Calling and Vocation Questionnaire

Proprietà Psicometriche della versione italiana

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Sommario

Il *multidimensional Calling and Vocation Questionnaire* (CVQ) è il questionario self-report più utilizzato per valutare il calling. Il presente studio ha esaminato le proprietà psicometriche della versione italiana del *multidimensional Calling and Vocation Questionnaire* (CVQ), implementando una serie di Analisi Fattoriali Confermative. I partecipanti sono stati 181 lavoratori italiani della Toscana, Centro Italia. Sono state effettuate Analisi Fattoriali Confermative (AFC) del CVQ. Sono stati testati un modello a due fattori, un modello a sei fattori, un modello *Higher Order* e un modello *Two-Bifactor*. La coerenza interna è stata valutata tramite gli alfa di Cronbach. La AFC ha mostrato che il modello *two-bifactor* (regressione simultanea di sei fattori su due fattori generali [CVQ-presenza and CVQ-ricerca]). ha rivelato il miglior *fit*. La coerenza interna della scala è risultata buona. Le buone proprietà psicometriche del CVQ sono state confermate nella versione italiana, evidenziando come il CVQ sia un valido strumento per misurare il calling nei lavoratori italiani.

Parole chiave

Calling and Vocation Questionnaire, Proprietà psicometriche, Lavoratori.

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Calling and Vocation Questionnaire

Psychometric Properties of the Italian Version

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Abstract

The multidimensional Calling and Vocation Questionnaire (CVQ) is the most widely used self-report questionnaire to assess calling. The present study examined the psychometric properties of the Italian version of the multidimensional Calling and Vocation Questionnaire (CVQ), implementing a series of confirmatory factor analyses. Participants were 181 Italian workers from Tuscany in Central Italy. Confirmatory factor analyses (CFA) of the CVQ were run. Two-factor, six-factor, higher order, and two-Bifactor models were tested. Internal consistency was assessed via Cronbach's alphas. CFA showed that a two-bifactor model revealed the best fit (six factors simultaneously regressed on two general factors [CVQ-presence and CVQ-search]). Internal consistency of the scale was found to be good. The good psychometric properties of the CVQ were confirmed in the Italian version, highlighting that the CVQ is a valid instrument to measure calling in Italian workers.

Keywords

Calling and Vocation Questionnaire, Psychometric properties, Workers.

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From analysis of literature on calling at work, one could notice that an initial problem to solve regarded the possibility of having valid and reliable instruments to measure the construct. Calling measures have often been developed ad hoc on the basis of the objectives of each individual study, without a clear definition of the construct or the analysis of the psychometric properties of the instruments used (Dik et al., 2012). In this framework, Dik et al. (2012) decided to develop a new instrument, the Calling and Vocation Questionnaire (CVQ), to detect calling at work. The first challenge that they faced was the necessity to clearly define the construct of calling at work. They started from the three-dimensional definition offered by Dik and Duffy (2009), who described a calling as «(1) a transcendent summons, experienced as originating beyond the self, to (2) approach a particular life role in a manner oriented toward demonstrating or deriving a sense of purpose or meaningfulness and (3) that holds other-oriented values and goals as primary sources of motivation» (p. 427). Furthermore, the definition by Dik and Duffy (2009) considered that calling also includes two aspects: presence of calling (some workers may perceive that they currently have a calling) and search for calling (some workers may not currently perceive a calling but report that they are actively seeking one). Finally, this definition of calling included transcendent summons from external sources, purposeful work that embraces purpose and meaningfulness at work, and prosocial orientation dimensions of calling in terms of other-oriented values or goals. Thus, the model of the construct of calling at work proposed by Dik et al. (2012) for the CVQ assessed «presence of «and «search for» 1) transcendent summons, 2) purposeful work, and 3) prosocial orientation dimensions of calling. The authors underlined two principal advantages of this model of calling construct. Firstly, they proposed, for the first time in literature, a clear definition of the construct of calling at work and this could be important for implementing research on calling. Secondly, a multidimensional definition of the construct of calling at work could enable us to answer more complex research questions.

In their study, Dik et al. (2012) verified the dimensionality of the CVQ, obtaining a questionnaire comprising twenty-four items with three subscales of four items each (Presence-Transcendent Summons, Presence-Purposeful Work and Presence-Prosocial Orientation) that converge in the Presence of calling (CVQ-Presence), and three subscales of four items each (Search-Transcendent Summons, Search-Purposeful Work and Search-Prosocial Orientation) that converge in the Search for calling (CVQ-Search). Nevertheless, the authors underlined that merging the respective Presence and Search subscales into Presence and Search total scores decreased the fit of the model. These results seem to suggest that the dimensionality of the CVQ deserves a more in-depth study. Regarding reliability, the internal consistency was good. Furthermore, test–retest reliability coefficients showed that scores on the constructs are moderately stable over

a 1-month period, suggesting that calling is a usually stable construct but one that could also be considered as malleable (Dik et al., 2009). The possibility of enhancing calling at work could also open promising future opportunities in strength-based prevention perspectives (Di Fabio & Saklofske, 2021) for workers.

In this framework, the present study aims to verify the psychometric properties of the Italian version of the CVQ, the most widely used self-report questionnaire to assess calling, for its application also in the Italian context.

Methods

Participants and Procedure

The Italian version of the CVQ was translated from English into Italian by using the back-translation procedure. Participants of the current study were 181 adult workers (Mage = 50.90, *DS* = 8.81; male = 37.6%, female = 62.4%) employed in the public sector from Tuscany in Central Italy. Gatekeepers inside the organization were utilized to enroll participants. Participation was voluntary. Participants provided written and informed consent in accordance with Italian privacy legislation (Law Decree DL196/2003) and the EU General Data Protection Regulation (EU 2016/679). The administration order was balanced to counteract presentation order effects.

Instrument

Calling and Vocation Questionnaire (CVQ) – Italian Version.

The Italian version of the CVQ (Dik et al., 2012) is a 24-item self-report scale measuring the presence and search for calling on a four-point Likert scale, ranging from 1 («*Not at all true for me*») to 4 («*Absolutely true of me*»). The original English scale version showed the best fit for a six-correlated factor model reflecting six four-item dimensions. They were: (1) Presence-Transcendent Summons (PTS); (2) Presence-Purposeful Work (PPW); (3) Presence-Prosocial Orientation (PPO); (4) Search-Transcendent Summons (STS); (5) Search-Purposeful Work (SPW); (6) Search-Prosocial Orientation (SPO). Cronbach alphas were found with a range of a = 0.83 to a = 0.93. Furthermore, the authors proposed two total scores for the CVQ. The first was CVQ-presence, which encompasses the summed total score of the three presence factors (i.e., PTS, PPW, and PPO), and the second was CVQ-search, which includes the summed total score of the three search factors (i.e., STS, SPW, and SPO). In the original version, CVQ-presence showed

an internal consistency of a = 0.89, whereas CVQ-search displayed an internal consistency of a = 0.87.

Data Analysis

The factorial structure of the Italian version of the CVQ was investigated by means of a series of confirmatory factor analyses (CFA) through RStudio 2022.07.0 for Windows. The Packages *Lavaan* 0.6-9, *SemPlot* 1.1.2 and *Psyhc* 2.2.5 were implemented. Prior to running main analyses, skewness and kurtosis were inspected for each item of the CVQ (Table 1).

Table 1
Italian Version of the Calling and Vocation Questionnaire: Item statistics

CVQ item	N	Mean	SD	Min	Max	Skewness	Kurtosis
1	181	1.93	0.98	1	4	0.61	-0.83
2	181	1.79	0.93	1	4	0.97	-0.02
3	181	2.23	0.94	1	4	0.22	-0.89
4	181	1.77	0.96	1	4	1.00	-0.11
5	181	2.04	1.00	1	4	0.49	-0.94
6	181	2.22	1.00	1	4	0.31	-0.99
7	181	2.34	0.99	1	4	0.10	-1.05
8	181	2.28	1.11	1	4	0.32	-1.24
9	181	2.25	0.91	1	4	0.05	-0.97
10	181	2.24	0.98	1	4	0.22	-1.00
11	181	1.8	0.96	1	4	0.92	-0.30
12	181	2.01	0.89	1	4	0.51	-0.55
13	181	1.91	1.01	1	4	0.71	-0.75
14	181	2.28	1.02	1	4	0.17	-1.14
15	181	2.09	0.95	1	4	0.33	-0.97
16	181	2.17	0.96	1	4	0.38	-0.83
17	181	2.61	0.96	1	4	-0.06	-0.96
18	181	1.92	0.91	1	4	0.69	-0.39
19	181	2.01	0.95	1	4	0.43	-0.96

CVQ item	N	Mean	SD	Min	Max	Skewness	Kurtosis
20	181	2.35	0.94	1	4	0.06	-0.90
21	181	2.31	0.99	1	4	0.04	-1.11
22	181	2.67	0.88	1	4	-0.30	-0.54
23	181	1.91	0.94	1	4	0.60	-0.77
24	181	2.13	0.96	1	4	0.32	-0.94

Since 5 out of 24 skewness values were outside the range (–1, 1) (Tabachnick & Fidell, 2007), the CFA was implemented by applying the Robust maximum-likelihood (RML) estimation (Li, 2016). Four models were tested. The first model was a two-factor correlated model reflecting the two CVQ global factors, 12 items loading on the CVQ-presence factor and 12 items loading on the CVQ-search factor. The second was the six-factor correlated model comprising six factors with four items each. The third was the higher-order model consisting of item loading on its respective six-factors, of which three of them (i.e., PTS, PPW, and PPO) regressed onto a higher-order CVQ-presence factor. In contrast, the other three (STS, SPW, and SPO) factors regressed onto a higher-order CVQ- search factor. The fourth was the two-bifactor model in which items are simultaneously regressed on their respective six factors and three factors (PTS, PPW, and PPO) onto a CVQ-presence factor and three factors (STS, SPW, and SPO) onto a CVQ-search factor. Models were compared considering the following fit indices: the Comparative Fit Index (CFI) and the Tucker-Lewis index (TLI) (values greater than 0.90 show a good fit); and the Root Mean Square Error of Approximation (RMSEA) (values lower than 0.08 show a good fit) (Browne & Cudeck, 1993). The reliability of the Italian version of the CVQ was analysed by calculating Cronbach's alphas. Values greater than 0.70 were considered acceptable (Nunnally & Bernstein, 1994).

Results

Table 2 reports the results of the fit measures of the five tested models. The two-bifactor model showed the best fit with all acceptable fit indexes.

Differently, the two-factor model, the six-factor model, and the higher-order model showed unacceptable fit indexes (table 2). Factor loadings of the two-bifactor model of the CVQ were reported in the path diagram shown in figure 1.
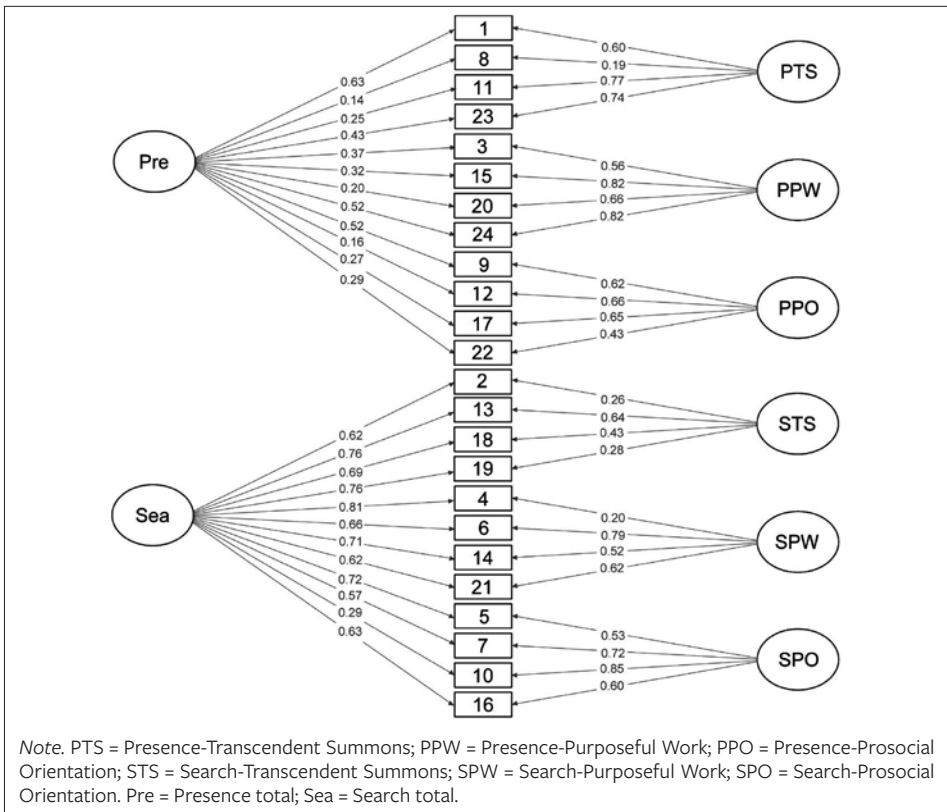
Table 2

Italian Version of the Calling and Vocation Questionnaire: Confirmatory Factor Analysis – Goodness of Fit indices (n = 181).

CVQ Model	Fit Indices			
	χ2(df)	CFI	TLI	RMSEA [95%CI]
Two-factor	841(251)	0.693	0.661	0.117 [0.108-0.125]
Six-factor	651(237)	0.796	0.763	0.097 [0.088-0.106]
Higher order	724(239)	0.761	0.724	0.104 [0.096-0.113]
Two-Bifactor	405(200)	0.917	0.902	0.074 [0.063-0.084]

Note. CVQ = Calling and Vocation Questionnaire; CFI = Comparative Fit Index; TLI = Tucker-Lewis Index; RMSEA = Root Mean Square Error of Approximation.

Figure 1

Note. PTS = Presence-Transcendent Summons; PPW = Presence-Purposeful Work; PPO = Presence-Prosocial Orientation; STS = Search-Transcendent Summons; SPW = Search-Purposeful Work; SPO = Search-Prosocial Orientation. Pre = Presence total; Sea = Search total.

Italian Version of the Calling and Vocation Questionnaire: Path diagram of the two-bifactor model (n = 181).

Table 3 reports the Cronbach alphas calculated following the two-bifactor measurement model. Two Cronbach alphas were computed for the two overall scores (CVQ-presence and CVQ-search), and six Cronbach alphas were computed for each of the six factors. For the six factors, Cronbach's alphas were found to be good, ranging from 0.70 (PPO) to 0.84 (SPO), except for PTS. The two overall scores, CVQ-presence, and CVQ-search, showed good Cronbach's alpha values.

Table 3

Italian Version of the Calling and Vocation Questionnaire: Cronbach's alphas for the two-bifactor measurement model (n = 181).

CVQ Subscale	Cronbach's a
Presence-Transcendent Summons	0.53
Presence-Purposeful Work	0.78
Presence-Prosocial Orientation	0.70
Search-Transcendent Summons	0.74
Search-Purposeful Work	0.80
Search-Prosocial Orientation	0.84
Presence total	0.78
Search total	0.90

Note. CVQ = Calling and Vocation Questionnaire.

Discussion

The current study applied CFA to investigate the psychometric properties of the CVQ, a self-reported questionnaire designed to measure Dik and Duffy's (2009) conceptualization of calling. Our findings confirm those observed in the original English version, showing the presence of six specific factors (Dik et al., 2012). Furthermore, our results also highlighted two superordinate factors: CVQ-Presence and CVQ-Search (i.e., two-bifactor model). It is consistent with Dik et al. (2012), which advanced two total scores for the CVQ: CVQ-Presence total and CVQ-Search total. Thus, the Italian version of the CVQ allows researchers to calculate six scores, one for each specific factor and two total scores: one for CVQ-Presence and one for CVQ-Search. Reliability for each of the six factors was found to be good, except for the PTS factor. It could be explained by our sample

size, which was barely sufficient to run a CFA (Muthén & Muthén, 2002). Differently, the reliability for CVQ-Presence and for CVQ-Search was found to be good.

The current study has limitations and strengths. The main limitation is the monocentric feature of the study, which enrolled employees from a public organization in Tuscany. Thus, our results could not be generalized. However, to the best of our knowledge, the current study is the first that investigates the psychometric properties of Dik et al.'s (2012) CVQ in Italian workers. Furthermore, future studies could expand the study of the psychometric properties of the CVQ in workers from other sectors as well as in university and high school students.

In brief, the Italian version of the CVQ showed good psychometric properties revealing a reliable two-bifactor structure. Thus, the CVQ is a promising psychometrically-sound instrument to screen workers' calling, according to Dik et al.'s (2012) model.

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