

**THE IMPACT OF CAREER ATTITUDES ON DEVELOPMENTAL
RELATIONSHIPS**

Inês Lopes Martins

Dissertation submitted as partial requirement for the conferral of
Master in Human Resources Management and Organizational Consultancy

Supervisor:

Prof. Silvia Dello Russo, ISCTE Business School, Department of Human Resources and
Organizational Behavior

October 2018

THE IMPACT OF CAREER ATTITUDES ON DEVELOPMENTAL RELATIONSHIPS

Inês Lopes Martins

Abstract

Organizations are currently facing a new work paradigm through global competition, restructuring, fast technological changes and restricted resources in which the constant change and adaptation has become a very important point (Hall, 1996; Dominguez & Hager, 2013). Therefore, not only the conceptualization of careers was transformed but also the mentoring literature has matured (Sullivan, 1999; Higgins & Kram, 2001). The new organizational environment is steadily gaining more and more importance, being the protean and the boundaryless considered as two popular career attitudes (Briscoe, Hall, & DeMuth, 2006).

This cross-sectional study approaches how career attitudes impact developmental relationships and mentoring functions - career support, psychosocial support and role modeling. The data for this study was obtained through an online survey with a sample of 207 working professionals from different organizations and sectors. Overall, results did not verify the hypothesis proposed. However, a significant result revealed that individuals who have a boundaryless career attitude perceive to receive less career support. Thus, we discuss the implications of the findings for both theory and practice.

Keywords: Mentoring, Developmental Relationships, Protean Career, Boundaryless Career

Classification according to the JEL Classification System:

M540 Personnel Economics: Labor Management

O150 Economic Development: Human Resources; Human Development; Income Distribution; Migration

Resumo

Atualmente, as organizações encontram-se a lidar com um novo paradigma em contexto de trabalho através da concorrência global, reestruturação, rápidas e constantes mudanças tecnológicas, e recursos limitados, pelo que a necessidade de constante mudança e adaptação se tem tornado um fator cada vez mais importante para as organizações (Hall, 1996; Dominguez & Hager, 2013). Desta forma, não só a conceptualização das carreiras se tem transformado, como também a literatura sobre o mentoring se tem consolidado (Sullivan, 1999; Higgins & Kram, 2001). O novo clima organizacional tem ganho constante importância pelo que as carreiras proteana e sem fronteiras têm vindo a ser consideradas como as atitudes de carreira mais estudadas (Briscoe, Hall, & DeMuth, 2006).

Este estudo transversal aborda a forma como as atitudes de carreira podem ter impacto nas relações de desenvolvimento e nas funções do mentoring – suporte de carreira, suporte psicossocial e modelação de função. Os dados para o estudo foram obtidos através de um questionário online com uma amostra de 207 profissionais de diferentes organizações e sectores de atividade. Em geral, os resultados não verificaram as hipóteses propostas, no entanto, um resultado significativo revelou que indivíduos que têm uma atitude de carreira sem fronteiras consideram receber menos suporte de carreira. São discutidas as implicações dos resultados do estudo para a teoria e para a prática.

Palavras-chave: Mentoria, Relações de Desenvolvimento, Carreira Proteana; Carreira Sem Fronteiras

Acknowledgments

Foremost, I would like to express my gratitude to my supervisor, Silvia Dello Russo, for the continuous support in my study as well as for her patience and immense knowledge. She consistently allowed this study to be my own work but guided me in the right direction whenever she perceived I needed it.

Therefore, my dissertation would have been impossible without the aid and support of my family, boyfriend and closest friends.

Finally, I would like to thank the IT consultancy company for allowing me to send the questionnaire to all the employees and therefore making this study possible.

Index

Introduction	1
I) Literature Review	2
1. Developmental Relationships at Work.....	2
1.1 Definition and Conceptualization.....	2
1.2 Mentoring Functions.....	4
1.3 Mentoring Phases	5
1.4 Consequences of Developmental Networks	6
1.5 Antecedents of Developmental Networks	9
2. Career Attitudes	10
2.1 Protean Career Attitude	11
2.2 Boundaryless Career Concept	11
2.3 The combination of Protean and Boundaryless Careers.....	12
II) Empirical Study	13
3. Method	14
3.1 Sample	14
3.2 Procedure	14
3.3 Measures.....	15
4. Results	16
4.1 Exploratory Factor Analysis and Reliability	16
4.2 Correlation Analysis	22
4.3 Regression Analysis.....	24
5. Discussion.....	26
6. Limitations and Future Research.....	28
7. Practical Implications	30
Conclusion.....	32

References	33
Appendix A	41
A.1. Original Scale: Mentoring Functions Questionnaire	41
A.2. Adapted Scale: Mentoring Functions Questionnaire	41
A.3. Protean and Boundaryless Career Attitudes Scales	42

Index of Tables

Table I: Pattern matrix factor loadings of the Mentoring Functions scale.....	18
Table II: Reliability analysis for career support subscale: item-total statistics	19
Table III: Reliability analysis for psychosocial support subscale: item-total statistics	19
Table IV: Reliability analysis for role modeling subscale: item-total statistics.....	19
Table V: Pattern matrix factor loadings of the Protean and Boundaryless careers scales	21
Table VI: Reliability analysis for protean career attitude scale: item-total statistics.....	22
Table VII: Reliability analysis for boundaryless career attitude scale: item-total statistics ...	22
Table VIII: Means, standard deviations, alpha coefficients, and correlation coefficients.	24
Table IX: Regression Coefficients: Predicting Developmental Relationships' Mentoring Functions from Protean and Boundaryless Career Attitudes	26

List of Abbreviations

MF: Mentoring Functions	BC: Boundaryless Career
CS: Career Support	VD: Values-driven
PS: Psychosocial Support	SD: Self-directed
RM: Role Modeling	BM: Boundaryless Mindset
PC: Protean Career	OMP: Organizational Mobility Preference

Introduction

The nature of careers has been significantly changing over the past years which justifies the declining of traditional organizational career and consequently the need for new ways of viewing careers – contemporary careers (Gubler, Arnold & Cooms, 2014). Organizations are facing a new work paradigm through global competition, restructuring, fast technological changes and restricted resources in which the constant change and adaptation has become a very important point (Hall, 1996; Dominguez & Hager, 2013).

Accordingly, not only the conceptualization of careers was transformed but also the mentoring literature has matured (Sullivan, 1999; Higgins & Kram, 2001). The new organizational environment is steadily gaining more and more importance, being the protean and the boundaryless considered as two popular career attitudes (Briscoe, Hall, & DeMuth, 2006). Due to empirical confirmation, protean and boundaryless career attitudes are considered important to individuals to develop career skills and to cope with uncertain and unstable organizational environments (Briscoe's et al. 2012).

Therefore, the purpose of the present study focuses on understanding the impact of the career attitudes on developmental relationships as the extent of the mentoring functions received by individuals. This will be accomplished by combining and assessing the protean and boundaryless career attitudes for each type of support received: career support, psychosocial support and role modeling. Given the fact that more and more individuals are expected to take charge of their careers in which the ability to adapt and be flexible can play an important role in the direction, potential, and success of their careers, this study is considered interesting by analysing the relationship between career attitudes and mentoring functions.

This dissertation is formulated in two parts: Literature Review and Empirical Study. The former is focused in presenting a complete theoretical background for the main variables assessed: developmental relationships at work and career attitudes. The latter is composed by the match of these attitudes with the mentoring functions received and the presentation of hypotheses that might influence them, followed by the research method, results obtained and discussion of the findings. Afterward, the limitations of the study as well as the suggestions of directions for future career research are identified. At last, the practical implications of the study are established and revealed.

I) Literature Review

1. Developmental Relationships at Work

1.1 Definition and Conceptualization

According to mentoring literature, the concept of traditional workplace mentoring is defined as a one-to-one “*relationship between an older, more experienced individual (mentor), and a younger, less experienced individual (protégé) with the goal of helping and developing the protégé’s career and personal growth* (Ragins & Kram, 2007: 5). For this reason, the mentor has been recognized not only as having more professional experience but also more knowledge and wisdom than the protégé and thus share it in order to influence protégé’s career experiences, being one of the core principles of the mentoring relationships (Bozeman & Feeney, 2008). More recently, mentoring has been defined by several scholars as a process in which the senior individual acts as a mentor by providing a variety of functions that support, guide, protect, expose and counsel the young individuals to develop personally and professionally, and thus succeed in their careers (Akarak & Ussahawanitchakit, 2008; Pembridge & Parette, 2011; Rhay et al., 2010).

Kram’s (1985) pioneer research defined the mentoring relationship as *primary* mentoring since is a strong and individual relationship with just one mentor. Therefore, she considered there is also a *secondary* mentoring where the relationships are less intense which involve multiple mentors. This type of mentoring is characterized as being informal in a way that mentors choose protégés with whom they view a younger version of themselves and with whom they are willing to develop and devote attention and, on the other hand, protégés select mentors whom they consider to be role models (Kram, 1985; Chao et al., 1992). For this reason, spontaneously developed mentor-protégé relationships are considered to be more effective in promoting personal and career growth than formal mentoring (Chao et al., 1992; Fagenson-Eland, Marks, & Amendola, 1997; Ragins & Cotton, 1999). Chao et al. (1992), Noe (1988), and Kram (1985) emphasized the importance of specifying and comparing informal and formal relationships between mentor-protégé. According to Kram’s (1985) theory, mentoring is less superficial and more optimal in relationships that develop naturally (informal relationships) than in formally arranged relationships (formal relationships). Thus, Mullen (1994) suggested that naturally formed relationships are more comfortable than assigned mentor–protégé relationships which may encourage communication. Also, Chao et al. (1992) perceived formalized mentoring relationships as decreasing mentors’ motivation and protégés’ openness. More recently, the

study of Baugh and Fagenson-Eland (2007) introduced four dimensions to differentiate informal mentoring relationships from formal mentoring relationships. First, informal relationships are naturally initiated by both mentor-protégé and are most likely driven by the needs of both mentor and protégé (Blake-Beard et al. 2007; Ragins & Cotton 1999). Second, informal relationships are considered more intense than formal relationships due to unbounded scope of informal relationships and the focus on professional and personal development. Third, informal mentoring is less visible than formal mentoring because usually is not recognized by mentor-protégé. Lastly, contrarily to formal mentoring programs, informal relationships are not constrained in their duration and change over time (Garvey & Alred, 2003; Kram, 1985; Roberts, 2000).

The current career context of global competition, restructuring, rapid technological changes and constrained resources, are forcing organizations to search for different ways of perceiving careers due to constant need for change and adaptation (Dominguez & Hager, 2013). The new and complex career environment is characterized by a shift in three market dynamics: the employment contract, in which individuals no longer depend on one single employer and development relationships include individuals from inside and outside the organization (Arthur & Rousseau, 1996); technology, in a way that makes it easier for individuals to communicate and develop relationships with multiple mentors, emerging the concept of “*virtual mentors*” (Whiting & de Janasz, 2004); and workforce demography, in which the increased diversity of the workforce enables challenges for protected classes, for example racial minorities (Thomas & Gabarro, 1999). Due to those changes in the career context over the past decades, the conceptualization of careers was transformed and the mentoring literature has matured (Sullivan, 1999). As a result, Higgins and Kram (2001) reconceptualised mentoring as a “*developmental network*” that include multiple, shorter-term relationships.

According to the social network literature, there are four fundamental attributes of developmental networks. First, mentors or developers are seen as co-learners, which means, “*people a protégé names as taking an active interest in and action to advance the protégé’s career by providing developmental assistance*” (Higgins & Kram, 2001: 268). Second, unlike traditional face-to-face, dyadic, hierarchical mentoring relationship that involve one protégé and one mentor, developmental networks are concurrent relationships with multiple mentors or developers, meaning that one protégé may have a constellation of different mentors at one point in time - usually four to five (Higgins & Kram, 2001). Third, and according to Kram’s (1985)

assertion that individuals receive mentoring support from multiple people, developmental networks are characterized by individuals from inside and outside the organization, from different hierarchical levels (superiors, juniors, peers, and subordinates), and/or from a wide range of domains beyond work (friends, family members, and community groups) (Murphy & Kram, 2010). Accordingly, it has been studied and examined by several authors the impact of extra-organizational ties with different kinds of developers on outcomes such as organizational commitment, work satisfaction, clarity of professional identity, and career advancement (Dobrow & Higgins, 2005; Higgins, 2001; Higgins & Thomas, 2001). Lastly, in developmental networks mentors can provide varying amounts and types (career, psychosocial and role modeling) of developmental support.

1.2 Mentoring Functions

Based on Kram's (1985) construct of mentoring functions (career and psychosocial), the relationships with developers have been categorized as *instrumental* or *expressive* (Fombrun, 1982, 1983; Ibarra, 1993; Kram and Isabella, 1985). Instrumental relationships are related with career support of advancing protégé's career and professional interests and is positively related to salary and negatively related to *continuance commitment* (Bozionelos, 2008). In contrast, expressive relationships provide psychosocial support to protégé's personal development and is related to subjective career success (Bozionelos, 2006) and *affective commitment* (Bozionelos, 2008).

Although Kram's (1985) original two-dimensional construct of mentoring functions (career and psychosocial) in which role modeling is considered a sub-dimension of psychosocial support function, subsequent researches conducted by developmental scholars (e.g. Pellegrini & Scandura, 2005; Scandura, 1992; Scandura & Ragins, 1993) have extended work by dyadic mentoring scholars and suggested that in addition to career and psychosocial support, role modeling is considered a third distinct mentoring function. Hence, single psychosocial function was then subdivided into role modeling and psychosocial functions.

Attitudes as trust and identification have been frequently discussed in mentoring theories (Kram, 1985; Orpen, 1997; Ragins, 1997) and may be associated with three mentoring functions that are defined as the types of developmental support that mentors provide to protégés: career, psychosocial and role modeling functions. Career support suggests protégé's career advancement and success, which include actions such as positive exposure-and-visibility, sponsorship, coaching, protection and challenging work assignments (Scandura & Ragins,

1993). Psychosocial support helps protégé's personal development by enhancing sense of professional competence, confidence, esteem, identity and role effectiveness through actions like friendship, counseling, acceptance and confirmation of protégé's behaviour and sharing beyond work (Kram, 1985; Thomas, 1993). Role modeling guides and helps the protégé through their attitudes, values and behaviours.

The concept of multiplexity in developmental networks is associated with different types of developers which are considered to provide different kinds and amount of support, and those distinctions have emerged over the years. Mentors are considered to provide high amounts of both career and psychosocial support and represent the true form of mentoring (Higgins, 2007; Kram, 1985). *Mentors* provide advice, analysis and feedback, with the intention of improving decision making, organizational fit and skills of the protégé, to enhance the competence level which, in turn, will help in career development. *Sponsors* provide high career support but low psychosocial support, which means, are more likely to provide support such as exposure and visibility within the organization but are less likely than mentors to provide social support, such as friendship, outside work (Thomas & Kram, 1988; Higgins, 2007). Sponsors help protégés advancing their careers in order to maximize his/her income and job satisfaction. By contrast, *friends* provide primarily psychosocial support by encouraging the protégé to achieve higher career, and *allies* provide low amounts of both psychosocial and career support (Cummings & Higgins, 2006; Higgins, 2007).

1.3 Mentoring Phases

Kram (1985), in her qualitative study of 18 mentor–protégé dyads, described that the concept of time is an important component of developmental relationships which derive in four distinct and predictable phases: *initiation*, *cultivation*, *separation* and *redefinition*. These phases suggested in Kram's research were supported by subsequent quantitative research in terms of validity and processes (e.g. Pollock, 1995; Chao, 1997). Therefore, these phases are associated with different types of attitudes, functions and outcomes that influence protégés' career development (e.g. Chao, 1997; Kram, 1985; Mullen et al., 2000).

Firstly, the initiation phase is defined as the beginning of the relationship where the mentor and the protégé start knowing each other's personal styles and work habits. Is considered as the time period when the protégé begins to respect the competence of a potential mentor who serves as a valuable role model, whereas the mentor starts to recognize the protégé as someone who needs

special attention, coaching and challenging work and visibility through his/her professional career. This phase can last from 6 to 12 months. Secondly, if the relationship matures into a mentorship, it then progresses to the cultivation phase. The protégé starts learning from the mentor and the mentor promotes and protects the protégé during his/her career, which means, protégés acquire knowledge from the mentor, and the mentor obtain loyalty and support of the protégé. This phase is where boundaries are clarified and mentoring functions are maximized, lasting from 2 to 5 years. Thirdly, the separation phase occurs when the functions provided by the mentor decrease and the protégé reveals to be more independent, and consequently the mentoring relationship is no longer needed. For this reason, the relationship begins to change which results in a structural and/or psychological disconnect between the mentor and the protégé. The study of Eby and McManus (2004) has found that, in a sample of 90 mentors, the majority identified protégé resignation, protégé termination, or transfers from the organization as the reasons for relationship termination, while 7 of them mentioned relationship problems. This phase can last from 6 months to 2 years and may be emotionally stressful for one or both mentorship partners by perceiving the break-up with anxiety or defiance (Chao, 1997). Lastly, the redefinition phase is the final phase in which a new relationship is redefined when the mentor and protégé find new ways to relate to each other, being characterized by mutual support and informal contact. Resentment and anger decrease, while gratitude and appreciation increase (Kram, 1985). On the other hand, the relationship can simply terminate (Chao, 1997; Scandura 1998).

1.4 Consequences of Developmental Networks

According to mentoring literature, the involvement in a mentoring relationship is considered as being linked to numerous of individual benefits (Allen, Eby, Poteet, Lentz, & Lima, 2004; Eby, Allen, Evans, Ng, & DuBois, 2008; Eby et al., 2013).

In early empirical studies of the organizational literature, developmental relationships were associated with subjective and objective benefits for the protégé such as higher promotion rates, income levels and career satisfaction (Chao, 1997; Dreher & Ash, 1990; Fagenson, 1989; Kirchmeyer, 1998; Koberg, Boss, Chappell, & Ringer, 1994). Allen et al. (2004) showed evidence that developmental relationships are beneficial for protégé's in terms of career success and work attitudes, being career success objective (compensation, promotion, status etc.) or subjective outcomes (career and job satisfaction, organizational commitment and retention,

self-esteem etc.). Thus, the results of the study provided empirical evidence that objective career success indicators are highly related to career functions than to psychosocial functions.

Moreover, behaviours associated with psychosocial functions were considered highly related to satisfaction with the mentor than was with career functions. Surprisingly, it has also been found that career aspects of mentoring were considered as important as psychosocial aspects to protégé's job and career in terms of positive attitudes and career success, being one of the reasons for this finding the fact that career function provides informational and instrumental social support (Allen, McManus & Russel, 1990; McManus & Russel, 1997).

Mentoring relationships involving strong ties with developers are related to higher job satisfaction (Higgins, 2000; van Emmerik, 2004) and salary (Kirchmeyer, 2005). Developmental networks are considered valuable to achieve several career outcomes ranging from promotion and career advancement (Singh, Ragins, & Tharenou, 2009) to clarity of professional identity (Dobrow & Higgins, 2005). Several scholars defended the positive results of mentoring in the form of increased employees' satisfaction, role clarity, self-efficacy, personal learning, professional development and career satisfaction (Eastman and Williams, 1993; Murphy and Ensher, 2001; Young and Perrewe, 2000). Therefore, there are other positive outcomes linked to mentoring, such as protégé's career attachment (Allen and Lentz, 2006; Bahniuk et al., 1983; Janine, 2012; Noe, 1988a; Ricker, 2006; Scandura, 1992; Scandura and Viator, 1994; Turban and Dougherty, 1994) and early career success (Whitely et al., 1991).

The study of Kram and Murphy (2010) identified that support from work developers is positively associated with salary level and career satisfaction and, in contrast, support from non-work developers is positively associated with career satisfaction and life satisfaction. In general, both work and non-work developmental relationships are positively associated with career satisfaction as a career outcome. On the other hand, it has been found that employees who have mentors get promotions faster than those who do not have a mentor (Dreher and Ash, 1990). Accordingly, developmental relationships between protégés and mentors from outside organizations have been linked with positive outcomes such as career and life satisfaction (Murphy & Kram, 2010), higher job performance (Kirchmeyer, 2005) and intentions to remain in the organization (Higgins & Thomas, 2001). Despite positive outcomes for organizations, the greater the range of developers providing career support, the greater protégés' number of job offers and likelihood of changing careers, which is perceived as negative outcomes for organizations (Higgins, 2001).

Multiplexity is considered important and useful in order to understand the correlations between developmental networks' structure and content and, ultimately, career outcomes. However, few studies have empirically explored the concept of multiplexity in developmental networks, either implicitly or explicitly. The study of Chao et al. (1992) affirmed that protégés who receive greater psychosocial and career support (a *mentor*) would report higher levels of career planning, career involvement, organizational socialization, job satisfaction, and income. Higgins' (2000) study asserted that only one connection providing high psychosocial support (a *friend*) is enough for one to be satisfied at work in a law firm context. Higgins and colleagues studied the effect of mentoring functions on career outcomes and there is considerable evidence that psychosocial functions are positively related to work satisfaction (Higgins, 2000) and optimism (Higgins, Dobrow, & Roloff, 2010) whereas career support is related to intentions to remain in the organization and organizational retention (Higgins & Thomas, 2001), career-related self-efficacy, perceptions of career success (Higgins et al., 2008), and optimism (Higgins et al., 2010). On the contrary, in a study of professional baseball Hall of Famers, "supplementary" psychosocial support provided by different developers concurrently enriches career achievement (Cotton et al., 2011). Therefore, Laukau and Scandura (2002) identified mentoring functions as antecedents of protégé's learning, being positively related to job satisfaction and, contrarily, negatively related to turnover intentions, turnover behaviours and role ambiguity. More recently, Dobrow's et al. (2012) study combined several studies establishing new actions within the three types of developmental support. First, career support includes functions as freedom and opportunity for skill development (Cotton et al., 2011). Second, psychosocial support involves inspiration and motivation (Cotton et al., 2011) and cultural guidance, home linkage, and facilitating country or organization transition (Shen, 2010). Last, role modeling combine positive actions such as career behaviours, work ethics, and values and negative actions as declining relationships and work-life interface failure (Murphy & Kram, 2010). These recent studies strengthen the relationship between the types of developmental support and career outcomes by capturing the full range of support functions provided by developmental networks.

Despite few studies conducted about the positive outcomes for the mentor, some scholars have considered career revitalization, personal satisfaction and gratification, building a support network, learning from the protégé, organizational power and increased job performance as some of the benefits for the mentor due to developmental relationships (Allen & Eby, 2003; Allen et al. 1997; Bozionelos, 2004; Burke & McKeen, 1997; Hunt & Michael, 1983; Ragins

& Scandura, 1994; 1999). Thus, the mentor may achieve a creative and rejuvenating life experience by mentoring a less experienced person (Levinson et al., 1987).

Very recently, the study of Janssen et al. (2018) showed empirical evidence about the consequences for both protégés and mentors on an individual level by affecting their functioning. In the protégé perspective, participants in this study perceived mentoring as to familiarize protégés in their organization, contribute to their personal and professional development, provide a safe context to learn and therefore to improve the protégé's functioning. In the mentor perspective, participants identified mentors' improvement of management competencies through their engagement in the mentoring relationship, learn new skills and acquire new knowledge from the protégé. Overall, participants conceptualized mentoring relationships as being reciprocal by contributing not only to the protégé's functioning but also to the mentor's functioning.

1.5 Antecedents of Developmental Networks

The article of Dobrow et al. (2012) combined several articles consistent with the notion of developmental networks (developmental network, mentoring constellation, multiple mentors, network and mentor) with the goal of understanding and linking together developmental network research findings. The antecedents and consequences of developmental networks are exposed on Higgins and Kram (2001) framework. The antecedents of developmental networks are considered as factors that shape developmental networks, existing two categories of antecedents: *individual-level* and *contextual influences*.

Firstly, individual or protégé influences examine the effects of individual factors on developmental network structure and content, more specifically, developmental help-seeking behaviour. Protégé characteristics are considered to be relevant for the formation of developmental networks, such as: Personality (Big Five Theory – extroversion or introversion, self-construal, conscientiousness, and openness to experience - Costa & McCrae, 1992); Demographic factors (socio-economic status, gender, marital status, nationality, age); Relational expectations; Perceived needs for development; Individuals' developmental stage (Kegan, 1982; 1994 - six-stage developmental framework in which individuals become more developed which is considered to affect positively developmental networks); and Relational savvy - people that are adept with developmental relationships and, therefore, are more likely to develop large, diverse networks (Chandler, 2009; Chandler et al., 2010; Chandler, Hall, &

Kram, 2009). It has been studied that individuals differ concerning the types and amount of support they expect from each mentor which allow them to have greater clarity about their roles and boundaries and, therefore, this contribute to enrich the improvement and maintenance of developmental networks (Cotton, 2010; Roberts, 2007).

Secondly, contextual or environmental influences examines the factors that can affect developmental networks structure and content. Despite the limited number of studies about the relationship between contextual factors and developmental networks (Chandler, Kram, & Yip, 2011; Kram, 1985), there are some factors considered to affect developmental relationships, such as: Organizational context (Shen & Kram, 2011); Relocation; Industry context (Higgins, 2007; Higgins & Thomas, 2001); National (country) context (Shen, 2010); and Work characteristics (task requirements, tenure).

To summarize, individual-level characteristics shape the developmental networks and contextual factors affect those networks.

2. Career Attitudes

The nature of the career environment has changed substantially over the 1970s–90s due to macro-level trends such as globalization, technological innovations, and changes in organizational structure and organizational demography which justifies the declining of traditional organizational career and consequently the need for new ways of viewing careers, work and organizational life (Sullivan, 1999; Higgins & Kram, 2001). Given today's more volatile and unstable organizational environment, the nature of employment arrangements has become less predictable, which means that individuals can no longer expect lifetime employment within one single organization or a steady upward mobility. Due to those changes in career environment it was considered important that workers start building psychological capacities as efficacy, hope, resilience, and optimism (Luthans, Avolio, Avey, & Norman, 2007). Accordingly, scholars have started writing about the shift from the traditional “*organization man*” view of employment (Whyte, 1956) and building new models to understand the changing nature of careers. However, only the *protean* (Hall, 1996) and *boundaryless* (Arthur & Rousseau, 1996) career concepts have become broadly acknowledged to explain contemporary careers (Gubler, Arnold & Cooms, 2014). Aspects like gender, age, education level as well as cultural differences are hypothesized to influence the protean and boundaryless career attitudes in research studies of several authors (Briscoe et al., 2006; Eby, Butts, & Lockwood, 2003;

Sullivan, 1999; Sullivan & Arthur, 2006). Thus, both protean and boundaryless career attitudes are considered to allow individuals to strive in certain behaviours of their careers which in turn results in important and positive outcomes for them.

2.1 Protean Career Attitude

Protean career was first introduced by Hall (1976, 2002) and is defined as an individual preference of controlling and focusing on achieving subjective career success through self-directed vocational behaviour. The study of Briscoe and Hall (2006) have characterized the protean career model as involving both a *values-driven* attitude and a *self-directed* attitude towards career management. This means that individuals use own's personal values instead of organizational values to direct and measure their career success in terms of performance and learning demands (Briscoe & Hall 2006). Moreover, authors have been stated that individuals who pursue a protean career are predetermined to learn on a continuous and regular basis and look for professional challenges (Hall, 1996; Hall & Moss, 1998). According to Briscoe and Hall (2006), the protean career attitude results in four main career orientations perceived by individuals, namely independency, flexibility, adaptability, and changeability. Few studies shown empirical evidence of a positive association between protean career attitude (self-directed) and subjective career success (Gasteiger, 2007; De Vos & Soens, 2008).

2.2 Boundaryless Career Concept

Boundaryless career concept concerns different forms of mobility: *organizational mobility preference* and a *boundaryless mindset*, justifying “*individual's mental ability to be mobile, preference of working with people across many organizations and engaging in new experiences and situations outside the organization*” (Briscoe et al. 2006). Accordingly, an individual with a boundaryless career attitude is comfortable and enthusiastic about creating and sustaining active working relationships beyond organizational boundaries and also about having a career played out across several employers. Several authors have given greater importance to boundaryless career attitude (e.g., Arnold & Cohen, 2008; Greenhaus, Callanan, & DiRenzo, 2008; Inkson, 2008; Inkson et al., 2012; Sullivan, 1999). Accordingly, several meanings of the boundaryless career have emerged: “*reference to career support through extra-organizational networks, personal-family boundaries that impact one's career, and the subjective interpretation of the career by the protégé*” (Arthur and Rousseau, 1996). Moreover, Sullivan and Arthur (2006) considered the boundaryless career as a “*multifaceted phenomenon that*

encompasses and transcends various boundaries and levels of analysis-physical and psychological, objective and subjective”.

2.3 The combination of Protean and Boundaryless Careers

Protean and boundaryless career attitudes suffered conceptualizations over the past years and have been considered correlated yet distinct constructs by Briscoe et al. (2006). For instance, an individual can display protean attitudes in terms of managing one’s personal career yet not prefer cross-boundary collaboration or, on the other hand, the individual can embrace a boundaryless mindset, yet rely on one organization to develop and foster one’s career. This means that despite both career attitudes influence each other, they have impact on behaviours in different ways (Briscoe et al. 2006). Briscoe et al. (2006) identified proactive personality, career authenticity, openness to experience, and mastery goal orientation as outcomes of both protean and boundaryless career attitudes. Thus, the study of De Vos and Soens (2008) referred the correlation of career insight, perceived employability, and career satisfaction to protean career attitudes. Nevertheless, it has been required to enrich theory with more empirical studies about the outcomes of protean and boundaryless careers (Briscoe et al., 2006; Pringle & Mallon, 2003).

More recently, the findings of Briscoe’s et al. (2012) study were considered important to the literature due to empirical confirmation that protean and boundaryless career attitudes may help individuals developing career skills and coping with uncertain and unstable organizational environments. Accordingly, protean attitudes are considered internally focused due to individual’s preference to control one’s vocational behaviour and fulfil career needs, whereas boundaryless attitudes are characterized as external focused based on individual’s preference to cross organizational boundaries in terms of developmental relationships and opportunities.

II) Empirical Study

The predictors of this study are the career attitudes by being considered individual differences that may affect developmental relationships and networks. Due to the new career context where new models have emerged as the “*symbols of the new career*” (Briscoe & Hall, 2006, p. 5), the focus of this study relies on understanding how career attitudes - protean and boundaryless careers - influence developmental relationships and networks in relation to different types of mentoring functions - career, psychological and role modeling support - received by the protégé. Accordingly, in a developmental relationship, the protégé can receive different types of support by having certain values and needs about their own jobs and careers that in turn lead them to choose behaviours aligned with their attitudes (Festinger, 1957). In the present study, these attitudes are directly associated with the new career context which in turn lead to new career paradigms – protean and boundaryless career attitudes – and are perceived to influence mentoring functions and developmental relationships at work.

Hall (1976, 2002) has perceived that individuals who pursue a protean career attitude have greater responsibility for their career choices and opportunities, contrarily to individuals with a “traditional” career attitude who tend to take a more passive role in managing their careers and are more likely to seek for direction from the organization. Accordingly, it is expected to find the following:

Hypothesis 1: Protean career attitude will be negatively related to developmental relationships as the extent of:

(a) career support

(b) psychosocial support

(c) role modelling

On the other hand, and according to prior boundaryless career research, individuals who pursue a boundaryless career attitude are linked to developmental relationships with high support by their mentors and a high degree of connectivity that in turn explains the preference for new experiences and opportunities to create active working relationships beyond organizational boundaries and new ideas in the future (Miller & Stiver, 1977; Losada & Heaphy, 2004). Accordingly, it is expected to find the following:

Hypothesis 2: *Boundaryless career attitude will be positively related to developmental relationships at work as the extent of:*

(a) career support

(b) psychosocial support

(c) role modelling

3. Method

3.1 Sample

A total of 207 working professionals from different organizations and sectors were invited to participate in the study. The selection criteria respondents had to meet to participate in the survey was having a job position in order to give a consistent opinion regarding the type of questions addressed. The sample were composed by 106 men (51,2%) and 101 women (48,8%). The age mean of the participants was 35.57 years old (SD=10.45), in a range between 22 and 60 years. In terms of organizational sectors, information technology (36,2%) and bank and insurance (15,5%) sectors represented the highest percentages regarding the other sectors of the sample.

3.2 Procedure

The data for this cross-sectional study were gathered through an online survey composed by broader questions but for the purposes of the study, only some scales were considered for a total of 23 items. Questions regarding respondents' career attitudes and developmental relationships were asked at the very beginning of the survey while questions regarding variables outside of the scope of this study were asked toward the end of the survey, limiting the potential for response fatigue of the respondents.

The survey was first launched in LinkedIn on 23rd of January in order to obtain a more accurate sample by targeting working professionals to participate in the study. Therefore, due to lack of sufficient responses, an e-mail was sent to consultants and administrative employees of a consultancy company in the information technology sector where I am currently working. The survey was active online for 4 months. The completion rate of this survey was 65, 7%, meaning that most of the respondents filled out all the questions proposed.

3.3 Measures

The questionnaire included demographic information and established scales which were previously validated by empirical studies to measure variables of interest in this study. The survey questions were originally developed in English and then accurately translated into Portuguese. All items were rated on a five-point Likert-type scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*).

Protean and Boundaryless Career Attitudes

Protean and boundaryless career attitudes were measured using Briscoe et al.'s (2006) first study of Protean Career Attitudes (PCA) and Boundaryless Career Attitudes (BCA) and the study conducted by Porter C. & Woo S. E. & Tak J., (2016) which shortens the original PCA and BCA by removing irrelevant and/or redundant items. A total of 13 items divided into two scales: PCA (7 items) and BCA (6 items) and measured as a composite of each dimension rather than the single subdimensions of career attitudes. However, the construct of each dimension and correspondent subdimensions will be presented to describe the scales used.

Protean Career Attitude

PCA scale covers the values-driven and the self-directed subdimensions, with a total of 7 items, for example, "What's most important to me is how I feel about my career success, not how other people feel" and participants responded regarding their own values and organizational values in the context of their careers. Moreover, participants gave their opinion in which they considered themselves to be responsible for their own careers, for example, "I am responsible for my success or failure in my career". The items used five-point Likert-type scale (1 = strongly disagree to 5 = strongly agree).

Boundaryless Career Attitude

BCA scale includes the organizational mobility preference and boundaryless mindset subdimensions, being composed by 6 items. Some items were intended to measure participants' preference to remain with single or multiple employers, for example, "I prefer to stay in a company I am familiar with rather than look for employment elsewhere", whereas other items aimed to analyze participants' perception about work-related relationships across organizational boundaries, for example, "I would enjoy working on projects with people across

many organizations”). The items used five-point Likert-type scale (1 = totally disagree to 5 = totally agree).

Mentoring Functions

Mentoring functions received by the protégé in the present study were measured using the MFQ-9 – Mentoring Functions Questionnaire (Castro & Scandura, 2004; Pellegrini & Scandura, 2005) which was then adapted according to the concepts of informal mentoring and developmental network, as previously developed in the literature review. The MFQ-9 is a shortened version of the original 20-item MFQ (Scandura, 1992) and the 15-item MFQ (Scandura & Ragins, 1993), having the psychometric properties of the 9 items been validated by both exploratory and confirmatory factor analyses (Castro & Scandura, 2004; Pellegrini & Scandura, 2005; Scandura & Pellegrini, 2007; Wanberg et al., 2003). Also, MFQ is the only mentoring scale that assesses a three-dimensional structure of mentoring relationships (Hu C. & Pellegrini E. K. & Scandura T. A., 2011). Each mentoring function, namely career, psychosocial and role modeling support, is measured by three items. The items used five-point Likert-type scale (1 = totally disagree to 5 = totally agree).

Control Variables

Demographic characteristics as age, gender and information technology sector were included in further analysis as control variables in order to verify the potential effects on developmental relationships. The reason to include age and gender as control variables is related to prior research in terms of being considered as individual characteristics that could influence protégé’s career attitudes (protean or boundaryless career) and developmental relationships (Inceoglu et al., 2008; Mainiero and Sullivan, 2005; Costa & McCrae, 1988; Sullivan and Arthur, 2006; Ryff and Baltes, 1976; Levinson, 1977; Sullivan et al., 2003; Kanfer & Ackerman, 2004; Higgins & Kram, 2001). Information technology sector is the most represented among the other sectors of the sample, which justifies the reason to include it as a control variable.

4. Results

4.1 Exploratory Factor Analysis and Reliability

This quantitative research study has protean and boundaryless career attitudes as the independent variables in order to test the effects on developmental relationships as the extent of mentoring functions received by the protégé. For the first step, exploratory factor analyses

for each scale were conducted in IBM SPSS Statistics Software using Principal Component Analysis (PCA). Exploratory factor analysis (EFA) is a statistical approach with the goal of reducing the items of the scales to a smaller number of factors. It existed a priori number of factors, which is the number of variables expected, in one case 3 factors (mentoring functions) and, in the other case, 2 factors (career attitudes). In this analysis, EFA was run separately for mentoring functions (9 items) and career attitudes constructs (protean career attitude – 7 items; boundaryless career attitude – 6 items) with oblimin rotation due to correlated factors in the hypotheses. *Oblimin* rotation is considered an oblique technique which generates a pattern matrix with the factor loadings and factor correlation matrix that includes the correlations between the factors.

Mentoring Functions

Initial PCA results indicated three factors with eigenvalues higher than one which were extracted and explained 73.9% of total variance. In Table 1, the pattern matrix of the exploratory factor analysis can be observed, giving the factor loadings of the mentoring functions scale. Accordingly, it can be commented that item 1 of role modeling (MFQ_RM_1) has nearly a double-loading which may justify the item removal from the computation of the scale, meaning that that the item was removed from the variable to which it supposedly belonged.

In table I, it can be identified the factors with all the corresponding items loading. Factor 1 is defined as Career Support: MFQ_CS_2; MFQ_CS_3; MFQ_CS_1); Factor 2 - Psychosocial Support: MFQ_PS_2; MFQ_PS_1; MFQ_PS_3; and Factor 3 – Role Modeling (MFQ_RM_2; MFQ_RM_3).

Table I: Pattern matrix factor loadings of the Mentoring Functions scale

Items	Factors		
	1	2	3
MF_CS_2	.85		
MF_CS_3	.80	-.12	
MF_CS_1	.79		.13
MF_PS_2		-.94	
MF_PS_1		-.91	
MF_PS_3		-.88	
MF_RM_2	.27		.79
MF_RM_3	.33		.72
MF_RM_1	-.34	-.17	.65

Extraction Method: Principle Component Analysis.

Rotation Method: Oblimin with Kaiser Normalization.^a

a. Rotation converged in 7 iterations.

Furthermore, it has been conducted, separately, the reliability of the mentoring functions constructs.

Career support was validated with 3 items ($\alpha = .82$) and in table II it can be observed the item-total statistics of this scale in terms of item-total correlation and Cronbach alpha if item deleted, which can be concluded that the alpha has reached the highest value possible.

Psychosocial support was also validated with 3 items ($\alpha = .91$) and in table III it is presented the item-total statistics of this scale, being the alpha at the highest value.

On the other hand, role modeling was first validated with 3 items ($\alpha = .57$) but due to low item-scale correlation the item 1 of role modeling (MFQ_RM_1) was excluded. The reliability of role modeling was repeated with only two items, being concluded a final Cronbach alpha of .80 which represents a good correlation between items, as exposed in table IV of item-total statistics of this scale. Thus, based on the double loading and on the low item-total correlation (which decreases reliability) the item was removed. A possible explanation for the item of role modeling being removed (“I try to model my behavior after my mentor”) could be the translation and the consequent meaning in Portuguese perceived by the participants. After, it was computed the final variable to be used in further analysis.

In sum, according to George and Mallery (2003) rules of thumb of Cronbach's alpha reliability coefficients, a value of at least .80 is considered *good*. The Cronbach's alphas coefficients of the mentoring functions subscales were satisfactory, indicating a good level of internal consistency of subscales of mentoring functions.

Table II: Reliability analysis for career support subscale: item-total statistics

Items	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
MF_CS_1	.69	.75
MF_CS_2	.69	.74
MF_CS_3	.67	.77

Table III: Reliability analysis for psychosocial support subscale: item-total statistics

Items	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
MF_PS_1	.84	.85
MF_PS_2	.86	.83
MF_PS_3	.76	.91

Table IV: Reliability analysis for role modeling subscale: item-total statistics

Items	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
MF_RM_1	.20	.80
MF_RM_2	.52	.27
MF_RM_3	.48	.33

Protean and Boundaryless Career Attitudes

Initial PCA results indicated four factors with eigenvalues higher than one. However, as previously exposed, it was decided to focus in the composite of each dimension rather than the single subdimensions of career attitudes, which explains the extraction of two factors with 36.9% of total variance explained. In table V, it is presented the factor loadings of both protean and boundaryless careers scales, and it can be referred that two items had to be removed from subsequent analysis, one due to low factor loading (PC_SD_1) and another one due to a double-loading (BC_BM_3). A possible explanation for the items of protean (“I am responsible for my success or failure in my career”) and boundaryless (“I have sought opportunities in the past that allow me to work outside the organization”) career attitudes being removed could be the translation and the consequent meaning in Portuguese.

Therefore, from table V it is perceived the factors with all the corresponding items loading, namely, Factor 1 – Boundaryless Career (BC_OMP_2; BC_OMP_3; BC_BM_2; BC_BM_1; BC_OMP_1) and Factor 2 – Protean Career (PC_VD_2; PC_VD_3; PC_SD_3; PC_SD_4; PC_VD_1; PCS_SD_2).

Table V: Pattern matrix factor loadings of the Protean and Boundaryless careers scales

Items	Factors	
	1	2
BC_OMP_2 R	.80	-.16
BC_OMP_3 R	.75	
BC_BM_2	.62	.16
BC_BM_1	.56	
BC_BM_3	.49	.36
BC_OMP_1 R	.45	
PC_VD_2		.68
PC_VD_3		.68
PC_SD_3	-.15	.62
PC_SD_4	.13	.55
PC_VD_1		.54
PC_SD_2		.44
PC_SD_1	.19	.30

Extraction Method: Principle Component Analysis.

Rotation Method: Oblimin with Kaiser Normalization.^a

a. Rotation converged in 7 iterations.

Note. **R**, reverse-scored items.

Furthermore, it has been conducted separately the reliability of the career attitudes constructs, after the items removal in both protean and boundaryless career scales of factor analysis.

Protean career was validated with 6 items ($\alpha = .63$) as explained in table VI of item-total statistics for protean career which can be concluded that the alpha has reached the highest value possible.

However, the boundaryless career was first validated with 5 items ($\alpha = .59$) but due to low item-scale correlation the reversed item (BC_OMP_1) was excluded, being the reliability of boundaryless career been remade with 4 items and thus concluded a Cronbach alpha of .63, as exposed in table VII of item-total statistics of this scale. After, it was computed the final variable to be used in further analysis.

In sum, according to George and Mallery (2003) rules of thumb of Cronbach's alpha reliability coefficients, value of at least .60 is considered *questionable*. The Cronbach alphas are not

satisfactory for protean and boundaryless career attitudes scales since the values should be higher than .70, which indicate a poor level of internal consistency of the items in the scales.

Table VI: Reliability analysis for protean career attitude scale: item-total statistics

Items	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
PC_SD_2	.24	.63
PC_SD_3	.37	.59
PC_SD_4	.33	.60
PC_VD_1	.35	.60
PC_VD_2	.44	.56
PC_VD_3	.48	.54

Table VII: Reliability analysis for boundaryless career attitude scale: item-total statistics

Items	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
BC_OMP_1 R	.17	.63
BC_OMP_2 R	.57	.54
BC_OMP_3 R	.58	.52
BC_BM_1	.30	.66
BC_BM_2	.41	.61

Note. **R**, reverse-scored items

4.2 Correlation Analysis

Descriptive statistics (means, standard deviations and alpha coefficients) and correlation coefficients among the study variables of the total sample are presented in Table VIII.

All three mentoring functions (career support M=3.50, psychosocial support M=3.90; role modeling M=3.94) and both career attitudes (protean career M=3.53; boundaryless career M=3.42) had average values as they were around the average of the scale (1 to 5).

Individuals referred having less career support ($M=3.50$) than psychosocial support ($M=3.90$) and role modeling ($M=3.94$). The dispersion of values was higher for psychosocial support ($sd=0.86$) than for career support ($sd=.77$) and role modeling ($sd=.63$). Therefore, more individuals referred having a protean career attitude ($M=3.53$) than a boundaryless career attitude ($M=3.42$). Even if the values are almost identical, the dispersion of values was lower for boundaryless career ($sd=.59$) than for protean career ($sd=.77$). Low standard deviation values are considered to be more concentrated and close to the mean of the dataset, which justifies the slight variation of the findings in the sample that has been studied.

When observing the bivariate correlations between the variables, it is interesting to note that the career support function was positively correlated with gender ($r = .22, p < .01$), meaning that women perceived to receive more career support from their mentors than men. Additionally, age was negatively correlated with protean career ($r = -.25, p < .01$) and not significantly correlated with boundaryless career ($r = -.01$). As mentioned previously in the literature review, age is one of the aspects hypothesized to influence the protean and boundaryless career attitudes in research studies of several authors (Briscoe et al., 2006; Eby, Butts, & Lockwood, 2003; Sullivan, 1999; Sullivan & Arthur, 2006). In this study, age is considered to influence only the protean career in a negative way which can be justified by a relatively young sample ($M=35.47$). Moreover, information technology sector was negatively correlated with protean career ($r = -.22, p < .01$) and not significantly correlated with boundaryless career ($r = .07$). The sample is partly based in a consultancy company of the information technology sector composed by consultants that are guided and counselled in terms of the projects they embrace through their professional career, which may justify the negative significance with protean career attitude by not using own direction of personal values and control for their career choices and opportunities. Thus, control variables as job experience and organizational tenure were also negatively correlated with protean career ($r = -.26$ and $r = -.31, p < .01$, respectively) and not significantly correlated with boundaryless career.

Regarding the variables of the hypotheses, correlations between the two Protean and Boundaryless Career Attitudes scales were considered non-significant, meaning that are not even correlated. Thus, mentoring functions have distinct concepts which justify the different correlations among each type of support. Accordingly, role modeling is significantly associated with both career and psychosocial support functions ($r = .47, p < .01$ and $r = .28, p < .01$, respectively), whereas psychosocial support is also significantly associated with career support ($r = .29, p < .01$).

In sum, we found the lowest correlation between the role modeling and the boundaryless career as non-significant and the highest correlation between the role modeling and the career support ($r = .47, p < .01$). It can be concluded that there are no significant correlations among the variables of interest which can have a negative effect in the hypotheses.

Table VIII: Means, standard deviations, alpha coefficients, and correlation coefficients.

Variable	N	M	SD	1.	2.	3.	4.	5.	6.	7.	8.	9.
1. Career Support	163	3.50	.77	(.82)								
2. Psychosocial Support	163	3.90	.86	.29**	(.91)							
3. Role Modeling	163	3.94	.63	.47**	.28**	(.80)						
4. Protean Career	163	3.53	.52	-.04	.10	.04	(.63)					
5. Boundaryless Career	163	3.42	.68	-.13	.06	.01	.04	(.63)				
6. Gender ^a	207	1.49	.50	.22**	.11	.15	-.10	.14	(-)			
7. Age	207	35.47	10.45	-.06	-.07	-.10	-.25**	-.06	.05	(-)		
8. Job Experience	207	13.43	10.95	-.05	-.06	-.07	-.26**	-.04	.05	.96**	(-)	
9. Organizational Tenure	207	6.46	9.46	-.06	.07	-.09	-.31**	-.14	.11	.74**	.74**	(-)
10. Informatic Sector ^b	207	1.64	.48	.02	.08	.01	-.22**	.14	.21**	.23**	.23**	.33**

Notes. Numbers on the diagonal represent alpha coefficients. ^aGender is coded as 0 = *male*, 1 = *female*; ^bIT Sector is coded as 1 = *yes/true*, 0 = *no/false*. ** $p < 0.01$ (2-tailed)

4.3 Regression Analysis

Hierarchical linear regression analyses were used to test the hypotheses. All the regression analyses conducted for each mentoring function (career support, psychosocial support and role modeling) included age, gender and information technology sector as control variables which were entered in the first step (model 1), followed by both career attitudes in the second step (model 2). These models were intended to analyse separately what the control variables explain and whether the predictors add anything above and beyond them. Results of the regression analyses related to the hypotheses are shown in Table IV.

Career Support

To test H1a and H2a, which presumed a negative effect of protean career attitude and a positive effect of boundaryless career attitude on the career support, it was analysed a linear regression model with the 3 control variables and both career attitudes. The results indicated predictive

validity of both proposed models: model 1 with the control variables only ($F=2.867$, $p=.038$) and model 2 ($F=2.723$, $p=.022$). The findings showed that the effects of protean career on career support were not statistically significant ($p>.05$), whereas the effects of boundaryless career were statistically significant ($\beta=-.17$; $p=.03$). However, the hypothesis H2a had presumed a positive relation between the variables instead of the revealed negative one as previously mentioned. Thus, hypothesis H1a was not supported, but also hypothesis H2a as it revealed a significant relation although in the opposite direction.

Psychosocial Support

To test H1b and H2b, which presumed a negative effect of protean career attitude and a positive effect of boundaryless career attitude on psychosocial support, it was performed an identical regression model. The predictive validity of the model 1 ($F=1.307$, $p=.274$) and model 2 ($F=1.153$, $p=.335$) was not achieved. The findings showed that the effects of both protean career and boundaryless career attitudes were not significant ($p>.05$). Thus, hypotheses H1b and H2b were not supported.

Role Modeling

To test H1c and H2c, which presumed a negative effect of protean career attitude and a positive effect of boundaryless career attitude on role modeling, an identical regression model was conducted. The predictive validity of the model 1 ($F=1.842$, $p=.142$) and model 2 ($F=1.142$, $p=.340$) was not achieved. The findings showed that the effects of protean and boundaryless career attitudes were not significant ($p>.05$). In conclusion, hypotheses H1c and H2c were not supported.

Table IX: Regression Coefficients: Predicting Developmental Relationships' Mentoring Functions from Protean and Boundaryless Career Attitudes

		Career Support		Psychosocial Support		Role Modeling	
Predictors		β	p	β	p	β	p
Model 1	Gender	.22	.01	.10	.21	.16	.05
	Age	-.07	.40	-.09	.26	-.10	.20
	IT Sector	-.01	.86	.08	.31	-.00	.99
	R-squared	.051		.024		.034	
	Adjusted R-squared	.033		.006		.015	
	F	2.867*		1.307		1.842	
	Model 2	Gender	.24	.00	.10	.20	.16
Age		-.09	.26	-.07	.42	-.10	.24
IT Sector		.00	.97	.10	.24	.01	.94
Protean Career		-.04	.67	.11	.19	.04	.65
Boundaryless Career		-.17	.03	.02	.82	-.02	.83
R-squared		.068		.036		.035	
Adjusted R-squared		.038		.005		.004	
F		2.723*		1.153		1.142	

Notes: β values are standardized regression coefficients. * $p < 0.05$

5. Discussion

The purpose of this study was to understand the relationship between protean and boundaryless career attitudes on developmental relationships and mentoring functions (career support, psychosocial support and role modeling) received by individuals at work.

Within the literature, the present study is the first to test the impact of protean and boundaryless career attitudes on developmental relationships, more particularly in the mentoring functions received by individuals. Contrarily to the present study, the study of Çakmak-Otluoğlu (2012) investigated the moderating effect of perceived supervisor support on the relationships between protean and boundaryless career attitudes and organizational commitment, which did not cover the three functions of mentoring and do not focus in the composite of each dimension of career attitudes.

The factors were correctly identified in the exploratory factor analysis, even if a few items showed double loading with other factors or low loading for both career attitudes and mentoring functions received. This justifies the previous assertion about protean and boundaryless careers in which the factors are separate but related constructs (Briscoe et al. 2006).

Starting with the findings related to protean career attitude, no significant relations with each of three mentoring functions were concluded. As previously mentioned, the concept of protean career attitude was perceived by Hall (1976) as being driven by individuals, not organizations, and based more upon their own psychological success, values and decisions than upon a sequence of standards imposed by the organization. This assertion can justify the non-significant results of protean career among mentoring functions in a way that individuals do not search for mentoring support to make their own decisions, and thus perceive the mentoring functions as something driven by the organizations.

Secondly, it was verified a significant relation between boundaryless career attitude and career support although in the opposite direction, which means that instead of a positive relation between boundaryless career attitude and career support, it was concluded a negative relation between those variables. This means that individuals who have a boundaryless career attitude perceive receiving less career support in their professional path, which can be explained by their preference in being both physically and psychologically mobile and curious about different experiences and opportunities across many organizations (Briscoe et al. 2006) - and therefore do not perceive career support from their mentors as a priority. Thus, this finding could probably lead to lower levels of beneficial career outcomes. In sum, this verified relationship is considered noteworthy, even though we did not advance a hypothesis regarding this relationship.

Furthermore, the findings related to boundaryless career attitude did not verify significant relations between psychosocial support and role modeling, separately. A possible interpretation could be that boundaryless career environments are considered weaker when compared with traditional organizational settings (Bell and Staw, 1989; Weick, 1996), and thus allowing individuals' identities – and not developmental support received - to serve as a key force in shaping their careers and realizing their career potential in the current career context (Dobrow et al. 2005).

Combining both career attitudes, a possible explanation for the non-significant findings might be that individuals with protean and boundaryless career attitudes are more internally-driven and are less likely concerned with support on their careers carried out by their mentors (Çakmak-Otluoğlu, 2012). In sum, career attitudes and mentoring functions revealed having nothing related with each other, justifying the non-significant relationships between them. According to the literature, few studies have examined the correlates of protean and

boundaryless career attitudes which justify the need to develop more empirical studies on the correlates of these career models in order to enrich theory (Briscoe et al., 2006; Pringle & Mallon, 2003).

In terms of the control variables of the present study, it was perceived that women tend to receive more career support from their mentors than men. According to the literature, age is considered one of the aspects hypothesized to influence the protean and boundaryless career attitudes in research studies of several authors (Briscoe et al., 2006; Eby, Butts, & Lockwood, 2003; Sullivan, 1999; Sullivan & Arthur, 2006). In this study, age is considered to influence only the protean career although in a negative way, and no significance correlation with boundaryless career was perceived. Based on Briscoe and Hall (2006) conceptualization of protean career, the negative influence of age on protean career can be interpreted in accordance with individuals' lower control of one's career and use of personal values instead of organizational values in the early years of their careers.

As a conclusion, most hypotheses of this study were not verified due to no significant relationships between career attitudes and developmental relationships as the extent of mentoring functions received by the protégé (career support, psychosocial support and role modeling). However, a negative relation between boundaryless career attitude and career support was concluded. Therefore, a possible explanation for these findings may be associated to the adequacy of the measures used, as it will be further detailed in the limitations chapter.

In the next chapter will be developed the limitations of the study that may have impacted the results previously presented, and therefore further research is necessary to expose in order to verify the existence of relations between the constructs.

6. Limitations and Future Research

The findings of the present study should be taken into account considering several limitations and suggestions for future research.

Firstly, the small sample size of this study is considered a limitation for significant results and could be an explanation for unconfirmed hypothesis. Therefore, it is important to use larger sample sizes in future studies in order to ensure a representative distribution of the population and to confirm the general validity of the results.

Secondly, this cross-sectional study is limited by the fact that was executed at one time point with no indication of the sequence of events, which is considered impossible to infer causality and to analyse behaviours over a period of time. Also, self-reported data is limited by the fact that it can be rarely independently verified. Alternatively, a longitudinal approach could be executed in which the respondents are observed at multiple time points. This should be interesting in order to monitor the changes in career environments and consequently their impact on developmental relationships.

Thirdly, the measurement instruments had been translated from English to Portuguese which may have resulted in misinterpretation of the questions by the respondents. Therefore, it is important to validate these scales in a Portuguese version for future research.

Furthermore, other aspect that limited the present study was the quality of the protean and boundaryless career attitudes scales due to verified low reliability, which has contributed to the impossibility of fully trusting them to make positive conclusions about the study. Although these contemporary career attitudes have been discussed in the literature of careers for decades, empirical research is just beginning lighting up their psychological origins and thus practical implications for individuals and organizations. Accordingly, it is crucial to develop more precise theory that allows a better conceptual sifting of the career experiences occurring in contemporary society as well as quantitative studies with better and more sophisticated constructs in order to acquire the diversity of today's careers and the possible consequences of career attitudes in terms of relationships at work. Therefore, a comparison of the psychometric properties of career attitudes measures would be a useful study.

The study of Gubler et al. (2014) proposed a new operationalization of protean career based on Hall's (2004) assertion that self-knowledge or identity awareness and adaptability were perceived as two meta-competencies for individuals to realize their career potential in the current career context because they allow "*people to learn from their experience and develop any new competencies on their own*" (Hall, 2004, p. 6). This raises some interesting suggestions for future research.

Thus, the organizational context – information technology sector - may have limited the results of the present study which can be suggested as future research to apply the study to a more general organizational context and not specific sectors.

Finally, there is limited research about the three mentoring functions received by the protégé which in turn could be a limitation for this study. Scandura (1992) found a three-function structure, in which role modeling is considered a separate support function. However, the position of role modeling as a function of mentoring is considered ambiguous which may justify the limited empirical research including role modeling as a distinct function (Janseen et al. 2013). Accordingly, research on mentoring in terms of the three functions of developmental support should be improved.

In the next chapter will be presented several meaningful and practical implications that could help both organizations and individuals in terms of career mentoring and counseling as well as career management strategies, with the help of future research.

7. Practical Implications

Our findings suggest that even if further research is necessary to explain the ways in which both career attitudes impact developmental relationships and mentoring functions, this study can be considered as a first step to understand the function that careers' theory plays in the establishment and preservation of developmental relationships at work.

Firstly, the present study concluded that career attitudes do not predict the support received by individuals, although it was perceived a negative relationship between the boundaryless career attitude and career support. This finding can have practical implications by the fact that individuals that have a boundaryless career attitude may receive less support from their mentors by being recognized as less worth investing in and consequently may leave the organization and search for new opportunities. Accordingly, due to unstable career environment, it is important that individuals receive as much mentoring and developmental support as possible from their mentors and concurrently organizations should be aware of it. Furthermore, mentoring is perceived by having a large range of implications for both individuals (when just launching their careers, at mid-career or senior managers and leaders) and organizations. Accordingly, it is then important for individuals to build a diverse developmental network with their peers with the goal of coaching and supporting one another in new challenges and career change as well as increasing mutual learning (Higgins, 2001). There are organizations currently using peer coaching, mentoring circles, and learning partners to provide opportunities for individuals to build their own developmental networks (Kram & Higgins, 2009). As a result, these implemented initiatives have started to display positive results in employee engagement

and satisfaction, faster cycle times in new product development, customer satisfaction, and employee retention (Kram & Higgins, 2009).

Secondly, developing a culture in which developmental relationships and networks become a key point on the organization through HR practices and systems that allow individuals to engage others in their continuous career and personal development at every career stage (Kram & Higgins, 2009).

Thirdly, due to regularly changing work environments in which stable employment has been decreasing, organizations should then focus on making employees feel comfortable by creating an environment where they feel secure at work (Sharma and Jyoti, 2015). Nowadays, compared to the past, organizations are perceived to be more decentralized which calls for individuals' need of adapting to new roles, processes and experiences towards different organizations (Hall, 1986).

Furthermore, it is considered that the present study provides fundamental knowledge for a new way to perceive career developmental relationships by being especially important in today's work environment with consequently new career approaches. The goal of this study is then considered a trend in which individuals will need to search for alternative sources of assistance as they conduct their careers in today's environment due to difficulty in developing and maintaining single sources of mentoring support (Higgins and Thomas, 2001).

To conclude, these trends suggest that practitioners should have mentoring and developmental relationships always present when leading organizations and individuals through change in the career context.

Conclusion

The present study provides empirical support for a new way to think about career developmental relationships that has been considered especially important in today's work environment. Thus, the aim of this dissertation has been to understand the effects of both career attitudes on developmental relationships at work as the extent of the mentoring functions received by individuals at work.

The findings of the study did not verify the hypothesis proposed. However, a significant result has revealed a negative relationship between boundaryless career attitude and career support, meaning that individuals who have a boundaryless career attitude perceive to receive less career support.

To conclude, it is our hope that future research will develop and examine a better understanding of the impact of both career attitudes on developmental relationships and mentoring functions. Developmental relationships represent an important function in terms of outcomes for protégés and their organizations, such as retention, learning and innovation (Dobrow et al., 2012).

References

- Akarak, P., & Ussahawanitchakit, P. 2008. Effects of mentoring on intention to leave in Thai public accounting firms: Mediators of job efficiency, commitment and performance. *Review of Business Research*, 8(2): 37–46.
- Allen, T. D., & Chao, G. T., & Eby, L. T., & Bauer, T. N. 2017. Taking stock of two relational aspects of organizational life: tracing the history and shaping the future of socialization and mentoring research. *Journal of Applied Psychology*, 102: 324–337.
- Allen, T. D., Eby, L. T., Poteet, M. L., Lentz, E., & Lima, L. 2004. Career benefits associated with mentoring for protégés: A Meta-Analysis. *Journal of Applied Psychology*, 89(1): 127–136.
- Allen, T. D., & Eby, L., T. (Eds), 2007. *Blackwell handbook of mentoring: A multiple perspectives approach*. London, UK: Blackwell.
- Allen, T. D., Eby, L. T., Poteet, M. L., Lentz, E. & Lima, L. 2004. Career benefits associated with mentoring for protégés: a meta-analysis. *Journal of Applied Psychology*, 89: 127–136.
- Allen, T. D., Lentz, E. & Day, R. 2006b. Career success outcomes associated with mentoring others: a comparison of mentors and nonmentors. *Journal of Career Development*, 32: 272–285.
- Arnold, J., & Cohen, L. 2008. The psychology of careers in industrial–organizational settings: A critical but appreciative analysis. *International Review of Industrial-Organizational Psychology*, 23: 1–44.
- Arthur, M. B., & Rousseau, D. M. (Eds.). 1996. *The boundaryless career: a new employment principle for a new organizational era*. Oxford: Oxford University Press.
- Baugh, S. G., & Fagenson-Eland, E. A. 2007. *Formal Mentoring Programs: A ‘Poor Cousin’ to Informal Relationships?* Thousand Oaks, CA: Sage Publications.
- Bell, N. E., & Staw, B. M. 1989. People as sculptors versus sculpture: the roles of personality and personal control in organizations. In M. B. Arthur, D. T. Hall & B. S. Lawrence (Eds.), *Handbook of Career Theory*: 232-51. New York, NY: Cambridge University Press.
- Blake-Beard, S. D., O’Neill, R. M., & McGowan, E. M. 2007. The importance of matching in successful formal mentoring relationships. In B. R. Ragins & K. E. Kram (Eds.), *The handbook of mentoring at work: Theory, research, and practice*: 617-632. Thousand Oaks, CA: Sage Publications.
- Bouquillon, E., & Sosik, J. & Lee, D. 2005. ‘It’s only a phase’: examining trust, identification and mentoring functions received across the mentoring phases. *Mentoring & Tutoring: Partnership in Learning*, 13: 239–258.
- Bozeman, B., & Feeney, M. K. 2008. Mentor matching: A “goodness of fit” model. *Administration & Society*, 40: 465-482.

- Bozionelos, N. 2006. Mentoring and expressive network resources: their relationship with career success and emotional exhaustion among Hellenes employees involved in emotion work. *International Journal of Human Resource Management*, 17: 362-78.
- Bozionelos, N. 2008. Intra-organizational network resources: How they relate to career success and organizational commitment. *Personnel Review*, 37(3), 249-263.
- Burke, R., J. & McKeen, C., A. 1997. Benefits of mentoring relationships among managerial and professional women: a cautionary tale. *Journal of Vocational Behavior*, 51: 43-57.
- Briscoe, J. P., & Hall, D. T. 2006. The interplay of boundaryless and protean careers: Combinations and implications. *Journal of Vocational Behavior*, 69: 4-18.
- Briscoe, J. P., & Hall, D. T. & Frautschy DeMuth R. L. 2006. Protean and boundaryless careers: An empirical exploration. *Journal of Vocational Behavior*, 69: 30-47.
- Briscoe, J. P., & Henagan, S. C., & Burton, J. P., & Murphy, W. M., 2012. Coping with an insecure employment environment: The differing roles of protean and boundaryless career orientations. *Journal of Vocational Behavior*, 80: 308-316.
- Çakmak-Otluoğlu, K. Ö. 2012. Protean and boundaryless career attitudes and organizational commitment: The effects of perceived supervisor support. *Journal of Vocational Behavior*, 80: 638-646.
- Castro, S. L., & Scandura, T. A. 2004, November. *The tale of two measures: Evaluation and comparison of Scandura's (1992) and Ragins and McFarlin's (1990) mentoring measures*. Paper presented at the Southern Management Association Meeting.
- Chan, K. Y., & Uy, M. A., & Ho, M. R., & Sam, Y. L., & Chernyshenko, O. S., & Yu, K. T. 2015. Comparing two career adaptability measures for career construction theory: Relations with boundaryless mindset and protean career attitudes. *Journal of Vocational Behavior*, 87: 22-31.
- Chandler, D. E., Hall, D. T. & Kram, K. E. 2010. A developmental network & relational savvy approach to talent development: A low-cost alternative. *Organizational Dynamics*, 39(1): 48-56.
- Chandler, D. E., & Kram, K., E. & Yip, J. 2011. An ecological systems perspective on mentoring at work: a review and future prospects. *Academy of Management Annals*, 5: 519-570.
- Chao, G. T. 1997. Mentoring phases and outcomes. *Journal of Vocational Behavior*, 51: 15-28.
- Cotton, R., D. & Shen, Y. & Livne-Tarandach, R. 2011. On becoming extraordinary: the content and structure of developmental networks of major league baseball hall of famers. *Academy of Management Journal*, 54: 15-46.
- Cummings, J., N. & Higgins, M. C. 2006. Relational instability at the network core: support dynamics in developmental networks. *Social Networks*, 28: 38-55.

- De Vos, A., & Soens, N. 2008. Protean attitude and career success: The mediating role of self-management. *Journal of Vocational Behavior*, 73(3): 449–456.
- Dobrow, S., R., Chandler, D. E., Murphy, W. M., & Kram, K. E. 2012. A Review of developmental networks: incorporating a mutuality perspective. *Journal of Management*, 38(1): 210-242.
- Dobrow, S. R., & Higgins, M. C. 2005. Developmental networks and professional identity: a longitudinal study. *Career Development International*, 10: 567–583.
- Dominguez, N., & Hager, M. 2013. Mentoring frameworks: Synthesis and critique. *International Journal of Mentoring and Coaching in Education*, 2(3): 171–188.
- Dreher, G. F., & Ash, R. A. 1990. A comparative study of mentoring among men and women in managerial, professional, and technological positions. *Journal of Applied Psychology*, 75: 539-546.
- Eby, L. T. 2001. The boundaryless career experiences of mobile spouses in dual-earner marriage. *Group & Organization Management*, 26(3): 343–368.
- Eby, L. T. & Allen, T. D. 2008. Moving toward interdisciplinary dialogue in mentoring scholarship: an introduction to the special issue. *Journal of Vocational Behavior*, 72: 159–167.
- Eby, L. T., Allen, T. D., Evans, S. C., Ng, T. & Dubois, D. L. 2008a. Does mentoring matter? A multidisciplinary meta-analysis comparing mentored and non-mentored individuals. *Journal of Vocational Behavior*, 72: 254– 267.
- Eby, L. T., Allen, T. D., Hoffman, B. J., Baranik, L. E., Sauer, J. B., Baldwin, S., & Evans, S. C. 2013. An interdisciplinary meta-analysis of the potential antecedents, correlates, and consequences of protégé perceptions of mentoring. *Psychological Bulletin*, 139: 441-476.
- Eby, L. T. & McManus, S. E. 2004. The protégé’s role in negative mentoring experiences. *Journal of Vocational Behavior*, 65: 255–275.
- Eisenberger, R., Stinglhamber, F., Vandenberghe, C., Sucharski, I. L., & Rhoades, L. 2002. Perceived supervisor support: Contributions to perceived organizational support and employee retention. *Journal of Applied Psychology*, 87: 565–573.
- Fagenson, E. A. 1989. The mentor advantage: Perceived career/job experiences of protégés v. nonprotégés. *Journal of Organizational Behavior*, 10: 309-320.
- Fombrun, C. J. 1982. Strategies for network research in organizations. *Academy of Management Review*, 7: 280-91.
- Fombrun, C. J. 1983. Attributions of power across a social network. *Human Relations*, 36: 493-508.
- Gasteiger, R. M., & Briscoe, J. P. 2007. *What kind of organization do protean people prefer? The case of Germany and the United States*. Paper presented at the Academy of Management Conference, Philadelphia.

- Gosling, S. D., Rentfrow, P. J., & Swann, W. B. 2003. A very brief measure of the Big-Five personality domains. *Journal of Research in Personality*, 37: 504–528.
- Greenhaus, J. H., Callanan, G. A., & DiRenzo, M. S. 2008. A boundaryless perspective on careers. In J. Barling, & C. L. Cooper (Eds.), *The Sage handbook of organizational behavior*, vol. 1: 277–299. London: Sage Publications.
- Gubler, M., Arnold, J., & Coombs, C. 2014. Reassessing the protean career concept: Empirical findings, conceptual components, and measurement. *Journal of Organizational Behavior*, 35: 23–40.
- Hall, D. T. 1996. Protean careers of the 21st century. *Academy of Management Executive*, 10: 8–16.
- Hall, D. T. 2002. *Careers in and out of organizations*. Thousand Oaks, CA: Sage Publications.
- Hall, D. T., & Chandler, D. E. 2007. Career cycles and mentoring. In Kram, K.E. and Ragins, B.R. (Eds), *The Handbook of Mentoring at Work: Theory, Research, and Practice*, 471–498. Thousand Oaks, CA: Sage Publications.
- Hall, D. T., & Moss, J. E. 1998. The new protean career contract: Helping organizations and employees adapt. *Organizational Dynamics*, 26(3): 22-37.
- Higgins, M. 2001. Changing careers: the effects of social context. *Journal of Organizational Behavior*, 22: 595-618.
- Higgins, M., Dobrow, S. R., & Roloff, K. S. 2010. Optimism and the boundaryless career: the role of developmental relationship. *Journal of Organizational Behavior*, 31: 749–769.
- Higgins, M., & Kram, K. 2001. Reconceptualizing mentoring at work: a developmental network perspective. *Academy of Management Review*, 26: 264-88.
- Higgins, M. C., & Thomas, D. A. 2001. Constellations and careers: Toward understanding the effects of multiple developmental relationships. *Journal of Organizational Behavior*, 22(3): 223–247.
- Hu, C. 2008. Analyses of measurement equivalence across gender in the Mentoring Functions Questionnaire (MFQ-9). *Personality and Individual Differences*, 25: 199-205.
- Hu, C., Pellegrini, E. K., & Scandura, T. A. 2011. Measurement invariance in mentoring research: A cross-cultural examination across Taiwan and the U.S. *Journal of Vocational Behavior*, 78: 274–282.
- Ibarra H. 1993. Personal networks of women and minorities in management: A conceptual framework. *Academy of Management Review*, 18: 56–87.
- Inceoglu, I., Segers, J., Bartram, D., & Vloeberghs, D. 2008, April. *Age differences in work motivation*. Paper presented at the 23rd Annual Conference of the Society for Industrial and Organizational Psychology, San Francisco.
- Inkson, K. 2008. The boundaryless career. In S. Cartwright, & C. L. Cooper (Eds.), *The Oxford handbook of personnel psychology*, 545–563. Oxford: Oxford University Press.

- Inkson, K., Gunz, H., Ganesh, S., & Roper, J. 2012. Boundaryless careers: Bringing back boundaries. *Organization Studies*, 33(3): 323–340.
- Janssen S., Vuuren M., & Jong M. D. T. 2016. Informal mentoring at work: A review and suggestions for future research. *International Journal of Management Reviews*, 18: 498–517.
- Janssen, S., van Vuuren, M., & de Jong, M. D. T. 2013. Identifying support functions in developmental relationships: a self-determination perspective. *Journal of Vocational Behavior*, 82: 20–29.
- Kanfer, R., & Ackerman, P. L. 2004. Aging, adult development, and work motivation. *Academy of Management Review*, 29(3): 440–458.
- Kegan, R. 1982. *The evolving self: Problems and process in human development*. Cambridge, MA: Harvard University Press.
- Kegan, R. 1994. *In over our heads: The mental demands of modern life*. Cambridge, MA: Harvard University Press.
- Koberg, C. S., Boss, R. W., Chappell, D., & Ringer, R. C. 1994. Correlates and consequences of protege mentoring in a large hospital. *Group & Organization Management*, 19: 219-239.
- Kram, K. E. 1983. Phases of the mentoring relationship. *Academy of Management Journal*, 26: 608–625.
- Kram, K. E. 1985. *Mentoring at work: Developmental relationship in organizational life*. Glenview: Scott Foresman.
- Kram, K. E., & Higgins, M. A. 2009. A new mindset on mentoring: creating developmental networks at work. *MIT Sloan Management Review*, (April 15): 1–4.
- Kram, K. E., & Isabella, L. A. 1985. Mentoring alternatives: The role of peer relationships in career development. *Academy of Management Journal*, 28(1): 110–132.
- Kram, K. E., & Ragins, B. R. 2007. The Landscape of Mentoring in the 21st Century. In K. E. Kram, & B. R. Ragins (Eds.), *The handbook of mentoring at work: Theory, research, and practice*, 659-687. Thousand Oaks, CA: Sage Publications.
- Kirchmeyer, C. 2005. The effects of mentoring on academic careers over time: testing performance and political perspectives. *Human Relations*, 58: 637–660.
- Lankau, M. J., & Scandura, T. A. 2002. An Investigation of Personal Learning in Mentoring Relationships: Content, Antecedents, and Consequences. *Academy of Management Journal*, 45: 779-790.
- Losada, M., & Heaphy, E. 2004. The role of positivity and connectivity in the performance of business teams: A non-linear dynamics model. *American Behavioral Scientist*, 47: 740–765.
- Luthans, F., Avolio, B. J., Avey, J. B., & Norman, S. M. 2007. Positive psychological capital: Measurement and relationship with performance and satisfaction. *Personnel Psychology*, 60: 541–572.

- Mainiero, L. S., & Sullivan, S. E. 2005. Kaleidoscope careers: An alternate explanation for the “opt-out” revolution. *Academy of Management Executive*, 19(1): 106–123.
- McCrae, R. R., & Costa, P. T. 1992. A five-factor theory of personality. In L. A. Pervin & O. P. John (Eds.), *Handbook of Personality: Theory and Research*: 139-153. New York, Guilford.
- McManus, S. E., & Russel J. E. A. 1997. New directions for mentoring research: an examination of related constructs. *Journal of Vocational Behavior*, 51: 125-144.
- Molloy, C. J. 2005. Development networks: literature review and future research. *Career Development International*, 10: 536-547.
- Murphy, S. E., & Ensher, E. A. 2001. The role of mentoring support and self-management strategies on reported career outcomes. *Journal of Career Development*, 27: 229-246.
- Murphy, W. M., & Kram, K. E. 2010. Understanding non-work relationships in developmental networks. *Career Development International*, 15(7): 637–663.
- Noe, R. A. 1988. An investigation of the determinants of successful assigned mentoring relationships. *Personnel Psychology*, 41: 457–479.
- Orpen, C. 1997. The effects of formal mentoring on employee work motivation, organizational commitment and job performance. *Learning Organization*, 4(2): 53–60.
- Pellegrini, E. K., & Scandura, T. A. 2005. Construct equivalence across groups: An unexplored issue in mentoring research. *Educational and Psychological Measurement*, 65: 323-335.
- Pembridge, J.J., & Paretto, M.C. 2011. *Work in progress - A comparison of mentoring functions in Capstone courses across engineering disciplines*. Presented at 41 ASEE/IEEE Frontiers in Education conference. Rapid City, SD.
- Pollock, R. 1995. A test of conceptual models depicting the developmental course of informal mentor–protégé relationships in the work place. *Journal of Vocational Behavior*, 46(2): 144–162.
- Porter, C., Woo, S. E., & Tak, J. 2016. Developing and validating short form protean and boundaryless career attitudes scales. *Journal of Career Assessment*, 24: 162-181.
- Ragins, B. R. 1997. Diversified mentoring relationships in organizations: a power perspective. *Academy of Management Review*, 22(2): 482–521.
- Ragins, B. R., Cotton, J. L., & Miller, J. S. 2000. Marginal mentoring: The effects of type of mentor, quality of relationship, and program design on work and career attitudes. *Academy of Management Journal*, 43: 1177-1194.
- Ragins, B. R., & Kram, K. E. 2007. *The handbook of mentoring at work: Theory, research, and practice*. Thousand Oaks, CA: Sage Publications.
- Ryff, C. D., & Baltes, P. B. 1976. Value transitions and adult development in women: The instrumentality–terminality hypothesis. *Development Psychology*, 12: 567–568.

- Roberts, L. M. 2007. From proving to becoming: How positive relationships create a context for self-discovery and self-actualization. In J. Dutton & B. R. Ragins (Eds.), *Exploring positive relationships at work: Building a theoretical and research foundation*, 29-45. Mahwah, NJ: Lawrence Erlbaum.
- Scandura, T. A. 1992. Mentorship and career mobility: an empirical investigation. *Journal of Organizational Behavior*, 13(2): 169–174.
- Scandura, T. A. 1997. Mentoring and organizational justice: an empirical investigation. *Journal of Vocational Behavior*, 51: 58–69.
- Scandura, T. A., & Ragins, B. R. 1993. The effects of sex and gender role orientation on mentorship in maledominated occupations. *Journal of Vocational Behavior*, 43: 251–265.
- Scandura, T. A., & Viator, R. 1994. Mentoring in public accounting firms: An analysis of mentor-protégé relationships, mentorship functions, and protégé turnover intentions. *Accounting, Organizations & Society*, 19: 717-734.
- Segers, J., Inceoglu, I., Vloeberghs, D., Bartram, D., & Henderickx, E. 2008. Protean and boundaryless careers: A study on potential motivators. *Journal of Vocational Behavior*, 73: 212–230.
- Singh, R., Ragins, B.R. & Tharenou, P. 2009. Who gets a mentor? A longitudinal assessment of the rising star hypothesis. *Journal of Vocational Behavior*, 74: 11– 17.
- Sharma, P., & Jyoti, J. 2015. Impact of Mentoring Functions on Career Development: Moderating Role of Mentoring Culture and Mentoring Structure. *Global Business Review*, 16(4): 1–19.
- Shen, Y., & Kram, K. E. 2011. Expatriates' developmental networks: network diversity, base, and support functions. *Career Development International*, 16(6): 528–552.
- Sullivan, S. E. 1999. The changing nature of careers: a review and research agenda. *Journal of Management*, 25(3): 457-84.
- Sullivan, S. E., & Arthur, M., B. 2006. The evolution of the boundaryless career concept: Examining physical and psychological mobility. *Journal of Vocational Behavior*, 69: 19-29.
- Sullivan, S. E., & Baruch, Y. 2009. Advances in career theory and research: A critical review and agenda for future exploration. *Journal of Management*, 35(6): 1542–1571.
- Thomas, D. A. 1993. Racial dynamics in cross-race developmental relationships. *Administrative Science Quarterly*, 38: 169-194.
- Thomas, D. A., & Gabarro, J. J. 1999. *Breaking through: The making of minority executives in corporate America*. Boston: Harvard Business School Press.
- Turban, D. B., & Dougherty, T. W. 1994. Role of protégé personality in receipt of mentoring and career success. *Academy of Management Journal*, 37(3): 688–702.
- White W. H. 1956. *The Organization Man*. Simon and Schuster: New York.

Whitely, W., Dougherty, T. W., & Dreher, G. F. 1991. Relationship of career mentoring and socioeconomic origin to managers and professionals early career progress. *Academy of Management Journal*, 34(2): 331–351.

Whiting V. R., & de Janasz S. C. 2004. Mentoring in the 21st Century: Using the Internet to Build Skills and Networks. *Journal of Management Education*, 28(3): 275-293.

Young, A. M., & Perrewe, P. L. 2000. What did you expect? An examination of career related support and social support among mentors and protégés. *Journal of Management*, 26(4): 611–632.

Van Emmerik, I. J. H. 2004. The more you can get, the better: mentoring constellations and intrinsic career success. *Career Development International*, 9: 578–594.

Volmer, J., & Spurk, D. 2011. *Protean and boundaryless career attitudes relationships with subjective and objective career success*. Research paper no. 43: 207–218, University of Erlangen-Nuremberg, Germany

Appendix A

A.1. Original Scale: Mentoring Functions Questionnaire (MFQ-9)

Career Support

1. My mentor takes a personal interest in my career.
2. My mentor helps me coordinate professional goals.
3. My mentor has devoted special time and consideration to my career.

Psychosocial Support

1. I share personal problems with my mentor.
2. I exchange confidences with my mentor.
3. I consider my mentor to be a friend.

Role Modeling

1. I try to model my behavior after my mentor.
2. I admire my mentor's ability to motivate others.
3. I respect my mentor's ability to teach others.

Source. Castro and Scandura, 2004.

A.2. Adapted Scale: Mentoring Functions Questionnaire (MFQ-9)

I have one or more persons that...:

Career Support

1. ...take a personal interest in my career.
2. ...help me coordinate professional goals.
3. ...devote special time and consideration to my career.

Psychosocial Support

4. ...I share personal problems with.
5. ...I exchange confidences with.
6. ...I consider to be my friend(s).

Role Modeling

7. ...make me model my behavior after him/her/them.
8. ...I admire for the ability to motivate others.
9. ...I respect for the ability to teach others.

A.3. Protean and Boundaryless Career Attitudes Scales

A.3.1. Protean Career Attitudes

Self-Directed

1. I am responsible for my success or failure in my career.
2. Where my career is concerned, I am very much “my own person”.
3. Overall, I have a very independent, self-directed career.
4. Freedom to choose my own career path is one of my most important values.

Values-Driven

1. It doesn't matter much to me how other people evaluate the choices I make in my career.
2. I navigate my own career, based upon my personal priorities, as opposed to my employer's priorities.
3. What's most important to me is how I feel about my career success, not how other people feel.

A.3.2. Boundaryless Career Attitudes

Boundaryless Mindset

1. I like tasks at work that require me to work beyond my own department.
2. I would enjoy working on projects with people from across many organizations.
3. I have sought opportunities in the past that allow me to work outside the organization.

Organizational Mobility Preference

1. I couldn't work for my current organization.
2. I like the predictability that comes with working continuously for the same organization.
3. I prefer to stay in a company I am familiar with rather than look for employment elsewhere.

Source. Porter C. & Woo S. E. & Tak J., 2016; Briscoe et al. 2006.