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The impact of protean career on career sustainability: Mediating effect of perceived employability

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The impact of protean career on career sustainability: Mediating effect of perceived employability

Abstract

Despite the studies on protean career attitude in the career management literature, career sustainability and its potential outcomes have been subjected to study with limited empirical evidence. With this context, this study propounds a conceptual model connecting protean career orientation and perceived employability with career sustainability. Besides, sequentially, we posit that lifelong learning and proactive skill development mediate the relationship between protean career orientation and perceived employability. To establish the relationship, this study gathered data from Italy and Cyprus. Structural equation modelling with CB-SEM was done using the data collected. The results indicated serial mediation paths through which protean orientation impacts career sustainability.

Keywords:

Protean career orientation, Lifelong learning, Proactive skill development, Career Sustainability, Hospitality industry, Psychology of sustainability, Psychology of sustainable development.

Introduction

Deliberations and discussions on career management are vital as the career is a significant source of identity affirmation for individuals who derive satisfaction and well-being (Baruch & Sullivan, 2022; Gillet et al., 2022). Career scholars have developed theories and concepts that reflect employees' attitudes across the career span. Career theories have been categorised as first- and second-generation career theories (Baruch & Sullivan, 2022). First-generation career theories were anchored on the importance of agency, adaptability, and flexibility to changing labour market demands. Concepts like protean attitude and boundaryless careers (Arthur & Rousseau, 1996; Hall, 1996) discussed careers from an individual perspective. Protean career orientation (henceforth, PCO) has been regarded as a first-generation career concept, and scholars have widely embraced the concept (Gubler et al., 2014). The protean person's career choices and search for self-fulfilment are the unifying or integrative elements in their life. The protean career is shaped more by the individual than the organisation and may be redirected occasionally to meet the person's needs (Hall, 1996; p.10). The ever-changing job market scenario necessitates developing such neo-career attitudes among millennials (Gubler et al., 2014; Nimmi et al., 2020).

The drastic changes due to economic and societal transformations (Rapuano, 2022) result in unexpected events disrupting career continuity (e.g., the COVID-19 pandemic) and fast-paced technological innovations (e.g. Automation, Robotisation and AI-led systems), which have changed the form and meaning that work assumes for each individual (Di Fabio, 2017a; Di Fabio & Blustein, 2016). Such complex circumstances require attention to protect and promote healthy organisational conditions and psychological well-being for people per the United Nations Sustainable Development Goals (UN SDGs; United Nations, 2015). A new paradigm in career studies that follows this assumption is **career sustainability (hereafter, CS)**, which is surging as prominent in current times. This paradigm, which emerged from the

psychology of sustainability and sustainable development (Di Fabio, 2017a, 2017b; Di Fabio & Peiró, 2018; Di Fabio & Rosen, 2018, 2020; Rosen & Di Fabio, 2023), emphasises that fostering individual responsibility to build employability is key (Baruch & Sullivan, 2022; Seibert et al., 2001). Indeed, individual and organisational efforts should adopt a prevention focus and aim at promoting decent work, decent lives, a higher quality of life and psychological well-being throughout one's career by enriching, growing and adapting/renewing resources (Di Fabio, 2017b; Di Fabio & Peiró, 2018, 2023; Di Fabio & Rosen, 2018, 2020; Kenny et al., 2024; Peiró et al., 2023). By the mid-2000s, many neo-career theories developed, amongst which sustainable careers theory –considered a second-generation career theory – have received widespread acceptance among practitioners and academicians (Donald et al., 2024).

Our study aim was to investigate and test a theoretical integration, explaining how first-generation career concepts have paved the way for second-generation career concepts. We hypothesised that PCO is key for a sustainable career because it allows resourcefulness at the basis of a psychologically sustainable life and career course (Chin et al., 2020; de Vos et al., 2020). PCO represents the prevention-oriented self-endorsed approach to career development – which supports meaningful life and career projects through a predisposition to change goals, adapt skills and knowledge, and integrate previous experience to meet new career challenges even under complex and ever-changing circumstances – that underpins CS (Di Fabio et al., 2017; Di Fabio & Rosen, 2018).

Even though the association is pertinent, scholarly work has not thoroughly discussed the association between PCO and CS, despite the literature continuously hinting that PCO leads to achieving sustainability in a career (Tomlinson et al., 2018). Next, we examined the mechanism through which protean employees attain CS. From a resource-based perspective (Conservation of Resources theory, henceforth, CoR; Hobfoll et al., 2018), protean employees may rely on lifelong learning (henceforth, LLL) and proactive skill development (henceforth,

PSD) to enrich their resource reservoirs and equip themselves against the ever-changing demands in the job market (Gubler et al., 2014). This lifelong and life-wide learning could equip them with the necessary knowledge, skills and abilities. As they accumulate skills, knowledge, and necessary work attitudes, they initiate a resource-gain spiral (Kirves et al., 2014), resulting in higher employability (Peeters et al., 2019). For instance, emotional intelligence is one of the vital job attitudes that have a significant role in the career decisions of an employee in the organisation (Di Fabio et al., 2013; Di Fabio & Kenny, 2016). The presence of this resource caravan could further lead to beneficial outcomes, such as protecting or enhancing a sustainable career (de Vos et al., 2020).

This study affirmed the need to study the connection between PCO and CS, which could be paramount because well-established theoretical notions can be adopted to nurture new career paradigms. Given the research gaps, the current study examined the relationship between PCO and CS. We advanced the importance of perceived employability (henceforth, PE), LLL, and PSD in connecting PCO and CS among employees in the hospitality sector. This paper argued that understanding the shift from protean orientation to sustainable careers is expected and desirable since the conduct and the approach protean employees hold may generate CS through developing PE. In a practical sense, this study is essential as protean attitude is a win-win for both parties, i.e., not only for the respective employee but also for the organisation (Holtschlag et al., 2020).

Hypothesis Development

Protean Career Orientation and Career Sustainability

PCO pertains to freedom and autonomy in an individual's career spaces – i.e. a career owned and steered by the individual rather than any particular organisation (Hall, 1996). Challenges and opportunities accompany ownership of one's career. A self-driven career is following a career path that gives an individual career success and a sense of well-being and

success (Nimmi & Zakariya, 2020). The concept was introduced by Hall (1996), and there has been a plethora of studies throughout the years conducted among varied professionals and cultural settings (Direzzo et al., 2014; Herrmann et al., 2015; Lo Presti et al., 2020; Nimmi et al., 2020). Past literature has corroborated that PCO sustains self-endorsement in different career stages, like job search, pre-employment, and career switching (Briscoe et al., 2012). As such, scholars have also found positive associations between PCO and many career and life outcomes (e.g. objective and subjective career success; Jung & Takeuchi, 2011; Volmer & Spurk, 2010). In virtue of this, the association of PCO with CS is arguable.

From an individual perspective, the concept of the sustainable career reflects a dynamic process involving interaction between the person and the environment (e.g. job market structures, policies, stakeholders; de Vos et al., 2020). Sustainable careers are built on a cyclical, self-regulatory process in which experiences and events provide opportunities for dynamic learning (de Vos et al., 2020; p.2). According to Chin et al. (2022), CS occurs when workers can harness or increase their psycho-social resources, act flexibly to learn new things, renew their profile to interact with the labour market effectively, experience continuity and coherence with their career anchors and authentic selves (Di Fabio, 2017b; Di Fabio & Blustein, 2016), fueling experiences of happiness, health and productivity (de Vos et al., 2020; Donald & Mouratidou, 2022). A protean employee is in constant pursuit of balancing these factors as their career orientation is towards fulfilling one's life's goal, self-directed and value-driven (Lo Presti et al., 2020). A protean employee engages in continuous development to widen opportunities and to remain competitive in the job market (Nimmi et al., 2020). That said, we proposed that:

Hypothesis 1. PCO is directly and positively associated with CS.

The mediating effect of life-long learning in the relationship between protean attitude and perceived employability

Sustainable career rely upon individuals' initiative in interacting with the environment due to their attributes and career management actions (de Vos et al., 2020; Zhang et al., 2022). Building upon this assumption and the CoR theory (Hobfoll et al., 2018), we attempted to unravel the mechanisms linking PCO and CS. CoR theory asserts that individuals' behaviour is motivated to accumulate and protect various resources to reach their goals and protect their well-being against adversities they encounter throughout their lives (Hobfoll et al., 2018). Nowadays, fast-paced innovations and changes represent severe challenges to career continuity, which require a dire need to learn, unlearn, and relearn to be addressed with a resource investment, namely LLL (Nimmi et al., 2021).

From a resource-based perspective, lending to an LLL habit could help individuals enrich the resource caravan positively, thereby supplementing the positive spiralling of resources (Kirves, 2014). Said differently, a protean talent is hooked upon upskilling self to impact and maintain their attractiveness in the labour market (Nimmi et al., 2021; Römgens et al., 2020). Subsequently, committing to LLL accumulates, updates and renovates resources in the form of skills, attitudes and knowledge (Knipprath & De Rick, 2016; Nimmi et al., 2022). This helps people feel they can continuously catch up with fast-paced changes, maintain their employability, and traverse a chosen career path (Akkermans et al., 2021; Römgens et al., 2020). Empirical studies have already hinted at the positive impact of LLL on PE (Nimmi et al., 2021), suggesting that a dynamic learning approach enhances a positive appraisal of employment potential. Hence, based on the above explanation, we proposed that LLL is the explaining factor of the PCO-PE relationship:

Hypothesis 2. LLL mediates the relationship between PCO and PE.

Serial mediation of lifelong learning and perceived employability in the relationship between protean career orientation and career sustainability

We asserted the mediation of LLL and PE in the PCO-CS relationship. Since CS reflects the capacity/possibility to remain flexible by renewing one resource (Chin et al., 2022), it requires workers to deliberately and passionately nurture suitable strategies to ensure sustainable careers. LLL activities, self-endorsed thanks to a PCO, represent one such strategy by which individuals can remain attractive in the job market. Thus, we see varied career experiences through various learning and unlearning patterns as the basis of CS (Chin et al., 2021; Di Fabio & Cooper, 2023). Moreover, as remarked previously, such dedicated learning processes enhance the human capital worth of the individual and then shape their employability perceptions (Babos et al., 2015; Nimmi et al., 2021), and we see PE as a psychological mechanism linking LLL to CS. Indeed, PE is a crucial motivational factor that enables people to achieve career outcomes (Clarke, 2018). Many previous studies have indicated the importance of PE in determining conditions of CS, for instance, allowing workers to manage their resources with a flexible approach (Van Hootegem et al., 2019), protecting their position within the labour market and securing continuity to their experience (De Cuyper et al., 2012). Moreover, a robust body of research has corroborated that PE predisposes to CS, as it is linked to its indicators such as employee well-being, satisfaction and performance (e.g. Berntson & Marklund, 2007; Kinnun et al., 2011; Magnano et al., 2019; Nimmi & Zakkariya., 2021; Zhou et al., 2022) In line with this, we proposed that:

Hypothesis 3. PCO impacts CS through LLL and PE.

The mediating effect of proactive skill development between protean career orientation and perceived employability

Since PCO allows a self-endorsed and value-driven approach to career, it calls upon proactive career management (de Vos et al., 2009; Fuller & Marler, 2009; Spurk et al., 2015). Proactive career behaviour involves actions that individuals adopt to manage their careers, such as building new networks, career planning, seeking advice, and acquiring skills (Strauss et al., 2012; Smale et al., 2019; Taber & Blankemeyer, 2015).

Consistent literature has shown that protean-oriented people are more likely to engage in proactive career behaviours (Hermann et al., 2015; Park et al., 2022; Zhang et al., 2022). Taber and Blankemeyer (2015) supported the idea that PSD is one of the "know-how" aspects of proactive career behaviours. PSD involves self-started and deliberate actions that aim to attain learning and development in employment and employability skills (Ren & Chadee, 2017). PSD creates new contacts and enhances the visibility of the individual in the specific industry (Forret & Dougherty, 2004; Van Hove et al., 2009). These skill development investments improve the individual's human capital worth (Becker, 1993), enhancing employability perceptions (Nimmi et al., 2020; Chughuti, 2019; Van der Heijde & Van der Heijden, 2006). Hence, we hypothesised that

Hypothesis 4. PSD mediates the relationship between PCO and PE.

Serial mediation of proactive skill development and perceived employability in the relationship between protean career orientation and career sustainability

Key psychological resources like PE endorse a sustainable adaptation to the world of work (Akkermans et al., 2021; Vanhercke et al., 2014). Along with the COR theory, PE, as a personal resource, should be accumulated through behaviour investment (Hobfoll, 2002). This aligns with the relevant theorising and literature, where PE is also supposed to be deeply rooted in proactivity, as the personal responsibility of security in modern career landscapes requires

the individual's self-management to thrive (Clarke, 2018; Römgens et al., 2020; van der Heijde & van der Heijden, 2006; Vanhercke et al., 2014). Since human capital is a core component of individual employability, investments should enhance it to increase individual value and competitiveness in the labour market (Becker, 1975). Indeed, a self-directed approach aimed at self-enhancement and growth is expected to foster influence on their environment, the equipment to deal with instability and uncertainty, and the access to valuable career and development opportunities (Fugate et al., 2004). Arguably, PSD, determined by PCO, leads to feeling empowered against career turbulence, protecting employment prospects. Under this, PSD will likely have a positive influence on PE. Research already corroborates such a relationship across different populations, such as employees (Chungtai et al., 2019; Soares & Mosquera, 2021; Veld et al., 2015), young people accessing the world of work, and students (Clements & Kamau, 2018; Soares & Mosquera, 2020). Moreover, as explained before (see Hypothesis 4), PE is a core factor influencing CS. That said, we hypothesised the following:

Hypothesis 5. PCO impacts CS through PSD and PE.

Figure 1.

The hypothesised model.

Insert Figure 1 about here

Methods

Participants and Procedure

The hypotheses propounded in this study were tested by employing primary data collected from hotel employees in Italy and Cyprus. Consistency in the data has been ensured by collecting data from reputed hotels. While previous works on PCO have focused on the IT sector to a certain extent, this study tries to find whether PCO would enhance CS in the

hospitality industry. Understanding how individuals can create conditions for healthy and decent experiences is imperative, thus defining conditions for their CS. Indeed, the hospitality sector's dynamic and ever-changing environment, characterised by frequent economic fluctuations, technological advancements, and societal transformations, necessitates an adaptable, flexible workforce continuously engaged in skill development, qualities strictly connected to the PCO (Goh et al., 2017). Despite this, not much research has investigated the role of the protean attitude of workers, such as those employed in hospitality (Retkowsky et al., 2023).

The data were collected using an online platform designed on Qualtrics. Responses to the survey were received from September 2022 to November 2022. The respondents were approached by email. We received an aggregate of 398 responses with continuous reminders and follow-ups. We ensured the data's anonymity and disclosed that the data would be used for research purposes. The authors verified that the collected dataset aligns with the study's purposes. After eliminating the outliers and straight-lining, we used 294 responses for the data analysis. The demographic details of the respondents have been specified in Table 1.

Insert Table 1 about here

Measures

The online survey comprised seven sections. The first one, the introduction of the survey, comprehensively outlined the study's rationale, objectives, and characteristics, emphasising the guarantee of anonymity and confidentiality, per EU regulation no. 679/2016. Before commencement, each participant was presented with and provided informed consent.

The following five sections consisted of scale items that capture the constructs such as PCO, LLL, PSD, PE and CS. One section was devoted to gathering the respondents'

background details. All the scale items were rated on a 5-point Likert scale ranging from 1 = *strongly disagree* to 5 = *strongly agree*.

Protean career orientation

The construct was measured using a 14-item two-dimension (valued-driven approach and career self-management) scale developed by Briscoe et al. (2006), and specifically, we adopted the Italian adaptation performed by Lo Presti et al. (2011) for the Italian respondents. The sample item for the protean career orientation includes "I am responsible for my success or failure in my career".

Proactive skill development

The construct was assessed using a 4-item scale from Ren and Chadee (2017). The sample item includes "I purposefully attempted to learn new skills through a personal development program". For the Italian respondents, the scale has been adapted by Lo Piccolo et al. (in press, a).

Lifelong learning

Lifelong learning was assessed using a 7-item instrument. The scale items were taken from the work of Kirby et al. (2010), adapted in Italian by Lo Piccolo et al. (in press, b) for the Italian respondents. One of the sample items is "I can deal with the unexpected and solve problems as they arise".

Perceived employability

PE has been captured using a five-item scale. "I know organisations/companies where I could get work" is the sample item of PE. The scale was considered in the work of Berntson and Marklund (2007). The Italian version employed was developed by Caricati et al. (2016).

Career Sustainability

CS was measured using a 12-item scale adapted from Chin et al. (2022) four-dimension scale (Resourcefulness, Renewability, Flexibility, and Integration). The sample item of the construct involves "My career makes me feel like I have a bright future.". Petruzziello et al. (in press) adapted this scale in Italian.

Data analysis

By adopting a structural equation modelling approach (SEM), a confirmatory factor analysis tested a measurement model with the AMOS software, and we used Cronbach's alpha, composite reliability (CR), and average variance extracted (AVE) to evaluate the scale's internal consistency and convergent validity (Hair et al., 2019). We confronted each variable's AVE square root with the correlation coefficients between that specific variable and other variables to test discriminant validity (Fornell-Larcker Criterion; Fornell & Larcker, 1981). We also used SEM to estimate the structural models and test the hypotheses. We created specific estimands to test the indirect effects.

Results

Measurement model – reliability and validity

The measurement models comprised the five core study variables (Table 2). The item factor loadings of the constructs are above the threshold limit of 0.50, except for four items of the PCO scale and one item of the LLL scale, which were removed. The revised measurement model showed an acceptable fit ($\chi^2 / df = 1.77$, RMSEA = 0.05, SRMR = 0.06, CFI = 0.92, and TLI = 0.91). Cronbach alpha and CR values were above the conventional acceptability threshold of 0.70 (Hair et al., 2019). AVE values were below the threshold of 0.50 for the Value-driven PCO dimension, LLL and PE. However, according to Fornell and Larcker (1981), convergent validity is still supported when CR is adequate, even in the presence of below-acceptable AVE values.

Insert Table 2 about here

Regarding Fornell and Larcker's (1981) criterion, the square roots of AVE are higher than the computed correlation between the constructs, except for the CS – Flexibility subscale's AVE square root, which was lower than the correlation between this subscale and the CS – Renewability subscale. Table 3 reports the correlation between the variables and the Fornell-Larcker criterion values.

Insert Table 3 about here

Common method bias

Common method bias is a critical issue in cross-sectional data (Podsakoff & Organ, 1986). The authors have followed the guidelines proposed by (Ketokivi & Schroeder, 2004). The guidelines have been followed because the possibility of eliminating the common method bias in the primary data is difficult. In spite of this, the impact of the common method can be mitigated to a certain extent. In this regard, we used Harman's single-factor test to assess the common method bias. We found that the single factor elaborated only 35% of the aggregate variance.

Hypotheses test

We observed that the fit indices were acceptable, i.e., $\chi^2 / df = 1.87$, RMSEA = 0.06, SRMR = 0.08, CFI = 0.91 and TLI = 0.89, which shows a good fit of the data. Table 4 indicates the hypothesis results of our study. We found a positive association between PCO and CS ($\beta = 0.19^{**}$; H1 supported). Furthermore, we observed that LLL mediated the influence of PCO on PE ($\beta = 0.13^*$) supporting H2. The results revealed that PSD significantly mediated the relationship between PCO and PE ($\beta = 0.12^{**}$) accepting H4. Similarly, the relationship

between PCO and CS was mediated serially by LLL and PE. It has a significant beta ($\beta = 0.03^*$), and H3 was supported. Also, the relationship between PCO and CS serially mediated by PSD and PE was significant ($\beta = 0.03^*$). In this regard, H5 was supported.

Insert Table 4 about here

Discussion

Previous studies have shed light on the possibilities of CS by undertaking a protean path (Nimmi & Zakkariya, 2021). Our study tries to understand how PCO impacts CS among hospitality industry employees. Career sustainability is important as employment has changed drastically (Han & Hwang, 2021; Stamolampros et al., 2019). These changes have necessitated PCO and leading to job crafting among employees to sustain their careers. Our study tried to understand the activities undertaken by protean employees to enhance their job market chances and thereby attain CS.

Most career studies proposed PE as a major resource for a sustainable career. Previous studies have hinted at the role of PE as key for navigating the labour market transitions effectively and smoothly (Petruzzello et al., 2022; Vanhercke et al., 2014). The literature has also discussed the importance of PE in CS (Blokker et al., 2019; Maganano et al., 2019).

The discussions on CS are built around CoR theory, where we propose PSD and LLL as the two strategies by which the resource gain process can be activated so PE can be maintained. We found empirical support for our major objective: a PCO is positively related to CS. The data supported the mediating role of perceived skill development and lifelong learning in enhancing PE. Later, empirical evidence supports that PE is the mechanism by which PSD and LLL lead to CS. The study extends the literature by empirically validating the antecedents of CS, corroborating, for instance, the findings of Zhang et al. (2022) on the importance of LLL

for CS. Our study forms empirical evidence to understand how first-generation career concepts have paved the way for neo-career concepts like sustainable careers. Also, it is the first to disseminate the mechanism by which PCO leads to CS.

Theoretical Implications

Our study tried to fill the void in vocational psychology research on empirical support for antecedents of CS. This study explored how developing a protean attitude would help maintain CS. Several studies have looked into the consequences of developing a protean attitude among employees and graduates (Alok & Rajthilak, 2021; de Vos & Soens, 2008; Nimmi et al., 2019; Volmer & Spurk, 2011). Yet, none of the prior studies have looked into the possible association between PCO and CS. de Vos and Van der Heijden (2017) have highlighted the importance of developing neo-career attitudes for sustainable careers, which reflects the need for a self-endorsed and "preventive" approach in building a healthy existence, in line with the indications of the psychology of sustainability and sustainable development (Di Fabio, 2017b; Di Fabio & Peiró, 2018; Di Fabio & Rosen, 2018, 2020; Rosen & Di Fabio, 2023). In this line of thought, we proposed the possible mechanism by which developing a protean attitude could lead to CS.

Our study emphasised the importance of PE in maintaining sustainable careers. Based on CoR theory, we proposed a conceptual model that explains how PCO leads to CS by maintaining heightened employability. From a resource-based perspective, the study proposed that engaging in PSD and LLL may activate the necessary resource gain/maintenance process to protect and secure a competitive position within the labour market, thus contributing to one's PE, which is a crucial step towards CS. Our study also reciprocates the tenets of career construction theory on the importance of exercising personal agency to strive for and adapt to career circumstances reflected in proactive career development and LLL (Jiang et al., 2022) in a sustainable development framework respecting themselves and others (Guichard, 2022).

Practical Implications

The findings highlight the importance of PSD and LLL in the relationship between PCO and PE, which leads, in turn, to CS. These results suggest various practical implications for both individuals and organisations. By nature, protean career success is determined by individuals' behaviours and engagement in self-directed and continuous learning (Baltes et al., 2019); thus, organisations that focus on cultivating such cultures would benefit from it. Executive training strategies could facilitate employee initiatives to develop organisational skills and abilities. Corporate academies and other career development training activities are available to all workers to enhance and promote professional skills, proactive skills development, and LLL culture. In summary, by fostering an environment that encourages LLL, employers can enhance the employability of their workforce, preparing employees not just for current roles but also for future industry demands. This approach aligns with the finding that LLL plays a crucial role in achieving CS.

Individuals need to be in the role of primary agents, focusing on their motives and career sources through CS (de Vos et al., 2020; Kenny et al., 2023; Retkowsky et al., 2022). Considering the current study results and the CoR model, we suggest that organisations, through job redesign, could allow their employees more autonomy, challenges (Hall & Heras, 2010) and flexibility over their daily work, which is crucial in encouraging self-directed learning and proactivity in the workplace. Hence, the current study results support that organisations should target both directly supporting their employees' initiatives for PSD and LLL by providing learning, training and development practices and indirectly through agile and autonomous working environments (Peirò et al., 2023).

Limitations

While providing valuable insights into the relationship between PCO and CS, the study acknowledges some limitations: The research was conducted among hotel employees in Italy and Cyprus, which may limit the generalizability of the findings to other regions or countries with different cultural and economic environments. The specific characteristics of the hospitality industry in these countries may not fully represent those of other global contexts, potentially influencing the applicability of the results to a broader audience. Anyway, the sample presents good variability in age and education level.

The study's cross-sectional nature limits the ability to infer causality between PCO and CS. Longitudinal designs could provide a deeper understanding of the temporal dynamics and causal relationships among the constructs studied. Despite efforts to mitigate common method bias through statistical techniques, the reliance on self-reported data collected at a single point in time from the same source could influence the findings. Anyway, Harman's single-factor test results indicated that common method bias had a minimal impact. These limitations highlight areas for future research, suggesting the need for studies that explore these relationships across different geographical contexts and industries and with varied methodological approaches.

Conclusion

In this study, we developed and tested an empirical model emphasising the role of proactivity as a major driver of CS. We found that a self-endorsed approach to career development (i.e. PCO) may influence CS, and we shed light on two psychological mechanisms that explain this relationship. Indeed, we found a serial mediation of LLL and PE and PSD and PE in the PCO-CS relationship. We contributed to the rising knowledge on this topic, studying the person-related antecedents of CS and remarking on the need for a proactive and self-endorsed approach, which also meets the need for a preventive approach towards reaching CS as mandated by the psychology of sustainability and sustainable development (Di

Fabio, 2017b). Our results inform imperative actions by organisations to support such a proactive approach in employees and contribute to their sustainability.

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Figure 1.

The hypothesised model

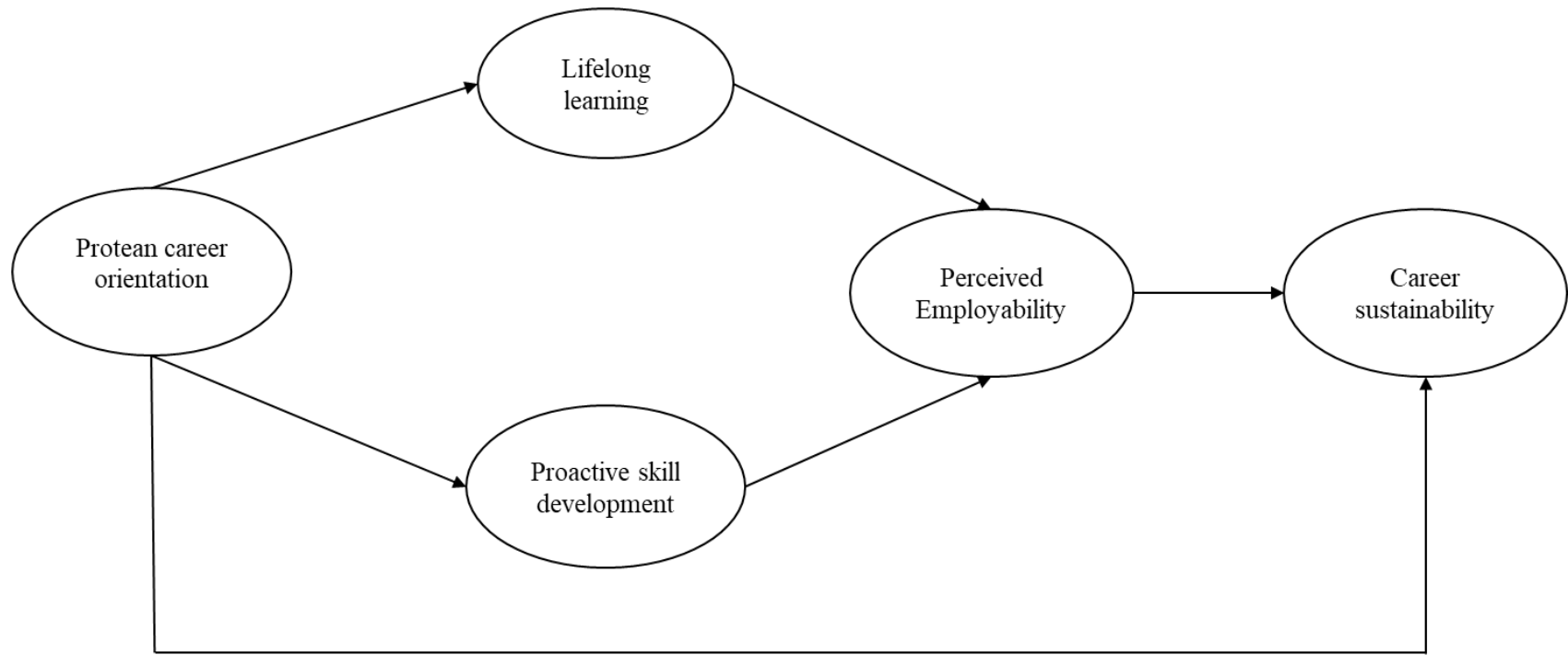


Table 1.*Demographic details*

Employee Details (n = 294)	Frequency(s)	Percentage (%)
<i>Gender</i>		
Male	80	26.67%
Female	214	73.33%
<i>Age (in years)</i>		
Less than 25	12	2.82%
25-34	82	28.21%
35-44	70	24.36%
45-54	73	24.87%
Above 55	57	19.49%
<i>Education</i>		
2-year college	111	36.92%
4-year college	58	19.74%
High school graduate and below	28	9.74%
Post-graduation	97	33.59%
<i>Country</i>		
Italy	186	62.56%
Cyprus	108	37.44%

Table 2.*Convergent validity measures*

Variable		Factor loadings	Cronbach's alpha	Composite Reliability	Average Variance Extracted
<i>PCO – Self-directed Career Management</i>	Item 1	0.600	<i>.86</i>	<i>.86</i>	<i>.51</i>
	Item 2	0.825			
	Item 3	0.799			
	Item 4	0.633			
	Item 5	0.720			
	Item 6	0.684			
<i>PCO – Value-Driven</i>	Item 7	0.632	<i>.77</i>	<i>.77</i>	<i>.46</i>
	Item 8	0.735			
	Item 9	0.707			
	Item 10	0.627			
<i>LLL</i>	Item 1	0.611	<i>.79</i>	<i>.79</i>	<i>.39</i>
	Item 2	0.751			
	Item 3	0.543			
	Item 4	0.597			
	Item 5	0.577			
	Item 6	0.641			
<i>PSD</i>	Item 1	0.793	<i>.88</i>	<i>.88</i>	<i>.65</i>
	Item 2	0.838			
	Item 3	0.838			
	Item 4	0.752			
<i>PE</i>	Item 1	0.626	<i>.81</i>	<i>.83</i>	<i>.47</i>
	Item 2	0.607			
	Item 3	0.665			
	Item 4	0.771			
	Item 5	0.739			

Variable		Factor loadings	Cronbach's alpha	Composite Reliability	Average Variance Extracted
<i>CS - Resourcefulness</i>	Item 1	0.812	.86	.86	.68
	Item 2	0.799			
	Item 3	0.853			
<i>CS - Flexibility</i>	Item 4	0.668	.76	.75	.51
	Item 5	0.830			
	Item 6	0.640			
<i>CS - Renewability</i>	Item 7	0.873	.86	.84	.68
	Item 8	0.838			
	Item 9	0.729			
<i>CS - Integration</i>	Item 10	0.840	.88	.88	.72
	Item 11	0.883			
	Item 12	0.816			

Note. $N = 294$; PCO = Protean career orientation; LLL = Lifelong learning; PSD = Proactive skill development; PE = Perceived employability; CS = Career sustainability.

Table 3.

Variables' correlation and AVE's square root.

Variable	1.	2.	3.	4.	5.	6.	7.	8.	9.
1. PCO – Self-directed Career Management	<i>.71</i>								
2. PCO –Value-Driven	.61**	<i>.68</i>							
3. PSD	.24**	.18**	<i>.80</i>						
4. LLL	.31**	.36**	.46**	<i>.62</i>					
5. PE	.25**	.23**	.33**	.28**	<i>.68</i>				
6. CS – Resourcefulness	.48**	.24**	.22**	.15*	.36**	<i>.82</i>			
7. CS - Flexibility	.46**	.31**	.30**	.18**	.35**	.69**	<i>.72</i>		
8. CS - Renewability	.46**	.29**	.38**	.19**	.25**	.63**	.79**	<i>.82</i>	
9. CS - Integration	.39**	.23	.44**	.30**	.28**	.53**	.65**	.77**	<i>.85</i>

Note. $N = 294$; * $p < 0.05$, ** $p < 0.01$. Values in italicised bold represent each variable's AVE's square root. PCO = Protean career orientation; LLL = Lifelong learning; PSD = Proactive skill development; PE = Perceived employability; CS = Career sustainability.

Table 4.

Structural path estimates

Hypothesis	Path coefficient	SE	Bias-SE	p	LL	UL
Direct effects						
H1: PCO – CS	0.19	0.07		0.002		
Indirect effects						
H2: PCO - LLL – PE	0.13	0.091	0.001	0.015	0.018	0.373
H3: PCO - PSD – PE	0.12	0.063	0.001	0.001	0.041	0.285
H4: PCO-LLL-PE-CS	0.03	0.021	0.000	0.018	0.004	0.099
H5:PCO- PSD-PE-CS	0.03	0.022	0.000	0.016	0.003	0.085

Note. $N = 294$; PCO = Protean career orientation; LLL = Lifelong learning; PSD = Proactive skill development; PE = Perceived employability; CS = Career sustainability.