



Vaasan yliopisto  
UNIVERSITY OF VAASA

OSUVA Open  
Science

This is a self-archived – parallel published version of this article in the publication archive of the University of Vaasa. It might differ from the original.

## The relationship between career capital and career success among Finnish knowledge workers

**Author(s):** Järnlström, Maria; Brandt, Tiina; Rajala, Anni

**Title:** The relationship between career capital and career success among Finnish knowledge workers

**Year:** 2020

**Version:** Accepted manuscript

**Copyright** ©2020 Emerald Publishing Limited. This manuscript version is made available under the Creative Commons Attribution–NonCommercial 4.0 International (CC BY–NC 4.0) license, <https://creativecommons.org/licenses/by-nc/4.0/>

**Please cite the original version:**

Järnlström, M., Brandt, T. & Rajala, A. (2020). The relationship between career capital and career success among Finnish knowledge workers. *Baltic Journal of Management* 15(5), 687-706. <https://doi.org/10.1108/BJM-10-2019-0357>

## **The relationship between career capital and career success among Finnish knowledge workers**

### **Purpose**

This research aims to advance a holistic and integrated view to understand the relationship between career capital and career success among knowledge workers.

### **Methodology**

The study examines the associations of three forms of career capital—human, social, and psychological capital—on career success. Career success is measured through a subjective evaluation of career satisfaction and an objective evaluation of promotion. The data are drawn from 624 knowledge workers from Finland with an academic degree in business studies. The model is tested through structural equation modeling.

### **Findings**

The results stress the importance of psychological capital as an important career resource among knowledge workers. Therefore, our findings contribute to career research by supporting the argument that context and/or occupational group matters in the relationship between career capital and career success.

### **Research limitations**

The cross-sectional data partly restricts our ability to delimit an impact. Further research using a longitudinal design would be required to confirm longitudinal effects. The respondents were a

relatively homogeneous group of knowledge workers, and thus the results are not generalized to other samples. The Finnish context (e.g., a high-quality education system, welfare society, dual-earner model) may also include special aspects which may have an effect on results limiting generalization to different contexts rather than Nordic ones.

### **Practical implications**

Career capital is an important element of taking charge of one's career, which is expected in current working life scenarios. Given psychological capital has an impact on employees' career success, employees' psychological capital could be supported in organizations to help them to adapt to career changes. Employers benefit from individuals who are willing to invest in their work, and therefore the employers should be aware of the individual factors that affect employees' career success.

### **Social implications**

The meaning of career success may be context and culture related as might its predictors. Hence, perceived career success may benefit and spill over to several stakeholders such as employers, family members, and friends through its effects of positive energy and well-being. Career counselors could place more emphasis than currently on developing the psychological capital of their clients. The findings are important for other practitioners as well, such as human resource (HR) professionals who might consider dedicated programs fostering psychological capital qualities which seem to relate to career success among knowledge workers.

## **Originality**

A research model that considers career capital as an integrated entity is presented rather than focusing on a single form of career capital. Contextual issues were included by focusing on knowledge workers who represent careerists in a welfare society. These findings could advance career theory and provide developmental guidelines to help employers, HR and career-oriented individuals to build successful careers.

## **Introduction**

The labor market of western and Nordic countries has faced several changes such as an increasing number of knowledge workers. The roles of those knowledge workers have typically become more complicated and now usually requires specialized knowledge and skills (Cortada, 1998; Huang, 2011). Correspondingly, their careers may both be more complex and insecure, and might also include unpredictable experiences. Therefore, a person needs to adjust to various career “shocks” and take responsibility for the management and success of their own career (Akkermans et al., 2018). In this kind of dynamic labor market, individuals are expected to seek jobs within and outside their current employer to ensure their employability. Among knowledge workers are typically many ambitious people who want to succeed in their careers as much as possible. Career success is of concern not only to employees, but also to organizations, as employees’ personal success can ultimately contribute to organizational success (Judge et al., 1995). For example, employees who subjectively assess their careers to be highly successful feel happier (Nabi, 1999) and are more committed to their career (Ballout, 2009) and to their organization (Ng and Feldman, 2014) than those who assess their careers not to be successful.

Hence, individuals need certain career resources to succeed in their career (referred to here under the umbrella term *career capital*), and it may be that some resources are more useful than others in career management. The main benefit of career resources is that they can be developed (Akkermans et al., 2013; Luthans et al., 2010).

The availability of career resources has been related to career success (Eby et al., 2003; Kuijpers et al., 2006). Arthur et al. (2005, p.179) defined career success as “the accomplishment of desirable work-related outcomes at any point in a person’s work experiences over time.” This kind of broad definition of career may lead to multiple interpretations of career success (see Dries et al., 2008), but career scholars typically separate subjective (i.e., experienced only by a person such as career satisfaction, perceived employability) and objective career success (i.e., observable and measurable externally such as via salary and promotion). Subjective and objective career success are conceptually and empirically distinct (e.g., Judge & Bretz, 1994; Seibert et al., 2001). Therefore, career scholars suggest that both types of career success are relevant to fully understanding the construct of career success (Arthur et al., 2005; Heslin et al., 2019; Ng et al., 2005). In more decentralized management structures and flatter hierarchies, objective career success becomes harder to obtain, and people evaluate their career based on their own subjective standards (Dries et al., 2008). For knowledge workers, subjective career success may be as important or even more important than objective career success.

Several studies have focused on the predictors of career success; for example, meta-analyses (Heslin et al. 2019; Ng et al., 2005) have found that human capital (e.g., education), organizational sponsorship (e.g., supervisory support), socio-demographics (e.g., gender and age), and stable individual characteristics (e.g., extraversion and conscientiousness) relate to career success. Further, the findings by Heslin et al. (2019; see also Baruch and Quick, 2007)

indicate that the relative importance of such predictors varies depending on the type of career success measured. According to the conservation of resources theory (see Hobfoll, 1989), individuals try to protect their current resources and acquire new resources. Halbesleben et al. (2014) defined resources “as anything perceived by the individual to help attain his or her goals” (p. 1338). The same study also proposes that “the value of a resource can vary significantly depending on the context” (p. 1339). Correspondingly, career capital refers to resources embedded within individuals and their relationships that may lead to career success (Inkson and Arthur, 2001) and is therefore a useful conceptual framework for understanding career success. The well-known career capital framework (DeFillippi and Arthur, 1994; Eby et al., 2003) includes three different kinds of knowledge areas: *knowing why* (e.g., career motivation), *knowing how* (e.g., career-relevant skills and job-related knowledge), and *knowing whom* (e.g., networks and contacts) that can help individuals to accomplish meaningful goals and achieve career success. The model by Akkermans et al. (2013) divides career competencies into three dimensions—reflective, communicative, and behavioral competencies—all of which include two competencies. In addition, Luthans et al. (2004, p.46) presented a framework of four forms of capital related to career success: economic capital (*what you have*), human capital (*what you know*), social capital (*who you know*), and psychological capital (*who you are*). Those career capital types have been related to career success, but often individually, meaning we know little of the impact of those forms of career capital as integrated predictors of career success.

To the best of our knowledge, only Direnzo et al. (2015) have presented a career capital framework incorporating human capital, social capital, and psychological capital in a single career-related study. Human capital includes an individual’s education, training, and work experience; social capital includes mentoring relationships and/or developmental networks

(Seibert et al., 2001); and psychological capital refers to internalized agency (Avey et al., 2010) consisting of “positive appraisal of circumstances and probability for success based on motivated effort and perseverance” (Luthans et al., 2007, p. 550).

However, career theory has been criticized for stressing individual agency and neglecting contextual issues (Brown, 2002; Evetts, 1992) even though it would be especially important to consider of the societal, political and economic context in career research (Arthur et al., 1999; Mayrhofer et al., 2007). As one of the welfare Nordic countries, Finland is known for its gender equality (The World Economic Forum, 2016), even though women are still underrepresented in top managerial positions. Finland is also known for its high-quality free education.

We aim to respond to the call for research in the context in which careers evolve (Gunz and Mayrhofer, 2007; Inkson et al., 2012). The aim of this study is to assess the relationship between career capital and career success among Finnish knowledge workers. Hence, we aim to study which career capital is relevant to assist knowledge workers to be successful in their career. Our study contributes to the career success literature by emphasizing the role of psychological capital as an important career resource among Finnish knowledge workers. Hence, psychological capital is a personal (generated within the self) and a volatile career resource, which enables knowledge workers to be successful in their career.

Our findings might help knowledge workers living in Nordic welfare societies to actively develop the forms of career capital that contribute most to career success. Further, career counselors might improve their understanding of the relationship between career capital and career success among knowledge workers. Likewise, employers and HR professionals could use the knowledge when planning talent programs.

The literature review first considers career success and then the predictors of career success focusing on human, social, and psychological capital. At that point we present our hypotheses. After presenting the methodology, we present and discuss our results. Finally, we outline conclusions.

### **Career success**

Career success is one of those topics which interests and benefits both employees and employers, and it is becoming increasingly meaningful in contemporary careers. Underlying definitions, concepts, relationships, and assumptions of career success rely on career theory (Arthur et al., 2005). Accordingly, protean (Hall, 2004) and boundaryless careers (Arthur and Rousseau, 1996) include the idea of weakening ties between employers and employees, hence individuals need to be proactive and take charge of their own career management if they are to succeed.

Knowledge workers seek careers that are meaningful to them (Arthur and Rousseau, 1996; Eby et al., 2003; Sullivan and Arthur, 2006), and it follows that career success is an outcome of a person's career experiences. It was common in the past that career researchers focused mainly on objective career success (an external perspective), which refers to number of promotions, position, or salary increases (Arthur et al., 2005; Bozionelos, 2004), an approach that supports the idea of a traditional career in which individuals advance hierarchically within a single organization. Recently, contemporary career researchers have focused more on subjective career success, owing to the growing importance of the meaningfulness of work (Arthur and Rousseau, 1996; Briscoe et al., 2006; Sullivan and Baruch, 2009). Subjective career success refers more to the extent to which an individual perceives his or her career to be successful (Heslin, 2005) and



typically it has been measured through job satisfaction (e.g., Baruch and Quick, 2007) or career satisfaction (e.g., Gasteiger, 2007; Volmer and Spurk, 2010). Recently, subjective career success has been studied through the lenses of perceived employability and work-home balance (Akkermans & Tims, 2017), but such study may also refer to perception of success concerning achievement, future perspectives, recognition, and satisfaction (Nabi, 1999). Arthur et al. (2005) point out that both subjective and objective career success are addressed by contemporary writing on careers. It is argued that objective career success has an effect on subjective career success (e.g., Poole et al., 1993), the subjective career elevates objective success (Aryee et al., 1994) and that subjective and objective career success are interdependent (e.g., Abele and Spurk, 2009; Seibert et al., 2001), but distinct concepts (Heslin et al. 2019; Ng et al., 2005). A broader interpretation of career success refers to organizational, occupational, and cultural contexts (Arthur et al., 2005). Hence, knowledge workers may define their career success differently to artists, for example. Further, there is also support for the idea that subjective and objective career success are associated with different predictors (Abele et al., 2011).

As shown above, career success may assume different meanings and interpretations, but contemporary career theory seems to refer to both subjective and objective career success. Naturally, knowledge workers also want to succeed in their career, and therefore it is important to know if career capital is related to their career success. Next, we present a framework of career capital and its potential relationship with career success.

### **Career capital as a predictor of career success**

Knowledge workers typically work in complex jobs requiring special knowledge and skills, and today they are expected to deal with even more knowledge and information than in the past (Huang, 2011). The development opportunities (i.e., learning) and the freedom to act independently (i.e., autonomy), personal growth, and challenging and meaningful work are important factors valued by knowledge workers (Cortada, 1998; Kinnear and Sutherland, 2000; Sajeva, 2007). Several studies have focused on knowledge workers (e.g., a review by Huang, 2011); for example, Flood et al. (2001) found that both the procedural justice of an organization and the psychological contract between knowledge workers and their employers affected knowledge workers' organizational commitment and their intentions to stay with their employer. Recently, Sirén et al. (2018) found that person-job fit has a strong effect on the degree to which knowledge workers see opportunities for internal and external career mobility. Accordingly, career capital is an important resource to support finding a job where there is a good person-job fit, which in turn may nurture career success.

Career capital refers to the resources and relationships that can promote career-related outcomes (Inkson and Arthur, 2001). Drenzo et al. (2015) studied the relationship between a protean career orientation and work-life balance among college-educated employees in the United States and found evidence that social capital, psychological capital, and employability explain this relationship. The same study also found that a protean career orientation was related to career planning, which in turn related to three forms of career capital: human capital, social capital, and psychological capital. Further, social capital and psychological capital were related to high employability. Hence, Drenzo et al.'s career capital model includes three forms of career capital from Luthans et al.'s (2004) career capital model but excluding economic capital. Our

research interests rely on Dorenzo et al.'s career capital framework because it seems to fit (better) to the specifics of the Finnish education system and the country's knowledge workers. Economic capital does not play such a big role in Finland owing to the influence of the country's high-quality free education.

In the present study *human capital* refers to the work-related skills, knowledge, and understanding of what is needed to ensure good work performance. This competence emphasizes the development of occupational learning, and the acquisition of a broad and flexible skill base (DeFillippi and Arthur, 1994; Eby et al., 2003). The human capital definition used here differs from the traditional definition based on education and certification by accepting a broad and flexible skill base that can be transferred across organizational boundaries. Human capital helps people to meet performance expectations in different occupations, which may lead to new job and career opportunities (Judge et al., 1995).

*Social capital* relates here to the networks and contacts existing not only within the organization but also outside of it. The resource encompasses customer relationships, and professional and personal social connections (Eby et al., 2003; DeFillippi and Arthur, 1994; Parker and Arthur, 2000), who may offer job opportunities, career guidance, encouragement, and support. Social capital can also assist in identifying and clarifying new career goals and opportunities (Parker and Arthur, 2000), because networks are a resource for expertise, reputation, and learning (e.g., DeFillippi and Arthur, 1994; Eby et al., 2003). Therefore, social capital gives greater access to the career-related information that can help people achieve their career goals.

Psychological capital (PsyCap) illustrates individuals' positive capacity in terms of the components of *optimism, resilience, self-efficacy, and hope* (Luthans et al., 2006). Psychological capital as used here refers to individual agency with “positive appraisal of circumstances and probability for success based on motivated effort and perseverance” (Luthans et al., 2007, p. 550). Although the four psychological capital dimensions have each garnered research attention, the four constructs together form a resource that exists at a higher level of abstraction (Stajkovic, 2006). According to Luthans et al. (2007), psychological capital is more consistently related to the individual (and organizational) outcomes than its sub-dimensions individually. The psychological capital dimension *optimism* is associated with a positive, but realistic, outlook and attribution of events (Luthans, 2002a; Luthans et al., 2007). Resilience indicates the ability to rebound from setbacks, failures, changing circumstances, and also to leverage successful situations (Avey et al., 2010; Gooty et al., 2009; Luthans et al., 2006). Self-efficacy reflects an individual's confidence in his or her ability to be successful at completing given tasks (Stajkovic and Luthans, 1998). Hope is based on “an interactively derived sense of a) agency (goal-directed behavior) and b) pathways (planning to meet goals)” (Snyder et al., 1991, p. 287). Figure 1 presents our research model.

INSERT FIGURE 1 HERE

*Human capital as a predictor of career success*

An employee with a high level of human capital remains open to new opportunities and career experiences (Cappellen and Janssens, 2005; Arthur et al., 1999). Investing in human capital has been shown to have a strong influence on continued career progression (Judge et al., 1995; Kirchmeyer, 1998; Tharenou et al., 1994) and studies indicate that people with high human capital levels negotiate their salaries upward (Becker, 1964; Lam et al., 2012). Because extensive human capital provides employees with greater job proficiency, knowledge, and portable skills (Anderson, 2001; Lubit, 2001), they may realize promotion opportunities across organizations and industries. Likewise, human capital can increase their ability to meet the performance expectations of various occupations (Burt, 1997; Portes, 1998). Therefore, it is likely that people with high levels of human capital are successful in their careers.

Hypothesis 1: Human capital is positively related to subjective and objective career success

### *Social capital as a predictor of career success*

Eby et al. (2003) found that both human and social capital predicted subjective career success. Earlier studies confirm that networks are related to organizational mobility (Lin and Dumin, 1986; Wolff and Moser, 2010), promotions (Burt, 1997; Forret and Dougherty, 2004; Seibert et al., 2001; Wolff and Moser, 2010), and higher salaries (Seibert et al., 2001). This is possible because highly networked employees may get access to career-related information, resources, and career sponsorship (Seibert et al., 2001), and can thus obtain jobs with higher status and pay than those lacking sufficient networks (Lai et al., 1998; Seibert et al., 2001). Professional relationships often serve as a primary means to discover job opportunities (Forret

and Sullivan, 2002) and can be drawn upon for career guidance and personal growth (King, 2004; Parker and Arthur, 2000). Social capital is also thought to be vital to employability (Fugate et al., 2004; McArdle et al., 2007) because it provides individuals with greater access to career-related information (Higgins and Kram, 2001; Seibert et al., 2001) and offers a competitive advantage via heightened exposure to job opportunities, promotions, business leads, and venture capital (Forret and Sullivan, 2002). In fact, managers have been reported to find jobs through informal networks rather than traditional job search methods (Boxman et al., 1991). The review of prior research leads us to suggest that social capital is likely to be connected to career success.

Hypothesis 2: Social capital is positively related to subjective and objective career success

### *Psychological capital as a predictor of career success*

Scholars have examined the concept of psychological capital in organizations (Avey et al., 2011; Luthans et al., 2005; Luthans et al., 2008; Peterson et al., 2011) and established that it has many positive impacts, for example, on individuals' satisfaction, well-being, performance, and commitment (e.g., Badran and Youssef-Morgan, 2015; Bergheim et al., 2015; Cole et al., 2009; Siu et al., 2015). Concerning subjective career success, Karatepe and Karadas (2015) found that employees scoring high on psychological capital are more satisfied with their jobs, careers, and lives. Correspondingly, psychological capital is related to career mobility (Järlström and Brandt, 2017) and objective career success (Goldsmith et al., 1997). Several studies indicate that happiness is related to income (Diener and Biswas-Diener, 2002), favorable evaluations by a superior (Cropanzano and Wright, 1999; Judge et al., 1999), and job performance in diverse

working environments (Wright and Cropanzano, 2000). Optimistic workers tend to perceive transitions as challenges and opportunities to learn (Carver and Scheier, 1994), which can possibly drive them to consider job alternatives to further their career goals (Fugate and Kinicki, 2008). Moreover, because hope involves the motivation and the will to pursue personally valued goals (Gooty et al., 2009; Luthans et al., 2007), it is likely that hopeful individuals are more satisfied in their careers. Career self-efficacy is associated with successful job search and re-employment (McArdle et al., 2007) to maintain the satisfaction with work. Resilience can foster career success because identifying and realizing career opportunities require dealing with ambiguity, uncertainty, and change (Fugate et al., 2004). In sum, we propose that psychological capital is related to both subjective and objective career success.

*Hypothesis 3: Psychological capital is positively related to subjective and objective career success*

Although knowledge workers are able to contribute their knowledge and innovation skills across organizational boundaries, career capital may help them to navigate a dynamic career context and to be successful. Accordingly, earlier studies have shown the relationship between career capital (or competences) and perceived employability (e.g., Akkermans et al., 2013).

## **Data and methods**

### ***Data collection***

The data were collected through an internet survey distributed among Finnish business graduates. Researchers developed and translated the survey, which included several sub-themes, such as career attitudes, career competences, job and career satisfaction, psychological capital, career mobility, and background variables (e.g., salary). The research team were granted access to the membership contact details of a Finnish trade association representing business school graduates (SEFE). We chose this route to collect data because Finland has the second highest percentage of trade association membership in the world after Iceland (i.e., 69 %, OECD). The membership of SEFE exceeds 40 000, so the organization sent an email invitation to a random sample of 3500 of its members. The email invitation included a direct link to the questionnaire. A reminder message was sent approximately two weeks after the first invitation, and a total of 629 surveys were returned, giving a response rate of 18 %. Five cases were rejected for being unrepresentative (the subjects being unemployed at the time), but the remaining 624 cases were accepted for further analysis.

More than half of the sample were women (60 %), and the average age was 44 (s.d. =10.5). The majority of respondents (46 %) had families with young or school-aged children; 37 % of the sample had a spouse, and the remainder of the respondents were single (17 %). The average length of work experience was 19 years, and the major positions represented were middle management and experts (e.g., HR professionals).

### *Measures*



The present study used measures adapted from previous studies, and all attitudinal measures were reported using a 7-point Likert scale anchored with *fully disagree* (1) and *fully agree* (7).

### *Career capital*

*Human capital* was measured through five items developed from Eby et al. (2003), similarly to the Drenzo et al. (2015) study, the items include, “I have a versatile range of work-related skills” and “I seek out opportunities for continuous learning in my career.” The Cronbach’s alpha for this scale was 0.84 and composite reliability (CR) was 0.82, both exceeding threshold values 0.7 and showing good scale reliability.

*Social capital* is measured with five items suggested by Eby et al. (2003). Drenzo et al. (2015) used those items too, but they used 10-item instrument that was a combination of items developed by Eby et al. (2003) and Colakoglu (2006). Our measurement of social capital is based on Eby et al.’s (2003) instrument, which included items such as, “I am well connected within the organization” and “I have extensive contacts within the industry in which I work.” The Cronbach’s alpha for that scale was 0.85 and CR was 0.77, which shows acceptable reliability for the scale.

*Psychological capital* was measured with 12 items that describe its four relevant dimensions: hope, optimism, resilience, and self-esteem. The psychological capital questionnaire was modified from that of Luthans et al. (2007) to obtain a better fit between the items and Finnish culture. The PsyCap measures included items such as, “Currently I am achieving those

goals I have set” (hope), “I am optimistic about my future” (optimism), “I recover from disappointments at work quickly” (resilience), and. “I trust my skills even in challenging situations” (self-efficacy). The Cronbach’s alpha of that final scale was 0.89 and CR was 0.87 and these indicate that the scale is reliable.

### *Career success*

Subjective career success was measured using a 5-item scale from Greenhaus et al. (1995). This scale is widely used and is one of the most relevant measures of subjective career success (Eby et al., 2003; Heslin, 2005). A sample item is, “I am satisfied with the success I have achieved in my career.” The Cronbach’s alpha was 0.93 and CR was 0.90, which indicates that the scale is highly reliable.

Objective career success was measured via the number of promotions received during the professional career. We measured objective career success via promotions rather than salaries because there remains a gender effect on salaries among knowledge workers even with similar educational backgrounds.

### *Control variables*

Common demographics variables were controlled for. These included age, gender (0=male, 1=female), and position (1=expert, 2=clerical employee, 3=middle management, 4=top management).

## Results

Structural equation modeling (SEM) with maximum likelihood was used to empirically test the hypothesized model. The model was tested with Stata 14 software. Correlations between constructs, means, and standard deviations are presented in Table 1.

INSERT TABLE 1 HERE

### *Measurement model and common method variance*

A CFA with maximum likelihood method was conducted to assess the structure of the measures of social capital, human capital, psychological capital, and subjective career success. The results of that CFA provided an acceptable fit to the data ( $\chi^2=984.61$ ,  $df=289$ ,  $\chi^2/df=3.41$ ,  $RMSEA=0.06$ ,  $CFI=0.94$ ,  $TLI=0.93$ ,  $SRMR=0.06$ ). Each indicator loaded significantly on the appropriate latent construct ( $p<0.000$ ). We applied different methods for controlling the common method variance. First, Harman's one-factor test was performed, we used principal axis factoring, which resulted in four factors that had eigenvalues greater than 1. These four factors explained 92 percent of the variance among items, from which the first factor explained 58 percent. Podsakoff et al. (2003) reports that common method variance would not be seen as a problem if items load on multiple factors and one factor does not explain most of the variance. It is also argued that even if the first factor explains over 50 percent of the variance in the factor

model, it does not imply that common method bias necessarily creates issues for the interpretation of the results (Ylitalo, 2009). As the first factor explained over 50 percent of the variance, we conducted more tests to be sure that common method variance was not an issue in the data set. We next tested for the existence of common method variance by analyzing whether the model fit improved when the complexity of the measurement model increased: this technique is said to be more effective than Harman's one-factor test at detecting common method variance (e.g., Podsakoff et al., 2003). We compared a single-factor model to the original four-factor model featuring human capital, social capital, psychological capital, and subjective career success. We found that the four-factor model ( $\chi^2=984.61$ ,  $df=289$ ,  $\chi^2/df=3.41$ ,  $RMSEA=0.06$ ,  $CFI=0.94$ ,  $TLI=0.93$ ,  $SRMR=0.06$ ) fit the data better than the single-factor model ( $\chi^2=5913.98$ ,  $df=324$ ,  $\chi^2/df=18.3$ ,  $RMSEA=0.17$ ,  $CFI=0.50$ ,  $TLI=0.46$ ,  $SRMR=0.12$ ), indicating that common method variance is not an issue in the data.

### *Testing the hypothesized model*

We conducted SEM to empirically test the hypothesized model. The model showed satisfactory fit to the data ( $\chi^2=2.25$ ;  $df=1$ ;  $RMSEA=0.045$ ;  $CFI=0.99$ ,  $TLI=0.95$ ,  $SRMR=0.008$ ). The results show that human capital is not statistically significantly related to subjective career success ( $\beta = -0.04$ ,  $p = 0.39$ ) or objective career success ( $\beta = 0.03$ ,  $p = 0.46$ ). This indicates that Hypothesis 1 is not supported. Similarly, social capital was not found to be related to subjective career success ( $\beta = 0.08$ ,  $p = 0.07$ ) or objective career success ( $\beta = 0.08$ ,  $p = 0.10$ ), which suggests that Hypothesis 2 is not supported by the empirical data. In contrast, psychological capital was found to be statistically significantly related to both subjective career success ( $\beta = 0.49$ ,  $p = 0.000$ ) and

objective career success ( $\beta = 0.12$ ,  $p = 0.02$ ). This shows that Hypothesis 3 is supported by the empirical data.

We also controlled for the effects of age, position, and gender in the model. Age was found to be positively related to objective career success ( $\beta = 0.12$ ,  $p = 0.002$ ), but not related to subjective career success ( $\beta = 0.04$ ,  $p = 0.23$ ). Position was found to be a statistically significant predictor of both subjective career success ( $\beta = 0.15$ ,  $p = 0.00$ ) and objective career success ( $\beta = 0.22$ ,  $p = 0.00$ ). Gender was also found to be related to subjective career success ( $\beta = 0.09$ ,  $p = 0.005$ ), but not to be related to objective career success ( $\beta = 0.02$ ,  $p = 0.56$ ).

**Table 2** presents the results of the empirical test of the structural equation model.

INSERT TABLE 2 HERE

## **Discussion**

The aim of our research was to study the relationship between career capital and career success among Finnish knowledge workers. Similar to Dorenzo et al. (2015), we presented three forms of career capital as an integrated entity rather than focusing on a single type of career capital.

Hence, we focused on human capital, social capital, and psychological capital as antecedents of subjective career success measured via career satisfaction and objective career success measured

via promotions. Our findings stress the importance of psychological capital over human or social capital as a career resource among knowledge workers.

As expected, we found that *psychological capital* was significantly and positively related to both subjectively and objectively evaluated career success among knowledge workers. Those with higher levels of psychological capital may possess more resilience and adaptability in the face of increased uncertainty in the work environment (see Zacher, 2014), and thus they benefit from this capital in the form of career success. Contrary to our expectations, the findings showed that neither human nor social capital is related to subjective or objective career success.

Therefore, our findings seem to stress the idea expressed among knowledge workers that *who you are* is more important than *what you know* or *who you know* (Luthans et al., 2004, p. 46).

People with highly developed psychological capital have high levels of hope, optimism, resilience, and self-efficacy. Such people tend to have goals and they work actively to achieve them, and due to resilience, they recover quickly from disappointments. In a dynamic career environment, these positive qualities seem to result in career satisfaction and career progress. It may be that people with high psychological capital have some similarities to those people having *agency* in career management, and thus responsibility for their own careers. A protean career attitude has been considered a significant factor in boundaryless career research (Briscoe et al., 2006; Sullivan and Baruch, 2009). This attitude helps a person to explore different career options, to remain open to career experiences, and to adapt to changing work situations (Arthur et al., 1999). It may also be that those with high-level psychological capital can regulate their negative career-related emotions, seeing more career opportunities than threats. Optimistic individuals attribute things positively and experience more positive emotions than others (Hmieleski and Baron, 2009) and high psychological capital is connected to positive outcomes

such as work engagement (Bonner, 2016; Sihag and Sarikwal, 2014) and well-being (Avey et al., 2010; Adil and Kamal, 2016; Luthans et al., 2013; Youssef-Morgan and Luthans, 2015). This same general positive attitude is seen here as subjective career satisfaction. High levels of psychological capital also indicate goal-directed behavior (see Snyder et al., 1991) and strong performance (Gooty et al., 2009; Luthans, 2002b; Wright, 2003) and thus it is likely that goal-orientation also promotes objective career success. Because psychological capital is not a permanent trait and can be changed (Luthans et al., 2007; Luthans et al., 2008; Luthans et al., 2010), we cannot know if those people with successful careers have always had high levels of psychological capital or if the strength of their psychological capital has developed over time, for example, with the help of their superiors (Rego et al., 2011).

Our findings contrast with those in the meta-analysis of Heslin et al. (2019) which showed that human capital (e.g., education level) relates to objective career success (promotions) and subjective career success (career satisfaction). Our findings indicate that knowledge workers, who actively invest in their career and developing their expertise does not offer any positive boost to subjective or objective career success. Our finding is perhaps especially surprising in the case of objective career success. One reason might be that superiors do not necessarily notice the hard work of some subordinates and thus those people do not receive support to progress their careers. It may be that people with high levels of psychological capital express their wishes and career progression goals more demonstratively. Brandt et al. (2011) compared personality and culture among subjects in Bulgaria, Portugal and Finland and found Finnish introverts to have the lowest psychological capital. They also had demonstrably lower psychological capital than Finnish extraverts. When comparing those three countries the Finns had the lowest levels of psychological capital and the Portuguese the highest. The findings raise the possibility that some

hard working people, especially in Finland, are so modest that their superiors do not recognize their potential and people with higher psychological capital are more easily visible.

It could be expected that actively working on self development would relate to promotions achieved. In the case of subjective career success, it may be that those people with high goals, elevated proficiency, and who are hard working do not feel satisfied when they measure their actual career progression against the efforts they have invested. Both meta-analyses by Ng et al. (2005) and Heslin et al. (2019) reported a positive relationship between social capital and career success (in terms of satisfaction and promotions). Interestingly, our findings did not support these relationships among knowledge workers. The main reason for this finding is less clear; it may be that depth of network (close social ties) is more valued as a career resource than broadness of network. Many companies in Finland apply strict regulations to recruitment processes, meaning the recruitment process is transparent and all candidates likely to be assessed on equal terms. Additionally, Finland is well-known to be characterized by its silent and introverted culture, and several authors describe silence as a Finnish ‘natural way of being’ (Carbaugh et al., 2009) or as a valued skill in Finland (Smith and Bond, 1999). Silence is also the attribute most often ascribed to the Finns by themselves and by others in national stereotype research (Pajupuu, 2005; Petkova and Lehtonen, 2005). Accordingly, in Finland it is not abnormal for people to not have wide networks and for wide networks to not even be regarded necessarily as a benefit.

With regard to the psychometrics, the measures of social capital and human capital have been used in prior studies (Eby et al., 2003) and their internal consistency is satisfactory here as well (see Table 1). Hence, the main reason for our findings may relate to the sample of knowledge workers or the Finnish welfare context. For example, it may be that these knowledge



workers already have a high-level of human capital stemming from the high-quality free education provided in the Nordic countries. It may be that the respondents naturally invest in their human capital. Therefore, our findings contribute to career research by supporting the argument that context and/or occupational group matters in the relationship between career capital and career success (see Brown, 2002; Evetts, 1992; Gunz and Mayrhofer, 2007; Inkson et al., 2012). Although human capital and social capital were not related directly to career success, they may have an impact on perceived employability or job crafting (see Akkermans et al., 2015; Akkermans and Tims, 2017).

With regard to the control variables, *age* was found to be positively related to objective career success, but not related to subjective career success. This indicates that the older respondents are more likely to have been promoted during their career, which is logical and is in the line with the findings of Heslin et al. (2019). *Position* was found to be a statistically significant predictor of both subjective and objective career success, which is again logical, as the higher the position attained, the more often the respondents will have been promoted during their professional careers and the more satisfied they will be with those careers. According to these results the higher position indicates clearly higher career satisfaction, which supports the argument that objective career success affects subjective career success (e.g., Poole et al., 1993). Contrary to the findings of Ng et al. (2005) and Heslin et al. (2019), *gender* was related to subjective career success in our study results. As individuals compare their career achievements to their career goals, our findings may indicate that highly educated women have lower expectations of their careers than men do and report high levels of career satisfaction. Especially in welfare countries that score high on gender equality in work, this may hinder women breaking the glass ceiling. Nevertheless, gender was not a significant predictor of the number of

promotions, which again contradicts the findings in the meta-analyses of Ng et al. (2005) and Heslin et al. (2019) and also confirms that gender equality is relatively well established in Finnish culture (The World Economic Forum, 2016). However, we do not know if men have higher levels of psychological capital than women do. The results also support the notion that subjective and objective career success (Arthur et al., 2005) are related but distinct, as presented by Abele and Spurk (2009) and Seibert et al. (2001). To some extent the measures seem to have different predictors, which implies that they are distinct concepts of career success (see Ng et al., 2005). These findings could advance career theory and provide developmental guidelines to help career-oriented individuals build successful careers.

### **Practical implications**

Working life is still changing and even knowledge workers with a long career in the same organization may face that career ending abruptly. We can help knowledge workers to achieve career success by enhancing their psychological capital. Therefore, psychological capital seems to have more positive effects on organizations and individuals' careers than has yet been fully understood. One especially interesting result is that psychological capital is more important than gender. Although Finland is known as a country with exemplary gender equality (World Economic Forum, 2016; Gender Equality Index, 2019), there is still much to improve. For example, the proportion of women on the boards of listed companies was 27.2 % at the end of 2017 (Statistics Finland: Gender equality). These results suggest HR departments could focus on nurturing women's psychological capital because doing so could have a notable effect on career success.

The results of this study indicate that psychological capital is related to knowledge workers' subjectively measured career success, thus employers would be wise to nurture employees' psychological capital. Earlier studies indicate that high levels of psychological capital among employees influence many aspects of organizations, including efficiency, satisfaction, performance, and well-being (Cole et al., 2009; Luthans et al., 2007), and also organizational citizenship and deviance (Avey et al., 2008). Psychological capital has been considered state-like from the perspective of the state-trait continuum, so it is relatively adaptable and not as resistant to change as trait-like constructs such as personality traits (Luthans et al., 2007). Therefore, individual psychological capital can be fostered through training (Luthans et al., 2008; Luthans et al., 2010) and for example through elements like authentic leadership (Woolley et al., 2010) or mentoring (Ghosh et al., 2018). Luthans and Youssef-Morgan (2017) report psychological capital development interventions as typically lasting two or three hours and focusing on the four dimensions (hope, optimism, self-efficacy, and resilience). This short intensive approach is recognized as more effective than individual positivity-boosting strategies or activities (Seligman et al., 2005; Sin and Lyubomirsky, 2009).

Further, it may be easier to have an impact on employees' subjectively measured career success than that measured objectively, particularly if the region (or industry) is facing a challenging economic situation. Moreover, in some fields, it may be impossible to engage talented employees through remuneration alone (every organization with job opportunities might be offering high salaries), but an employer emphasizing the *protean career* aspects of the work (motivation and the personal meaning of the work) and how the employees' psychological capital and subjective career satisfaction can blossom would have an advantage in securing employee commitment.

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

There are some limitations to the present study that open up interesting avenues for future research. The first restriction relates to cross-sectional data. This partly restricts our ability to indicate an impact but does favor indicating a relationship. Further research using a longitudinal design would be required to confirm the longitudinal effects of psychological capital on career success. Our use of self-reported data might increase the likelihood of common method bias; however, our intention was to measure attitudes rather than behavior, which calls for subjective measures.

Future studies might focus on *when* and *how* questions by including some mediators (e.g., perceived employability) and/or moderators (e.g. organizational career management practices) in their research models. Similarly, qualitative studies might deepen our understanding of how career capital has helped their career success. Likewise, further studies could focus on how knowledge workers have developed their career capital in general, and especially their psychological capital. Hence, qualitative studies could offer more specific information on why career capital enhances career success. In addition, it would be interesting to know if those people with higher levels of psychological capital assess career barriers differently to those with lower levels of psychological capital. Finally, career success could be studied by a broader range of interpretations.

## **Conclusion**

This study examined the relationship between career capital (human capital, social capital, and psychological capital) and career success among knowledge workers. The findings strongly support the role of psychological capital as an important career resource of career success, whether it is subjectively or objectively measured. It is possible that those with highly developed psychological capital are more willing to change jobs, and may demand, and have the courage to accept, more challenging tasks. Our study contributes to career research by supporting the argument that context and/or occupational group matters in the relationship between career capital and career success (see Brown, 2002; Evetts, 1992; Gunz and Mayrhofer, 2007; Inkson et al., 2012). Further, the findings indicate and support the idea that there could be value in incorporating psychological capital into the types of career capital as presented by Drenzo et al. (2015) and Luthans et al. (2004). Psychological capital could also be added to the group of meta-competencies of career success (DeFillippi and Arthur, 1994; Hall, 2002).

## **Acknowledgement**

We thank the anonymous reviewers for insightful comments and suggestions.

## References

Abele, A. E. and Spurk, D. (2009), “How do objective and subjective career success interrelate over time?”, *Journal of Occupational and Organizational Psychology*, Vol. 82 No. 4, pp. 803–824.

Abele, A. E., Spurk, D., and Volmer, J. (2011), “The construct of career success: Measurement issues and an empirical example”, *Journal of Labour Market Research*, Vol. 43, pp. 196–306.

Adil, A. and Kamal, A. (2016), “Impact of psychological capital and authentic leadership on work engagement and job related affective well-being”, *Pakistan Journal of Psychological Research*, Vol. 31 No. 1, pp. 1–21.

Anderson, C. (2001), “Survey: The young know the future”, *The Economist*, Vol. 357 No. 8202, pp. 6–10.

Akkermans, J., Brenninkmeijer, V., Huibers, M., and Blonk, R. (2013), “Competencies for the contemporary career: Development and preliminary validation of the career competences questionnaire”, *Journal of Career Development*, Vol. 40 No 3, pp. 245–267.

Akkermans, S., Seibert, S., and Mol, S. (2018), “Tales of the unexpected; Integrating career shocks in the contemporary literature”, *SA Journal of Industrial Psychology/SA Tydskrif vir Bedryfsielkunde*, 44(0), a1503. <https://doi.org/10.4102/sajip.v44i0.1503>

Akkermans, J., and Tims, M. (2017), “Crafting your career: How career competencies relate to career success via job crafting”, *Applied Psychology: An International Review*, Vol. 66 No 1, pp. 168–195.

Arthur, M.B., Khapova, S.N., and Wilderom, C.P.M. (2005), "Career success in a boundaryless world", *Journal of Organizational Behavior*, Vol. 26, pp. 177–202.

Arthur, M.B., Inkson, D., and Pringle, J. (1999), *The New Careers: Individual Action and Economic Change*, London: Sage.

Arthur, M.B., and Rousseau, D.M. (1996), *The Boundaryless Career: New Employment Principles for a New Organizational Era*, Oxford University Press, NY.

Aryee, S., Chay, Y., and Tan, H. (1994), "An examination of the antecedents of subjective career success among a managerial sample in Singapore", *Human Relations*, Vol. 47, pp. 487–509.

Avey, J., Luthans, F., Smith, R., and Palmer, N. (2010), "Impact of positive psychological capital on employee well-being time", *Journal of Occupational Health Psychology*, Vol. 15, pp. 17–28.

Avey, J.B., Reichard, R.J., Luthans, F., and Mhatre, K.H. (2011), "Meta-analysis of the impact of positive psychological capital on employee attitudes, behaviors, and performance", *Human Resource Development Quarterly*, Vol. 22 No. 2, pp. 127–152.

Avey, J.B., Wernsing, T.S., and Luthans, F. (2008), "Can positive employees help positive organizational change? Impact of psychological capital and emotions on relevant attitudes and behaviors", *The Journal of Applied Behavioral Science*, Vol. 44 No. 3, pp. 48–70.

Badran, M.A., and Youssef-Morgan, C.A. (2015), "Psychological capital and job satisfaction in Egypt", *Journal of Managerial Psychology*, Vol. 30, pp. 354–370.

Ballout, H.I. (2009), "Career commitment and career success: moderating role of self-efficacy", *Career Development International*, Vol. 14 No. 7, pp. 655–670.

Baruch, Y., and Quick, J. (2007), "Understanding second careers: lessons from a study of U.S. navy admirals", *Human Resource Management*, Vol. 46 No. 4, pp. 471–491.

Becker, G. (1964), *Human Capital: A Theoretical and Empirical Analysis with Special Reference to Education*, Columbia University Press, New York.

Bergheim, K., Birkeland Nielsen, M., Mearns, K., and Eid, J. (2015), "The relationship between psychological capital, job satisfaction, and safety perceptions in the maritime industry", *Safety Science*, Vol. 74, pp. 27–36.

Bonner, L. (2016), "A survey of work engagement and psychological capital levels", *British Journal of Nursing*, Vol. 25 No. 15, pp. 865–871.

Boxman, E. A., de Graaf, P. M., and Flap, H. D. (1991), "The impact of social and human capital on the income attainment of Dutch managers", *Social Networks*, Vol. 13, pp. 51–73.

Bozionelos, N. (2004), "Mentoring provided: Relation to mentor's career success, personality, and mentoring received", *Journal of Vocational Behavior*, Vol. 64 No. 1, pp. 24–46.

Brandt, T., Gomes, J., and Boyanova, D. (2011), "Personality and psychological capital as indicators of future job success? A multicultural comparison between three European countries" *Finnish Journal of Business Economics*, Vol 3, pp. 263–289.

Briscoe, J. P., Hall, D. T., and DeMuth, R. L. (2006). "Protean and boundaryless careers: An empirical exploration", *Journal of Vocational Behavior*, Vol. 69 No. 1, pp. 30–47.

Brown, D. (2002), *Career Choice and Development*, Jossey-Bass, San Francisco, CA.



Burt, R.S. (1997), "Contingency value of social capital", *Administrative Science Quarterly*, Vol. 42, pp. 339–365.

Cappellen, T., and Janssens, M. (2005), "Career paths of global managers: Towards future research", *Journal of World Business*, Vol. 40, pp. 348–360.

Carbaugh, D., Berry, M., and Nurmikari-Berry, M., (2009), "Coding personhood through cultural terms and practices", *Journal of Language and Social Psychology*, Vol. 25, pp. 203–220.

Carver, C. S., and Scheier, M. F. (1994), "Situational coping and coping dispositions in a stressful transaction", *Journal of Personality and Social Psychology*, Vol. 66, pp. 184–195.

Colakoglu, S. (2006), The relationship between career boundarylessness and well-being: A contingency approach. Unpublished doctoral dissertation, Drexel University.

Cole, K., Daly, A., and Mak, A. (2009), "Good for the soul: The relationship between work, wellbeing and psychological capital", *The Journal of Socio-Economics*, Vol. 38, pp. 464–474.

Cortada, J.W. (1998), "Where did Knowledge Workers Come From?", in *Rise of the Knowledge Worker*, ed. J.W. Cortada, Woburn, MA: Butterworth-Heinemann, pp. 3–22.

Cropanzano, R., and Wright, T. A. (1999), "A 5-year study of change in the relationship between wellbeing and job performance", *Consulting Psychology Journal: Practice and Research*, Vol. 51, pp. 252–265.

DeFillippi, R.J., and Arthur, M.B. (1994), "The boundaryless career: a competency- based perspective", *Journal of Organizational Behavior*, Vol. 15, pp. 307–324.

Diener, E., and Biswas-Diener, R. (2002), “Will money increase subjective well-being? A literature review and guide to needed research” *Social Indicators Research*, Vol. 57, pp. 119–169.

Direnzo, M., Greenhaus J.H., and Weer, C.H. (2015), “Relationship between protean career orientation and work–life balance: A resource perspective”, *Journal of Organizational Behavior*, Vol. 36, pp. 538–560.

Dries, N., Pepermans, R., and Carlier, O. (2008), “Career success: Constructing a multidimensional model”, *Journal of Vocational Behavior*, Vol. 73, pp. 254–267.

Eby, L.T., Butts, M., and Lockwood, A. (2003), “Predictors of success in the era of the boundaryless career”, *Journal of Organizational Behavior*, Vol. 25, pp. 689–708.

Evetts, J. (1992), “Dimensions of career: avoiding reification in the analysis”, *Sociology*, Vol. 26 No. 1, pp. 1–21.

Flood, P., Turner, T., Ramamoorthy, N., and Pearson, J. (2001), “Causes and consequence of psychological contract among knowledge workers in the high technology and financial services industry”, *International Journal of Human Resource Management*, Vol. 12 No 7, pp. 1152–1165.

Forret, M., and Dougherty, (2004), “Networking behaviors and career outcomes: Differences for men and women?”, *Journal of Organizational Behavior*, 25, pp. 419–437.

Forret, M. L., and Sullivan, S. E. (2002), “A balanced scorecard approach to networking: A guide to successfully navigating career changes” *Organizational Dynamics*, Vol. 31, pp. 245–258.

Fugate, M., and Kinicki, A. J. (2008), “A dispositional approach to employability: Development of a measure and tests of implications for employee reactions to organizational change”, *Journal of Occupational and Organizational Psychology*, Vol. 81, pp. 503–527.

Fugate, M., Kinicki, A. J., and Ashforth, B. E. (2004), “Employability: A psycho-social construct, its dimensions, and applications” *Journal of Vocational Behavior*, Vol. 65, pp. 14–38.

Gasteiger, R. M. (2007), “*Selbstverantwortliches Laufbahnmanagement—Das proteische Erfolgskonzept (1st edn)*”, Göttingen: Hogrefe Verlag GmbH & Co.

Gender Equality Index (2019). <https://eige.europa.eu/gender-equality-index/2019>

Ghosh, R., Shuck, B., Cumberland, D., and J.D’Mello (2018), “Building psychological capital and employee engagement: Is formal mentoring a useful strategic human resource development intervention”, *Performance Improvement Quarterly*, Vol 32, No 1, pp. 37–54.

Goldsmith, A.H., Veum, J.R., and Darity, W. Jr. (1997), “The impact of psychological and human capital on wages”, *Economic Inquiry XXXV*, pp. 815–829.

Gooty, J., Gavin, M., Johnson, P.D., Frazier, M.L., and Snow, D.B (2009), “In the eyes of the beholder: transformational Leadership, positive psychological capital, and performance”, *Journal of Leadership & Organizational Studies*, Vol. 15, No 4, pp. 353–367.

Greenhaus, J., Callanan, G., and Kaplan, E. (1995), “The role of goal setting in career management”, *The International Journal of Career Management*, Vol. 7, pp. 3–12.

Gunz, H., and Mayrhofer, W. (2007), “Particular Careers-More Research Needed”, *Career Development International*, Vol. 12, No. 2.

Halbesleben, J., Neveu, J-P., Paustian-Underdahl, S., and Westman, M. (2014), “Getting to the “COR”: Understanding the Role of Resources in Conservation of Resources Theory”, *Journal of Management*, Vol. 40, No. 5, pp. 1334–1364.

Hall, D. T. (2002), *Careers in and out of Organizations*, Sage, Thousand Oaks, CA.

Hall, D.T. (2004), “The protean career: A quarter-century journey”, *Journal of Vocational Behavior*, Vol. 65, pp. 1–13.

Heslin, P. (2005), “Conceptualizing and evaluating career success”, *Journal of Organizational Behavior*, Vol. 26, pp. 113–136.

Heslin, P., Mayrhofer, W., Schiffinger, M., Eggenhofer-Rehart, P., Latzke, M., Reichel, A., Steyrer, J., and Zellhofer, D. (2019), “Still relevant? An updated meta-analysis of classic career success predictors”, paper presented at the Academy of Management Conference, August 9–13, 2019, Boston, USA.

Higgins, M. C., and Kram, K. E. (2001), “Reconceptualizing mentoring at work: A developmental network perspective”, *Academy of Management Review*, Vol. 26, pp. 264–288.

Hmieleski, K.M., and Baron, R.A. (2009), “Entrepreneurs’ optimism and new venture performance: a social cognitive perspective”, *Academy of Management Journal*, Vol. 52 No. 3, pp. 473–488.

Hobfoll, S. E. (1989), “Conservation of resources: A new attempt at conceptualizing stress”, *American Psychologist*, Vol. 44, pp. 513–524.

Huang, T-P. (2011), "Comparing motivating work characteristics, job satisfaction, and turnover intention of knowledge workers and blue-collar workers, and testing a structural model of the variables' relationships in China and Japan", *The International journal of Human Resource Management*, Vol. 22, No. 4, pp. 924–944.

Inkson, K., and Arthur, M. (2001), "How to be a successful career capitalist", *Organizational Dynamics*, Vol. 30, No. 1, pp. 48–61.

Inkson, K., Gunz, H., Ganesh, S., and Roper, J. (2012), "Boundaryless careers: Bringing back boundaries", *Organization Studies*, Vol. 33 No. 3, pp. 323–340.

Judge, T., and Bretz, R. (1994), "Political influence behavior and career success", *Journal of Management*, Vol. 20, pp. 43–65.

Judge, T.A., Cable, D.M., Boudreau, J.W., and Bretz, R.D. (1995), "An empirical investigation of the predictors of career success", *Personnel Psychology*, Vol. 48, pp. 485–519.

Judge, T.A., Higgins, C.A., Thoresen, C.A., and Barrick, M.R. (1999), "The big five personality traits, general mental ability, and career success across the lifespan", *Personnel Psychology*, Vol. 52, pp. 651–652.

Järnlström, M., and Brandt, T. (2017), "Psychological Capital and Psychological Career Mobility among Finnish Business School Graduates", *Journal of Finnish Studies*, Vol. 20 No. 2, pp. 145–171.

Karatepe, O., and Karadas, G. (2015), “Do psychological capital and work engagement foster frontline employees' satisfaction?: A study in the hotel industry”, *International Journal of Contemporary Hospitality Management*, Vol. 27 No. 6, pp. 1254–1278.

King, Z. (2004), “Career self-management: Its nature, causes and consequences”, *Journal of Vocational Behavior*, Vol. 65, pp. 112–133.

Kinnear, L., and Sutherland, M. (2000), “Determinants of organizational commitment amongst knowledge workers”, *South African Journal of Business and Management*, Vol. 31 No.3, pp. 106–112.

Kirchmeyer, C. (1998), “Determinants of managerial career success: Evidence and explanation of male/female differences”, *Journal of Management*, Vol. 24, pp. 673–693.

Kuijpers, M., Schyns, B., and Scheerens, J. (2006), “Career competencies for career success”, *The Career Development Quarterly*, Vol. 55, pp. 168–178.

Lai, G., Lin, N., and Leung, S. (1998), “Network resources, contact resources, and status attainment”, *Social Networks*, Vol. 20, pp. 159–178.

Lam, S., Ng, T., and Feldman, D. (2012), “The relationship between external job mobility and salary attainment across career stages”, *Journal of Vocational Behavior*, Vol. 80, pp. 129–136.

Lin, N., and Dumin, M. (1986), “Access to occupations through social ties”, *Social Networks*, Vol. 8, pp. 365–385.

Lubit, R. (2001), “Tacit knowledge and knowledge management: The keys to sustainable competitive advantage”, *Organizational Dynamics*, Vol. 29, pp. 164–178.

Luthans, F. (2002a), “The Need for and Meaning of Positive Organizational Behavior”, *Journal of Organizational Behavior*, Vol. 23, pp. 695–706.

Luthans, F. (2002b), “Positive organizational behavior: Developing and managing psychological strengths”, *Academy of Management Executive*, Vol. 16, pp. 57–72.

Luthans, F., Avey, J.B., Avolio, B.J., Norman, S., and Combs, G. (2006), “Psychological capital development: Toward a micro-intervention”, *Journal of Organizational Behavior*, Vol. 27, pp. 387–393.

Luthans, F., Avey, J.B., Avolio, B.J., and Peterson, S. (2010), “The development and resulting performance impact of positive psychological capital”, *Human Resource Development Quarterly*, Vol. 21 No. 1, pp. 41–67.

Luthans, F., Avolio, B.J., Walumbwa, F.O., and Li, W. (2005), “The psychology capital of Chinese workers: Exploring the relationship with performance”, *Management and Organization Review*, Vol. 1, pp. 249–271.

Luthans, F., Avolio, J.B, Avey, J., and Norman, S. (2007), “Positive psychological capital: measurement and relationship with performance and satisfaction”, *Personnel Psychology*, Vol. 60 No. 3, pp. 541–572.

Luthans, F., Avey, J. B., and Patera, J.L. (2008), “Experimental Analysis of a Web-Based Training Intervention to Develop Positive Psychological Capital”, *Management Department Faculty Publications*, Vol. 135. <http://digitalcommons.unl.edu/managementfacpub/135>

Luthans, F., Luthans, K., and Luthans, B.C (2004), Positive psychological capital: Beyond human and social capital, *Business Horizons*, Vol. 47 No. 1, pp. 45–50.

Luthans, F., Youssef, C.M., Sweetman, D.S., and Harms, P.D. (2013), “Meeting the leadership challenge of employee well-being through relationship PsyCap and health PsyCap”, *Journal of Leadership & Organizational Studies*, Vol. 20 No. 1, pp. 118–133.

Luthans, F., and C. Youssef-Morgan (2017), “Psychological capital: An evidence-based positive approach, Annual review of organizational psychology and organizational behavior”, Vol. 4, pp. 339–366.

Mayrhofer, W., Meyer, M., and Steyrer, J. (2007), “Contextual Issues in the study of careers”, in H. Gunz and M. Peiperl (Eds), *Handbook of Career Studies*, edited by, Thousand Oaks, CA: Sage, pp. 215–240.

McArdle, S., Waters, L., Briscoe, J. P., and Hall D.T. (2007), “Employability during unemployment: Adaptability, career identity and human and social capital”, *Journal of Vocational Behavior*, Vol. 71, pp. 247–264

Nabi, G.R. (1999), “An investigation into the differential profile of predictors of objective and subjective career success”, *Career Development International*, Vol. 4 No. 4, pp. 212–224.

Ng, T., Eby, L., Sorensen, K., and Feldman, D. (2005), “Predictors of objective and subjective career success: a meta-analysis”, *Personnel Psychology*, Vol. 58, pp. 367–408.

Ng, T.W., and Feldman, D.C. (2014), “Subjective career success: a meta-analytic review”, *Journal of Vocational Behavior*, Vol. 85 No. 2, pp. 169–179.



Pajupuu, H. (2005), "Estonian national stereotypes in transition", in Petkova, D., Lehtonen, J. (Eds.), *Cultural identity in an intercultural context*, vol. 27. Publications of the Department of Communication, University of Jyväskylä, pp. 124–142.

Parker, H., and Arthur, M.B. (2000), "Careers, organizing, and community", in M.A. Peiperl, M.B. Arthur, R. Goffee and T. Morris (Eds), *Career frontiers: New conceptions of working lives*, Oxford University Press, Oxford, pp. 99–121.

Peterson, S., Luthans, F., Avolio, B., Walumbwa, F., and Zhang, Z. (2011), "Psychological capital and employee performance: A latent growth modeling approach", *Personnel Psychology*, Vol. 64, pp. 427–450.

Petkova, D., and Lehtonen, J. (2005), "National identities and images", *Bulgarian-Finnish Attitudes and Perceptions*, vol. 28. Publications of the Department of Communication, University of Jyväskylä.

Podsakoff, P., MacKenzie, S., Lee, J.-Y., and Podsakoff, N. (2003), "Common method biases in behavioral research: A critical review of the literature and recommended remedies", *Journal of Applied Psychology*, Vol. 88 No. 5, pp. 879–903.

Poole, M., Langan-Fox, J., and Omodei, M. (1993), "Contrasting subjective and objective criteria as determinants of perceived career success: a longitudinal study", *Journal of Occupational and Organizational Psychology*, Vol. 66, 39–54.

Portes, A. (1998), Social capital: Its origins and applications in modern sociology, in J. Hagan, and K. S. Cook (Eds.), *Annual review of sociology* (pp. 1–24), Palo Alto, CA: Annual Reviews.

Rego, A., Sousa, F., Marques, C., and Cunha, M-P. (2011), “Authentic leadership promoting employees’ psychological capital and creativity”, *Journal of Business Research*, Vol.65, pp.429-437.

Sajeva, S. (2007), “Identifying factors affecting motivation and loyalty of knowledge workers”, *Economics and Management*, Vol. 12, pp. 643–652.

Seibert, S., Kraimer, M., and Liden, R. (2001), ”A social capital theory of career success”, *Academy of Management Journal*, Vol. 44 No. 2, pp. 219–237.

Seligman M.E.P., Steen, T.A., Park, N., and C. Peterson (2005), “Positive psychology progress: empirical validation of interventions”, *American Psychologist*, Vol. 60, pp. 410–21

Sihag, P., and Sarikwal, L. (2014), “Impact of psychological capital on employee engagement: a study of IT professionals in Indian context”, *Management Studies and Economic Systems (MSES)*, Vol. 1 No. 2, pp. 127–139.

Sin, N.L., and Lyubomirsky, S. (2009), “Enhancing well-being and alleviating depressive symptoms with positive psychology interventions: a practice-friendly meta-analysis”, *Journal of Clinical Psychology*, Vol. 65, pp. 467–87

Sirén, C., Thorgren, S., and Järnlström, M. (2018), “Self-directed career management and mobility: The risk of lock-in effects of person-job fit”, *The International Journal of Human Resource Management Journal*, DOI: [10.1080/09585192.2018.1523214](https://doi.org/10.1080/09585192.2018.1523214).

Siu, O.L., Cheung, F., and Lui, S. (2015), “Linking positive emotions to work well-being and turnover intention among Hong Kong police officers: The role of psychological capital”, *Journal of Happiness Studies*, Vol. 16, pp. 367–380.

Smith, P., Bond, B., and Harris, M. (1999), “*Social Psychology Across Cultures*” Allyn and Bacon, Needham Heights, MA.

Snyder, C. R., Irving, L.M., and Anderson, J.R. (1991), “Hope and health”, in C. R. Snyder and D. R. Forsyth (Eds), *Handbook of Social and Clinical Psychology: The Health Perspective*, Elmsford, NY: Pergamon Press, pp. 285–305.

Stajkovic, A.D. (2006), “Development of a core confidence-higher order construct”, *Journal of Applied Psychology*, Vol. 91, pp. 1208–1224.

Stajkovic, A.D., and Luthans, F. (1998), “Self-Efficacy and Work-Related Performance: A Meta-Analysis” *Psychological Bulletin*, Vol. 124, pp. 240–61.

Statistics Finland: Gender equality. [https://www.tilastokeskus.fi/tup/tasaarvo/power-decision-making/index\\_en.html#management](https://www.tilastokeskus.fi/tup/tasaarvo/power-decision-making/index_en.html#management)

Sullivan, S.E., and Arthur, M.B. (2006), “The evolution of the boundaryless career concept: Examining physical and psychological mobility”, *Journal of Vocational Behavior*, Vol. 69, pp. 19–29.

Sullivan, S., and Baruch, Y. (2009), “Advances in Career Theory and Research: A Critical Review and Agenda for future exploration”, *Journal of Management*, Vol. 35 No. 6, pp. 1542–1571.

Tharenou, P., Latimer, S., and Conroy, D. K. (1994), "How do you make it to the top? An examination of influences on women's and men's managerial advancement", *Academy of Management Journal*, Vol. 37, pp. 899–931.

Ylitalo, J. (2009). *Controlling for Common Method Variance with Partial Least Squares Path modeling: A Monte Carlo Study*, Research Project, Helsinki University of Technology.

Youssef-Morgan, C.M., and Luthans, F. (2015), "Psychological capital and well-being", *Stress & Health*, Vol. 31 No. 3, pp. 180–188.

Volmer, J., and Spurk, D. (2010), "Protean and boundaryless career attitudes: Relationships with subjective and objective career success", *Journal for Labour Market Research*, Vol. 43, pp. 207–218.

Wolff, H-G., and Moser, K. (2010), "Do specific types of networking predict specific mobility outcomes? A two-year prospective study", *Journal of Vocational Behavior*, Vol. 77, pp. 238–245.

Woolley, L., Caza, A., and Levy, L. (2010), "Authentic leadership and follower development: Psychological capital, positive work climate, and gender", *Journal of Leadership & Organizational Studies*, Vol. 18 No. 4, pp. 438–448.

World Economic Forum (2016). Global Gender Gap Index 2016. Retrieved from <http://reports.weforum.org/global-gender-gap-report-2016/rankings/>

Wright, T. A. (2003), "Positive organizational behavior: An idea whose time has truly come", *Journal of Organizational Behavior*, Vol. 24, pp.437–442.

Wright, T., and Cropanzano, R. (2000), "Psychological well-being and job satisfaction as predictors of job performance", *Journal of Occupational Health Psychology*, Vol. 5, pp. 84–94.

Zacher, H. (2014), "Career adaptability predicts subjective career success above and beyond personality traits and core self-evaluations" *Journal of Vocational Behavior*, Vol. 84, pp. 21–30.