Millennial knowledge workers
The roles of protean career attitudes and psychological empowerment on the relationship between emotional intelligence and subjective career success
Ceren Aydogmus
Department of Management, Faculty of Business Administration, Bilkent University, Ankara, Turkey

Abstract
Purpose – The purpose of this paper is to examine the potential effects of Millennial knowledge workers’ emotional intelligence (EI) on their subjective career success (SCS) through their protean career attitudes (PCAs) and psychological empowerment (PE).

Design/methodology/approach – Survey methodology was used to collect data from 623 Millennial knowledge workers in 42 Turkish Information Technology companies. Participants answered the surveys at three different points within a 12-week period. Measures of EI, PCAs, PE and SCS were analyzed using structural equation modeling and the bootstrapping method.

Findings – The empirical results provide support for the author’s proposed model that positive relations between EI and Millennial knowledge workers’ SCS are mediated by their PCAs and PE.

Research limitations/implications – To generalize the study findings, future research should be conducted for Millennial knowledge workers in different cultures and countries.

Practical implications – Particularly for Millennial knowledge workers, managers need to be aware of positive influence of EI on employees’ SCS and should consider implementing policies and procedures that recognize EI as a key ingredient for their SCS. Additionally, human resource professionals should aim to create an organizational culture around career development, in addition to career attitudes trainings, and provide career growth opportunities to retain Millennial talent. Finally, organizational development professionals should establish work environments that increase employee empowerment and thus improve SCS.

Originality/value – The findings advance the understanding of how Millennial knowledge workers’ EI can influence their SCS through focusing on PCAs and PE. The results underpin the self-determination theory, contextualist action theory of career development and job design theory.

Keywords Career satisfaction, Emotional intelligence, Attitudes

Introduction
“The career is dead – long live the career!” Hall (1996) expressed this sentiment about career patterns in the twenty-first century. The essence of “career” has changed because of globalization and the advances in technology that have produced a turbulent environmental context (Quigley and Tymon, 2006). In these times of careers being changeable in nature, knowledge about factors enhancing successful career development becomes crucial (Abele and Spurk, 2009). Within career development stages, 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). While traditional career scholars focus on objective measures of career success like salary and managerial position, with a growing emphasis on inter-organization mobility and unpredictability, researchers increasingly speak of the personal meaning of career success (subjective career success (SCS)) as the primary focus for evaluating careers (Abele and Spurk, 2009; Ng and Feldman, 2014). SCS is defined as employees’ perceptions and feelings about their careers.

This research received no specific grant from any funding agency in the public, commercial or not-for-profit sectors.
Employees with high SCS feel happier and more successful about their careers relative to their own internal standards (Nabi, 1999). SCS is closely related to career commitment (Ballout, 2009) and organizational commitment (Ng and Feldman, 2014), and has close connections to job satisfaction (Abele and Spurk, 2009).

Over the past two decades, practitioners and academics have emphasized that generational differences abound in the workplace. A generational cohort is defined as “an identifiable group that shares birth years, age location, and significant life events at critical developmental stages” (Kupperschmidt, 2000, pp. 66). Generational cohorts develop similarities in their beliefs and attitudes (Twenge et al., 2010). Inglehart’s (1997) theory of intergenerational value change emphasizes that individuals’ basic values are largely fixed during childhood and adolescence, and those values will remain stable throughout their lifetime. There might be substantial differences between the values of the younger and older generations (Inglehart, 1997). Today’s workforce consists of employees from four generations: the Matures (born 1900–1946), the Baby Boomers (born 1947–1964), Generation X (born 1965–1979) and Millennials (born 1980–2000) (Gulyani and Bhatnagar, 2017; Newbold and Scott, 2017). The career goals and expectations of Millennials (known by a variety of names, including: Generation Y, Gen Tech and the Empathic Generation) have been said to be quite different from those of previous generations (Lipkin and Perrymore, 2009; Lyons et al., 2012).

Millennials were raised in times of economic prosperity and expansion, but the majority of them entered the workforce in a time of economic uncertainty (Eisner, 2005). Millennials know that the world they inherit is not just one of new opportunities but also of old problems as well, yet they still remain hopeful and believe that they will someday get to where they want to be in life (Sessa et al., 2007). As the majority of Millennials live a materialistic lifestyle, they are characterized as being self-focused (Arnett, 2007). However, having a job they enjoy is more important for them compared to the level of remuneration they receive (Broadbridge et al., 2007).

Millennials can be considered as being in their emerging adulthood. Emerging adulthood theory focuses on the life stage from the late-teens through the mid-20s (i.e. Millennials), a stage with distinctive developmental characteristics (Arnett, 2004). Emerging adults view their personal futures optimistically and believe their lives will be good in terms of career achievements and overall quality of life (Arnett, 2000). Accepting responsibility for one’s self, making independent decisions and becoming financially independent are the three important criteria for emerging adults (Arnett, 2000). Work becomes important for emerging adults in terms of the kind of work they would most enjoy (Arnett, 2004). In parallel with the emerging adult theory, Millennials expect fulfillment in their work. Millennials value meaningful work and see life-long learning as a priority (Cennamo and Gardner, 2008). As the millennial generation is the largest pool of employees in the job market today, the recruitment of this generation is a top priority for organizations (Twenge et al., 2010). Thereby, researchers, managers and human resource (HR) specialists have become increasingly interested in how to manage and retain the millennial workforce as well as in their SCS. However, despite the interest in understanding Millennials, there is little empirical evidence about the SCS of this generation. Accordingly, the present study contributes to the literature by examining the underlying factors in SCS of millennial employees.

Recently, career scholars have suggested that emotional intelligence (EI) is an important predictor of SCS (Coetzee and Schreuder, 2011; Poon, 2004). The contextual action theory of career development (Young et al., 2002) emphasizes the role of emotions in career self-management. While EI competencies have been regarded as important determinants of SCS, their validity is based on conceptual work, mostly involving theorization (Poon, 2004). There has been a lack of research on the underlying mechanisms of how EI influences SCS, especially in millennial employees.

Protean career attitude (PCA), a new lexicon to describe the twenty-first century career progression (Hall, 2004), has been suggested to be a significant predictor of SCS (Cao et al., 2013).
As employees with PCAs strive for psychological success, a protean career orientation can be considered a developmental process, viewing one’s career as a route to self-fulfillment (Hall, 2004) based on inner satisfaction, autonomy, life balance and freedom (Baruch, 2004). These criteria are also crucial for Millennials (Broadbridge et al., 2007). An investigation of career attitudes and the outcomes of millennial employees within the context of protean careers would help organizations retain this new workforce (Lyons et al., 2012). Hence, Millennials’ PCAs are the first intervening component in EI and the SCS relationship.

Employees’ psychological empowerment (PE) may also influence SCS. The emphasis on protean careers and SCS parallels the research on PE, which is an intrinsic motivation (Briscoe et al., 2006; Forrier et al., 2009; Spreitzer, 1995). As SCS is related to employees’ positive evaluations of their careers (Judge et al., 1995), EI can foster positive experiences within careers. In turn, PCAs can promote SCS, because PCAs are positively correlated with intrinsic motivation for career management (Briscoe et al., 2006). Thus, PE is considered a secondary intervening component, linking EI with SCS.

Consequently, the aim of this study is to propose and test an integrative model, which examines the impact of EI on SCS with a focus on protean career orientation and PE, in order to fill a gap in the literature of career development. The conceptual model proposes that high levels of EI in millennial employees will subsequently strengthen their SCS by raising their PCAs and PE perceptions.

There has been more knowledge and information produced in the last 80 years than during the previous 2,000 years. The rise of technology has resulted in a new breed of organizations that are dependent on the technological knowledge possessed by their employees rather than that owned by an organization (Amar, 2002). Employees who access and use significant portions of these exploding informational resources are defined as knowledge workers. Knowledge workers have become a new social class, primarily because of the development of information technology (IT) (Drucker, 1999). As many knowledge workers fall into the category of Millennials (Terjesen and Frey, 2008), the participants of this study were selected from knowledge workers who are part of the millennial cohort. This study is one of the rare attempts to involve millennial knowledge workers in the sample.

**Theoretical framework and hypotheses**

**Emotional intelligence and protean career attitudes**

PCAs were first introduced by Hall (1976) to describe career routes that comprise more mobility, freedom and developmental progression than traditional jobs. Later, Briscoe et al., (2006) define a PCA as comprising a values-driven and self-directed perspective toward one’s career management. When employees have a protean career orientation, they use their own values to guide their careers (values-driven) and take an independent role in handling their vocational behaviors (self-directed). The protean career has been declared the career of the twenty-first century, and is driven by the individual rather than by management or the organization (Hall, 1996).

It has been said that Millennials have more diverse career patterns in their career stages compared to the previous generations; frequent mobility in their early career has become the new norm for them (Lyons et al., 2012). Millennials are characterized as being continuous learners, proficient at multitasking and competent with technology (Terjesen and Frey, 2008). They are more concerned with individual career development and work-life balance than their predecessors (Broadbridge et al., 2007). Thus, Millennials have been said to have a self-directed orientation toward their career management (i.e. PCAs) (Gulyani and Bhatnagar, 2017). Similar to Millennials, knowledge workers have been said to give importance to continuous learning, autonomy and work-life balance (Amar, 2002). By means of a career meta-competency, research highlights the importance of EI for career development (Buchner, 2007; Kidd, 1998). People undergo an internal thought progression
while making decisions about their behavior, in that emotions control and regulate their actions (consciously or unconsciously); this is what comprises EI. Wong and Law (2002) suggest four components of EI: self-emotional appraisal (SEA), the capability to recognize one’s own emotions before regulating them; others’ emotional appraisal (OEA), the ability to recognize others’ emotions; use of emotion (UOE), the competence to use emotions by directing them toward constructive activities and personal performance; and regulation of emotion (ROE), the ability to regulate emotions. These four components combine to create an overall construct of EI.

EI can be regarded within the context of the self-determination theory (Deci and Ryan, 1985), which highlights the importance of individuals’ evolved inner resources for personality development and behavioral self-regulation. Within the framework of the self-determination theory, to develop optimally, employees are presumed to require the basic psychological needs, classified as competence, relatedness and autonomy. Self-determination theory distinguishes between intrinsic and extrinsic motives and asserts that some values and motives are inherently positively associated with well-being. Intrinsic values and motives have the potential to lead to satisfaction as they reflect psychological growth and self-actualization (Deci and Ryan, 1985). As self-actualization is dependent on the ability to know what one is feeling and why (self-awareness), by knowing ourselves, we are capable of setting self-motivated goals which, when supported by good emotional regulation (via EI), allow us to approach the self-actualized state. Thus, EI can predict our overall ability to self-actualize; people with high EI have a greater sense of “self” (Spence et al., 2004). PCA is also concerned with the inner feelings of self-actualization and fulfillment (Hall and Moss, 1998). Self-awareness is considered to be one of the essential meta-competencies that may help employees to become more protean (Hall, 2004).

According to the contextual action theory of career development, employees’ emotions play a central role in their careers (Young et al., 2002). People with higher EI are more equipped to integrate their emotional experiences into their thoughts and actions. EI competencies affect individuals’ abilities to cope with environmental demands, facilitate their capability in the continuous learning process and, thus, influence their PCAs (Buchner, 2007). PCAs address career adaptability as conceptualized in career construction theory, which underlines the prominence of self and identity (Savickas, 2005). People can form psycho-social identities by associating the psychological self with social roles and cultural representation (Savickas, 2012). Emotions are considered one specific instance of career construction (Hartung, 2011) as they add meaning to the experience of “self” and the social world (Leach and Tiedens, 2004). Career adaptability, which contributes to the formulation of career construction theory, is related to having PCAs (Savickas, 2012). PCAs could be seen as a means of adjusting fit to suit changing circumstances, by being adaptable and self-directed (Hall, 1996).

In summary, PCAs can be reflected through autonomous, purposeful, coping and self-directed behaviors. The competencies which support these behaviors include self-awareness, adaptability, flexibility, optimism and confidence; these are also the main characteristics of EI (Hall, 1996). Individuals with high EI are assertive, flexible, optimistic, socially aware and self-reliant. These characteristics also represent the essential characteristics of high-achieving Millennials. Regarding the influence of EI on PCAs, it is hypothesized that:

$H1.$ Millennial knowledge workers’ EI competencies are positively related to their PCAs.

Protean career attitudes and psychological empowerment

Protean careers involve attitudes around “self” and one’s work and it is believed that the employee who demonstrates such attitudes will benefit from being intrinsically motivated to manage his or her own career (Hall and Moss, 1998). PE is an intrinsic motivation that can
help create and shape one’s values, professional confidence and capabilities, which in turn can boost job and overall self-satisfaction (Spreitzer et al., 1997). Spreitzer (1995) proposes four dimensions of PE: meaning, which concerns the value a task holds in relation to the employee’s value system; impact, which represents the employee’s perceptions about how his or her behaviors make a difference in the organization; competence, which is related to self-efficacy and the employee’s belief in his or her capability to perform activities with skill; and self-determination, which is a reflection of one’s autonomy in initiating and continuing work process. These four dimensions combine to create an overall construct of PE.

Deci and Ryan’s (1985) self-determination theory can be referred to theoretically establish the relationship between PCAs and PE. Self-determination theory suggests that individuals have an innate tendency toward growth and intrinsic motivation. Employees with PCAs are supposed to actively pursue career choices fully in line with their inner interests (Briscoe et al., 2006). Here the focus is on autonomous career choice (Forrier et al., 2009). Based on the self-determination theory, intrinsic motivation is an example of autonomous motivation (Gagne and Deci, 2005). Experience of autonomous motivation will enhance employees’ PE. Concerning how PE is associated with individuals’ perceptions about themselves in relation to their work environments, highly empowered employees make choices based on their experiences and values, and consequently view work as a valuable and essential part of life rather than just “a job” (Bandura, 1997). Such workers are more motivated by personal values, autonomy (self-determination), self-efficacy (competence) and feelings of psychological success, and less concerned with salary, promotions and power within one working context (Hall and Mirvis, 1995). Although Millennials have been socialized in an increasingly materialistic society, it has been found that this Empathic Generation is somewhat more intrinsically motivated than other generations (Bibby et al., 2009). This motivation might be due to Millennials’ post-materialist values (Inglehart and Baker, 2000). According to Inglehart’s (1997) theory of intergenerational value change, there is an intergenerational shift toward post-materialist values of individualism, quality of life and freedom. Millennials give importance to personal productivity, positive reinforcement, self-determination, intrinsic motivation and personal fulfillment in work (Meister and Willyerd, 2010). Millennials will be loyal to their companies if they can accomplish their own goals within the organization (Espinoza and Ukleja, 2016). Furthermore, achieving these goals results in a sense of competence and meaning in work (Spreitzer, 1995). Hence, it can be expected that Millennials with PCAs will be more likely to feel psychologically empowered, thus:

H2. Millennial knowledge workers’ PCAs are positively related to their PE.

Psychological empowerment and subjective career success
One can use job design (Hackman and Oldham, 1976) and self-determination theories (Deci and Ryan, 1985) to understand the relationship between PE and SCS. As identified in job design theory, psychologically empowering jobs are more satisfying. Employees have high SCS when they perceive high meaning, impact, competence and self-determination in their work (Joo and Lim, 2013). As SCS is associated with perceptions of enhanced motivation in the workplace (Ng et al., 2005), when employees feel their work is meaningful, they may be more satisfied with their careers. Self-determination theory also has implications for the relationship between PE and SCS: when employees have a strong intrinsic motivation, they feel ownership over their careers, choose to remain on their career track and feel they are making successful career progress.

Empowering situations involve opportunities for challenge, responsibility and self-determination, which in turn result in higher PE perceptions (Liden et al., 2000). When employees feel highly psychologically empowered, they experience a high sense of
career success. Thus, an effective career system is reflected employees’ ability to actively manage their own careers (Quigley and Tymon, 2006). Millennials have been said to give importance to new opportunities and challenging work, and like to be involved in the decision-making processes (Hershatter and Epstein, 2010). They are more motivated by career progression and advancement compared to the other generational cohorts (such as the Baby Boomers and Generation X) (Wong et al., 2008). Thereby, Millennial knowledge workers who feel high PE might experience more SCS with respect to their career progress. Based on the conceptualizations provided above, it is predicted that:

H3. Millennial knowledge workers’ PE perceptions are positively related to their SCS.

The mediated relationship between Millennials’ emotional intelligence and subjective career success

The research on the importance of EI on employees’ SCS (Ng et al., 2005) lacks empirical studies focusing on this link in the context of Millennial knowledge workers. High EI is related to greater flexibility and adaptability (Bar-On, 2001), which is beneficial for SCS and helps employees adapt to a protean career environment (Volmer and Spurk, 2011). Previous studies have supported the relationship between EI and PCAs (Buchner, 2007), PCAs and PE (Kim and Beehr, 2017) and finally PE and SCS (Joo and Lim, 2013). That is, Millennial knowledge workers with high EI likely have a protean career orientation, which in turn enhances their PE perceptions and leads to a high sense of SCS.

Beyond the suggested theories that can guide us to theoretically establish the relationships between the variables in the study, the main underpinning theoretical framework for the proposed model is self-determination theory (Deci and Ryan, 1985). Integration of values to “self” is the central focus of the self-determination theory (Gagne and Deci, 2005). Given the nature of EI, employees with high levels of EI have a greater sense of “self” (Bar-On, 2001), which in turn, may enhance their PCAs (Hall, 2004). The freedom to choose their own career path is one of the characteristics of the PCAs (Hall, 2004). According to the self-determination theory, such an autonomous career choice will result in autonomous motivation (Gagne and Deci, 2005) that may enhance employees’ PE and can influence their SCS. Thus, the relationship between Millennial knowledge workers’ EI and their SCS is expected to endure due to the mediating effects of their PCAs and PE. Hence, it is hypothesized that:

H4. Millennial knowledge workers’ EI competencies are positively related to their SCS, mediated by their PCAs and PE perceptions.

The conceptual/theoretical framework of the mediating relationships between EI, PCAs, PE and SCS is summarized in Figure 1.

---

**Figure 1.**
Emotional intelligence and subjective career success: the mediating roles of protean career attitudes and psychological empowerment.
**Method**

*Participants and procedure*

The data for the present study was drawn from 42 IT companies located in the techno-parks of three universities in Ankara, Turkey. IT companies were chosen specifically because they experience rapid changes, which necessitate innovation (Gulyani and Bhatnagar, 2017). All the selected IT companies are small- and medium-sized enterprises, with 20 to 60 Research, Development and Engineering (RD&E) professionals. This company size is generally more flexible and thus more inventive, and therefore tends to employ more growth-oriented employees than larger companies do (Ettlie, 1983). During the data collection period, there was economic, social and political uncertainty in Turkey. Events such as the failed coup attempt, the subsequent dismissal and the detention or suspensions of many public employees have brought social and political policy uncertainty in Turkey. All the selected IT companies were exposed to uncertain economic conditions in terms of currency and interest rates. These companies have cooperation opportunities with other companies in industry and the universities. They take the advantage of tax exemptions and financial incentives such as R&D, as well as the capital supports toward technological entrepreneurship activities as provided by the Turkish Ministry of Science, Industry and Technology. The companies have flat organizational structures in which there are fewer management layers; lateral channels are actively involved in the decision-making process. Hierarchical overload is reduced within the companies and the speed and quality of information sharing, interpretation and application are improved.

The participants in the study were chosen from the Millennial cohort because this generation has a high percentage of people who are self-driven and comfortable with change (the characteristics of PCAs). Subjective values such as inner satisfaction are important for Millennials (Broadbridge et al.). Although Millennials’ beliefs, values, attitudes and expectations might differ across countries and cultures (Hui-Chun and Miller, 2003), the literature suggests that many of the preferences of Millennials are similar (Kultalahti and Viitala, 2015; Wong et al., 2008). Turkish societal and organizational culture can be defined as having a blend of “Western” and “Eastern” values (Aycan, 2001). Research posits that Turkish Millennials exhibit similar characteristics with commonly agreed upon Millennial features, such as technological orientation, independence, individuality, optimism and career attitudes (Balci and Bozkurt, 2013; Tulgan and Martin, 2006). With respect to Millennials, the participants were chosen from knowledge workers. This study assumes the basic definition of knowledge workers (proposed by most researchers) to be: “workers whose jobs mainly deal with knowledge and information” (Drucker, 1999; Terjesen and Frey, 2008).

Empirical research within organizational studies draws attention to the concept of common method variance, and how it may bias the results of empirical analyses that use participants as data sources (Jakobsen and Jensen, 2015). One of the ways to reduce the effects of common method bias is by using time intervals in studies (Podsakoff et al., 2012). In this study, a three-wave research design with a time lag of four weeks within a 12-week period was adopted to reduce the effects of common method bias (Podsakoff et al., 2012) and to measure the variables in a structure fitting the model presented in Figure 1. The purpose of the study was first explained to the managers of the selected IT companies in on-site meeting rooms during regular scheduled working hours. All participants were drawn from the Millennial age group; they were all born between 1980 and 2000. The age range of the participants was 24–33. There was no difference among participants in terms of ethnicity and residential status. Participants were drawn from a similar social class and had a similar social and work status. All participants were university graduates and professional in their own expertise (i.e. RD&E). The job characteristics of the participants include job complexity, information processing, skill variety, problem solving and high...
task variety. Participants are engaged in non-repetitive and non-routine tasks. They are involved in complex knowledge processing in IT companies. All participants were working under a manager. None of the managers were part of the Millennial age group. The researcher informed the managers that the results of the study would give them valuable knowledge for the career development process of Millennial employees. Later, for each of the three time points, a consent form for the survey instrument was sent to these employees. The consent form explained the study, assured the anonymity and confidentiality of the research and included a web link for the Millennial knowledge workers willing to participate in the online survey. Participants were assured they could exit the survey at any time. In order to match the responses from the three surveys, the researcher asked respondents to create their own code numbers in the first survey at Time 1 and to enter the same code for the second and third surveys. For the first survey, 851 Millennial employees participated. Of these, 779 finished the second survey four weeks later (Time 2) and 642 finished the third survey four weeks after the second survey (Time 3). Among the three completed survey groups, 19 responses were removed because of unmatched codes across the time points. Thus, in total, 623 useable questionnaires were obtained at Time 3 out of 851 inputted at Time 1, a response rate of 73.2 percent. Among the participants, 55 percent were male and 45 percent female.

Comparisons of demographic differences (gender) among the three samples were applied to judge whether the sample at Time 3 was representative of the samples at Time 1 and Time 2. The gender ratio was almost identical in the three samples across the three time periods. Hence, there seems to have been no systematic sample biases.

Measures
A survey-based research design was used for data collection at the three time points. The self-reported first survey for Millennial knowledge workers included measures of EI as the predictor variable at Time 1. The second survey involved measures of PCAs as the first intervening variable at Time 2, and the third survey comprised measures of PE and SCS at Time 3.

Emotional intelligence. EI competencies were assessed using the scale developed by Wong and Law (2002), which reflects the four dimensions of EI through 16 items. Four items comprise each subscale: SEA (α = 0.87), OEA (α = 0.85), UOE (α = 0.83) and ROE (α = 0.81). An example item is “I have good control of my own emotions” rated on a five-point Likert scale from 1 (strongly disagree) to 5 (strongly agree). The four subscales were moderately related with each other (r = 0.31 to r = 0.62). The Turkish adaptation of the instrument was conducted by Guleryuz et al. (2008). Confirmatory factor analysis (CFA) was conducted to compare the fit indices of a one-factor model with a four-factor model. CFA results showed that a measurement model with four dimensions provided a better fit to the data (χ² (208, n = 623), 447.68, p < 0.01, GFI = 0.968, CFI = 0.965, TLI = 0.954 and RMSEA = 0.064) than a one-factor model (χ² (204, n = 623), 1,066.91, p < 0.01, GFI = 0.657, CFI = 0.643, TLI = 0.625 and RMSEA = 0.106).

Protean career attitudes. PCAs were measured through two sub-dimensions by the 14-item scale developed by Briscoe et al. (2006) with eight items (α = 0.88) for measuring self-directed career attitudes and six items (α = 0.83) for values-driven attitudes. An example item is “Freedom to choose my own career path is one of my most important values” rated on a five-point scale from 1 (low extent) to 5 (great extent) that indicates the extent that participants manage their careers. The two subscales were highly correlated with each other (r = 0.73 to r = 0.85). The Turkish adaptation of the scale was borrowed from Cakmak-Öluğlu (2012). CFA was applied to compare the fit indices of a one-factor model with a two-factor model. CFA results showed that a measurement model with two
dimensions provided a better fit to the data ($\chi^2 (201, n = 623)$, $424.28, p < 0.01$, GFI = 0.975, CFI = 0.967, TLI = 0.959 and RMSEA = 0.067) than a one-factor model ($\chi^2 (199, n = 623)$, $620.88, p < 0.01$, GFI = 0.864, CFI = 0.862, TLI = 0.857 and RMSEA = 0.087).

**Psychological empowerment.** PE perceptions were assessed using Spreitzer’s (1995) PE scale. For each of the four PE components (meaning ($\alpha = 0.92$), impact ($\alpha = 0.91$), competence ($\alpha = 0.90$) and self-determination ($\alpha = 0.93$)), the scale contains three items, for a total of 12 items. An example item is “My impact on what happens in my department is large” rated on a five-point Likert scale from 1 (strongly disagree) to 5 (strongly agree). The four subscales were highly correlated with each other ($r = 0.71$ to $r = 0.80$). The Turkish adaptation of the scale was borrowed from Ergeneli et al. (2007). CFA was used to compare the fit indices of a one-factor model with a four-factor model. CFA displayed that a measurement model with four dimensions provided a better fit to the data ($\chi^2 (198, n = 623)$, $429.66, p < 0.01$, GFI = 0.972, CFI = 0.969, TLI = 0.91 and RMSEA = 0.059) than a one-factor model ($\chi^2 (194, n = 623)$, $750.78, p < 0.01$, GFI = 0.792, CFI = 0.787, TLI = 0.765 and RMSEA = 0.089).

**Subjective career success.** SCS was measured with five items from Greenhaus et al. (1990). An example item is “I am satisfied with the success I have achieved in my career” rated on a five-point Likert scale from 1 (very dissatisfied) to 5 (very satisfied). The Turkish adaptation of the scale was borrowed from Aslan et al. (2015).

### Results

**Descriptive analysis**

Means, standard deviations, correlations and Cronbach’s $\alpha$ reliability coefficients for the variables are listed in Table I. As gender did not significantly correlate with the variables in the proposed causal model, it was not used as a control variable in the analyses.

As evident from Table I, Cronbach’s $\alpha$ scale reliability values for the focal constructs in the study consisted of a range from 0.85 to 0.91, which were beyond the minimum acceptable level of 0.70 (Nunnally and Bernstein, 1994).

**Model testing**

Structural equation modeling was used to test the hypotheses. Subscales involving the latent variables were used as distinct indicators of the measures in the study. Specifically, four subscales served as indicators for Millennials’ EI, whereas two subscales for their PCAs and four subscales for PE served as the related indicators. Five items served as the indicators for Millennials’ SCS, as this was a unidimensional construct having no subscales. The measurement model fit, $\chi^2 (192, n = 623)$, $575.83, p < 0.01$, GFI = 0.91, CFI = 0.92, TLI = 0.91 and RMSEA = 0.06, was satisfactory.

In order to ensure distinctiveness among study variables, CFA was conducted to compare the proposed measurement model (i.e. four-factor model which included subscales/indicators of EI, PCA, PE and SCS) against a three-factor model (which included items of EI, PCAs and PE).

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Gender</td>
<td>0.45</td>
<td>0.49</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Emotional intelligence (T1)</td>
<td>3.83</td>
<td>0.53</td>
<td>−0.053</td>
<td>(0.85)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Protean career attitudes (T2)</td>
<td>3.86</td>
<td>0.52</td>
<td>0.016</td>
<td>0.43**</td>
<td>(0.87)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Psychological empowerment (T3)</td>
<td>4.01</td>
<td>0.54</td>
<td>−0.083</td>
<td>0.33**</td>
<td>0.38**</td>
<td>(0.91)</td>
<td></td>
</tr>
<tr>
<td>5. Subjective career success (T3)</td>
<td>3.93</td>
<td>0.63</td>
<td>0.01</td>
<td>0.23**</td>
<td>0.46**</td>
<td>0.25**</td>
<td>(0.90)</td>
</tr>
</tbody>
</table>

**Notes:** $n = 623$. Gender is coded as 0 = female; 1 = male. $\alpha$ reliabilities are shown in parentheses on the diagonal. **$p < 0.01$
PCA and PE), a two-factor model (which included items of EI and PCA), and a one-factor model (where all items of the four constructs (EI, PCA, PE and SCS) with subscales/indicators loaded onto a single factor). The model fit statistics are shown in Table II. As seen, the hypothesized model in Figure 1 sufficiently fit the data: $\chi^2 (257, n = 623)$, 719.67, $p < 0.05$, GFI = 0.91, CFI = 0.93, TLI = 0.92 and RMSEA = 0.05.

Figure 2 presents the standardized parameters in the model. EI levels were positively related to PCAs ($\beta = 0.62$, $p < 0.01$), providing support for H1. PCAs were positively related to PE ($\beta = 0.71$, $p < 0.01$), supporting H2. PE perceptions were positively related to SCS ($\beta = 0.42$, $p < 0.01$), thus H3 was also supported. Finally, consistent with the proposed model, Millennial knowledge workers’ EI had an indirect influence on their SCS through the intervening variables of their PCAs and PE, supporting H4.

**Mediation effects**

To further confirm the mediation effects in the proposed model, PROCESS macro was used in the context of bootstrapping analyses on a recommended 10,000 samples (Preacher and Hayes, 2008). The results showed that PCA significantly mediated the relationship between EI and PE ($ab = 0.17$, CI (95%): LL = 0.12, UL = 0.24, $k^2 = 0.16$). Additionally, PE mediated the relationship between PCA and SCS ($ab = 0.19$, CI (95%): LL = 0.14, UL = 0.26, $k^2 = 0.15$). As $k^2$ is the ratio of the indirect effect to the maximum possible size of the indirect effect given the constraints of the data, it is not sensitive to the sample size (Hayes, 2013). In this study, Cohen’s standards defining small (0.01), medium (0.09), and large (0.25) effect sizes were considered in order to determine the criteria for describing the magnitude of effect sizes (Preacher and Kelley, 2011). With respect to Cohen’s guidelines, the magnitude of both effect sizes ($k^2$) in this study can be interpreted as medium.

As well as analyzing the hypotheses with a single overall model and bootstrapping, an alternative model was also tested through the addition of three direct paths: a path from EI to SCS; a path from EI to PE; and a path from PCAs to SCS. If the alternative model with the

<table>
<thead>
<tr>
<th>Model</th>
<th>$\chi^2$</th>
<th>df</th>
<th>GFI</th>
<th>CFI</th>
<th>TLI</th>
<th>RMSEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Four-factor model (EI, PCA, PE and SCS)</td>
<td>719.67</td>
<td>257</td>
<td>0.91</td>
<td>0.93</td>
<td>0.92</td>
<td>0.05</td>
</tr>
<tr>
<td>Three-factor model (EI, PCA and PE combined)</td>
<td>1,069.52</td>
<td>259</td>
<td>0.81</td>
<td>0.82</td>
<td>0.80</td>
<td>0.08</td>
</tr>
<tr>
<td>Two-factor model (EI and PCA combined)</td>
<td>1,817.36</td>
<td>260</td>
<td>0.72</td>
<td>0.73</td>
<td>0.69</td>
<td>0.11</td>
</tr>
<tr>
<td>One-factor model (all in one construct)</td>
<td>3,816.33</td>
<td>261</td>
<td>0.57</td>
<td>0.59</td>
<td>0.55</td>
<td>0.14</td>
</tr>
</tbody>
</table>

**Table II. Comparison of CFA Results**

**Figure 2. Standardized path coefficients for the structural model**

**Note:** All paths in the hypothesized model are significant at $p < 0.01$
new direct paths does not have a sufficient significant fit, it means that there will be full mediation in each part of the model (Shrout and Bolger, 2002). The results demonstrated that the alternative model did not improve fit significantly ($\Delta \chi^2 (3, 623) = 4.49, p = 0.18$). Moreover, the direct path from EI to PE was not significant, confirming that PCAs were a mediator between EI and PE. Additionally, PCAs had no direct influence on SCS, verifying that PE was a mediator between PCA and SCS. Consequently, both the bootstrapping and alternative model results indicate that in the first part of the model PCAs, and in the second part of the model PE, were the fundamental intervening variables linking Millennial knowledge workers’ EI to their SCS. Another important result of the alternative model is that EI appears to have a direct effect on SCS ($\beta = 0.23, p < 0.01$), suggesting that along with the indirect effects, Millennial knowledge workers’ EI may also have a direct influence on their SCS.

Discussion

The purpose of the present study was to shed light on the potential effects of EI on Millennial knowledge workers’ SCS. The findings reveal that Millennial knowledge workers’ PCAs and PE perceptions fully mediate the relationship between their EI and SCS. These findings demonstrate a framework indicating that Millennials with high EI are more likely to display PCAs, which in turn enhance their PE perceptions and SCS. Within this framework, the model in the present study is most applicable for knowledge workers as they have been said to share some similar characteristics to Millennials, and many knowledge workers fall into the category of Millennials (Amar, 2002). With this framework, the present study contributes to the self-determination theory (Deci and Ryan, 1985), which is a broad framework for understanding personality and motivation. Employees who receive satisfaction with regards to their basic psychological needs of competence, relatedness and autonomy (e.g. via EI) will become increasingly autonomously (intrinsically) motivated (e.g. via PE) with respect to their choices, behaviors and attitudes (e.g. via protean career orientation) and experience subjective work outcomes (e.g. SCS) (Deci and Ryan, 1985). The findings also highlight that Millennial knowledge workers with high EI are indeed likely to experience SCS. This finding is in line with previous studies (Cooper and Sawaf, 1997; Goleman, 1995) that shed light on the validity of EI as a determinant of career success. Nevertheless, the findings reflect that Millennial knowledge workers with high EI can understand and use their emotional states to regulate their attitudes and adapt to their environment (Huy, 1999). Thus, such employees can experience higher SCS than those with low EI.

Second, examining the link between EI and PCA, this study contributes to the contextualist action theory (Young et al., 2002), which emphasizes the crucial role of emotions in career self-management. Career development involves a complex interaction of internal processes, specifically emotions. For some employees, a career represents a form of meaning according to which they can interpret their own and others’ emotions about it. If a career is becoming more responsive to changing contexts, emotions have emerged as roadmaps for navigating it (Kidd, 1998). The positive relationship between EI and PCAs parallels the results of previous research (Buchner, 2007). Spreitzer et al. (1997) identify the importance of EI in the continuous learning process that is at the heart of protean careers (Hall, 1996). The findings also support Salovey and Mayer’s (1990) perspective, such that high EI helps employees improve their decision-making process as a result of better understanding their own emotional appraisals, which in turn facilitates their creative thinking and enhances persistence in challenging tasks.

In line with the suggestions of previous research (Kim and Beehr, 2017), the third contribution of this study exists in the positive correlation between Millennial knowledge workers’ PCAs and PE perceptions. In the twenty-first century, PE has arisen as a
significant operationalization of protean careers (Quigley and Tymon, 2006). Feelings of meaning, competence, choice and self-determination can result from an employee’s positive assessment of engaging in PCAs.

Fourth, examining the link between PE and SCS, this study contributes to Hackman and Oldham’s (1976) job design theory, which suggests that enriching jobs are more satisfying to employees. Empowering circumstances involve opportunities for challenge, accountability and decision autonomy, which in turn result in a sense of meaning, competence, self-determination and impact (Liden et al., 2000). With these criteria in place, employees will feel greater PE with respect to their careers and experience more SCS.

Millennials will represent about 50 percent of the global workforce by 2020 (PwC, 2011). Studying the roles of EI, PCAs and PE of Millennial knowledge workers in their SCS improves the theoretical understanding of this generation’s key concerns and challenges, and thus can help organizations make better management decisions for this cohort.

Practical implications
This research has implications for managers and HR professionals, who should have a comprehensive understanding of the influential factors in Millennial knowledge workers’ SCS. Employees’ EI profiles can provide valuable input into their career development goals. The findings suggest that managers should incorporate EI knowledge into HR planning. Supervisors can organize training in EI skills, which may result in higher levels of PCA. HR professionals should consider the importance of EI in enhancing Millennials’ self-directed career management. The findings highlight that individual Millennial knowledge workers can value EI as an important part of their career development progress.

A greater understanding of Millennials’ career development process may help organizations tailor their career initiatives to this cohort (Kultalahti and Viitala, 2015). HR professionals should be clear about Millennials’ future career prospects by supporting them in realistic career planning and furthering education and training opportunities. Millennials lack loyalty toward their organization and career drifting is an almost inevitable part of their career patterns (Martin, 2005). Emerging adults (i.e. Millennials) are “floundering” or “drifting” through career development as they search for meaningful work (Arnett, 2014). As employees with PCAs are self-managed and tend to follow their personal values, they are likely to change jobs to attain meaningful work (Hall, 2004). Thus, this study provides insight into the management of trends like career drifting or floundering. Organizations can provide chances for development and learning, and managers can provide independence, flexibility and challenging work for Millennials to prevent career drifting. It is the role of Millennials to take advantage of these opportunities.

Self-management strategies are vital in translating PCAs into SCS (De Vos and Soens, 2008), and an effective way of doing so is through career counseling (Verbruggen and Sels, 2008). Organizations will have more-satisfied Millennial employees if the former understand the latter’s career growth expectations and ensure career development opportunities accordingly, including job rotation programs and consistent feedback.

The desire for better work-life balance is quite important for Millennials and knowledge workers (Espinoza and Ukleja, 2016). The prominence of knowledge work with the combination of mobile technology has resulted in work-life blending, defined as a situation in which employees can alternate between personal and work responsibilities throughout the day, night and even weekend (Illingworth, 2004). Therefore, organizations can implement an outcome- and performance-based approach for Millennial knowledge workers, where the latter may spend less time in the office during traditional working hours but get the job done in traditional off-hours.

As psychologically empowered Millennial employees with PCAs have the ability to influence and direct their careers, such autonomy may lead to higher levels of SCS.
Thus, it would benefit managers to show personal interest in their employees and use a system of empowerment, such as sharing information, allowing greater autonomy and authority, and promoting active participation in the decision-making processes. Managers should also aim to articulate a vision that inspires Millennials to take greater responsibility for their behavior and performance. Goal clarification is important in this context and managers can aid Millennials by providing development support through coaching and mentoring. Coaching can help empower individuals to exceed prior levels of performance. Employees’ PE can also be increased when managers adopt a mentoring approach, as the mentor is portrayed as one who accepts and helps the employee develop a positive and secure self-image by serving as a role model, counselor and friend (Bhatnagar, 2007). Moreover, job enrichment (expanding jobs vertically to increase responsibility for making decisions (Hackman and Oldham, 1976) can be applied (Kim and Beehr, 2017). As a result of modifying jobs in the context of job enrichment, Millennial knowledge workers, particularly those displaying PCAs, will have opportunities to experience recognition, achievement, advancement and responsibility, which in turn result in higher SCS.

Limitations and future research

The results of the present study should be seen in light of a number of limitations. First, there is a possibility of common method bias. This risk was minimized such that the data for any participants who responded with the same answer to many questions were removed. Moreover, risk reduction for common method variance was assured by measuring the variables at three different points in time (Podsakoff et al., 2012). However, this three-wave research design cannot determine the causal relationships between the variables in this study. Future research can address this question through use of a longitudinal design that includes causal relationships among variables.

Second, as the present study is confined to Millennial knowledge workers in Turkey, it may be inappropriate to generalize the findings to Millennials in other countries. As the characteristics of this new generation may be different depending on culture (Twenge et al., 2010), it would be advisable to conduct studies in other countries to ensure generalizability.

Third, no socio-demographic and company-related data were included as control variables, as the participants’ age range, educational level, social class, residential and work status were similar. Data were collected during a time when the companies were experiencing similar internal and environmental conditions.

Fourth, as the study sample mainly involves highly educated Millennial knowledge workers who work merely in small- and medium-sized firms in IT sector, for the generalizability of the results, it is suggested to make further research including Millennials who work in larger companies in different sectors. Furthermore, as this study focused mainly on Millennials, comparisons among other generations that concentrate on providing an enhanced understanding of their career and work related motives, and preferences can be the subject of future research.

Notes

1. The criteria for a good fit (Hair et al., 2010): $\chi^2$/df ratio $< 3$; GFI, goodness-of-fit index (GFI $> 0.90$); CFI, comparative fit index (CFI $> 0.90$); TLI, Tucker Lewis index (TLI $> 0.90$); RMSEA, root mean square error approximation (RMSEA $< 0.08$).

2. $ab$, unstandardized indirect effect; CI, confidence interval; LL, lower limit; UL, upper limit; $k^2$, mediation effect size (Preacher and Kelley, 2011).
References


Arnett, J.J. (2004), Emerging Adulthood: The Winding Road from The Late Teens Through the Twenties, Oxford University Press, New York, NY.


Hall, D.T. (1976), *Careers in Organizations*, Scott, Foresman, Glenview, IL.


CDI 24,4


Corresponding author
Ceren Aydogmus can be contacted at: caydogmus@bilkent.edu.tr

For instructions on how to order reprints of this article, please visit our website:
www.emeraldgrouppublishing.com/licensing/reprints.htm
Or contact us for further details: permissions@emeraldinsight.com