

RESEARCH ARTICLE

Employee Intrapreneurship Scale: Adaptation and Validation in the Romanian Working Population

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Abstract

The present article includes two studies that have tested the reliability and validity of the Romanian adaptation of the Employee Intrapreneurship Scale (EIS). Intrapreneurship is a relatively novel concept describing proactive behaviors through which employees contribute to the growth and development of organizations they are employed in. The factorial structure and gender invariance of the EIS have been tested in the first sample, including 307 employees with diverse occupational backgrounds. The factorial structure was cross-validated in a second sample, including 122 employees with a similar composition. The second study also established convergent validity of the scale through testing its' associations to risk-taking, innovativeness, and proactive personality. Discriminant validity was tested using the Average Variance Extracted (AVE) procedure. The results have confirmed a factor structure whereby employee intrapreneurship is composed of two latent indicators: strategic renewal and corporate venturing. Reliability indices and factor loadings have shown a consistent and valid measure of intrapreneurship at the employee level. Furthermore, the concept showed significant positive associations to other constructs in the nomological network, and the AVE indicated satisfactory discriminant validity. Overall, these studies provide a psychometrically valid measure to be used in intrapreneurship research in Romanian organizations.

Keywords

Employee Intrapreneurship Scale, intrapreneurship, CFA, scale adaptation, validity

Introduction

Recent years have seen an unprecedented focus on bottom-up employee influences in organizations (Bakker & Demerouti, 2017), highlighting the active and proactive ways employees positively contribute to their work processes and outcomes (Bakker & van Woerkom, 2018; Bălăceanu et al., 2021). Organizations are increasingly looking for employees who go beyond simple execution

of daily tasks to create, innovate and generate ideas that help the organization grow and maintain competitive advantage (Antoncic & Antoncic, 2011; Park et al., 2014). Such behaviors have been recently gathered under the employee intrapreneurship concept (Gawke et al., 2017; Gawke et al., 2019), describing employees who venture into new business opportunities while strategically renewing aspects of the organization to help its' growth and development. The concept of

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intrapreneurship is and rooted in the literature on entrepreneurship (Blanka, 2019), with a clear distinction regarding the degree of independence of individuals (i.e., entrepreneurs are highly independent and decide for their own organizations while intrapreneurs are dependent on an organizations' goals and objectives decided by its' leaders). Both intrapreneurship and entrepreneurship focus on maintaining competitiveness in the market, resisting competition, developing businesses, and innovating. Still, they operate in different organizational frameworks, face different challenges regarding resources and funding, and face obstacles at different levels (Cadaru & Badulescu, 2015).

Despite the rising popularity of the employee intrapreneurship concept (Blanka, 2019), a psychometrically validated measure of intrapreneurial behaviors is still lacking in Romania. To address this gap, we conducted two studies to adopt the recently developed Employee Intrapreneurship Scale (EIS; Gawke et al., 2019) to the Romanian working population. In the first study, we have examined the factor structure of the EIS and its' invariance across gender, followed by a second study focused on establishing construct validity through examining the relationships of the construct to other relevant variables in its nomologic network: innovativeness (Janssen, 2000), risk-taking (Rauch et al., 2009), and proactive personality (Bateman & Crant, 1993). Through these studies, we provide researchers in Romania with a valid measure in their scientific ventures into intrapreneurship, thereby facilitating consistent terminology and operationalization among scholars (Gawke et al., 2019).

Definition and theoretical background

Employee intrapreneurship is defined as a specific type of agentic and strategic employee behavior that consists of employee venture behavior and employee strategic renewal behavior (Gawke et al., 2017; Gawke et al., 2019). Corporate venturing includes the creation and integration of new businesses, or portions of new businesses via equity

investments, into the overall business portfolio of an organization (Narayanan et al., 2009). When employees venture, they create and/or invest resources in new business opportunities for the organization, such as proactively establishing new collaborations to reach new markets or offer better services (Park et al., 2014). Strategic renewal captures employee behaviors whereby they seek opportunities and advantages that can enhance the organizations' competitive ability and good reactivity to internal (i.e., changes in the organization) and external (i.e., market volatility) developments (Gawke et al., 2019).

Recently, Gawke and colleagues (2019) have developed and psychometrically validated the EIS to assess employee intrapreneurship behaviors at the individual level in organizations. They argued that a behavior-based measurement approach to intrapreneurship places the construct in the broader category of strategic proactive work behaviors (for an overview, see Parker & Collins, 2010), which can facilitate our scientific understanding of this phenomena by bringing it closer to frequently invoked theories in the occupational health and well-being literature. For example, proactive employee behaviors have gained terrain in Job Demands-Resources Theory (Bakker & Demerouti, 2017) in the form of job crafting (Tims & Bakker, 2010), proactive vitality management (Op den Kamp et al., 2018), and strengths use (van Woerkom et al., 2016). JD-R theory is creating more and more space for bottom-up employee influences in organizations (Bakker & Demerouti, 2017, 2018), and intrapreneurship behaviors could represent such proactive actions that are not only beneficial for employee well-being (Pandey et al., 2020) but also directly benefit the organization as a whole (Antoncic & Antoncic, 2011; Blanka, 2019).

To achieve a reliable measure that allows accurate inferences, we need to consider a potential gender bias revealed in previous literature. In general, men seem to be more likely to become intrapreneurs (Park et al., 2014). This has been found not only in empirical studies with smaller samples but also in an extensive international study including several countries (Bosma et al., 2010). Adachi and Hisada (2017) have pointed

to related demographical and psychological factors to explain the lower likelihood of women engaging in intrapreneurship. According to them, women tend to be more risk-averse and often find themselves in more disadvantageous positions in organizations. Having children also reduces the likelihood of women engaging in intrapreneurship (Adachi & Hisada, 2017). Gawke and colleagues (2019) have also reported significant associations between gender and both dimensions of the EIS. However, for accurate conclusions regarding possible gender effects, we first need to assure that the observed differences are not emerging from the measurement process. Therefore, in this study, we have investigated the gender invariance of the scale to test for such potential bias in the responses to the EIS.

Nomological network of employee intrapreneurship: relationships to innovativeness, risk-taking, and proactive personality

Employee innovativeness refers to work behaviors that create, introduce, and apply new ideas within a work role, team, or organization to increase performance at the individual, team, or organizational level (Janssen, 2000). Janssens' conceptualization of innovativeness includes idea generation, promotion, and realization, closely related to intrapreneurship behaviors but conceptually distinct because not all intrapreneurship behaviors represent innovations (Gawke et al., 2019). While intrapreneurship can include development and opportunity creation that does not necessarily imply creating novel processes, services, or products (Gawke et al., 2019), it inherently represents attitudes and actions that challenge the status quo and encourage innovation. Evidence stemming largely from qualitative studies (Camelo et al., 2011; Marvel et al., 2007) indicates that intrapreneurial employees are the most involved in the creation, promotion, and implementation of breakthrough innovations for their company. In the initial development study of the EIS, Gawke and colleagues (2019) have found moderate positive

associations between innovativeness and both EIS factors. Based on these results, we hypothesize the following:

H1: Innovativeness is positively associated with strategic renewal behavior (H1a) and venture behavior (H1b).

Risk-taking can be conceptualized as initiating bold actions and allocating significant personal and organizational resources in intrapreneurial projects under uncertainty of an outcome (Rauch et al., 2009). Positive and fruitful the expectations of the results of corporate venturing and strategic renewal maybe, taking proactive steps towards improvement is inherently associated with the risk of losing resources, failing in new ventures, and damaging ones' reputation and status (Gawke et al., 2019). Thus, those who engage in intrapreneurship are most likely more prone to rake risks and go ahead in the face of uncertainty. Pandey and colleagues (2020) have shown that intrapreneurial employees possess more psychological capital in the form of hope, optimism, self-efficacy, and resilience, making them more engaged in their work. Hopeful employees with a positive outlook on the future who trust their capabilities and are resilient in the face of failure are less risk aversive and approach ventures with more courage (Youseff-Morgan & Petersen, 2019). The positive association between intrapreneurship and risk-taking has also been empirically demonstrated by Gawke and colleagues (2019), which leads to the formulation of the following hypotheses:

H2: Risk-taking is positively associated with strategic renewal behavior (H2a) and venture behavior (H2b).

Proactive personality has been defined as a stable tendency to initiate and carry out changes in the environment (Bateman & Crant, 1993). In Bates and Crants' original conceptualization, highly proactive employees excel at identifying opportunities, fixing things that do not work properly, challenging the status quo, enjoying making constructive change, seeing ideas turn into reality, and turning problems into opportunities by tackling them head-on. Such personal predispositions are at the core of intrapreneurship because, without the strong

personal initiative to make things better, employees would be less likely to venture and create new opportunities (Gawke et al., 2019). De Jong and colleagues (2011) have argued that proactive personality is at the core of intrapreneurship alongside innovativeness and risk-taking and have found moderate positive associations between the two. In an extensive literature review, Neessen and colleagues (2019) have found that proactive actions and characteristics are strongly linked to intrapreneurship in the literature, rendering intrapreneurial behaviors as bottom-up positive influences based on the proactive personal initiative of the employee. This leads to the formulation of the following hypotheses:

H2: Proactive personality is positively associated with strategic renewal behavior (H2a) and venture behavior (H2b).

Method

Two studies were conducted to validate the Romanian Employee Intrapreneurship Scale (EIS) and establish its' relationships to relevant constructs in its' nomological network. In Study 1, the factorial structure and the psychometric properties of the EIS were assessed using a sample of Romanian employees ($N = 307$). Construct validity of the Romanian version of the EIS was tested in Study 2 by analyzing relationships between the EIS components (strategic renewal behavior and venture behavior) with other related variables (i.e., innovativeness, risk-taking, proactive personality) using data from the second sample of Romanian employees ($N = 122$). Study 2 also tested the robustness of the factorial structure, providing insights into the quality of the EIS across different work contexts.

The Romanian version of the EIS (see **Appendix 1**) was generated using the standard back-translation technique (Brislin, 1970) by two independent specialists who were proficient English speakers. The first specialist translated the instrument from English to Romanian, and the second specialist translated the Romanian version back to English. The two versions were compared to verify similarity, yielding excellent correspondence. Thus, the translation was considered appropriate.

Participants and procedures for Study 1

Data were collected from Romanian employees using the snowball-sampling technique. Participants were contacted via email using the researchers' network of collaborators from previous studies. They were invited to participate in this study and recommend one to three colleagues who could be contacted as potential participants for the study. This approach led to a final sample consisting of 307 Romanian employees. Respondents' age ranged between 20 - 60 years old ($M = 35.25$, $SD = 8.52$), with the majority being women (72.6%). The sample was heterogeneous in terms of industries, with respondents employed in various sectors, such as sales, hospitality, medical services, or information technology and communication. Most respondents were working in the private sector (86.3%). Participants were informed about the aim and scope of the study before starting the online survey. They were provided an informed consent form, highlighting data confidentiality and their right to retreat from the study. No incentives were offered for participation.

Participants and procedures for Study 2

An identical snowball sampling procedure was employed to collect data from the second sample of Romanian employees. The final sample for Study 2 consists of 122 Romanian employees. Their age range is between 18 and 59 years old ($M = 36.37$, $SD = 10.02$). Most respondents are female (52.5%), 54.9% are married, and 61.5% have a Bachelor's degree. Their mean work experience is 14.51 years ($SD = 11.33$), and the industries in which they activate are heterogeneous, ranging from the automotive industry or financial services to software development.

Again, participants were contacted via email and invited to complete the online survey while also asked to recommend further potential participants. On the first page of the survey, an informed consent form was presented, informing participants about the aim of the study, data confidentiality, and the right to retreat from the study at any point. Participants received no incentives for participation.

Measures

All instruments have been presented to participants in Romanian after being translated through the same standard back-translation procedure (Brislin, 1970) as the EIS. Reliability coefficients can be found in Table 4.

Employee intrapreneurship was measured with the EIS (Gawke et al., 2019). The instrument consists of 8 items with response options ranging from 1 (= *never*) to 7 (= *always*). The scale comprises two distinct factors – *strategic renewal behavior* (e.g., “I conceptualize new ways of working for my organization”) with an $\alpha = .91$, and *venture behavior* (e.g., “I undertake activities to reach new market communities for my organization”), with an $\alpha = .88$.

Innovativeness was captured with nine items from Janssen (2000), rated on a 1 (= *never*) to 7 (= *always*) scale. The instrument consists of three dimensions – idea generation (e.g., “Generating original solutions for problems”), idea promotion (e.g., “Mobilizing support for innovative ideas”), and idea realization (e.g., “Transforming innovative ideas into useful applications”), each with three items.

Risk-taking was assessed with three items from Van den Brink et al. (2004). Response options ranged from a 1 (= *strongly disagree*) to 5 (= *strongly agree*) Likert scale. A sample item is “I usually take risks to gain a potential advantage”.

Proactive personality was measured with the 10-item version Proactive Personality Scale (Bateman & Crant, 1993). Answers were rated on a 1 (= *strongly disagree*) to 7 (= *strongly agree*) Likert scale. An example item is “I am constantly looking for new ways to improve my life”.

Data Analysis

Study 1

In Study 1, we tested the psychometric properties of the Romanian version of the EIS through confirmatory factor analysis (CFA). Following Gawke et al. (2019), we compared a one-factor model (M1), where all eight items load on a single construct, with a two-factor model with correlated factors (M2), where the

first four items load on the strategic renewal behavior dimension and the last four items on the venture behavior dimension. We also employed a multi-group CFA (MG-CFA; Hirschfeld et al., 2014) to assess measurement invariance across gender for the best-fitting model. Specifically, we tested a *configural model* (M_{config}), evaluating whether the best-fitting model yielded the same number of factors and configuration of item loadings across both groups. Next, we assessed the *metric invariance* (M_{metric}), where nesting upon the configural model, we constrained all factor loadings to be equal across gender. Afterward, building upon the metric model, we verified *scalar invariance* (M_{scalar}), where all intercepts were constrained to be equal across groups. Lastly, building upon the scalar model, we tested *strict invariance* (M_{strict}), where the factor loadings, intercepts, and residual errors were constrained to be equal across gender.

We used R software (R Core Team, 2020) and the lavaan package (Rosseel, 2012) to analyze the data, employing maximum-likelihood estimation. Model fit was evaluated using five fit indices: the chi-square statistic (χ^2), the comparative fit index (CFI), the Tucker-Lewis index (TLI), the root mean square error of approximation (RMSEA), and the standardized root mean square residual (SRMR). Values of .90 or higher for CFI and TLI and values equal or lower than .08 for RMSEA and SRMR were used as cut-off values for acceptable fit (Marsh et al., 2005). To assess differences between the four measurement invariance models, we explored change (Δ) in values of CFI (Chen, 2007). Values of .01 or lower indicate measurement invariance (Bălăceanu et al., 2021; Chen, 2007).

Study 2

In Study 2, for cross-validation, we conducted another CFA ($M_{3\text{adj}}$) replicating the adjusted two-factor model ($M_{2\text{adj}}$) from Study 1 and compared it to a one-factor model (M3). We relied on the same indicators and cut-off indices as in Study 1 to assess model fit (CFI and TLI > .90; SRMR and RMSEA < .08; Marsh et al., 2005). Next, we generated the validity model (M_{var}), where all Study 2 variables were

included in a single CFA. Thus, in the validity model (M_{var}), strategic renewal behavior, venture behavior, innovativeness, risk-taking, and proactive personality were included as latent variables. This model served to assess aspects of the construct validity of the EIS – convergent validity based on the latent correlations between the variables and discriminant validity using the average variance extracted (AVE) procedure outlined by Fornell and Larcker (1981) (see also Bălăceanu et al., 2021; Gawke et al., 2019). By this, we demonstrate the construct validity of the EIS on different levels described by the American Educational Research Association, American Psychological Association, & National Council on Measurement in Education (2014). Specifically, we assess convergent validity at level *d*, providing external validity information through the evidence of relations with relevant constructs from the nomological network of intrapreneurship. We address criterion validity at level *c*, focusing on the factorial distinctiveness of the two-scale dimensions. All

operations were carried out in R software (R Core Team, 2020) using the lavaan (Rosseel, 2012) package.

Results

Study 1

Reliability analysis

Descriptive statistics and reliability coefficients for Sample 1 are presented in Table 1. The mean for the strategic renewal behavior dimension was $M = 4.53$ ($SD = 1.57$). For venture behavior, $M = 3.45$ ($SD = 1.78$), indicating that respondents have medium-to-high levels of strategic renewal behavior and medium levels of venture behavior. The correlation between individual items and their afferent dimensions was high, all coefficients surpassing the values of .80. Cronbach's alpha coefficients for the two EIS dimensions ranged from good (venture behavior - $\alpha = .88$) to excellent (strategic renewal behavior - $\alpha = .92$), indicating very good internal consistency.

Table 1. Descriptive statistics and reliabilities for EIS items and dimensions for Sample 1

Variables	Descriptive statistics		Internal consistency	
	M	SD	<i>r</i>	α
Strategic renewal behavior				
I undertake activities to realize change in my organization.	4.48	1.67	.88*	.88
I undertake activities to change the current products/services of my organization.	4.19	1.83	.85*	.90
I contribute ideas for strategic renewal for my organization.	4.59	1.83	.92*	.85
I conceptualize new ways of working for my organization.	4.87	1.78	.89*	.87
Total	4.53	1.57		.91
Venture behavior				
I undertake activities to set up new business units.	3.06	2.01	.86*	.84
I undertake activities to reach new market or communities for my organization.	3.40	2.16	.90*	.81
I undertake activities that result in new departments outside of my organization	3.27	2.08	.85*	.84
I actively establish new collaborations with experts outside of my profession	3.82	2.11	.81*	.87
Total	3.45	1.78		.88

Note. $N = 307$, * $p < .001$, M = Mean, SD = standard deviation, r = correlation between item score and total score, α = reliability coefficient if an item is removed

Confirmatory factor analysis

Table 2 summarizes the results of the conducted CFA. The one-factor model (M1) yielded poor fit indices, while the two-factor model (M2) yielded almost acceptable fit indices. Considering these results, we employed modification indices to assess whether the two-factor model (M2) could be adjusted to improve model fit. The modification indices analysis results suggested the correlation of residuals for two items from the strategic renewal behavior dimension. Upon verifying the two suggested items, we noticed they had a similar wording (item 1: “I undertake activities to realize change in my organization” and item 2: “I undertake activities to change the current products/services of my organization”). Based

on this consideration, we decided to employ the suggested modification to the model and test an adjusted two-factor model (M2_{adj}) where the first four items load on the strategic renewal behavior dimension, the last four items load on the venture behavior, the two dimensions are correlated (M2), and the two indicated item residuals are correlated. The adjusted two-factor model (M2_{adj}) shows acceptable fit indices ($\chi^2(35) = 86.02$, $p < .001$, CFI = .97; TLI = .97; RMSEA = .07, 90% CI [.05 - .09], SRMR = .04). The adjusted two-factor model (M2_{adj}) results are represented graphically in Figure 1. All standardized factor loadings were above the threshold of .32 (Tabachnick & Fidel, 2001). Next, we proceed to test measurement invariance across gender based on the adjusted two-factor model.

Table 2. Multi-group confirmatory factor analysis and invariance test results for EIS (Study 1)

Model	Model description	χ^2	Df	CFI	TLI	RMSEA [90% CI]	SRMR	$\Delta\chi^2$	Δdf	ΔCFI
<i>Study 1</i>										
M1	One-factor model	334.80**	20	.81	.74	.23 [.21 - .25]	.09			
M2	Two-factor model	67.47**	19	.97	.96	.09 [.07 - .12]	.04	267.33**	1	
M2 _{adj}	Adjusted two-factor model	86.02**	35	.97	.97	.07 [.05 - .09]	.04	248.78**		
<i>Measurement invariance</i>										
M _{config}	Configural model	123.27**	70	.97	.97	.07 [.05 - .09]	.04			
M _{metric}	Metric model	132.02**	76	.97	.97	.07 [.05 - .09]	.05	8.75	6	.001
M _{scalar}	Scalar model	145.75**	84	.97	.97	.07 [.05 - .09]	.06	13.73	8	.003
M _{strict}	Strict model	172.95**	94	.96	.96	.07 [.06 - .09]	.06	27.21*	10	.009

Note. $N = 307$, * $p < .01$, ** = $p < .001$; M2_{adj} and M2 are compared to M1. In M2 and M2_{adj} the two factors are correlated.

Measurement invariance testing

The four measurement invariance models – configural model (M_{config}), metric model (M_{metric}), scalar model (M_{scalar}), and strict model (M_{strict}) show acceptable fit indices for gender invariance, as shown in Table 2. The configural model yields the best fit indices ($\chi^2(70) = 123.27$, $p < .001$, CFI = .97; TLI =

.97; RMSEA = .07, 90% CI [.05 - .09], SRMR = .04), slightly decreasing for the other three invariance models. However, the chi-square difference test based on which we compared the models indicates a significant difference only between the scalar model (M_{scalar}) and the strict model (M_{strict}) ($\Delta\chi^2(10) = 27.21$, $p < .01$), with no difference between the other compared models. Furthermore, upon

inspecting the CFI difference between models, results of the ΔCFI indicate a decrease lower than .01 between each of the compared models (configural model with the metric model, a metric model with the scalar model, and scalar model with the strict model; see Table 2). This result shows that the instrument is invariant

across gender (Bălăceanu et al., 2021; Chen, 2007).

Summarizing, the results of the conducted CFA and MGCFA in Study 1 indicate good reliability and psychometric properties for the EIS scale, as well as invariance across gender.

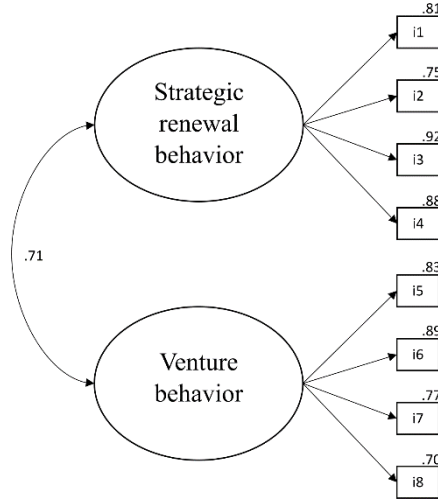


Figure 1. $M2_{adj}$ – adjusted two-factor model

Study 2

Cross-validation of psychometric properties and validity model

As depicted in Table 3, results of the CFA indicate poor fit indices for the one-factor model (M3) and excellent fit indices for the adjusted two-factor model ($M3_{adj}$; $\chi^2(18) = 24.29, p > .05, CFI = .99; TLI = .98; RMSEA = .05, 90\% CI [.01 - .10], SRMR = .04$). The chi-square difference test also shows

significant differences between the two models ($\chi^2(2) = 100.94, p < .001$). Furthermore, the factor loadings for each construct were above the minimum threshold of .32 (Tabachnick & Fidel, 2001). Thus, the two-factor EIS demonstrates good psychometric properties in the second sample as well. Furthermore, the validity model (M_{val}) also displays satisfactory indices (see Table 3). Thus, we continued with the investigation of convergent and discriminant validity for the scale.

Table 3. Fit indices for the confirmatory factor analysis regarding cross-validation, convergent, and discriminant validity (Study 2)

Model	Model description	χ^2	df	CFI	TLI	RMSEA [90% CI]	SRMR	$\Delta\chi^2$	Δdf
M3	One-factor model	125.23*	20	.79	.71	.21 [.17 - .24]	.09		
$M3_{adj}$	Adjusted two-factor model	24.29	18	.99	.98	.05 [.01 - .10]	.04	100.94*	2
M_{val}	Validity model	647.73*	391	.90	.89	.07 [.06 - .08]	.06		

Note. $N = 122, * p < .001$; $M3_{adj}$ is compared to M3. In $M3_{adj}$ the two factors are correlated.

Hypothesis testing

To assess Hypotheses 1a through 3b regarding EIS's convergent validity, we relied on the latent correlation between the study's variables (see also Gawke et al., 2019). The results are presented in Table 4. Innovativeness was positively associated with both strategic renewal behavior (H1a; $r = .57$, $p < .001$) and with venture behavior (H1b; $r = .53$, $p < .001$), thus conferring support to Hypotheses 1a and 1b. In line with Hypotheses 2a and 2b, we also found risk-taking to be positively associated with strategic renewal behavior (H2a; $r = .52$, $p < .001$) and venture behavior (H2b; $r = .42$, $p < .01$). Lastly, results

supported Hypotheses 3a and 3b as well, with proactive personality being positively associated with strategic renewal behavior (H3a; $r = .39$, $p < .01$) and venture behavior (H3b; $r = .38$, $p < .01$).

Furthermore, the EIS also demonstrates discriminant validity, with the AVE of the two EIS components being higher than the maximally shared variances with any of the study's variables (Farrell, 2010; Fornell & Larcker 1981). Specifically, the AVE of the strategic renewal behavior component was .73, while the AVE of the venture behavior component was .77. Altogether, based on Study 2, the Romanian version of the EIS displays convergent and discriminant validity.

Table 4. Descriptive statistics, reliability coefficients, and latent correlations between Study's 2 variables

Variable	M	SD	1	2	3	4	5
1. Strategic renewal behavior	4.10	1.58	(.72)				
2. Venture behavior	2.44	1.46	.66**	(.86)			
3. Innovativeness	4.60	1.33	.57**	.53**	(.96)		
4. Risk-taking	3.39	0.49	.52**	.42*	.50**	(.73)	
5. Proactive personality	5.49	0.72	.39*	.38*	.72**	.58**	(.86)

Note. $N = 122$, * $p < .01$, ** $p < .001$. Cronbach's alpha values are displayed on the main diagonal. Latent correlation coefficients were extracted from the validity model.

Discussion

The image of proactive, idea-generating, and solution-oriented employees going over and beyond what is to create what is possible has slowly become an ideal for organizations that realize the strategic value and competitive advantage that such workers bring to their businesses (Antoncic & Antoncic, 2011; Park et al., 2014). In this context, research is focusing with an increasing intensity on employee intrapreneurship (Gawke et al., 2017), which is a construct with much promise, but in need of proliferation and more conceptually and theoretically consistent research (Blanka, 2019). To bring this new concept into the grasp of researchers and HR practitioners in Romania and provide a psychometrically sound instrument that guides research in the domain of employee intrapreneurship, we adapted and validated the Employee Intrapreneurship Scale (EIS,

Gawke et al., 2019) in two samples of the Romanian working population.

Our studies have shown that the factorial structure of the instrument is solid, intrapreneurship actions being represented by two highly correlated latent indicators, strategic renewal, and corporate venture behaviors. Thus, the factorial analyses showed that the Romanian adaptation has fully replicated the factorial structure proposed and demonstrated by Gawke and collaborators (2019) in the development study of the instrument. Furthermore, there are no differences in understanding intrapreneurship behaviors among men and women, the scale being invariant across gender. Our studies also show evidence of construct validity based on the relationships between intrapreneurship and other concepts in the nomological network. As suggested by previous literature, scores on the EIS were positively related to employees'

innovativeness, risk-taking propensity, and proactive personality (Neessen et al., 2019). The direction and magnitude of these associations are comparable to those found by Gawke and colleagues (2019) and provide further empirical support for the relationships between the EIS and related constructs.

Theoretical and practical implications

Despite the growing interest in the concept, intrapreneurship still lacks clear classifications of related concepts, which has been explained through diverse theoretical reasoning (Blanka, 2019). The behavior-based measurement approach offered by the EIS anchors employee intrapreneurship in the proactivity literature (Gawke et al., 2019) and opens up theoretical integration through the JD-R theory (Bakker & Demerouti, 2017). Employee intrapreneurship could represent a strategic proactive work behavior within multi-level JD-R theory (Bakker & Demerouti, 2018), related to other proactive actions (e.g., proactive vitality management, strengths use, job crafting) through which employees have a positive bottom-up influence over their work, organization, and well-being.

From a practical point of view, the EIS validated in a Romanian population provides consultants and human resource specialists with a science-based tool to measure and identify intrapreneurship among employees. Identifying and measuring difficulties, problems, and dysfunction in organizations can help eliminate problems and negative aspects in practice, but supplementing these with measurements that correctly identify positive aspects such as employees' initiative and proactive contribution, can bring a truly positive contribution to organizational functioning.

Limitations and future research directions

Some limitations need to be addressed and kept in mind in the interpretation of our results. While our research did not follow an objective of establishing possible antecedents and effects, the use of self-reported single-

source data has its' limitations that we have to take into consideration when interpreting the empirical relationships between the EIS and the other constructs in this study. The directionality in the relationship between proactive personality and intrapreneurship behaviors is intuitive (although those engaging in intrapreneurship over time may build more proactive personalities). Still, the relationships to risk-taking and innovativeness are so far purely associative, both statistically and theoretically. A second limitation resides in the lack of additional variables unrelated (discriminant) to intrapreneurship or other instruments measuring intrapreneurship (convergent). Different variables testing for discriminant and convergent validity would have yielded a stronger test and could have directed future research towards other relevant correlates to investigate.

Another limitation that we bring to the readers' attention is the non-probabilistic sampling technique used to collect the data. Snowball sampling helped us reach employees online, without the difficulties of on-site data collection in companies; however, this technique implies the risk of respondents suggesting others who are similar in their intrapreneurial tendencies, hence skewing the results (Etikan et al., 2015). Nonetheless, we carefully checked the distributions of both EIS dimensions, and since these were fairly normally distributed, the concern of biased sampling is partly lifted in this research.

Research in this domain, especially with the conceptualization of employee intrapreneurship as proposed by the EIS, has a myriad of exciting future directions in discovering antecedents, consequences, and the full nomological network of intrapreneurship. The two broad themes include investigating the individual-level and organization-level correlates of intrapreneurship (Blanka, 2019). At the organizational level, previous research suggests that when employees perceive the employing organization as innovative, risk-taking, and proactive on the market, they tend to follow suit and engage in more intrapreneurship behaviors (Do & Luu, 2020). Furthermore, when the organization provides a working environment, procedures, equipment, and colleagues that employees are

delighted with, intrapreneurship tends to increase alongside satisfaction reports (Antoncic & Antoncic, 2011). At this level, the insightful future scientific inquiry could show how organizational climate (e.g., innovative climate) and culture can predict intrapreneurship and/or moderate its' associations to relevant outcomes. We have seen cross-sectional associations at the individual level between personal predispositions towards proactivity, innovativeness, risk-taking, and self-reported intrapreneurship as measured by the EIS. Future longitudinal and intervention research needs to go beyond these initial associations and establish temporal and causal direction, as well as the more distal predictors of intrapreneurial tendencies. Insight into early predictors could equip educational policy and strategy with relevant information into what factors to develop during school to raise adults fit for a job market that is less and less structured and more and more focused on initiative and bottom-up dynamics in organizations.

Conclusion

We presented two studies to adapt and validate the EIS to the Romanian population. We advance research on intrapreneurship in Romanian organizations through these studies by providing a tool that can bring conceptual and operational consistency to the field. This instrument can be helpful for researchers who wish to construct a better scientific understanding of corporate venturing and strategic renewal behaviors that employees proactively enact to help their organizations grow and develop.

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APPENDIX 1

Employee Intrapreneurship Scale – Romanian Version

<i>Mai jos sunt opt afirmații despre activitatea dumneavoastră la locul de muncă. Citiți cu atenție fiecare afirmație și însemnați cifra care considerați că indică cel mai bine modul dumneavoastră de a acționa în situațiile date.</i>	Niciodată	Rareori	Ocazional	În mod regulat	Desceori	Foarte des	Întotdeauna
1. Desfășor activități pentru a realiza schimbări în organizația mea.	1	2	3	4	5	6	7
2. Desfășor activități pentru a schimba produsele/serviciile actuale ale organizației mele.	1	2	3	4	5	6	7
3. Contribui cu idei pentru schimbarea strategică a organizației mele.	1	2	3	4	5	6	7
4. Mă gândesc la noi modalități de lucru pentru organizația mea.	1	2	3	4	5	6	7
5. Desfășor activități pentru a înființa noi departamente sau sucursale/filiale.	1	2	3	4	5	6	7
6. Desfășor activități pentru a contacta noi piețe sau comunități pentru organizația mea.	1	2	3	4	5	6	7
7. Desfășor activități care au un impact în departamente noi în afara organizației mele.	1	2	3	4	5	6	7
8. Stabilesc în mod activ colaborări cu experți din afara profesiei mele.	1	2	3	4	5	6	7