CZECH LEADERSHIP QUESTIONNAIRE: THE DEVELOPMENT OF A CZECH QUESTIONNAIRE OF TRANSFORMATIONAL AND TRANSACTIONAL LEADERSHIP

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Abstract:
This study describes the development of the Czech Leadership Questionnaire (CLQ, Dotazník přístupu k vedení lidí) which is an original method in Czech language aimed at measuring transformational and transactional leadership. The study also presents preliminary results of a validation study of this questionnaire. CLQ consists of 32 statements describing the behavior of a leader. Every statement is assessed on a 7-point Likert scale. The statements are divided into eight subscales which measure components of transformational and transactional leadership and non-leadership. In a sample of 1,084 respondents, a confirmatory factor analysis showed that the data fit an 8-factor model. All the subscales are internally consistent. The questionnaire is available upon request from the authors of the study.

Introduction

The study describes the development of a new Czech questionnaire aimed at measuring leadership and brings preliminary results of its validation study. The questionnaire is based on a theory of transformational and transactional leadership which, notwithstanding its existing critique (e.g. Prochazka & Vaculik, 2015; van Knippenberg & Sitkin, 2013; Yukl, 2008), represents the currently most researched and cited theory of leadership (Avolio, 2007; Conger, 1999). Despite the theory's prominence and plentiful evidence of its validity and reliability, there was neither validated Czech translation nor validated Czech method measuring transformational and transactional leadership. This hinders Czech researchers from the research of transformational and transactional leadership and a more frequent use of this approach in Czech organizations (Prochazka, Smutny, & Vaculik, 2014).

According to Bass (1997), the transformational approach builds on leaders'charisma and the internal motivation of their coworkers. It uses four basic mechanisms –

idealized influence (sometimes also called charisma), inspiration of followers, intellectual stimulation and individual approach of a leader to his or her followers. Meta-analyses show that transformational leadership is a moderate to strong predictor of various criteria of leader or team effectiveness (DeRue, Nahrgang, Wellman, & Humphrey, 2011; Lowe, Kroeck, & Sivasubramaniam, 1996). For example, it has a positive impact on objectively measured organizational outcomes (Resick, Whitman, Weingarden, & Hiller, 2009), follower job satisfaction (Awamleh, Evans, & Mahate, 2005) or manager ratings judged by their subordinates (Judge & Bono, 2000). Transformational leadership is a part of a complex model of leadership which besides transformational leadership also includes three components of transactional leadership and one component of so called 'absence of leadership' known as laissez-faire leadership (Bass & Riggio, 2006). Transactional leadership consist of contingent rewards, active management by exceptions and passive management by exceptions.

To measure the transformational and transactional approach to leadership, the Multifactor Leadership Questionnaire (MLQ), which is a subject to fees, is predominantly used in many countries outside the Czech Republic. The current version of the MLQ (Avolio & Bass, 2004) contains five scales of transformational leadership (idealized influence is measured by two scales), three scales of transactional leadership and one scale of laissez-faire leadership. Based on a factor analysis by Antonakis et al. (2003), the fit of the data gathered using the MLQ and the expected 9-factor model of leadership is adequate ($\chi2(558) = 5\ 306$, RMSEA = .05, CFI = .91) and the nine-factor model fits the data better than models containing less factors. The individual scales of transformational leadership are highly correlated (Avolio & Bass, 2004) and have the same or similar relationship with various constructs (Carless, 1998). This is why researchers tend to unit them into a single scale of transformational leadership. The 9-factor structure of leadership was not supported in existing translations of the MLQ. For example, the items in Dutch MLQ-8Y load on only three factors (transformational, transactional and passive factor which includes laissez-faire leadership and passive management by exception) (Den Hartog, Van Muijen, & Koopman, 1997).

As a) translations of the MLQ do not often have an expected factor structure, b) there exists a critique of the MLQ (e.g. in Alimo-Metcalfe & Alban-Metcalfe, 2001; Molero, Recio, & Cuadrado, 2010) and c) the necessity of paying the license fees could inhibit research activities in the Czech environment, we decided not to translate the MLQ itself but rather develop an original Czech leadership questionnaire. Similarly, Indian (Singh & Krishnan, 2007) and Australian (Carless, Wearing, & Mann, 2000) questionnaires were previously developed. We developed the questionnaire in a way that it measures transformational and transactional leadership and their respective components as described by Bass (1997).

1. Methods

1.1. The Questionnaire Development

In collaboration with students in final years of their Master degree in Management, we formulated 171 unique statements that describe a possible leadership behavior. Afterwards, the three co-authors of the study independently matched each statements with one of the eight subscales corresponding to one of the components of transformational, transactional or laissez-faire leadership. In case that unanimous consensus was not reached regarding the assignment of a statement to a scale, we discussed that statement and tried to reach an agreement. In case that even the discussion did not lead to reaching consensus, we eliminated the statement. We also eliminated statements that did not match a description of transformational, transactional or laissez-faire leadership according to all three co-authors. Overall, we eliminated 81 statements during this process. The remaining 90 statements were included as items in the questionnaire. We created a 7-point Likert scale for each of the items. Subsequently, we administered the questionnaire to the respondents in order to reduce the number of items and validate the questionnaire.

1.2. Sample

Using emails and Facebook groups, we asked people to assess an individual who leads them or led them in past. In a course of six months, the questionnaire was filled in by 1,093 respondents. The data of nine respondents were eliminated as they did not fill in the questionnaire thoroughly. They either stated that in the commentary section of the questionnaire or they replied the last 20 items of the questionnaire identically which was a beforehand-established criterion for eliminating a respondent.

The average age of the respondents was 25.64 years (SD = 7.1). The sample consisted of more women (69.6 %) than men. Among respondents, there was a marginal number of people with only a compulsory education (0.8 %). The majority of respondents were high school graduates (53.7 %) and university graduates having both Bachelor degrees (26.2 %) and Master degrees (15.9 %).

Assessed leaders were predominantly from respondents' workplace including immediate superiors (59.8 %) and managers who were not immediate superiors (7.5 %). Approximately 18% of leaders were from a school, sport or hobby-related environment. The rest were other leaders (e.g. managers from different organizations, political or religious leaders, and family members). Majority of the leaders were in charge of middle-sized teams with 11-30 subordinates (41.4%) or small teams with less than 10 subordinates (37.4%). The leaders were predominantly men (60.9%).

2. Preliminary Results

We divided the data from 1,084 respondents randomly into two parts. In the first part consisting of 734 leader assessments, we conducted a confirmatory factor analysis using statistical software MPLUS. In the analysis, we hypothesized an 8-factor structure of the questionnaire. We matched individual statements with the hypothesized eight factors of transformational, transactional and laissez-faire leadership (see above). Based on factor loadings and modification indexes, we gradually reduced the number of items in each scale so that there were four items loading on each scale (just as in the MLQ) and so that the questionnaire corresponds with the theoretical model. The result was a very good fit between the data and the theoretical model (χ^2 (436) = 1,146, CFI = .96, RMSEA = .05). In the remaining data from 350 respondents, we conducted another confirmatory factor analysis yet this time only with 32 items derived from the first analysis. The analysis confirmed a good fit between an 8-factor model and the data (χ^2 (436) = 841, CFI = .95, RMSEA = .05). The results o the confirmatory factor analysis on the whole sample supported the factor validity of the questionnaire (N = 1084, χ^2 (436) = 1,479, CFI = .96, RMSEA = .05) and showed that all items loaded strongly on their corresponding factors (the weakest loading was .46). The internal consistency of all eight scales was high (Cronbach α > .7). The individual scales of transformational leadership were strongly correlated with each other (r = .71 - .87; p < .01) and could be combined into one internally consistent scale of transformational leadership. The individual scales of transactional leadership cannot be combined into one scale. Contingent Rewards correlated moderately positively (r = .35; p < .01) with Management by Exception – Active and negatively (r = -.49; p < .01) with Management by Exception – Passive. Management by Exception – Active and – Passive also correlated with each other negatively (r = -.41; p < .01). Management by Exception – Passive correlated positively only with Laissez-Faire Leadership (r = .66; p < .01) which correlated negatively with all other scales (r = -.62 - -.84; p < .01).

3. Discussion and Conclusion

We developed the Czech Leadership Questionnaire (Dotazník přístupu k vedení lidí, DPVL) in a way that the content of its eight subscales corresponds with the four components of transformational leadership, three components of transactional leadership and laissez-faire leadership. A confirmatory factor analysis conducted in a large sample shows a good fit between the data and the theory and provides an evidence of the factor validity of the new questionnaire. Fit indices indicate a comparable or better fit between the model and the data than in the case of the MLQ (Antonakis et al., 2003). High correlations between the scales of transformational leadership and a negative correlation between the transactional-leadership scales Management by Exception – Passive and Contingent Rewards are present not only in our questionnaire but also in the MLQ (Avolio & Bass, 2004).

The presented results are yet preliminary. We plan to carry out more analyses using the collected data and gather more data which could provide more evidence regarding the validity and reliability of the method. The next step is comparing the 8-factor model with alternative models with a lesser number of factors. Furthermore, we want to test the congruent validity by relating the scales to several variables that are assumed to be related with transformational or transactional leadership (e.g. perceived leader's effectiveness, work attitudes). We are also collecting data from respondents speaking both Czech and English so that we can test the correlation between the new questionnaire and an English version of the MLQ which represents the most widespread transformational-leadership questionnaire. Preliminary results in a sample of 106 university students show strong correlation of the transformational-leadership scales of the two questionnaires r = .89 (p < .01; the correlation represents a correlation of latent variables). Additionally, we would like to test the predictive validity between the questionnaire and objective criteria measured at later time than transformational leadership is measured (e.g. group performance). Moreover, we would like to test the factor structure in another differently-recruited sample or samples.

We believe that the presented evidence of validity and reliability is sufficient to start using the questionnaire for leadership research in a Czech-speaking population. We will gladly provide the questionnaire to others for research purposes. The questionnaire is available upon request from the first author of this study. We will appreciate if colleagues provide us with anonymized data gathered using the questionnaire for a secondary analysis to further validate the method. We will also appreciate if someone invests energy into independently testing the factorial structure of the questionnaire or collects data in his or her research that would allow for testing the concurrent or predictive validity of the method.

Transformational leadership is the most widespread and cited theory of leadership. A Czech-speaking community has lacked a method for its measurement. We believe that the Czech Leadership Questionnaire will fill the existing gap and will contribute to the development of leadership research in the Czech Republic.

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