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Adaptation and Validation of the Individual Work Performance Questionnaire into a Portuguese Version

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Abstract: The aim of this study is to adapt and validate the Individual Work Performance Questionnaire (IWPQ) to a Portuguese version (IWPQ-PT) and to evaluate its psychometric properties in a sample of 423 digital sector workers. Two studies were conducted to define the factorial structure. In study 1 (n = 162), the results of an exploratory factor analysis pointed to a three-factor structure (18 items), explaining 55.56% of the variance. In study 2 (n = 261), the results of a confirmatory factor analysis revealed a good model fit (CFI = 0.95; RMSEA = 0.06), also reproducing the structure of the original model. The overall scale and subscales demonstrated good reliability, with Cronbach's alpha coefficients ranging from 0.72 to 0.88. Correlations between the IWPQ-PT subscales and other instruments revealed that higher task and contextual performance are associated with increased job satisfaction, work engagement, and decreased turnover intention. Conversely, counterproductive work behavior is associated with lower job satisfaction, work engagement, and higher turnover intention. This study underscores the contributions of the IWPQ-PT as a reliable and valid tool for assessing individual work performance in Portuguese organizations and highlights its contributions to the field of employee work performance research as well as human resources practices.

Keywords: individual work performance; task performance; contextual performance; counterproductive work behavior; psychometrics

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1. Introduction

Individual performance at work must be studied in order to understand how people contribute to an organization's success and ensure its competitiveness. Individual performance has been addressed both as an outcome or dependent variable in research (Carpini et al. 2017; Koopmans et al. 2011), and over the last century, this topic has been central to scholars, highlighting its relevance and complexity (Carpini et al. 2017; Dalal et al. 2020). Several theoretical frameworks have been proposed to understand and analyze job performance (Campbell and Wiernik 2015; Carpini et al. 2017). This diversity mirrors the focus of different disciplines: management, occupational health, and work and organizational psychology. Management is focused on increasing employee productivity (e.g., Beaton et al. 2009); occupational health focuses on preventing productivity loss due to health issues (e.g., Schultz et al. 2009); and work and organizational psychologists study the association between antecedents, like work engagement, satisfaction, and personality, and individual work performance (Halbeslebe et al. 2008; Judge et al. 2001). Nonetheless, there is a consensus in the literature that individual work performance can be defined as the behaviors or actions of employees that are relevant to the organization's objectives (Campbell 1990;

Campbell and Wiernik 2015; Carpini et al. 2017; Koopmans et al. 2011). This definition highlights some important characteristics of individual job performance. On the one hand, it puts the attention on employee behaviors. On the other hand, it emphasizes that individual performance at work involves the concrete activities that employees perform to achieve the organization's goals. In addition, these behaviors are understood from a multidimensional perspective (e.g., Campbell 1990; Campbell and Wiernik 2015; Koopmans et al. 2011), which encompasses performance of the task (i.e., contributing directly to the production of goods or services); organizational citizenship behaviors (i.e., employee behaviors that benefit the organization's social and psychological environment, and in this sense, contribute to its overall goals); and counterproductive behaviors at work (i.e., voluntary actions that have the potential to harm the well-being of the organization and its stakeholders). Job performance is also linked with proactive behavior (i.e., it involves anticipatory actions by employees to impact themselves or the work environment), creative behavior (i.e., it encompasses the generation of innovative ideas and solutions), and adaptive performance (i.e., it includes behavioral modifications in response to the demands and situations of the work environment) (Dalal et al. 2020).

Koopmans et al. (2012) identified several limitations associated with the variety of scales used to measure the dimensions of individual work performance (e.g., Podsakoff and MacKenzie 1989; Spector et al. 2006; Williams and Anderson 1991). First, no single scale encompasses all dimensions, requiring researchers to combine multiple instruments. Second, the way these dimensions are defined and operationalized varies across scales, making it difficult to choose the most appropriate one for a specific study population. Another issue is the presence of antithetical items, as observed by Dalal (2005), where overlapping behaviors are found in scales that measure different dimensions, compromising the content validity of the measures. To address these limitations and facilitate the optimal measurement of individual work performance, Koopmans et al. (2014b) developed the Individual Work Performance Questionnaire (IWPQ) for assessing individual-level work performance in a generic and short questionnaire. The Individual Work Performance Questionnaire was developed in several phases. Initially, Koopmans et al. (2011), based on a systematic review of the literature on individual work performance in different fields of research, namely in occupational health, psychology, and management, identified four dimensions frequently used to describe individual performance in any job: task performance; contextual performance; counterproductive work behavior; and adaptive performance. In a later study, Koopmans et al. (2012) developed a generic and short questionnaire to measure job performance at the individual level and identified a three-dimensional structure, consisting of task performance, contextual performance, and counterproductive work behavior. Items related to adaptive performance were included in contextual performance. Koopmans et al. (2011) defined task performance as the competence with which individuals perform the essential or technical tasks central to their work. This is the traditional focus of the individual performance construct at work, and it involves the effective execution of the specific responsibilities assigned to a role or position. Contextual performance, according to Koopmans et al. (2011), consists of behaviors that contribute to the organizational, social, and psychological environment in which technical work is performed. These behaviors support and facilitate the effective functioning of the work environment, promoting a positive and collaborative organizational climate. Additionally, Koopmans et al. (2011) described counterproductive work behavior as behaviors that harm the well-being and functioning of the organization. This includes actions such as sabotage, unethical behavior, excessive absenteeism, and misappropriation of the organization's resources, among others, which have a negative impact on the company's operations and results.

The IWPQ was developed in the Netherlands and Koopmans et al. (2016) culturally adapted the instrument to American English, evaluating the internal consistency and content validity of the questionnaire in this context. Research with the IWPQ has shown validity evidence across different countries, such as Bahasa Indonesia (Widyastuti and Hidayat 2018), Italy (Platania et al. 2023), Vietnam (Nguyen-Duc et al. 2023), and Spain

(Ramos-Villagrasa et al. 2019). In Portugal, there is no instrument to assess individual performance at work. In this sense, its adaptation to the Portuguese context is crucial in providing a reliable and valid tool for evaluating the performance of employees in Portuguese-speaking organizations. A reliable and validated tool will allow organizations to gain a more accurate understanding of their employees' performance and identify areas for improvement. In turn, the original questionnaire was developed to measure various aspects of individual job performance. Thus, it is also the objective of the present study to evaluate the psychometric properties of the IWPQ through exploratory and confirmatory factor analysis in a sample of workers from digital sector organizations. The digital sector encompasses activities related to information technology, communications, the internet, software, and e-commerce. And this is a sector that has been growing in the last few years (OECD 2024). Thus, it is pertinent to study the behaviors, ways of working, and methods for evaluating the individual work performance of people whose activities are carried out in a digital context. More specifically, this study aimed to (a) identify the factor structure for the Portuguese version (IWPQ) and compare it with the original version by Koopmans et al. (2014b), through exploratory factor analysis; (b) analyze the internal consistency and intercorrelations of IWPQ scores; (c) confirm the factor structure and calculate adjustment indices through a confirmatory factor analysis; (d) assess composite reliability, convergent, and discriminant validity of the measure; and (e) provide further evidence of construct validity by examining how IWPQ scores relate to measures of work engagement, job satisfaction, and turnover intention.

We tested the hypothesis that the Portuguese version of the IWPQ demonstrates a similar structure to the original version, composed of three dimensions—task performance, contextual performance, and counterproductive work behavior—while also presenting adequate reliability. The dimensions of job performance and contextual performance are expected to correlate positively with engagement and job satisfaction, and the counterproductive performance dimension is expected to correlate negatively with engagement and job satisfaction (Koopmans et al. 2014a; Platania et al. 2023). It is also anticipated that the dimensions of task performance and contextual performance will correlate negatively with turnover intention (Van Scotter 2000). In turn, the counterproductive performance dimension will correlate positively with turnover intention (Hattab et al. 2022).

2. Method

2.1. Participants

Sample 1. A sample of 162 workers from digital sector organizations (e.g., digital marketing, telecommunications, e-commerce, information technology, and software development) participated in the first study. Most of them were male (60.5%), aged between 21 and 30 years (48.1%), and their organizational tenure was more than six years (43.8%). Regarding educational level, most of the participants were highly educated (74.1%), of which 37.7% had a bachelor's degree and 36.4% had a master's degree.

Sample 2: Participants were 261 workers from digital sector organizations, with 56.3% being male, aged between 19 and 58 years (M = 32.22; SD = 8.41), and their average organizational tenure was 4.01 years (SD = 4.24). Regarding educational level, most of the participants were highly educated (83.3%), of which 52.9% had a bachelor's degree and 32.5% had a master's degree.

2.2. Procedure

We used a non-probabilistic convenience sample and a self-administered questionnaire for data collection. Data were collected both in organizational contexts and through informal networks. In the first case, the procedure adopted was carried out by e-mail by sending a cover letter to the organizations, in which objectives, variables under study, and steps for the collection of information were explained. After the organizations accepted, more detailed information was provided, and a self-administered questionnaire was made available to the workers, which could be completed online. In the case of informal networks,

participants were contacted by personal emails, social networks (Facebook, Instagram, and LinkedIn), and in person. Google Forms was the tool used for this purpose. The sample inclusion criteria were organizations that partially or fully provided digital services or workers of organizations operating in the digital sector. For Studies 1 and 2, data related to the variables of the IWPQ and data concerning the sample characterization were collected. Data related to work engagement, job satisfaction, and turnover intention were collected in the second study. The studies were approved by the Ethics Committee of the University of Maia. Informed consent and voluntary participation, anonymity, and confidentiality of the answers were ensured, and the data collected would only be used for research purposes to ensure the ethical issues of research.

2.3. Instruments

2.3.1. Individual Work Performance Questionnaire (IWPQ)

The original version of the scale is composed of 18 items divided into three subscales: task performance (e.g., "I was able to set priorities"), contextual performance (e.g., "I took on extra responsibilities"), and counterproductive work behavior (e.g., "I focused on the negative aspects of the work situation instead of the positive aspects") (Koopmans et al. 2014b). On all subscales, all items correspond to a 3-month recall span, and it has a rating of 5 points on a Likert scale. For task and contextual performance, 0 was labeled as "rarely" and 4 as "always". For counterproductive work behavior, 0 was labeled as "never" and 4 as "often".

To ensure the cultural and linguistic validity of the individual performance scale for the Portuguese context, the process of translation and linguistic adjustments was conducted following the guidelines of Gjersing et al. (2010). Initially, the scale items were translated into Portuguese by two translators fluent in the target language, following the reverse translation guidelines. Then, a consolidated version was elaborated, integrating the translators' suggestions and considering the clarity and comprehension of the items for potential participants. Subsequently, this version was submitted for review by a panel of experts composed of professionals with expertise in organizational psychology and linguistics. This panel evaluated the semantic and conceptual equivalence of the items, as well as their cultural adequacy in the Portuguese context. Based on the recommendations of the expert panel, additional adjustments were made to the items when necessary, to ensure that the scale maintained its fidelity to the original construct while being linguistically understandable and culturally relevant to Portuguese collaborators. Finally, we did a pilot test with a small group of 10 workers, who did not suggest any additional modifications. Appendix A contains the list of the 18 items of IWPQ in Portuguese.

2.3.2. Work Engagement Scale Short Version (UWES-9)

The Work Engagement Scale, in its short version, is a psychometric instrument that measures employees' work engagement in organizations. The original version, UWES-9, was developed by Schaufeli and Bakker (2003), and it was adapted and validated in Portugal by Sinval et al. (2018). The UWES-9 is a self-report scale, and on all subscales, all items have a rating of 7 points on a Likert scale (0 = never; 6 = always). The scale is divided into three subscales: vigor (e.g., "At my work, I feel bursting with energy"), dedication (e.g., "My job inspires me"), and absorption (e.g., "I feel happy when I am working intensely"), with three questions each. Internal consistency of the measure was very good, with an ordinal Cronbach's α for the total sample of 0.95. This measure was assessed in Sample 2.

2.3.3. Short Index of Job Satisfaction (SIJS)

The Short Index of Job Satisfaction is a psychometric instrument that measures job satisfaction through five items adapted to Portuguese by Sinval and Marôco (2020). The original version is based on a self-report psychometric instrument created by Brayfield and Rothe (1951), although a shorter version with five items (SIJS) has also been proposed by

Judge et al. (2000) and Judge and Klinger (2008). One example of an item is "I feel fairly satisfied with my present job". All items have a rating on a five-point scale (1 "Strongly Disagree", 2 "Disagree", 3 "Undecided", 4 "Agree", 5 "Strongly Agree"), and two of those items are reversed. Cronbach's alpha reliability coefficient was 0.88. Higher scores on this scale indicate greater satisfaction of the individual with their job. This measure was assessed in Sample 2.

2.3.4. Turnover Intention (TI)

Turnover intention includes three items derived from a study by Mobley et al. (1978), also used by Skelton et al. (2019), employing a five-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). One example of an item is "I often think of leaving the organization". Higher scores on this scale indicate greater intention of the individual to leave the organization. This measure was assessed in Sample 2.

2.4. Statistical Analysis Plan

IBM SPSS Statistics 29 and IBM SPSS Amos 29 statistical analysis software was used. Each sample was examined separately to verify that the data were normal and free of missing values. First, an exploratory factor analysis (EFA) was carried out in Study 1 (n = 162) using Varimax orthogonal rotation and principal component analysis (PCA). Also, the internal consistency of each subscale (i.e., Cronbach's alpha) and correlations between subscales were calculated. Following Cohen's (1988) guidelines, a correlation absolute value between (-)0.10 and 0.29 corresponds to a weak association between two variables, absolute values between 0.30 and 0.49 indicate a moderate correlation, and absolute values above 0.50 indicate a strong relationship.

Second, in Study 2, the factor solution was tested using the maximum likelihood (ML) estimation method in confirmatory factor analysis (CFA) on a different sample (n = 261). The model fit was evaluated using the following indexes: chi-square ($\chi 2$ and $\chi 2/df$), comparative fit index (CFI), goodness-of-fit index (GFI), and root mean square error of approximation (RMSEA, 90% CI) (Jackson et al. 2009). Additionally, composite reliability (CR) and average variance extracted (AVE) were calculated to assess construct consistency and validity, respectively. Finally, correlation analyses were performed between IWPQ-PT subscales and other relevant variables, namely measures of job satisfaction, turnover intention, and work engagement.

3. Results

3.1. Exploratory Factor Analysis

A total of 18 items from the IWPQ were submitted to an EFA (using principal component analysis and Varimax orthogonal rotation). These decisions regarding methodology were in accordance with the procedures followed by researchers to validate the scale's initial version (Koopmans et al. 2014b).

The Kaiser–Mayer–Olkin (KMO) was 0.84 and the Barlett test for sphericity reached statistical significance: $\chi 2(153) = 1319.07$, $p < 0.001$. Thus, the dataset was shown to be appropriate for factor analysis. The Cattell scree test (Cattell 1966), which recommends factor extraction of three to four, was used to ascertain the number of components to be kept. The items with the highest loadings were taken into consideration when deciding which component an item should belong to. In the present study, the value of 0.40 was considered as the threshold loading value, following the recommendations of some authors in the literature (e.g., Costello and Osborne 2005). Two EFAs were performed, fixing three and then four factors to extract. In the three-factor solution, eight items were related to the contextual performance dimension, five to task performance, and five to counterproductive work behavior (CWB). In the four-factor structure, two contextual performance items from the three-factor solution were loaded into a different and fourth dimension (i.e., items 8 and 9). Both theoretically and statistically, the three-component factor solution was revealed to be consistent with the three-factor structure of the version of the IWPQ that emerged in

the empirical validation study of Koopmans et al. (2014b). Thus, we decided to consider the three-factor structure. Table 1 shows the factor loadings, communalities, explained variance, and descriptive statistics.

Table 1. Descriptive statistics, factor loadings, communalities, and explained variance: IWPQ-PT.

IWPQ Items In the Past Three Months...	**Components**					
	M	**SD**	**1**	**2**	**3**	**h^2**
Component 1						
12. I continually sought new challenges in my work	2.99	0.86	**0.87**	0.10	−0.08	0.77
11. I took on extra responsibilities	2.95	0.94	**0.82**	0.03	0.06	0.67
10. I came up with creative solutions for new problems	2.98	0.79	**0.76**	0.17	−0.02	0.61
7. I took on challenging tasks when they were available	3.12	0.82	**0.72**	0.25	−0.06	0.58
6. On my own initiative, I started new task when my old tasks were completed	3.15	0.88	**0.68**	0.17	0.07	0.49
13. I actively participated in meetings and/or consultations	2.95	0.90	**0.62**	0.25	0.09	0.46
9. I worked on keeping my work skills up-to-date [a]	3.25	0.64	**0.59**	0.41	−0.23	0.57
8. I worked on keeping my job-related knowledge up-to-date [a]	3.23	0.68	**0.55**	0.49	−0.24	0.60
Component 2						
3. I was able to set priorities	3.21	0.64	0.07	**0.77**	−0.02	0.62
1. I managed to plan my work so that I finished it on time	3.09	0.68	0.07	**0.75**	0.08	0.57
4. I was able to carry out my work efficiently	3.15	0.20	0.25	**0.74**	−0.02	0.39
2. I kept in mind the work result I needed to achieve	3.15	0.65	0.26	**0.69**	−0.05	0.52
5. I managed my time well	2.90	0.77	0.26	**0.67**	−0.01	0.41
Component 3						
14. I complained about minor work-related issues at work	1.73	1.02	0.22	0.06	**0.72**	0.57
16. I focused on the negative aspects of situation at work instead of the positive aspects	1.20	0.89	−0.24	−0.12	**0.69**	0.55
17. I talked to colleagues about the negative aspects of my work	2.12	1.07	0.03	0.03	**0.68**	0.46
15. I made problems at work bigger than they were	0.82	0.93	0.04	−0.16	**0.67**	0.48
18. I talked to people outside the organization about the negative aspects of my work	1.80	1.23	−0.13	0.09	**0.65**	0.45
Eigenvalues			4.33	3.27	2.48	
% of Variance			24.06	18.15	13.76	

Notes. Values in bold indicate the inclusion of the items on the respective components. [a] Items with cross-loadings on Components 1 and 2. IWPQ-PT = Individual Work Performance Questionnaire-Portuguese Version.

The final solution for 18 items, displayed in Table 1, comprised three components that accounted for 55.56% of the variance. As expected, in the final solution, items 8 and 9 showed cross-loadings into components 1 and 2 with values above 0.40. Both items were assigned to the first component (contextual performance) for two reasons. First, this decision was congruent with the original version of the scale; second, items 8 and 9 revealed higher loading values on that component. Considering the final after-rotation solution, the first component, contextual performance, is composed of eight items and explains 24.06% of the total variance. The second component, task performance, includes five items and accounts for 18.15% of the total variance. The third component, CWB, explains 13.76% of the total variance and contains five items.

3.2. Internal Consistency and Correlations between Subscales

Considering Sample 1, Cronbach's alpha reliability coefficients were computed to assess the internal consistency of the exploratory three-factor solution (Table 2). Regarding subscales reliability coefficients, we obtained 0.81 for task performance, 0.88 for context performance, and 0.72 for CWB. According to the results presented in Table 2, correlations between task performance and context performance were significant ($p < 0.001$), positive, and strong (i.e., r = 0.50). In contrast, the correlations between task performance and CWB and between context performance and CWB were not statistically significant.

Table 2. Inter-correlations, means, standard deviations, and Cronbach's alpha: IWPQ-PT.

	1	2	M (SD)	*Cronbach' α*
1. Task performance	-	-	3.10 (0.51)	0.81
2. Context performance	0.50 **	-	3.08 (0.61)	0.88
5. CWB	−0.05	−0.07	1.54 (0.71)	0.72

Note. IWPQ-PT = Individual Work Performance Questionnaire-Portuguese Version. CWB = Counterproductive Work Behaviors. ** $p < 0.01$.

3.3. Confirmatory Factor Analysis

Using a different sample of 261 individuals (Sample 2), the three-factor structure found through EFA has been submitted to a CFA (Study 2). We tested if the IWPQ factorial structure was appropriate for the Portuguese data using the ML estimation approach.

In terms of the local adjustment of the items (see Figure 1), all of them had significant non-standardized regression weights ($p > 0.05$) and critical ratio (CR) values substantially above 1.96. Moreover, three items (i.e., 14, 17, and 18) of CWB presented standardized estimates a little below 0.40 (i.e., 0.37, 0.30, and 0.34, respectively). These three items also had the lowest values of R2 (i.e., 0.16, 0.12, and 0.15, respectively).

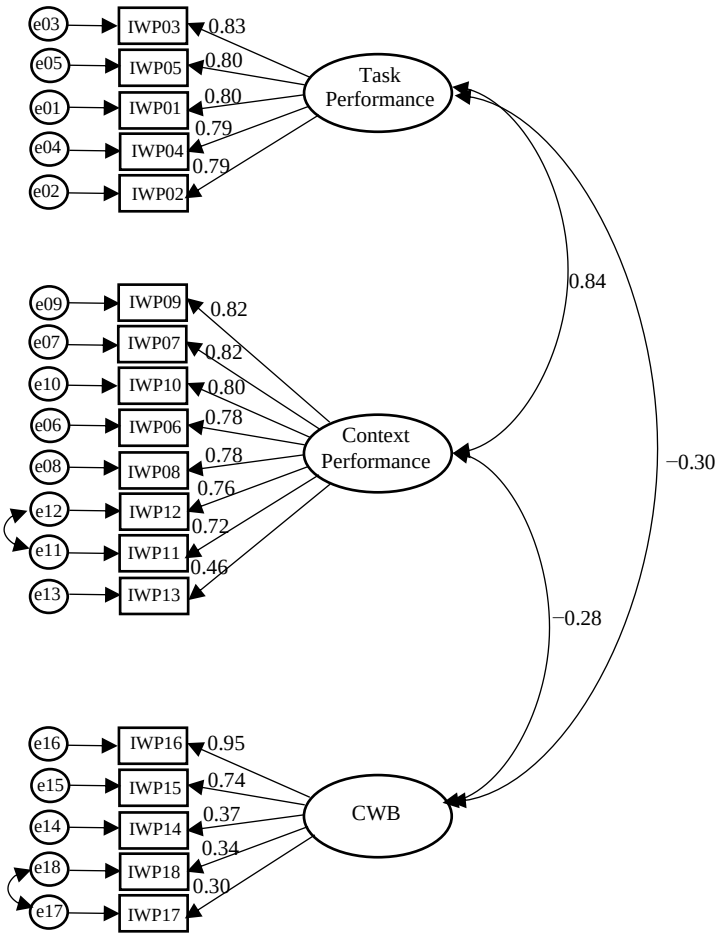

Figure 1. Confirmatory factor analysis of the Individual Work Performance Questionnaire (Portuguese Version; IWPQ-PT): three-factor model, standardized regression weights, and correlations across factors.

Regarding the model global adjustment, a good model fit has been associated with a small and significant $\chi 2$, values near 0.90 for CFI and GFI, and RMSEA below 0.10 (Byrne 2010). The initial model did not appropriately fit the data: $\chi 2(132) = 411.26$, $p < 0.001$; $\chi 2/df = 3.12$, CFI = 0.95, GFI = 0.81, and RMSEA = 0.09 [90% CI 0.08–0.10]. Since the modi-

fication indices suggested indications for the model improvement, covariances between two error pairs comprising consecutive items with comparable content were added (i.e., between item 11 and item 12, and between item 17 and item 18). Only correlations between error measurements associated with the same factor were estimated. Afterwards, findings showed a more acceptable model fit: $\chi 2(130) = 261.62$, $p < 0.001$; $\chi 2/df = 2.01$; CFI = 0.95; GFI = 0.90; RMSEA = 0.06 [90% CI 0.05–0.07]. Finally, AVE was 0.64 for task performance, 0.60 for context performance, and 0.36 for CWB. The CR values obtained were 0.90, 0.92, and 0.70 for task performance, context performance, and CWB, respectively. Following the recommendations of Fornell and Larcker (1981), AVE values were satisfactory for task performance and context performance (i.e., greater than 0.50) and inadequate for the CWB subscale. All AVE values were superior to the squared correlation values (R^2) obtained between IWPQ-PT dimensions (i.e., superior to 0.25), indicating discriminant validity between variables. With regard to CR values, the three subscales showed adequate scores, considering 0.70 as the lower threshold.

3.4. Correlations with Relevant Variables

The matrix of correlations between IWPQ-PT subscales and some relevant variables is presented in Table 3. Measures of job satisfaction, turnover intention, and work engagement were used. First, findings point to the existence of moderate-to-strong positive associations between both task performance and context performance and job satisfaction (r = 42 and r = 0.53, $p < 0.001$, respectively) and all of the dimensions of work engagement (vigor, dedication, and absorption), with values of correlation ranging from 0.58 to 0.69 ($p < 0.001$). Second, the CWB subscale was negatively and weakly to moderately related to job satisfaction (r = −0.30, $p < 0.001$) and work engagement subscales (r = −0.15, $p < 0.05$ for dedication and r = −0.17, $p < 0.01$ for vigor and absorption). Finally, both the dimensions of task performance and context performance were moderately and negatively correlated to turnover intention (r = −0.33 for task performance and r = −0.44 for context performance, $p < 0.001$); contrastingly, the association between CWB and turnover intention was positive and weak (r = 0.22, $p < 0.001$).

Table 3. Correlations between IWPQ-PT, SIJS, TI, and UWES-9 scores.

IWPQ-PT Scores	SIJS	TI	UWES-9		
			Vigor	Dedication	Absorption
Task performance	0.42 ***	−33 ***	0.58 ***	0.62 ***	0.63 ***
Contextual performance	0.53 ***	−44 ***	0.61 ***	0.69 ***	0.68 ***
CWB	−0.30 ***	−0.22 ***	−0.17 **	−0.15 *	−0.17 **

Notes. IWPQ-PT = Individual Work Performance Questionnaire-Portuguese Version. SIJS = Short Index of Job Satisfaction. TI = Turnover Intention. UWES-9 = Work Engagement Scale short version. CWB = Counterproductive Work Behaviors. * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

4. Discussion

The present study aimed to adapt and validate the Individual Work Performance Questionnaire (IWPQ) into a Portuguese version (IWPQ-PT). The findings provide evidence to support the adaptation and psychometric properties of the IWPQ-PT for assessing individual work performance in Portuguese-speaking samples working in digital service organizations. In addition, the results obtained allow us to establish the relationship with other relevant variables, namely work engagement, job satisfaction, and turnover intention.

Regarding the factorial structure of the IWPQ-PT, the EFA supported a three-factor structure for the IWPQ-PT, mirroring the structure of the original IWPQ. This structure aligns with the theoretical framework proposed by Koopmans et al. (2014b). The following factors were identified: task performance, contextual performance, and counterproductive work behavior (CWB). Notably, two items were initially loaded onto two components: contextual performance and task performance. However, both were reassigned to the

contextual performance dimension based on theoretical grounds and stronger loadings on that factor, ensuring consistency with the original instrument.

The internal consistency of the IWPQ-PT subscales was satisfactory, with Cronbach's alpha coefficients exceeding 0.70 for all of the dimensions.

As expected, the study found positive and significant correlations between task and contextual performance, while correlations between these performance dimensions and CWB were non-significant. Ramos-Villagrasa et al. (2019) also reported a non-significant relationship between contextual performance and counterproductive behavior, despite the expected negative association. The authors explained these results by highlighting that the IWPQ contextual performance items focus on individual behaviors, while counterproductive behavior items focus on behaviors performed by oneself toward others. This explanation could also be applied to task performance items, as they also focus on individual behaviors.

In addition, the CFA provided further evidence for the three-factor structure of the IWPQ-PT. The initial model fit indices were acceptable, and subsequent modifications based on error term correlations yielded an even better fit. While three items of the CWB dimension (i.e., items 14, 17, and 18) displayed slightly lower standardized loadings, their overall contribution to the model remained acceptable. In fact, the CWB subscale revealed less convergent validity than the other two IWP dimensions, presenting an AVE value inferior to 0.50. This result suggests that the CWB items' variance is not adequately explained by the respective factor, mostly due to items 14, 17, and 18. However, the IWPQ constructs have shown good composite reliability (i.e., the items consistently reflect the scale dimension with which they are associated), and also discriminant validity. The lower loadings of these specific items (complaining behaviors) warrant further investigation. Future studies are necessary to definitively clarify these findings and explore the role of dispositional characteristics (e.g., personality), work context factors (e.g., technology sector), and cultural influences on these behaviors. Also, more research may provide light on the potential impact of participant demographics on the results, given that most of the employees were male, relatively young, and had a higher level of education.

As expected, the IWPQ-PT subscales (task performance, contextual performance, and CWB) showed correlations with job satisfaction, work engagement, and turnover intention. This supports evidence of construct validity, in particular nomological validity, since it is based on correlations among constructs assumed to be related (Geisinger 1992). Task and contextual performance showed moderate and positive correlations with all dimensions of work engagement, whereas CWB showed weak and negative correlations. These findings suggest that higher levels of task and contextual performance are associated with greater work engagement, which is in line with previous literature (e.g., Bakker et al. 2008; Demerouti and Cropanzano 2010; Koopmans et al. 2014a). The job demands–resources theory (Bakker et al. 2023) posits job performance as an outcome of work engagement, which is supported by evidence of a direct and indirect relationship between work engagement and job performance (Kim et al. 2013). The association between work engagement and task performance was also confirmed through the meta-analysis conducted by Neuber et al. (2022). In addition to the relationship between these variables, Christian et al. (2011) highlighted the importance of extra-role performance, a facet of contextual performance. Furthermore, the findings align with Koopmans et al. (2014a) by showing stronger correlations between contextual performance behaviors and work engagement dimensions compared to task performance behaviors. These results suggest that when individuals are engaged in their work and experience active positive emotions (e.g., vigor, dedication, and absorption), they may be motivated to take initiative and persist with challenging tasks. Additionally, they may be motivated to contribute to a positive and collaborative work environment through the creation of a supportive organizational, social, and psychological climate.

As expected, supporting the established link between job satisfaction and higher performance (e.g., Koopmans et al. 2014a), the present study found positive and moderate correlations between job satisfaction and the IWPQ-PT subscales of contextual performance

and task performance. These results sustain the assumption that satisfied employees tend to perform better (e.g., Van Scotter 2000). The relationship between contextual performance and job satisfaction is particularly strong. This is consistent with theories that highlight the role of contextual performance in creating a positive and supportive work environment, which in turn contributes to employee satisfaction (Borman and Motowidlo 1993; Podsakoff and MacKenzie 1997). In contrast, the CWB subscale exhibited a moderate negative correlation with job satisfaction.

As expected, task and contextual performance were negatively correlated with turnover intention, aligning with previous research (e.g., Van Scotter 2000). This negative association is particularly strong for contextual performance. Contextual performance reflects an employee's willingness to go beyond their core job duties and contribute to the organization's social and psychological well-being. In contrast, turnover intention signifies a desire to withdraw from these very aspects of work life. Therefore, employees who engage in contextual behaviors are likely to feel more connected to the organization, leading to lower intentions to leave. Conversely, higher levels of CWB were associated with increased turnover intentions.

Limitations and Suggestions for Future Studies

It is important to note that this study has some limitations that warrant consideration in future studies. The data were collected from workers in digital service organizations, limiting the generalizability of the results to other contexts. Future research should involve samples from diverse sectors and organizational contexts. Additionally, the study employed a cross-sectional design, which precludes establishing causal relationships between the variables. Longitudinal studies are recommended to investigate the causal nature of these relationships and the predictive validity of the IWPQ-PT for other work outcomes. Furthermore, future research could explore the relationship between the IWPQ-PT and other factors relevant to individual performance at work, such as organizational culture, leadership, emotional intelligence, and individual characteristics of employees.

5. Conclusions

In conclusion, the IWPQ-PT demonstrates a reliable and valid instrument for evaluating individual work performance in Portuguese organizational settings. The analyses performed provide evidence that the IWPQ-PT is a reliable and valid instrument to assess individual work performance in samples of Portuguese workers. The three dimensions of the questionnaire capture relevant aspects of individual performance and correlate with measures of job satisfaction, work engagement, and turnover intention. The instrument provides an available tool to be used in human resource practice, but also in research to assess various aspects of individual employee performance and their associations with job satisfaction, work engagement, and turnover intention.

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Appendix A. IWPQ-PT—List of the Items in Portuguese—18 Items

Nos últimos 3 meses. . .

1. Consegui planear o meu trabalho para terminar no prazo.
2. Eu tinha em mente o resultado do trabalho que eu precisava para atingir.
3. Consegui definir prioridades.
4. Consegui realizar meu trabalho com eficiência.
5. Geri bem o meu tempo.
6. Por iniciativa própria, iniciei uma nova tarefa quando as minhas tarefas antigas foram concluídas.
7. Assumi tarefas desafiadoras quando elas estavam disponíveis.
8. Trabalhei para manter os meus conhecimentos relacionados com o trabalho atualizados.
9. Trabalhei para manter as minhas competências profissionais atualizadas.
10. Criei soluções criativas para novos problemas.
11. Assumi responsabilidades extra.
12. Procurei continuamente novos desafios no meu trabalho.
13. Participei ativamente em reuniões e/ou consultas.
14. Reclamei sobre questões menores relacionadas com o trabalho no trabalho.
15. Criei problemas no trabalho maiores do que eram.
16. Concentrei-me nos aspetos negativos da situação no trabalho em vez dos aspetos positivos.
17. Conversei com os colegas sobre os aspetos negativos do meu trabalho.
18. Conversei com pessoas que não eram da organização sobre os aspetos negativos do meu trabalho.

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