
Proactive Skill Development Scale: contributo all'adattamento della Versione Italiana

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Sommario

Questo studio ha l'obiettivo di adattare e contribuire a validare la versione italiana della *Proactive Skill Development scale*, originariamente sviluppata da Boyce et al. (2010) e successivamente valutata da Ren & Chadee (2017), con un focus sul settore dell'ospitalità. Il nostro campione comprendeva 121 dipendenti, prevalentemente donne, che hanno completato il questionario nel 2022. Dopo la traduzione e la back traslation è stata studiata la dimensionalità e la validità concorrente, utilizzando la *Scala dell'Orientamento alla Protean Career* adattata da Lo Presti et al. (2011).

L'analisi fattoriale confermativa (CFA) effettuata con il software AMOS ha confermato la struttura unidimensionale della scala con eccellenti indici di adattamento del modello. La coerenza interna è risultata robusta e le analisi correlazionali hanno rivelato una relazione positiva tra la *Scala di Sviluppo delle Competenze Proattive* e la PCAS, supportando la validità esterna. Questi risultati sottolineano l'affidabilità e l'applicabilità della scala, sollecitando però ulteriori validazioni in diversi settori e gruppi demografici. Questa ricerca contribuisce alla comprensione della dinamica dello sviluppo delle competenze proattive e del suo impatto sull'occupabilità, fornendo uno strumento prezioso per favorire una cultura dell'apprendimento proattivo nelle organizzazioni.

Parole chiave

Sviluppo proattivo delle competenze, Analisi fattoriale confermativa, Validazione italiana, Protean career.

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Proactive Skill Development Scale: Contribution to the Adaptation of the Italian Version

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Abstract

This study aimed to adapt and validate the Italian version of the *Proactive Skill Development Scale*, originally developed by Boyce et al. (2010) and later assessed by Ren & Chadee (2017), focusing on the hospitality sector. Our sample comprised 121 employees, predominantly women, who completed the survey in 2022. Using back-to-back translation, we adapted the scale to Italian; it includes four items measuring proactive skill development. Concurrent validity was evaluated using the *Protean Career Orientation Scale* adapted by Lo Presti et al. (2011).

Confirmatory factor analysis (CFA) using AMOS software affirmed the unidimensional structure of the scale with excellent model fit indices. Internal consistency was robust, and correlational analyses revealed a positive relationship between the *Proactive Skill Development Scale* and the PCAS, supporting external validity. These findings underscore the scale's reliability and applicability across diverse contexts within the Italian hospitality industry, prompting further validation across different sectors and demographic groups. This research contributes to understanding the dynamics of proactive skill development and its impact on employability, providing a valuable tool for fostering a proactive learning culture in organisations.

Keywords

Proactive skill development, Confirmatory factor analysis, Italian validation, Protean career.

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Introduction

In contemporary labour markets marked by rapid evolution and characterised by volatility, uncertainty, complexity, and ambiguity (VUCA) (Baran & Woznyj, 2021), proactive skills development (PSD) has emerged as a critical imperative for professionals (Le et al., 2024; Jiang et al., 2023). Against the backdrop of ongoing transformations, reactive responses prove insufficient, necessitating a proactive approach wherein individuals actively pursue avenues for skill enhancement (Chungtai & Arifeen, 2024).

In light of the necessity for employees to cultivate a diverse skill set to expand their career prospects and bolster their employability (Chughtai & Arifeen, 2024), the adoption of proactive strategies becomes imperative in meeting the evolving demands of professional roles and keeping abreast of contemporary trends and technologies.

Proactive skill development (PSD), a proactive career behaviour involving self-initiated efforts to acquire new skills and knowledge (Boyce et al., 2010), is gaining traction among scholars. This focus highlights its potential to inform strategic human resource management and workforce development in dynamic labour markets. This proactive approach involves deliberately building career-relevant resources for future needs (Wang et al., 2023), reflecting a shift from reactive to proactive career management. PSD has garnered significant research attention within workplace contexts, where the implications for individual and organisational outcomes are evident. The studies have delved into various aspects like individual traits, motivational factors, contextual elements such as training interventions and future goals, hierarchical mobility experiences, employment status, job types, and the cultural characteristics of different nations (Claes & Ruiz-Quintanilla, 1998; Clements & Kamau, 2018; Pajic et al., 2018; Ren & Chadee, 2017; Strauss & Parker, 2018; Taber & Blankemeyer, 2015). Furthermore, recent studies have highlighted the role of interpersonal relationships and leadership behaviours in fostering PSD. Chughtai and Arifeen (2024) demonstrate that affective trust in supervisors can stimulate employees to exhibit innovative work behaviour by facilitating their PSD. Similarly, Carvalho et al. (2021) showed perceiving leader feedback inquiry as a challenge promotes PSD. Wang et al. (2023) showed that family-supportive supervisor behaviours are positively related to employees' PSD. These findings underscore the multifaceted nature of PSD and its significance in enhancing individual and organisational effectiveness in today's dynamic work environments.

By understanding the variables related to a proactive approach, we can help individuals develop more effective learning strategies and enhance their long-term career prospects.

Therefore, developing validated instruments to measure these constructs is a critical research issue. To address this need, this study aimed to adapt and

validate the Italian version of the Proactive Skill Development Scale, originally developed by Boyce et al. (2010) and later assessed by Ren & Chadee (2017), focusing on the hospitality sector. Validating instruments to measure these constructs in the Italian context can contribute to the empirical understanding of how individuals engage in PSD, promoting the development of tailored interventions and policies to promote skill development and fostering their long-term career success and economic prosperity.

Proactive Skill Development

PSD refers to individuals' conscious and self-driven efforts to enhance their competencies without being prompted by external factors such as employers (Antonacopoulou, 2000; Boyce et al., 2010; Ren & Chadee, 2017). The study evaluated PSD using Ren and Chadee's (2017) scale, which was inspired by Boyce et al.'s (2010) research, which is used in a self-development leadership skills perspective and was designed to capture the individual's motivation, willingness, and intention to participate in self-development efforts actively. It helps researchers and practitioners understand the extent to which individuals are likely to take initiative in their own learning and development processes (Boyce et al., 2010). Ren & Chadee's (2017) scale included four items: intentional self-directed learning for new knowledge, purposeful skill acquisition through personal development, deliberate self-development to improve work performance, and active engagement in self-development for workplace effectiveness. The self-development scale had good internal consistency, with a Cronbach's alpha value of .73. The study sample consisted of Chinese employees from a database of a large human resources recruitment company in Beijing (Ren & Chadee, 2017). Le et al. (2024) conducted a study with approximately 300 participants, primarily US-born, and reported a higher Cronbach's alpha of .93, indicating excellent internal consistency for the PSD scale.

Study Goal

Despite the importance of the PSD concept and the corresponding measure, there is currently a lack of validation within the Italian context. Validated instruments play a critical role in accurately assessing concepts such as PSD. This provides a strong foundation for effective interventions and policies. Given the relationship between the acquisition and maintenance of human capital and employability, these concepts are particularly significant (Assefa et al., 2024; Chughtai & Arifeen, 2024). This study aims to fill this gap by presenting an initial validation, in terms of internal and external validity (Grimm & Widaman, 2012), of a scale

that measures PSD among Italian employees in the hospitality industry. Through this initial validation process, we seek to contribute to understanding this concept and its implications for personal and professional growth in the Italian context. Concerning internal validity, we tested dimensionality and reliability.

Regarding the external validity, we examined the relationship between the PSD scale and the use of the *Protean Career Orientation Scale* (PCAS), initially developed by Briscoe et al. (2006) and adapted to Italian by Lo Presti et al. (2011). By employing this approach, we aim to elucidate the significance of PSD and related concepts and their implications for the Italian workforce. The findings from this study will be instrumental in guiding the implementation of effective interventions and policies aimed at fostering personal and professional growth and development within the Italian context.

Methods

Participants

The sample encompassed 121 subjects, predominantly women (86.7%), followed by men (12.4%) and non-binary individuals (.9%). The age distribution was chiefly within the 35-44 year range (42.1%), with the remaining participants distributed as follows: 18-24 years (3.3%), 25-34 years (25.6%), 45-54 years (19.8%), and 55 years or older (9.1%).

Procedures

Data were gathered during the summer of 2022, targeting middle- and top-level employees within the Italian hospitality sector. Recruitment was conducted via social media invitations to complete an online survey hosted on the Qualtrics platform. Prior to participation, confidentiality was assured, and informed consent was obtained in compliance with EU Regulation 679/2016, ensuring voluntary participation.

Measures

Utilising the back-to-back translation method, we adapted the *Proactive Skill Development Scale* initially developed by Boyce et al. (2010) and later reported by Ren & Chadee (2017). This scale comprises four items: (1) I intentionally performed self-directed learning activities to acquire new knowledge; (2) I purposefully attempted to learn new skills through a personal development program; (3) I deliberately performed self-development activities to improve my work; and

(4) I had been actively engaged in self-development activities to help me become more effective at work.

To assess external validity, we employed the Protean Career Orientation Scale (PCAS) developed by Briscoe et al. (2006) and adapted to Italian by Lo Presti et al. (2011). This scale features 14 items rated on a 5-point Likert scale, demonstrating a reliability coefficient (Alpha) of .79 in the current study.

Data Analyses

Confirmatory factor analysis (CFA) was conducted using AMOS software to examine the factor structure of the Italian version of the Proactive Skill Development Scale, employing a single-factor model consistent with the original validation by Boyce et al. (2010). We evaluated model fit using several indices: the Chi-square to degrees of freedom ratio (χ^2/df), comparative fit index (CFI), Tucker-Lewis index (TLI), root mean square error of approximation (RMSEA), and standardized root mean square residual (SRMR). Acceptable fit was indicated by χ^2/df values less than 3, CFI and TLI values greater than .90, and RMSEA and SRMR values less than .08, following criteria set by Hu & Bentler (1999). Additionally, correlational analysis was performed to assess the external validity of the *Protean Career Orientation Scale*, exploring its relationships with PSD and perceived employability.

Results

The hypothesised model fit well with the data ($\chi^2/df = .86$; CFI = 1.00; TLI = 1.00; RMSEA = .01; SRMR = .02). Figure 1 shows the models with the standardised factor loadings of each item onto their respective dimensions (ranging from .52 to .82). Regarding internal consistency, we found a good Cronbach’s α coefficient, namely .78. Moreover, the correlational analysis showed that the scale was positively associated with the *Protean Career Orientation Scale* ($r = .21^*$).

Table 1

CFA standardised loadings for the Italian version of the *Proactive Skill Development Scale*

	Estimate
PSD 1	.77
PSD 2	.69
PSD 3	.82
PSD 4	.52

Note. $N = 121$. All the factor loadings were significant at $p\text{-level} < .001$.

Discussion

This research introduced an Italian version and initial validation of the *Proactive Skill Development Scale*, originally developed by Boyce et al. (2010) and subsequently reported by Ren & Chadee (2017), which previously lacked an Italian adaptation. Our investigation focused on the scale's factorial structure, internal consistency (i.e., internal validity), and its correlation with a related variable such as the *Protean Career Orientation Scale*, addressing external validity as Grimm & Widaman (2012) outlined. The findings confirmed a unidimensional construct, as identified in the original validation by Boyce et al. (2010), and the quality of internal consistency as reported by Ren and Chadee (2017), and Le et al. (2024). Moreover, the results supported the external validity of the scale through its significant positive relationships with the *Protean Career Orientation Scale*. This comprehensive analysis highlights the scale's potential utility and adaptability in various settings.

Since the study concentrated on the hospitality sector, further research is encouraged to assess its psychometric properties among diverse employee groups and to explore the scale's broader applications. Future research should also consider a more gender-diverse sample due to the predominance of women in the current study and extend the investigation of the scale's external validity within Italian contexts by examining its correlations with different proactive measures.

In summary, this validated scale can aid both researchers and practitioners in understanding the intricate dynamics between individual, organisational, and environmental factors. The instrument enables enhanced research and the formulation of customised strategies and policies to encourage a proactive learning culture within Italian organisations. Through targeted efforts to understand and leverage this construct, we can promote both personal and professional development, yielding benefits for individuals and the broader society.

References

- Antonacopoulou, E. P. (2000). Employee development through self-development in three retail banks. *Personnel Review*, 29(4), 491-508.
- Assefa, Y., Gebremeskel, M. M., Moges, B. T., & Tilwani, S. A. (2024). Transformation of higher education institutions from rhetoric commitment to a place of lifelong learning organizations: a meta synthesis study. *Journal of Applied Research in Higher Education*. <https://doi.org/10.1108/JARHE-07-2023-0293>.
- Baran, B.E., & Woznyj, H.M. (2021). Managing VUCA. *Organizational Dynamics*, 50(2), 100787. <https://doi.org/10.1016/j.orgdyn.2020.100787>.
- Boyce, L.A., Zaccaro, S.J., & Wisecarver, M.Z. (2010). Propensity for selfdevelopment of leadership attributes: Understanding, predicting, and supporting performance of leader self-development. *The Leadership Quarterly*, 21, 159-178. <https://doi.org/10.1016/j.leaqua.2009.10.012>
- Briscoe, J.P., Hall D.T., & DeMuth R.L.F. (2006). Protean and boundaryless careers: An empirical exploration. *Journal of Vocational Be-*

- havior, 69, 30-47. <http://dx.doi.org/10.1016/j.jvb.2005.09.003>.
- Carvalho, S., Carvalho, F.K., & Carvalho, C. (2021). The paradoxical consequences of leader feedback seeking for subordinates: a theoretical framework. *European Journal of Training and Development, 47*(1/2), 203-222. <https://doi.org/10.1108/ejtd-07-2021-0101>.
- Chughtai, A.A., & Arifeen, S.R. (2024). Affective trust in the supervisor and innovative work behavior: the effects of proactive skill development and learning goal orientation. *The Journal of Psychology, 1*-22. <https://doi.org/10.1080/00223980.2024.2325664>.
- Claes, R., & Ruiz-Quintanilla, S.A. (1998). Influences of early career experiences, occupational group, and national culture on proactive career behavior. *Journal of Vocational Behavior, 52*(3), 357-378. <https://doi.org/10.1006/jvbe.1997.1626>.
- Clements, A., & Kamau, C. (2018). Understanding students' motivation towards proactive career behaviours through goal-setting theory and the job demands-resources model. *Studies in Higher Education, 43*(12), 2279-2293. <https://doi.org/10.1080/03075079.2017.1326022>.
- Grimm, K.J., & Widaman, K.F. (2012). Construct validity. In *APA handbook of research methods in psychology, Vol 1: Foundations, planning, measures, and psychometrics* (pp. 621-642). American Psychological Association. <https://doi.org/10.1037/13619-033>.
- Hu, L.T., & Bentler, P.M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal, 6*(1), 1-55. <https://doi.org/10.1080/10705519909540118>.
- Jiang, X., Qu, J., Meng, L., & Zhou, W. (2023). How do proactive career behaviors translate into subjective career success and perceived employability? The role of thriving at work and humble leadership. *Journal of Management & Organization, 1*-17. <https://doi.org/10.1017/jmo.2023.67>.
- Le, H., Lee, J., Gopalan, N., & Van Der Heijden, B. (2024). Proactive behaviors matter for my job! The roles of career decidedness and career stress in the face of VUCA. *Career Development International, 2023*-0078. <https://doi.org/10.1108/cdi-03-2023-0078>.
- Lo Presti, A., Nonnis, M., & Briscoe, J.P. (2011). The Protean and Boundaryless Career in Italy: Game on? In M. Cortini, G. Tanucci, & E. Morin (Eds.), *Boundaryless Careers and Occupational Wellbeing* (pp. 7-16). Palgrave Macmillan.
- Ostmeier, E., & Strobel, M. (2022). Building skills in the context of digital transformation: How industry digital maturity drives proactive skill development. *Journal of Business Research, 139*, 718-730. <https://doi.org/10.1016/j.jbusres.2021.09.020>.
- Pajic, S., Keszler, Á., Kismihók, G., Mol, S.T., & Hartog, D.N.D. (2018). Antecedents and outcomes of Hungarian nurses' career adaptability. *International Journal of Manpower, 39*(8), 1096-1114. <https://doi.org/10.1108/ijm-10-2018-0334>.
- Ren, S., & Chadee, D. (2017). Influence of work pressure on proactive skill development in China: The role of career networking behavior and Guanxi HRM. *Journal of Vocational Behavior, 98*, 152-162. <https://doi.org/10.1016/j.jvb.2016.11.004>.
- Strauss, K., & Parker, S.K. (2018). Intervening to enhance proactivity in organisations: improving the present or changing the future. *Journal of Management, 44*(3), 1250-1278. <https://doi.org/10.1177/0149206315602531>.
- Taber, B.J., & Blankemeyer, M. (2015). Future work self and career adaptability in the prediction of proactive career behaviors. *Journal of Vocational Behavior, 86*, 20-27. <https://doi.org/10.1016/j.jvb.2014.10.005>.
- Wang, S., Rofcanin, Y., Heras, M.L., Bosch, M.J., Hall, D.T., & Carlier, S.I. (2023). A fit perspective to family supportive supervisor behaviors: Exploring the role of protean career orientation on employee outcomes. *European Management Journal, 2023*.04.007. <https://doi.org/10.1016/j.emj.2023.04.007>.

APPENDIX 1

Table A1

Items of the Italian versions of the *Proactive Skill Development Scale* and scale with mean values and standard deviations

Variable	Item	Mean	SD
	<i>En. I intentionally performed self-directed learning activities to acquire new knowledge.</i> <i>It. Ho intrapreso volontariamente e in autonomia attività di apprendimento per acquisire nuove conoscenze.</i>	4.07	.85
	<i>En. I purposefully attempted to learn new skills through a personal development program.</i> <i>It. Ho intenzionalmente provato ad acquisire nuove competenze tramite un programma di sviluppo personale.</i>	3.49	1.27
	<i>En. I deliberately performed self-development activities to improve my work.</i> <i>It. Ho volutamente intrapreso delle attività di sviluppo personale per migliorare il lavoro che svolgo.</i>	3.70	1.21
	<i>I have been actively engaged in self-development activities to help me become more effective at work.</i> <i>It. Sono stato coinvolto attivamente in attività di sviluppo personale per aiutarmi a essere più efficace al lavoro.</i>	3.31	1.18
	<i>Total score (as mean of the items)</i>	3.64	.88

Note. *N* = 121; En. = English Original Version; It. = Italian Translation/Adaptation; SD = Standard Deviation.