesem Forschungsprojekt und möchte die Einverständniserklärung sehen.

Weiter

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Vorschau & Test   Einladen

Einverständniserklärung

Die Edinburgh Napier Universität fordert, dass alle Personen, die an einer Forschungsstudie teilnehmen, ihr Einverständnis dazu abgeben. Bitte lesen Sie die Einverständniserklärung durch und klicken Sie danach auf „akzeptieren".

1. Ich bestätige, freiwillig an dem Forschungsprojekt zum Thema "Beruflicher Erfolg von Frauen in Deutschland", durchgeführt von Caprice Oona Weissenrieder, teilzunehmen. Frau Weissenrieder führt die Studie im Rahmen ihrer Doktorarbeit an der Edinburgh Napier Universität durch.

2. Das Hauptziel der Studie ist es herauszufinden, welchen Einfluss folgende Faktoren auf die Karriere von Frauen haben:

- politisches Geschick
- Selbstwirksamkeit (eigene Erwartungen Ziele zu erreichen und gewünschte Handlungen erfolgreich auszuführen)
- wahrgenommene Unterstützung durch das Unternehmen

3. Ich bin damit einverstanden, dass in diesem Forschungsprojekt Daten von mir aufgezeichnet werden. Mir ist bekannt, dass meine Daten anonym gespeichert und ausschließlich für wissenschaftliche Zwecke verwendet werden. Mein Name wird nicht mit weiteren Forschungsmaterialen in Verbindung gebracht und ich werde auch nicht in weiteren Arbeiten der Forscherin identifizierbar sein.

4. Ich kann die Teilnahme ohne Angabe von Gründen jederzeit beenden, ohne dass mir dadurch Nachteile entstehen. Die Daten werden anonymisiert aufgenommen und auch nach der Veröffentlichung der Ergebnisse sind die Daten nicht zurückverfolgbar.

5. Sollte ich eine Frage bzw. Fragen nicht beantworten wollen, kann ich diese auslassen.

6. Es besteht die Möglichkeit, Fragen zur Studie zu stellen. Diese wurden mir, falls zutreffend, zu meiner Zufriedenheit beantwortet.

* 1 Ich habe die Informationen gelesen und verstanden. Hiermit erkläre ich meine freiwillige Teilnahme an diesem Forschungsprojekt. Mir ist bekannt, dass ich eine Kopie der Zustimmung für meine Unterlagen ausdrucken kann.

- ◯ Ja
- ◯ Nein

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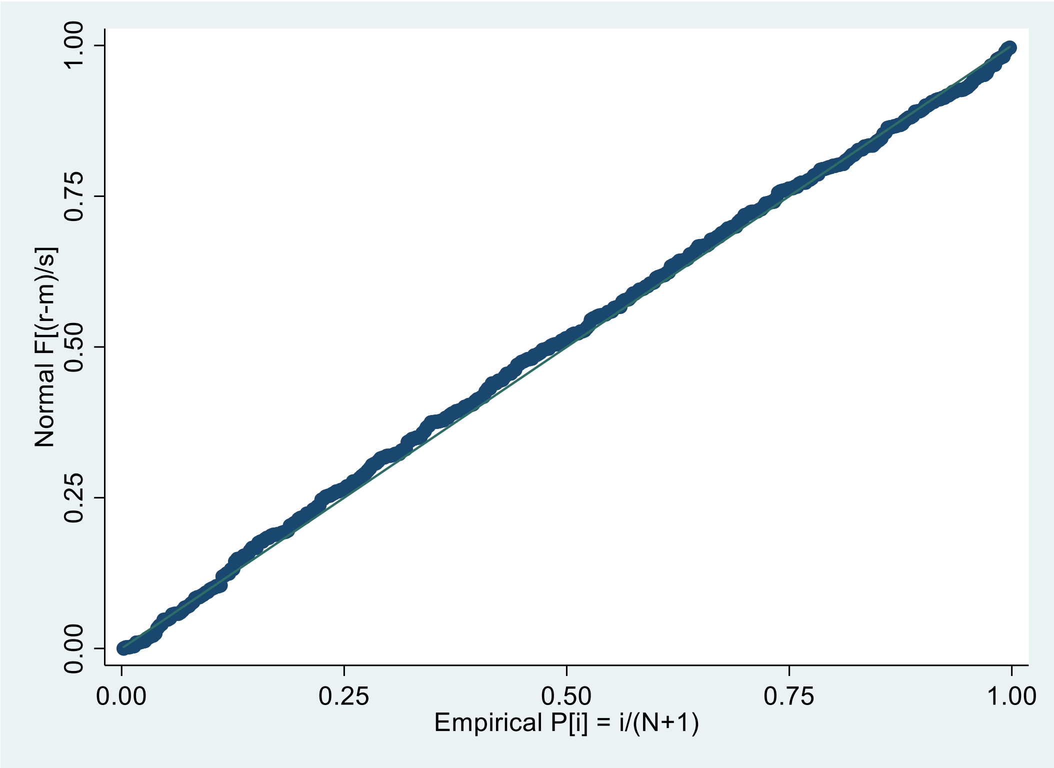
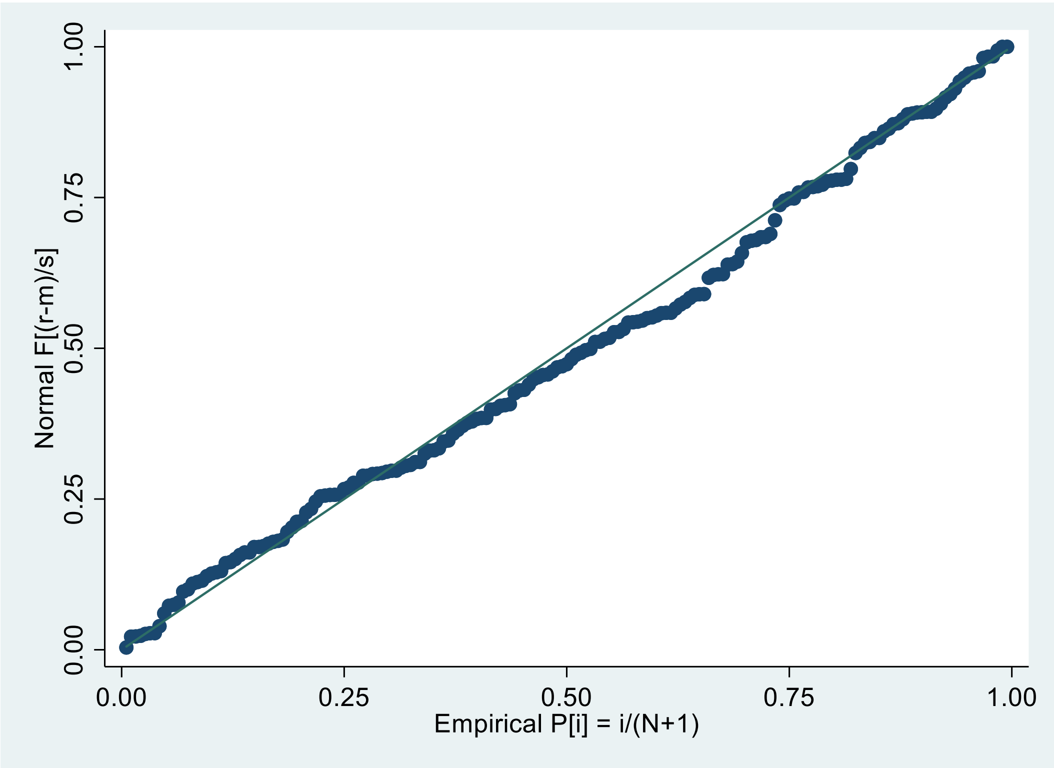
Appendix 5: Visual Assessment for Normality

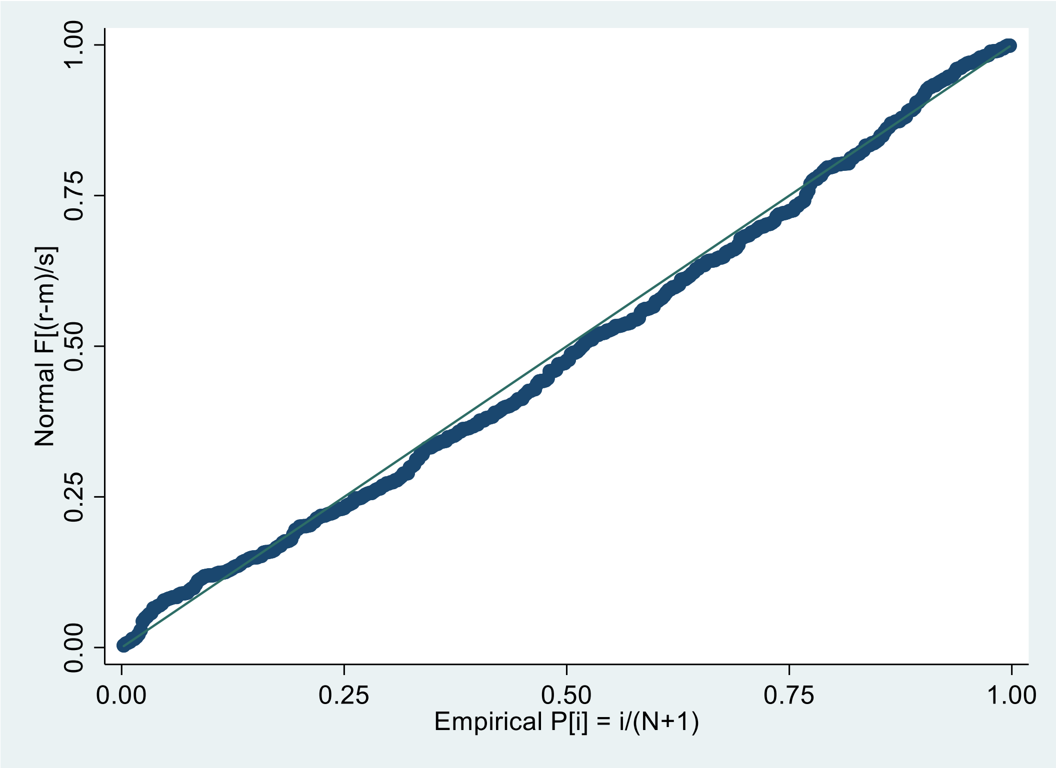
Pnorm-Plot CarSat residuals



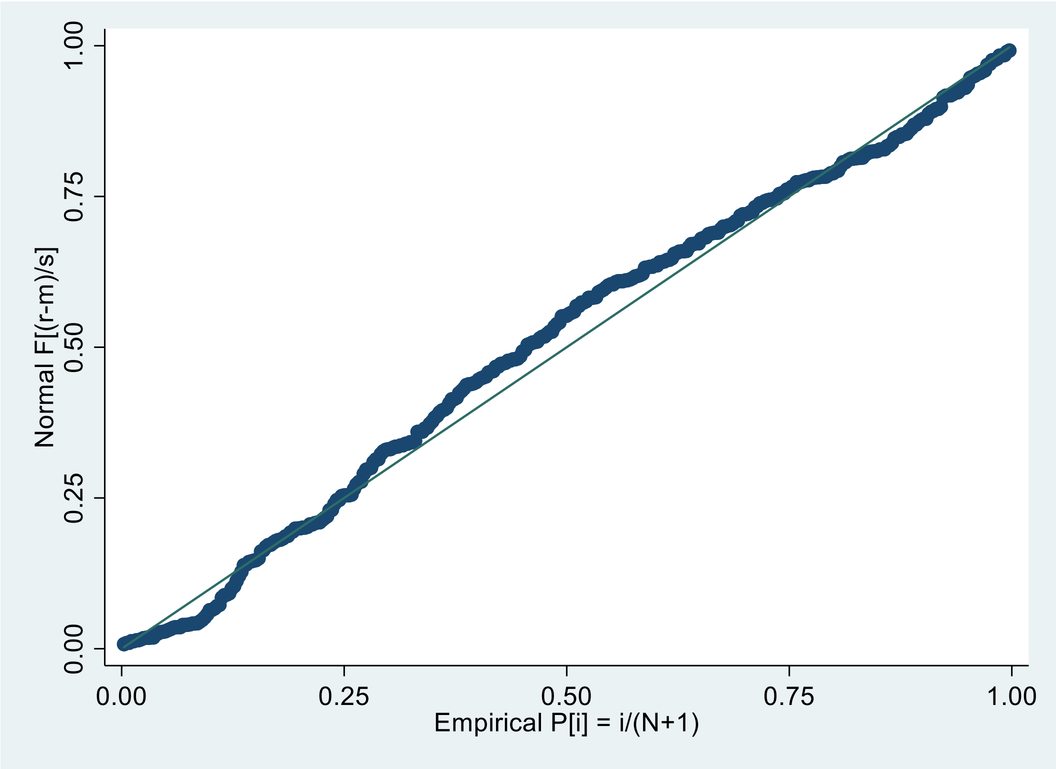
Pnorm-Plot income residuals



Pnorm-Plot position residuals

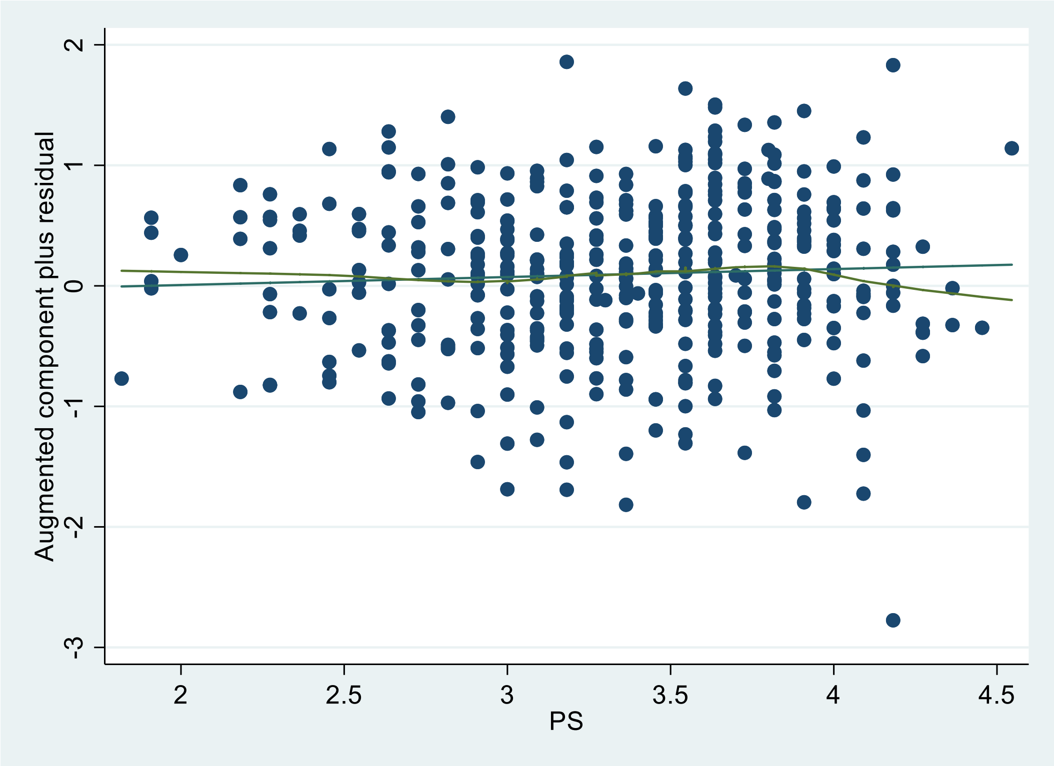


Pnorm-Plot promotion residuals

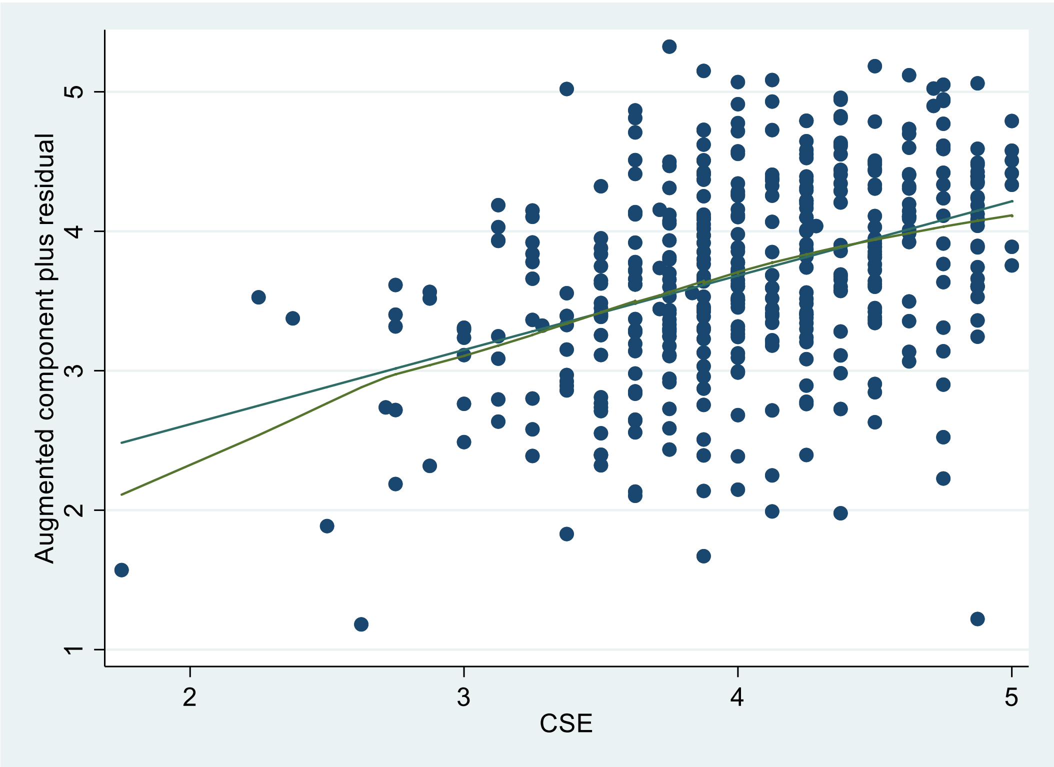


Appendix 6: Visual Assessment for Linearity

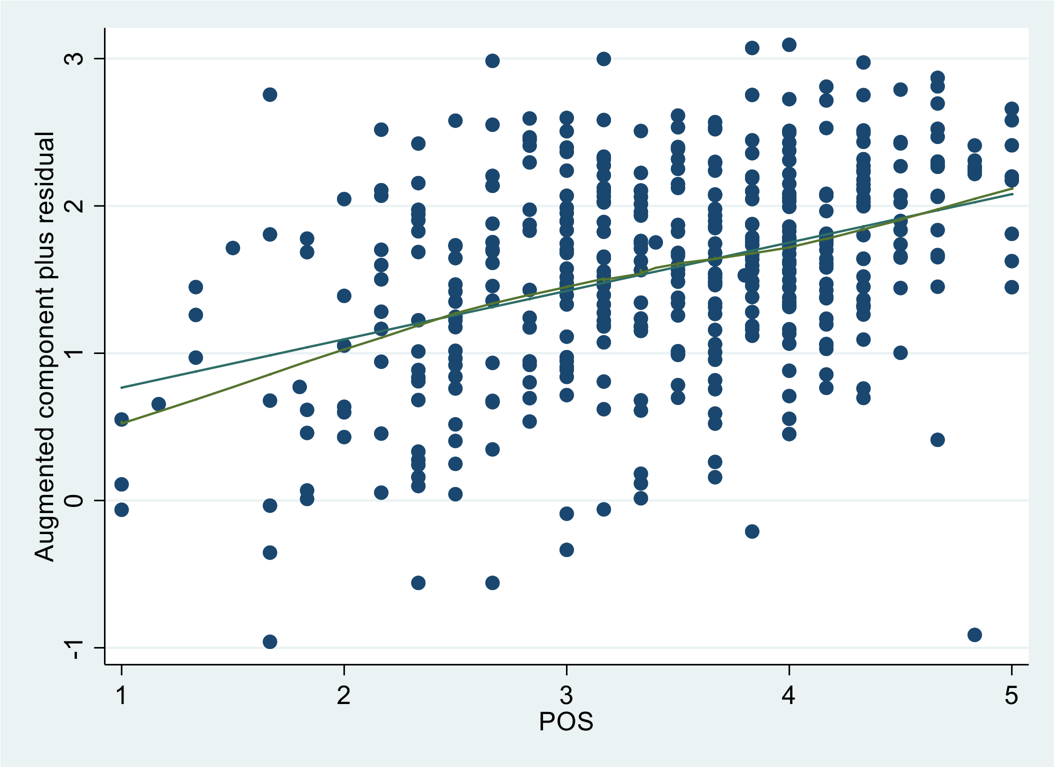
Visual assessement for linearity of CarSat and PS



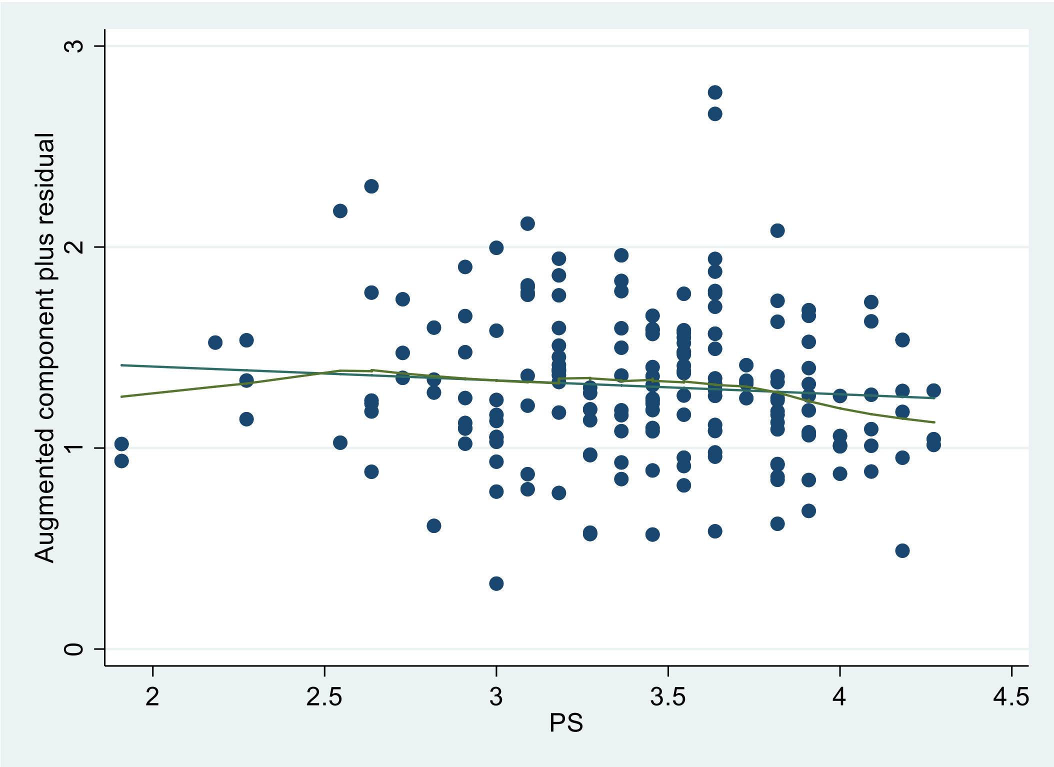
Visual assessement for linearity of CarSat and CSE



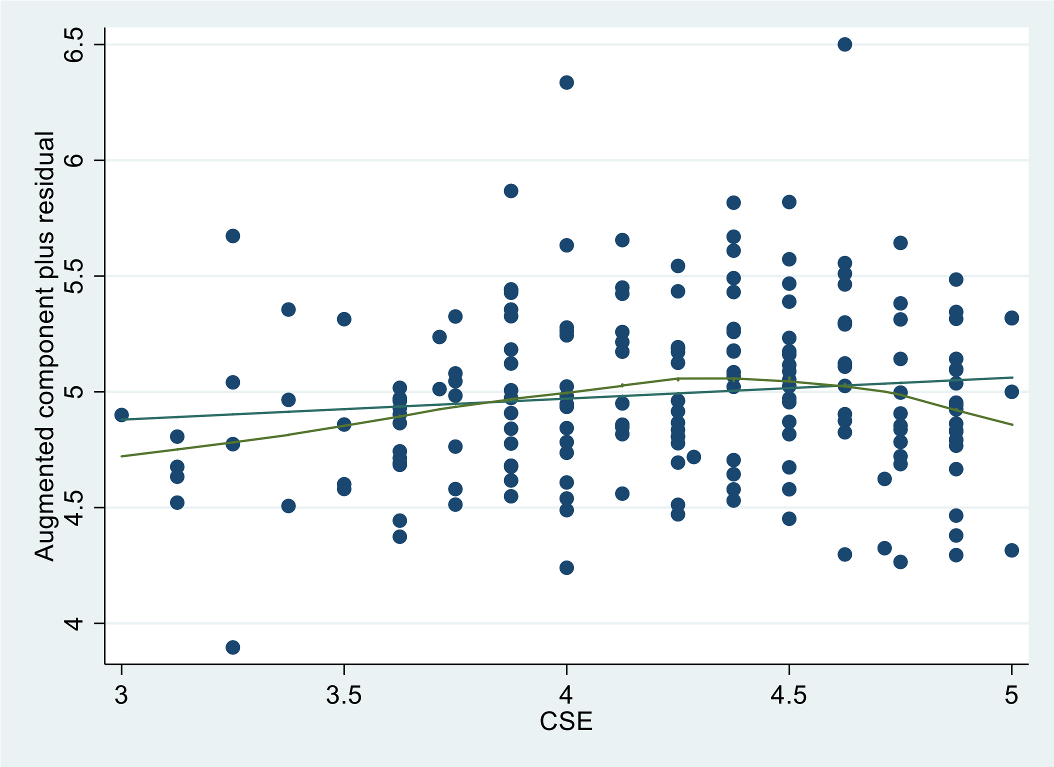
Visual assessement for linearity of CarSat and POS



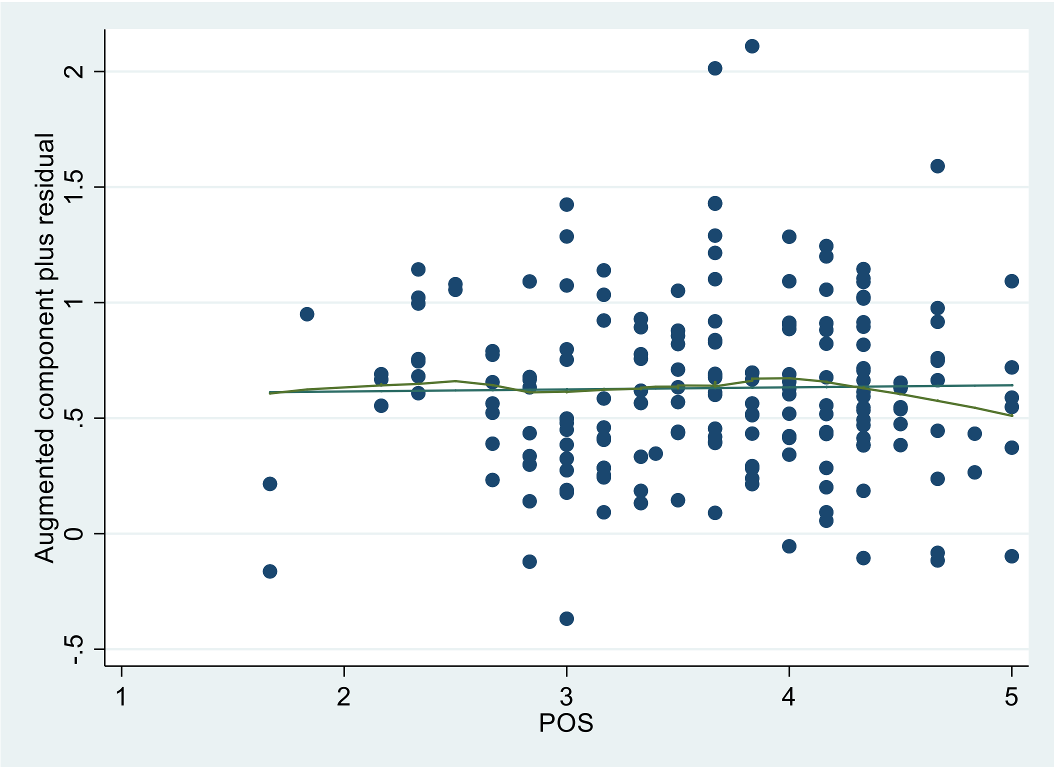
Visual assessement for linearity of income and PS



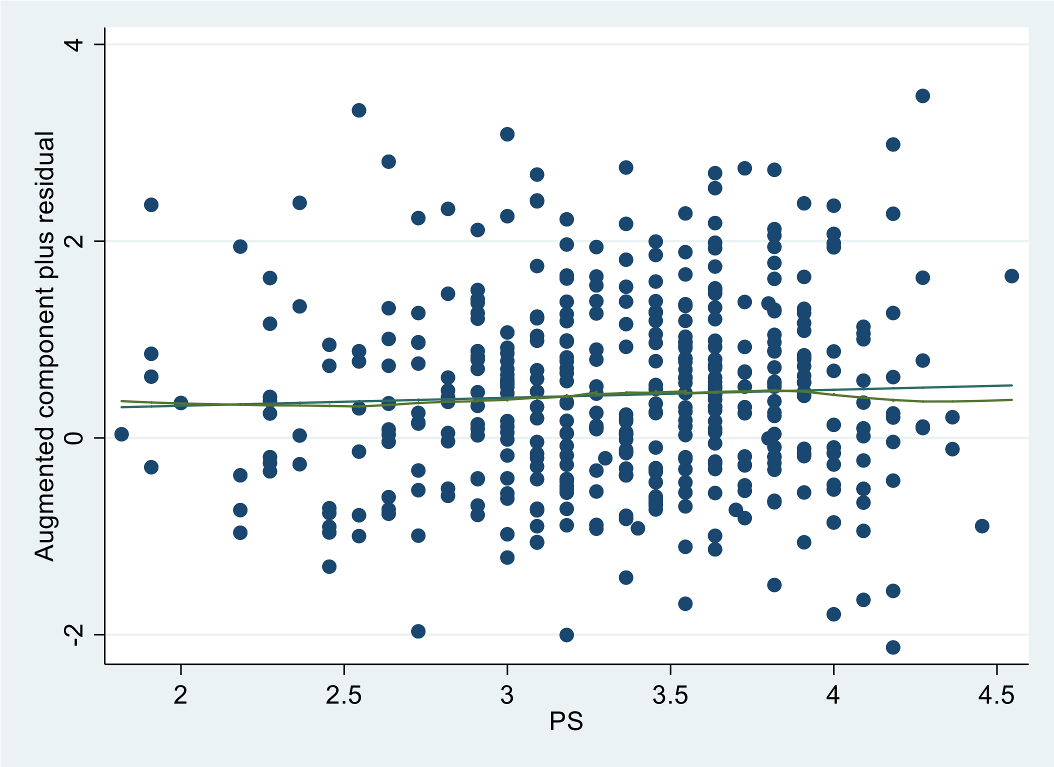
Visual assessement for linearity of income and CSE



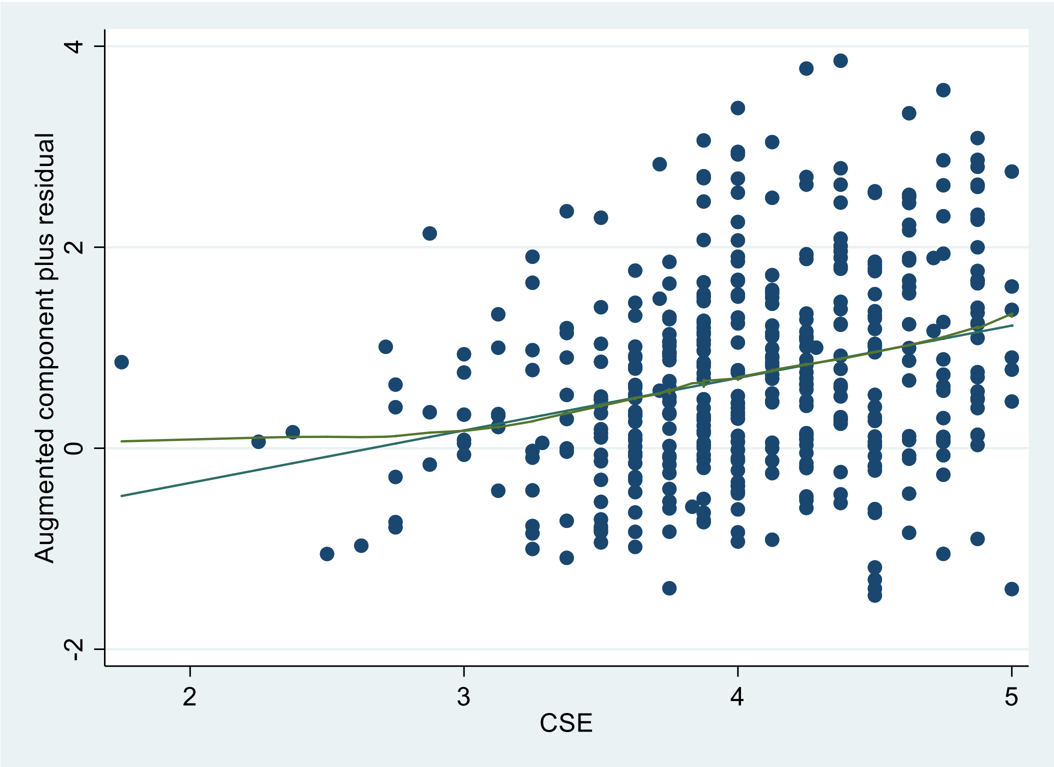
Visual assessement for linearity of income and POS



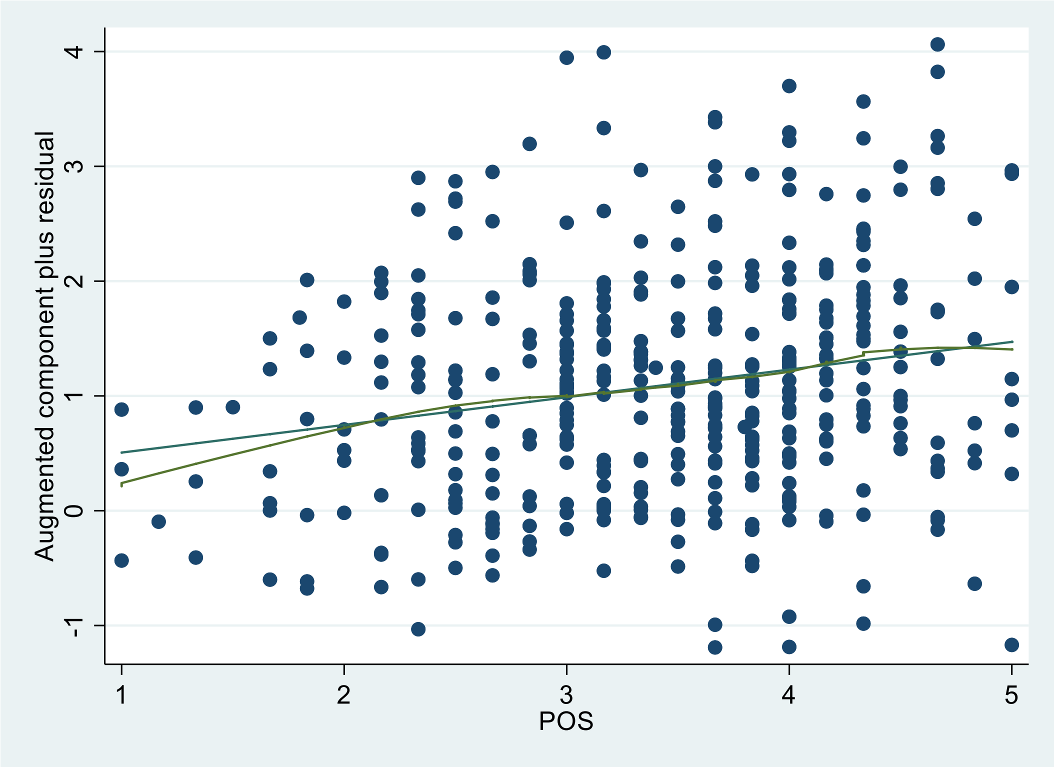
Visual assessement for linearity of position and PS



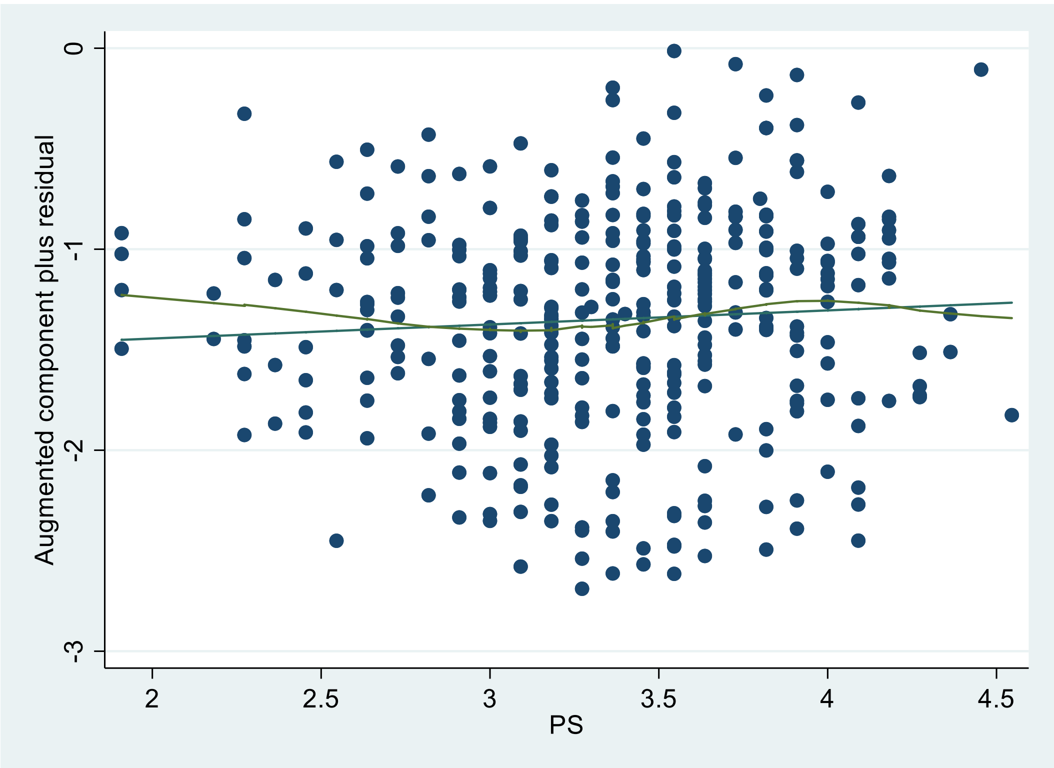
Visual assessement for linearity of position and CSE



Visual assessement for linearity of position and POS



Visual assessement for linearity of promotion and PS



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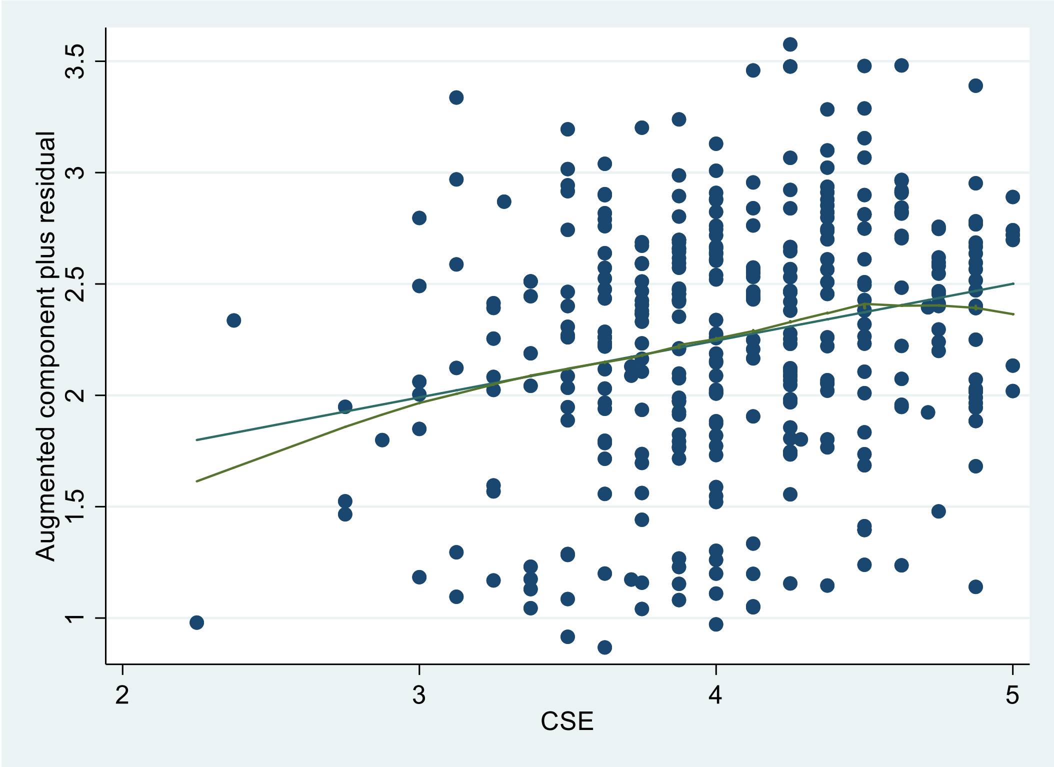
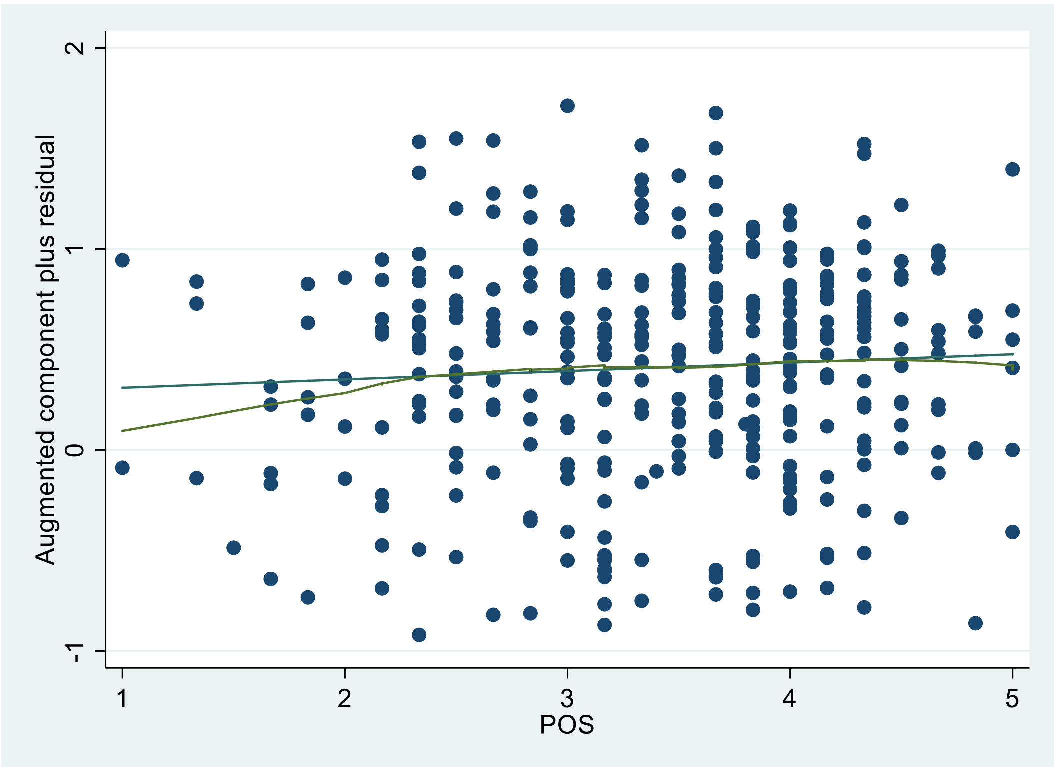


Visual assessement for linearity of promotion and POS



Appendix 7: Confirmatory Factor Analysis of single constructs

Political Skill

To examine the validity and reliability of the PSI, a CFA with ml (and sbentler) estimation was applied. The PSI was originally developed by Ferris, Treadway et al. (2005) and consists of 18 items. All of the standardised loading estimates are statistically significant. Factor loadings range between low (-.04–.28), moderate (-.32–.53), and high values (.61–.77) on the political skill construct (see table 7-1). Reliability measures of PS show a reasonable value of α= 0.84 and a CR= 0.89. Both values are above the respective cut-off value of 0.7, respectively 0.6, which indicates a good reliability. The AVE shows a value of 0.28 which indicates a problem with convergent validity. Thus, low factor loadings, together with the mentioned AVE score, indicate an unsatisfactory convergent validity.

Table 7-1: CFA for PS; Standardised output

Variable	**Item**	**Factor Loading (≥.30)**	**Cronbach α (≥0.7)**	**CR (≥0.6)**	**AVE (≥0.5)**
Political Skill (N= 454)	f14_n I spend a lot of time and effort at work networking with others.	.59	0.84	0.89	0.28
	f14_1_n I am able to make most people feel comfortable and at ease around me.	.42			
	f14_2_n I am able to communicate easily and effectively with others.	.53			
	f14_3_n It is easy for me to develop good rapport with most people.	.44			
	f14_4_n I understand people very well.	-.04			
	f14_5_n I am good at building relationships with influential people at work.	.77			
	f14_6_n I am particularly good at sensing the motivations and hidden agendas of others.	.48			

	f14_7_n When communicating with others, I try to be genuine in what I say and do.	-.20			
	f14_8_n I have developed a large network of colleagues and associates at work whom I can call on for support when I really need to get things done.	.62			
	f14_9_n At work, I know a lot of important people and am well connected.	.64			
	f14_10_n I spend a lot of time at work developing con-nections with others.	.69			
	f14_11_n I am good at getting people to like me.	.52			
	f14_12_n It is important that peo-ple believe I am sincere in what I say and do.	-.22			
	f14_13_n I try to show a genuine interest in other people.	-.32			
	f14_14_n I am good at using my connections and net-work to make things happen at work.	.67			
	f14_15_n I have good intuition or savvy about how to pre-sent myself to others.	.61			
	f14_16_n I always seem to instinc-tively know the right things to say or do to in-fluence others.	.06			
	f14_17_n I pay close attention to people's facial expres-sions.	.28			

According to the absolute model fit (see table 7-2), the chi-squared test is significant at the 0.001 level and is a first indication for an unpleasant fit with a χ^2 (135)= 1348.15, $p<0.001$; RMSEA= 0.14, 90% confidence interval to the RMSEA= 0.134–0.148; SRMR= 0.11; CFI= 0.60 and TLI= 0.55. The RMSEA is higher than the suggested moderate cut-off value of ≤0.10 (Schermelleh-Engel et al., 2003; Weston & Gore, 2006). The 90% confidence interval to the RMSEA lies between 0.134–0.148, which exceeds the recommended upper bound of the 90% CI (≤0.10). The SRMR (0.11) is just above the suggested value of ≤ 0.10. According to the incremental fit, the CFI shows an unsatisfactory value of 0.60 as well as the TLI (0.55). Both indices are below the suggested value of ≥0.90 (Brown, 2015; Hooper et al., 2008; Weston & Gore, 2006).

The diagnostic of the standardised residuals of the items reveals that 27 residuals are greater than the suggested cut-off value of |4.0|. The largest value is between item f14_5_n and item f14_15_n (27.343). According to the large number of big residuals, the author decided to delete the items with low factors loadings first, in order to achieve a better model fit. Thus, seven items (f14_1, f14_2, f14_3, f14_4, f14_7, f14_15, f14_17) were removed from the model as the factor loadings show low values. After the elimination of the items, the model fit turned slightly better, but still with an unsatisfactory χ^2 (44)= 420.68, $p<0.001$; RMSEA= 0.14, 90% confidence interval to the RMSEA= 0.126–0.149; SRMR= 0.08; CFI= 0.78 and TLI= 0.73 (Brown, 2015; Hooper et al., 2008; Weston & Gore, 2006).

Table 7-2: Proposed and modified measurement model of PS; Standardised output

Fit Indices	**Proposed Model (ml) Satorra-Bentler (SB)**	**Modified Model (ml) Satorra-Bentler (SB) with covariance**	**Suggested Indices**
χ^2	1348.2 (135)*** 1220.1 (135)***	154.13 (42)*** 139.03 (42)***	Insignificant result at a 0.05 threshold
RMSEA 90% confidence interval to the RMSEA	0.14 (ml) 0.13 (SB) 0.134–0.148	0.08 (ml) 0.07 (SB) 0.064–0.090	≤ 0.08 ≤ 0.10 moderate fit max. upper bound of the 90% CI of .10
SRMR	0.11	0.05	≤ 0.10
CFI	0.60 (ml) 0.61 (SB)	0.94 (ml) 0.94 (SB)	≥ 0.90
TLI	0.55 (ml) 0.55 (SB)	0.91 (ml) 0.92 (SB)	≥ 0.90
AIC	21177.64	12880.23	small AIC fits better

p<0.05*/ 0.01**/ 0.001***

Further diagnostics of the M.I. suggest several possible changes for the model (see table 7-3). The highest values of error terms are between the items f14_n and f14_10_n (159.56) as well as the items f14_12_n and f14_13_n (92.311).

Table 7-3: M.I. of PS

			M.I.	Comment
e.f14_n	<-->	e.f14_10_n	159.56	MI>15 indicates item f14_n and f14_10_n are redundant
e.f14_12_n	<-->	e.f14_13_n	92.31	MI>15 indicates item f14_12_n and f14_13_n are redundant

Correlating the error terms of item f14_n (I spend a lot of time and effort at work networking with others) and item f14_10_n (I spend a lot of time at work developing connections with others) makes conceptual sense. A reason for this is that the items measure the same dimension - “networking ability” - and consider the development and strengthening of relationships and alliances. In addition, the correlation of item f14_12_n (It is important that people believe I am sincere in what I say and do) and item f14_13_n (I try to show a genuine interest in other people) could be theoretically supported as both items measure the dimension “apparent sincerity” and describe “…appearing to possess high levels of integrity, authenticity, sincerity, and genuineness” (Ferris, Treadway et al., 2005, p. 129). Correlating the error terms improved the overall model fit, even though the chi-square statistics remain unsatisfactory.

Table 7-4 illustrates the fit-indices of the proposed model as well as of the modified model of PS. Thus, the chi-square is still significant at $p<0.001$ level with a χ^2 (42)= 154.13; RMSEA= 0.08, 90% confidence interval to the RMSEA= 0.064–0.090; SRMR= 0.05; CFI= 0.94 and TLI= 0.91. The RMSEA is below the suggested moderate cut-off value of 0.10 (Schermelleh-Engel et al., 2003; Weston & Gore, 2006). The 90% confidence interval to the RMSEA lies between 0.064–0.090 which is below a max. value of the upper bound of the 90% CI (≤0.10). The SRMR (0.05) is still below the suggested value of 0.10 and indicates a good model fit. According to the incremental fit, the CFI shows also a good value of 0.94 as well as the TLI with a value of 0.91. Both indices are above the suggested cut-off ≥0.90 (Brown, 2015; Hooper et al., 2008; Weston & Gore, 2006). In order to evaluate which of the two models better fits to the data, the AIC indices were used (Acock, 2013). Thus, the modified model shows a smaller AIC compared to the proposed model.

Table 7-4: Final result of CFA for PS

	Unstandar-dised value	Standardised value
Loadings		
f14_n I spend a lot of time and effort at work networking with others.	1.0 (fixed)	.54***
f14_5_n I am good at building relationships with influential people at work.	1.47***	.80***
f14_6_n I am particularly good at sensing the motivations and hidden agendas of others.	.07***	.43***
f14_8_n I have developed a large network of colleagues and associates at work whom I can call on for support when I really need to get things done.	1.10***	.67***
f14_9_n At work, I know a lot of important people and am well connected.	1.16***	.73***
f14_10_n I spend a lot of time at work developing connections with others.	1.19***	.65***
f14_11_n I am good at getting people to like me.	.66***	.73***
f14_12_n It is important that people believe I am sincere in what I say and do.	-.37***	-.13***
f14_13_n I try to show a genuine interest in other people.	-.65***	-.22***
f14_14_n I am good at using my connections and network to make things happen at work.	1.27***	.72***
f14_16_n I always seem to instinctively know the right things to say or do to influence others.	.95***	.60***
Variances		
Error.f14_n	.75	.71
Error. f14_5_n	.36	.35
Error. f14_6_n	.64	.01
Error. f14_8_n	.43	.98
Error. f14_9_n	.37	.95
Error. f14_10_n	.59	.54
Error. f14_11_n	.59	.47
Error. f14_12_n	2.38	.57
Error. f14_13_n	2.44	.81
Error. f14_14_n	.46	.49
Error. f14_16_n	.48	.63
Conservative (latent variable)	.30	1.00 (fixed)
Covariance		
Error.f14_n with Error. f14_10_n	.038***	.058***
Error.f14_15_n with Error. f14_16_n	1.08***	.451***

p<0.001***

In addition, the Cronbach Alpha measure of the modified model shows a value of α= 0.80 and the measure of CR a value of 0.64. Both measures are above the suggested cut-off values of 0.7 and 0.6 which indicates a good reliability. The AVE shows a value of 0.33 which indicates a problem with convergent validity as the suggested cut-off is below 0.50. However, Fornell and Larcker (1981) claim that if the AVE is less than 0.50, but composite reliability is higher than 0.6, convergent validity of the construct is suggested to be adequate. In addition, a low AVE is associated with a problem of multicollinearity between the independent variables, because a low variance extracted corresponds to a higher measure in error variance which happens if collinearity exists (Hair et al., 2014). Notwithstanding, the analysis of collinearity statistics reveals that no problem with collinearity exists among the independent variables. However, to reduce the probability of multicollinearity and non-discriminant validity, the author decided to use mean-scores rather than factor-scores for the following analysis. In order to support content and face validity, no further deletion of items was conducted. Therefore, the achieved values of the items factor loading, the Cronbach Alpha measure and CR reflect satisfactory results and confirm the convergent validity of the PSI scale of the study.

Career Self Efficacy

To assess the measurement validity and reliability of the CSE scale, a CFA with ml (ml sbentler) estimation was applied. The CSE scale was developed by Kossek et al. (1998) and consists of eleven items. All of the standardised loading estimates are statistically significant. Factor loadings range between low (.05) and moderate values (.30–0.59) on the career self-efficacy construct (see table 7-5).

Reliability measures of CSE indicate a satisfactory value of α= 0.75 and a CR of 0.75. Both values are above the respective cut-off value of 0.70, respectively 0.60, which indicates a good reliability. The AVE shows a value of 0.22 which indicates a problem with convergent validity. Thus, the values of the low factor loadings, as well as the AVE score, indicate an unsatisfactory convergent validity, which requires further investigation.

Table 7-5: CFA for CSE; Standardised output

Variable	Item	Factor loading (≥.30)	Cronbach α (≥0.7)	CR (≥0.6)	AVE (≥0.5)
CSE (N= 467)	f12_n When I make plans for my career, I am confident I can make them work.	.56	0.75	0.75	0.22
	f12_1_n If I can't do a job the first time, I keep trying until I can.	.46			
	f12_2_r When I set important career goals for myself, I rarely achieve them.	.50			
	f12_3_r I avoid facing career difficulties.	.05			
	f12_4_n When I have something unpleasant to do that will help my career, I stick with it until I am finished.	.42			
	f12_5_n When I decide to do something about my career, I go right to work on it.	.48			
	f12_6_r When trying to learn something new in my job, I soon give up if I am not initially successful.	.36			
	f12_7_r I avoid trying to learn new things that look too difficult for me.	.30			
	f12_8_r I feel insecure about my ability to get where I want in this company.	.45			
	f12_9_n At work, I know a lot of important people and am well connected.	.59			
	f12_10_r I spend a lot of time at work developing connections with others.	.44			

Measures of the absolute model fit show that the chi-squared test is significant at the 0.001 level, which is first evidence of an unsatisfactory fit with a χ^2 (44)= 240.46, p<0.001, RMSEA= 0.10, 90% confidence interval to the RMSEA= 0.086–0.110, SRMR= 0.07, CFI= 0.76, and TLI= 0.70. The RMSEA (0.10) shows an unfortunate fit as the values correspond to the suggested moderate cut-off value of 0.10 (Schermelleh-Engel et al., 2003; Weston & Gore, 2006). The 90% confidence interval to the RMSEA lies between 0.086–0.110 and therefore exceeds the recommended upper bound of the 90% CI (≤.10). The SRMR (0.07) is acceptable and below the suggested value of ≤0.10. According to the incremental fit, the CFI shows an unsatisfactory value of 0.76 as well as the TLI with a value of 0.70 as both indices are below the suggested value of ≥0.90 (Brown, 2015; Hooper et al., 2008; Weston & Gore, 2006).

The diagnostic of the standardised residuals of the items reveals that six residuals are greater than the suggested cut-off value of |4.0|. The largest value is between f12_n and f12_9_n (6.157). However, Acock (2013) claims that it is not unusual to have a small amount of large covariance as it is more important to assess if patterns between the residuals and a single variable or several variables exist. Moreover, to achieve a better model fit, some authors (Acock, 2013; Hair et al., 2014; Urban & Mayerl, 2014) suggest deleting items with low factor loadings prior to applying any further modifications. In particular the use of modification indices can increase the complexity of a measurement model due to adding model parameters (Urban & Mayerl, 2014).

In sum, three items (f12_4_n, f12_6_r, f12_7_r) were removed from the model as the factor loadings show low values. The resulting model fit (see table 7-6) reflected a more satisfactory result, but still with an unsatisfactory χ^2 (20)= 70.62, p<0.001; RMSEA= 0.07, 90% confidence interval to the RMSEA= 0.055–0.092; SRMR= 0.05; CFI= 0.91 and TLI= 0.87 (Brown, 2015; Hooper et al., 2008; Weston & Gore, 2006). The loading for item f_12_8_r still shows a lower preferred value (.05), but the item was retained to support content validity.

Table 7-6: Proposed and modified measurement model of CSE

Fit Indices	Proposed Model (ml) Satorra-Bentler (SB)	Modified Model (ml) Satorra-Bentler (SB)	Suggested Indices
χ^2	240.46 (44)*** 197.98 (44)***	52.25 (19)*** 44.51 (19)***	Insignificant result at a 0.05 threshold
RMSEA 90% confidence interval to the RMSEA	0.10 (ml) 0.09 (SB) 0.086–0.110	0.06 (ml) 0.05 (SB) 0.042–0.081	≤ 0.08 ≤ 0.10 moderate fit max. upper bound of the 90% CI of .10
SRMR	0.07	0.04	≤ 0.10
CFI	0.76 (ml) 0.78 (SB)	0.94 (ml) 0.91 (SB)	≥ 0.90
TLI	0.70 (ml) 0.72 (SB)	0.95 (ml) 0.92 (SB)	≥ 0.90
AIC	12666.57	9350.91	small AIC fits better

p<0.05*/ 0.01**/ 0.001***

Further diagnostics of the M.I. suggest several possible changes to the CSE model (see table 7-7). The highest values of error terms are between the items f12_1_n and f12_3_r (18.48). A correlation of the error terms of item f12_1_n (If I can't do a job the first time, I keep trying until I can) and item f12_3_r (I avoid facing career difficulties[1]) could be conceptually supported as both items are concerned with active challenges that someone faces during their career. Correlating the error terms improved the overall model fit, even though the chi-square statistics remained unsatisfactory.

Table 7-7: M.I. of CSE

			M.I.	Comment
e.f12_1_n	<-->	e.f12_3_r	18.48	MI>15 indicates item f12_1_n and f12_3_r are redundant

Table 7-6 illustrates the fit-indices of the proposed model as well as of the modified model of CSE. Thus, the chi-square is still significant at p<0.001 level with a χ^2 (19)= 52.25; RMSEA= 0.06, 90% confidence interval to the RMSEA= 0.042–0.081; SRMR= 0.04; CFI= 0.94 and TLI= 0.91. The RMSEA is below the suggested moderate cut-off value of 0.10 (Schermelleh-Engel et al., 2003; Weston & Gore, 2006). The 90% confidence interval to the RMSEA lies between 0.042–0.081 and is therefore below a max. value of the upper bound of the 90% CI (≤0.10). The SRMR (0.04) is still below the suggested value of 0.10 and indicates a good model fit. According to the incremental fit, the CFI shows also

[1] reverse coded item

a good value of 0.94 as well as the TLI with a value of 0.91. Both indices are above the suggested cut-off (≥0.90) (Brown, 2015; Hooper et al., 2008; Weston & Gore, 2006). In order to evaluate which of the two models better fit to the data, the AIC indices has been applied (Acock, 2013). Thus, the modified model shows a smaller AIC compared to the proposed model.

Table 7-8: Final result of CFA for CSE

	Unstandar-dised value	Standardised value
Loadings		
f12_n When I make plans for my career, I am confident I can make them work.	1.0 (fixed)	.67***
f12_1_n If I can't do a job the first time, I keep trying until I can.	.04***	.35***
f12_2_r When I set important career goals for myself, I rarely achieve them.	.76***	.52***
f12_3_r I avoid facing career difficulties.	.06***	.44***
f12_5_n When I decide to do something about my career, I go right to work on it.	.63***	.42***
f12_8_r I feel insecure about my ability to get where I want in this company.	1.04***	.49***
f12_9_n At work, I know a lot of important people and am well connected.	.92***	.63***
f12_10_r I spend a lot of time at work developing connections with others.	.65***	.45***
Variances		
Error. f12_n	.44	.55
Error. f12_1_n	.46	.88
Error. f12_2_r	.56	.73
Error. f12_3_r	.60	.01
Error. f12_5_n	.66	.82
Error. f12_8_r	1.21	.76
Error. f12_9_n	.46	.60
Error. f12_10_r	.06	.80
Conservative (latent variable)	.36	1.00 (fixed)
Covariance		
Error.f12_1_n with Error. f12_3_r	.110***	.209***

p<0.001***

In addition, the Cronbach Alpha measure of the modified model shows a value of α= 0.72 and the measure of CR a value of 0.72. Both measures are above the suggested cut-off values of 0.70 and 0.60 which indicates good reliability. The AVE (0.26) still indicates a problem with convergent validity as the suggested cut-off is below 0.50. However, as already mentioned, an AVE that falls below 0.50 does not strictly indicate an inappropriate convergent validity if the composite reliability is higher than 0.60 (Fornell & Larcker, 1981). In addition, a diagnostic of multicollinearity revealed no problem with collinearity among the independent variables. Therefore, the achieved values of the items factor loading (see table 7-8), the Cronbach Alpha measure and CR reflect satisfactory results and convergent validity of the CSE scale has been achieved.

Perceived Organisational Support

To assess the measurement validity and reliability of the POS scale, a CFA with ml (and ml sbentler) estimation was applied. The scale originally consisted of 6 items which were developed by Eisenberger et al. (1986). All of the standardised loading estimates are statistically significant and show strong factor loadings (.72–.84) on the perceived organisational support construct, which indicate convergent validity (see table 7-9).

Reliability measures of POS (see table 7-9) show a reasonable value of α= 0.90 and a construct reliability (CR) of 0.90. Both values are above the respective cut-off values of 0.70 and 0.60 which indicate good reliability. The AVE shows a value of 0.61 which corresponds to the suggested cut-off of 0.50. The achieved values of the factor loadings as well as the alpha score and composite reliability indicate satisfactory convergent validity.

Table 7-9: CFA for POS; Standardised output

Variable	**Item**	**Factor loading (≥.30)**	**Cronbach α (≥0.7)**	**CR (≥0.6)**	**AVE (≥0.5)**
Perceived Organisational Support (N= 465)	f13_n The organisation values my contribution to its well-being.	.77	0.90	0.90	0.61
	f13_1_n The organisation strongly considers my goals and values.	.84			
	f13_2_n The organisation really cares about my well-being.	.78			
	f13_3_n	.72			

	The organisation is willing to help me when I need a special favour.				
	f13_4_r The organisation shows very little concern for me.	.79			
	f13_5_n The organisation takes pride in my accomplishments at work.	.77			

According to the absolute model fit (see table 7-10), the chi-squared test is significant at the 0.001 level and is a first indication for an unpleasant fit with a χ^2 (9)= 61.48, p<0.001, RMSEA= 0.11, 90% confidence interval to the RMSEA= 0.086–0.139, SRMR= 0.03, CFI= 0.97, and TLI= 0.95. The RMSEA is higher than the suggested cut-off value of 0.08 (Hooper et al., 2008). The 90% confidence interval to the RMSEA is between 0.086–0.139. The SRMR is below the suggested value of 0.10 and therefore indicates a good model fit with a value of 0.03. According to the incremental fit, the CFI shows a good value of 0.97 as well as the TLI (0.95). Both indices are above the suggested value of ≥0.90 (Brown, 2015; Hooper et al., 2008; Weston & Gore, 2006).

The diagnostic of the standardised residuals of the items reveals that three residuals are greater than|2.5|, but none of them exceed the suggested cut-off value of |4.0|. The largest value is between f13_n and f11_3_n (-3.433). Thus, no modifications will be made based on the residuals.

Table 7-10: Proposed and modified measurement model of POS

Fit Indices	Proposed Model (ml) Satorra-Bentler (SB)	Modified Model (ml) Satorra-Bentler (SB)	Suggested Indices
χ^2	61.47 (9)*** 49.32 (9)***	39.20 (8)*** 33.65 (8)***	Insignificant result at a 0.05 threshold
RMSEA 90% confidence interval to the RMSEA	0.11 (ml) 0.09 (SB) 0.086–0.139	0.09 (ml) 0.08 (SB) 0.064–0.121	≤ 0.08 ≤ 0.10 moderate fit max. upper bound of the 90% CI of .10
SRMR	0.03	0.03	≤ 0.10
CFI	0.97 (ml) 0.97 (SB)	0.98 (ml) 0.98 (SB)	≥ 0.90
TLI	0.95 (ml) 0.95 (SB)	0.96 (ml) 0.96(SB)	≥ 0.90
AIC	6606.60	6586.33	small AIC fits better

p<0.05*/ 0.01**/ 0.001***

The M.I. indicates several possible changes to the model. The highest value (23.201) is between item f13_n and item f13_5_n (see table 7-11). As such, to correlate the error terms of item f13_n (The organisation values my contribution to its well-being) and item f13_5_n (The organisation takes pride in my accomplishments at work) makes conceptual sense, because both items relate more to the organisation taking the business forward, whereas the other items are more concerned with the individual. Correlating the error terms improved the overall model fit, even though the chi-square statistics remained unsatisfactory.

Table 7-11: M.I. of POS

			M. I.	Par Change	Comment
e.f13_n	<-->	e.f13_5_n	23.20	.255	MI>15 indicates item f13_n and f13_5_n are redundant

Table 7-10 illustrates the fit-indices of the proposed model as well as of the modified model of POS. Thus, the chi-square is still significant at $p<0.001$ level with a χ^2 (8)= 39.20, RMSEA = 0.09, 90% confidence interval to the RMSEA= 0.064–0.121, SRMR= 0.03, CFI= 0.98, and TLI= 0.96. The RMSEA is below the suggested moderate cut-off value of 0.10 (Schermelleh-Engel et al., 2003; Weston & Gore, 2006). The 90% confidence interval to the RMSEA lies between 0.064–0.121 which is an improvement compared to the proposed model, but still reflects a max. value of the upper bound of the 90% CI. The SRMR (0.03) remains below the suggested value of 0.10 and therefore indicates a good model fit. According to the incremental fit, the CFI shows also a good value of 0.98 as well as the TLI (0.96). Both indices are above the suggested cut-off of ≥0.90 (Brown, 2015; Hooper et al., 2008; Weston & Gore, 2006). The diagnostic measure of the standardised residuals shows two items over a value of |2.5|. However, Hair et al. (2014) indicate that it is not unusual to have a few residuals which have a higher value. In addition, no item shows a value over |4.0| which is more appropriate indicator of a potential problem. In order to evaluate which of the two models better fit to the data, the AIC indices has been applied (Acock, 2013). Thus, the modified model shows a smaller AIC compared to the proposed model.

Table 7-12: Final result of CFA for POS

	Unstandar-dised value	Standardised value
Loadings		
f13_n The organisation values my contribution to its well-being.	2.0 (fixed)	.74***
f13_1_n The organisation strongly considers my goals and values.	1.21***	.08***
f13_2_n The organisation really cares about my well-being.	1.20***	.79***
f13_3_n The organisation is willing to help me when I need a special favour.	1.05***	.73***
f13_4_r The organisation shows very little concern for me.	1.31***	.79***
f13_5_n The organisation takes pride in my accomplishments at work.	1.10***	.74***
Variances		
Error.f13_n	.413	.456
Error. f13_1_n	.003	.298
Error. f13_2_n	.415	.369
Error. f13_3_n	.465	.461
Error. f13_4_r	.504	.374
Error. f13_5_n	.458	.442
Conservative (latent variable)	.049	1.00 (fixed)
Covariance		
Error.f13_n with Error. f13_5_n	.111***	.255***

$p<0.001$***

In addition, the Cronbach Alpha measure of the modified model still shows a value of α= 0.90 and the measure of CR a value of 0.89. Both measures are above the suggested cut-off values of 0.70 and 0.60 which indicates good reliability. The AVE decreased from 0.61 to 0.60. Also the values of the items factor loading (see table 7-12) are satisfactory. Therefore, convergent validity of the modified model of perceived organisational support is achieved.

Career Satisfaction

A CFA with an ml (and ml sbentler) estimation was applied to examine the validity and reliability of the measurement of the career satisfaction scale. The initial scale was developed by Greenhaus et al. (1990) and contains five items. All of the standardised loading estimates are statistically significant and show moderate to strong factor loadings (.54–.90) on the career satisfaction construct, which indicates convergent validity (see table 7-13). Nevertheless, a factor loading value of .50 is often seen as a less conservative cut-off (Acock, 2013), even though authors (Brown, 2015; Guadagnoli & Velicer, 1988) claim that values of .30 in empirical studies are appropriate.

Reliability measures of the career satisfaction scale (see table 5-15) show a reasonable value of α= 0.87 and a CR= 0.87. Both values are above the respective cut-off values of 0.7 and 0.6 which indicates good reliability. The AVE shows a value of 0.57 which corresponds to the suggested cut-off of 0.50. The achieved values of the factor loadings as well as the alpha score and composite reliability indicate a satisfactory convergent validity.

Table 7-13: CFA of career satisfaction; Standardised output

Variable	**Item** **I am satisfied with the…**	**Factor loading (≥.30)**	**Cronbach α (≥0.7)**	**CR (≥0.6)**	**AVE (≥0.5)**
Career Satisfaction (N= 494)	f11_n …success I have achieved in my career	.86	0.86	0.87	0.57
	f11_1_n …progress I have made toward meeting my overall career goals.	.90			
	f11_2_n …progress I have made towards meeting my goals for income.	.64			
	f11_3_n …progress I have made towards meeting my goals for advancement.	.74			
	f11_4_n …progress I have made towards meeting my goals for the development of new skills.	.54			

The chi-squared test is significant at the 0.001 level and is a first indication for an unpleasant fit with a χ^2 (5)= 103.963, p<0.001; RMSEA= 0.20, 90% confidence interval to the RMSEA= 0.168–0.235; SRMR= 0.06; CFI= 0.92 and TLI= 0.85. The RMSEA is much higher than the suggested cut-off value of 0.08 (Hooper et al., 2008). The 90% confidence interval to the RMSEA shows a value above the suggested max. upper bound (≤0.10). However, the SRMR is below the suggested value of 0.10 and therefore indicates a good fit with a value of 0.06. According to the incremental fit, the CFI shows an acceptable value of 0.92 (≥0.90) whereas the TLI (0.85) lies just below the suggested value of ≥0.90.

Moreover, an additional diagnostic measure of the standardised residuals of the variables shows that three residuals are greater than|2.5|and two of them exceed the suggested cut-off value of |4.0| which indicates a potential error. The largest value is between f11_n and f11_2_n (-8.667) suggesting that the covariance between these items could be better. However, no modifications will be made due to parsimony considerations.

To achieve a better model fit, some authors (Acock, 2013; Hair et al., 2014; Urban & Mayerl, 2014) suggest deleting items with low factor loadings prior to applying M.I. as the use of M.I. can increase the complexity of a measurement model due to adding model parameters (Urban & Mayerl, 2014). Thus, item f11_4_n was removed from the model as the factor loading showed a less conservative cut-off.

Table 7-14: Proposed and modified measurement model of career satisfaction

Fit Indices	**Proposed Model (ml) Satorra-Bentler (SB)**	**Modified Model (ml) Satorra-Bentler (SB)**	**Suggested Indices**
χ^2	103.96 (5)*** 68.74 (5)***	5.71 (2)* 3.53 (2)	Insignificant result at a 0.05 threshold
RMSEA 90% CI to the RMSEA	0.20 (ml) 0.16 (SB) 0.17– 0.24	0.06 (ml) 0.04 (SB) 0.00–0.12	≤ 0.08 good fit ≤ 0.10 moderate fit max. upper bound of the 90% CI of .10
SRMR	0.06	0.02	≤ 0.10
CFI	0.92 (ml) 0.93 (SB)	0.99 (ml) 0.99 (SB)	≥ 0.90
TLI	0.85 (ml) 0.86 (SB)	0.99 (ml) 0.99 (SB)	≥ 0.90
AIC	5678.789	4563.977	small AIC fits better

p<0.05*/ 0.01**/ 0.001***

Table 7-14 illustrates the fit-indices of the proposed model as well as of the modified model of career satisfaction. The fit of the modified model is now more satisfactory with a χ^2 (2)= 5.71, p>0.01; RMSEA= 0.06, 90% confidence interval to the RMSEA= 0.00–0.12; SRMR= 0.02; CFI= 0.99 and TLI= 0.99. Even though the chi-squared test is significant at the 0.05 level, all other indices that measure the absolute fit of a model show satisfactory results. Moreover, Urban and Mayerl (2014) indicate that the chi-squared test is very sensitive to sample sizes with more than 200 individuals. However, the SRMR (0.03) is still below the threshold of 0.10. The RMSEA is below the suggested cut-off of 0.08 (Hooper et al., 2008) with a value of 0.06, but the 90% confidence interval to the RMSEA exceeds the suggested max. upper bound of 0.10. Considering the incremental fit, the CFI shows an acceptable value of 0.99 and the TLI (0.99) value lies also above the suggested value of ≥0.90. Furthermore, the diagnostic measure of the standardised residuals shows no item over a value of |2.5|. In order to evaluate which of the two models better fits to the data, the AIC indices between the proposed model and the modified model can be used. The value of the modified model is smaller than the value of the proposed model which indicates a better fit for the modified model.

Table 7-15: Final result of CFA for career satisfaction

	Unstandar-dised value	Standardised value
Loadings		
f11_n …success I have achieved in my career.	1.0 (fixed)	.87***
f11_1_n …progress I have made towards meeting my overall career goals.	1.17***	.93***
f11_2_n …progress I have made towards meeting my goals for income.	.79***	.64***
f11_3_n …progress I have made towards meeting my goals for advancement.	.85***	.72***
Variances		
Error.f11_n	.226	.249
Error. f11_1_n	.141	.131
Error. f11_2_n	.612	.589
Error. f11_3_n	.467	.485
Conservative (latent variable)	.680	1.00 (fixed)

p<0.001***

In addition, the Cronbach Alpha measure of the modified model still shows a value of α= 0.87, and the measure of CR a value of 0.87. Both measures are above the suggested cut-off values of 0.70 and 0.60 which indicates good reliability. The AVE increased from 0.57 to 0.64. Table 7-15 show the final result of factor loadings of the career satisfaction model which are satisfactory. Therefore, convergent validity of the modified model of career satisfaction is achieved.