

Do they need us? Linking functional indispensability and voice behavior: The role of psychological ownership, job insecurity and organizational ambidexterity

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Abstract

This study looked into how workers' perception of their team's functional indispensability motivates them to engage in promotive voice behavior. The mediating role of psychological ownership and the moderator roles of job insecurity and organizational ambidexterity were also examined. Data from 820 Portuguese workers from different business sectors were analyzed using multiple regression techniques. Results indicate that perceived functional indispensability is positively associated with employee voice behavior, and this relationship is mediated by increased psychological ownership of the organization. Moreover, quantitative job insecurity weakens the link between indispensability and ownership, while ambidexterity reinforces the relationship between indispensability and voice.

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Keywords

Functional indispensability, job insecurity, organizational ambidexterity, promotive voice behavior, psychological ownership

Introduction

In the current rapidly changing business environments, organizations need to engage in human resource management (HRM) practices with mutually beneficial effects on employee wellbeing, organizational innovation and success. In these practices, voice is considered a key component (Guest, 2017). Acknowledging positive team feedback is an important HRM practice, but managers' understanding of the link between teamwork and organizational effectiveness remains weak (Richter et al., 2011).

Research on the advantages of groupwork versus individual effort has a long history (e.g., Triplett, 1898), with recent studies reporting that employees' participation is enhanced by team autonomy (i.e., workers' perception of their team's higher efficacy versus their own individual achievements) (Jönsson and Jeppesen, 2013). Employees are more motivated to contribute (Larson et al., 2018) when they perceive their efforts to be indispensable to their team's outcomes (Hertel et al., 2018). However, researchers have not yet explored the possible role of perceptions of indispensability in motivating workers to participate, namely by engaging in voice behavior.

The present study sought to fill this gap while also extending the literature on moderators of employee voice behavior, namely, quantitative job insecurity and organizational ambidexterity. Psychological ownership (PO) toward the organization, a known mediator of employee voice, was also included to develop a more comprehensive conceptual framework. Conservation of resources theory (COR; Hobfoll, 1989), reciprocity norm (Blau, 1964) and signaling theory (Connelly et al., 2011; Spence, 1978) helped to theoretically frame the proposed hypotheses. The present study's results contribute to the literature on functional indispensability (FI) and employee voice in different ways. First, the study is a pioneer in highlighting FI's significant role in motivating employees to engage in promotive voice behavior, thus expanding the literature on the antecedents of employee voice. Second, despite PO's important role in predicting employees' attitudes and behaviors (Zhang et al., 2021), it has never been studied as a mediator of the link between FI and voice behavior. The current research thus sought to analyze the direct relationship between employees' perceptions of FI and their promotive voice behavior as well as PO's mediating role. The results provide significant added value in terms of the existing knowledge and help to fill gaps in the literature. This study's findings also contribute to the discussion on the boundary conditions of FI and PO's effect on voice behaviors by addressing job insecurity and organizational ambidexterity's intervention. A careful review of the relevant literature failed to reveal any research that has focused on the relationships between these five variables. Notably, the recent literature on voice has increasingly called for studies considering diverse types of intermediary variables and boundary conditions to develop extant 'understanding of when and why employees choose to speak up or remain silent' (Morrison, 2023: 1.1). The results provide information relevant to practitioners by clarifying which factors foster promotive voice behavior, which is important to designing appropriate ways to manage employee voice by managers and HR professionals.

Theoretical background and hypotheses

Indispensability and voice behavior

Teamwork can facilitate workers' social influence or constrain them (Jönsson and Jeppesen, 2013) since studies show that both stronger motivation (Larson et al., 2018) and less motivation (Liden et al., 2004) are related to groupwork. In line with models combining instrumentality and value (Karau and Williams, 2001; Vroom, 1964), employees' effort on behalf of their team is a function of perceived instrumentality in terms of obtaining highly valued outcomes (i.e., social indispensability) (Hertel et al., 2000), which in turn is connected to performance and positive self and social appraisals (Hertel et al., 2000; Larson et al., 2018). This concern with increasing effort can be experienced as feeling responsible for the team's successes and reputation (Kerr and Hertel, 2011).

However, social indispensability has been studied mostly at the interpersonal or individual-toward-team level (Hertel et al., 2000). Would similar concerns about promoting the group be applicable at a superordinate level – from teams toward the organization? More recently, the concept of functional indispensability (FI) has been proposed in that regard. FI refers to the perceived instrumentality of a group's contribution to desirable superordinate goals (Guerra et al., 2015). Thus, FI takes the premises of social indispensability to a group or team-toward-organization level of analysis. This concept has been mostly studied from the perspective of reducing prejudice against immigrants, but more recent research started to examine FI in organizational settings. FI can motivate lower-status subgroups to feel more represented in post-merger organizations and thus identify with the post-merger organization and commit to the changes mergers imply (Rosa et al., 2020). FI's role has, nonetheless, been neglected in other organizational contexts. Studies more related to organizational promotion and social responsibility and organizational citizenship behavior (OCB) would be at the core of such contexts, for their parallel with research conducted in the scope of (intra-team level) social indispensability. Moreover, social indispensability research has been tested in the context of sports teams, for which promoting the group involves direct performative behavior. Thus, little is known, at either level of analysis, regarding promotive behavior in other organizational contexts not so dependent on physical effort. Voice behavior can be one of such OCB avenues (LePine and Van Dyne, 2001), thus offering a broad perspective of indispensability outcomes.

Voice can be conceptualized as an informal and discretionary behavior aimed at proactively making constructive changes (LePine and Van Dyne, 1998; Morrison, 2023). Voice has been connected with organizational outcomes, such as innovation (Rank et al., 2004) and performance (Frazier and Bowler, 2015), as well as with employee benefits, such as individual performance (Ng and Feldman, 2012) and promotions and salary increases (Seibert et al., 2001).

When engaging in voice behavior, messages' nature and content can focus on different goals (Dundon et al., 2004; Maynes and Podsakoff, 2014) from the suppression of potentially harmful work practices (i.e., prohibitive voice) to the implementation of new work methods (i.e., promotive voice) (Liang et al., 2012). The latter behavior is proactive, encouraging or causing things to happen. In turn, prohibitive voice behavior is preventative, seeking to stop behavior that may harm an organization, so prohibitive

voice behavior is riskier for employees (Svendsen et al., 2018). Since the two types of voice can have differential predictors (Morrison, 2023), this research focused on promotive voice behavior because of its connection to organizational innovation and success.

Voice is considered one of the more challenging types of OCB (Van Dyne and LePine, 1998). Workers who consider speaking up often experience psychological conflicts (Hsiung and Tsai, 2017) given that managers can see voice as an attack on them (Burris, 2012; Liang et al., 2012) and interpersonal workplace relationships may be harmed (Detert and Edmondson, 2011). These potential negative results underline the need for a better understanding of voice antecedents and moderators. Multiple factors are involved: individual demographics such as gender and tenure (Detert and Burris, 2007); personal variables including beliefs about voice (Detert and Edmondson, 2011), moral identity (Hu and Jiang, 2018) and self-esteem (LePine and Van Dyne, 1998); and organizational variables such as leadership (Chamberlin et al., 2017; Svendsen et al., 2018).

Because promotive voice is positive in tone, employees who engage in this behavior are often seen as contributing to their organization's success (Liang et al., 2012). In this context, social indispensability has been associated with prosocial motivation toward the team (Hertel et al., 2018), and FI can also be assumed to be relevant for teams to act on behalf of the organization: workers' perception of their team's FI regarding organizational outcomes may lead employees to engage in more promotive voice behavior, thereby reinforcing instrumentality dynamics. In addition, FI may be linked to projected continuity (i.e., what employees can do to achieve future goals) (Lupina-Wegener et al., 2013; Ullrich et al., 2005). Because promotive voice is also future-oriented (Liang et al., 2012), workers' stronger perceptions of their team's indispensability should result in employees' greater engagement in more promotive voice behavior.

Employees who perceive their team to be more functionally indispensable to their organization's goals may consider voice behaviors of greater importance to achieve organizational success (Raub and Robert, 2013), and, therefore, be more motivated to express their voice. In the same vein, perceptions of higher team FI may foster perceptions of higher subjective status within the organization, which have been linked to increased use of voice by means of enhanced psychological safety (Bienefeld and Grote, 2014). Additionally, Venkataramani et al. (2016) reported that employees are more prone to share their ideas and information when they have a central position in their team's workflow network. Based on the above findings, the following hypothesis was developed for the present study:

Hypothesis 1: Employees' perception of their team's FI to their organization is positively related with their engagement in promotive voice behavior.

Psychological ownership's mediating role

The link between team FI and promotive voice behavior has not been previously tested, so research is needed to understand this relationship's underlying psychosocial process. This study, therefore, explored PO's role as a mediator between FI and promotive voice behavior. In organizations, PO happens when employees perceive their organization as

symbolically theirs (Avey et al., 2012; Pierce et al., 2003), which is attached to a higher sense of efficacy and competence (White, 1959) and a willingness to work on behalf of their organization (Xiong et al., 2019).

PO is developed through workers' perceived control over work decisions, knowledge and investment in their job (Brown et al., 2014; Pierce et al., 2003), which is akin to being indispensable to the outcomes of the organization. Indeed, 'when people perceive they may influence outcomes, they are likely to assume psychological ownership' (Xiong et al., 2019: 276). Thus, we can infer that when employees believe that they can actively contribute to their organization's outcomes (i.e., high FI), they are more likely to experience PO of that organization. Recent findings on organizational mergers (Rosa et al., 2020) indicate that, if workers see their team as functionally indispensable to their organization, this perception leads to a stronger perceived representativeness of their team in the organization as a whole and increased organizational identification and commitment. However, the association between FI and PO is still unclear. For this reason, the following hypothesis was included in the current research:

Hypothesis 2: Employees' perception of their team's FI is positively associated with their PO of their organization.

Many studies have linked PO to various positive organizational outcomes, such as work motivation, job satisfaction, organizational commitment, individual performance (Avey et al., 2009) and employee discretionary effort (Morrison, 2011). More importantly, PO has been proposed as a superior predictor of OCBs because it elicits more effort to protect and enhance the ownership object (Van Dyne and Pierce, 2004). Furthermore, by helping employees fulfill their need to belong and self-identify, PO might pressure employees to conform to the reciprocity norm (Blau, 1964) by engaging in beneficial extra-role behaviors, including voice (Ng and Feldman, 2012; Wang et al., 2019). Indeed, voice seems to be more frequent when employees feel a strong sense of obligation and connection toward the organization (Morrison, 2023; Ng and Feldman, 2015). Only limited research has, nonetheless, been conducted thus far on how PO contributes to behaviors such as voice (Morrison, 2011) despite more recent interest in this relationship. For instance, employees are more likely to engage in voice behavior when they develop PO of their organization. More importantly, control over outcomes does not predict voice directly, but through PO as a mediator (Xiong et al., 2019).

Also, Wang et al. (2019) reported that extended social exchange (i.e., supervisor–employee *guanxi*) predicts voice behavior because *guanxi* increases PO, but the potential for a similar effect on teams is unknown. In their specific case, the cited study did not find evidence that PO affects promotive voice behavior, only prohibitive voice. To explain this finding, Wang et al. (2019) proposed that prohibitive voice is riskier and, therefore, can be more significantly affected by PO levels. Also, it was found that team members with strong PO could resist major changes in their organization, in line with previous research (Pierce et al., 2001), although FI can help to reduce this resistance (Rosa et al., 2020).

Additional hypotheses were thus formulated for the present study that employees' perception of their team's FI is a source of PO. This ownership should enhance workers'

willingness to engage in promotive voice behavior as a way to not only reciprocate their organization's support and sense of belongingness (Blau, 1964), but also protect and enhance the ownership object (Van Dyne and Pierce, 2004). The result was the current research's third and fourth hypotheses:

Hypothesis 3: Employees' PO of their organization is positively associated with their engagement in promotive voice behavior.

Hypothesis 4: Employees' PO of their organization mediates the relationship between their perception of their team's FI and their engagement in promotive voice behavior.

Job insecurity as moderator

Because of fast-paced technological development and globalization, organizations must change to stay competitive and survive (Sora et al., 2010). Management often needs to reduce personnel (e.g., downsizing, mergers, acquisitions and seasonality) or to adopt new forms of employment and flexible work arrangements, which increases employees' job insecurity (Guest, 2017). The latter concept refers to workers' perceptions of potential involuntary job loss (De Witte, 1999) or overall concerns, threats, and feelings of powerlessness related to their current job's continuity and stability (Shoss, 2017; Sverke and Hellgren, 2002).

The mere anticipation of job loss is threatening and stressful (De Witte, 1999), violating basic psychological needs for autonomy and competency (Deci and Ryan, 2000; Vander Elst et al., 2012). Job insecurity affects work-related indicators (Klandermans et al., 2010) on a physical, psychological and behavioral level (Jiang and Lavaysse, 2018), as well as quality of life (De Witte et al., 2016). The results of Klug (2020) suggest young workers in the first stages of their career are especially vulnerable to feeling job insecurity regardless of their education level, because they are often temporarily employed, which highlights the importance of contractual conditions in perceived job insecurity. Furthermore, among the consequences of job insecurity for organizations as employers, studies point to adverse effects such as a decrease in organizational loyalty and an increase in the employees' turnover intention (Sverke and Goslinga, 2003). Balz and Schuller (2021) have showed this effect in multiple countries, adding there is some evidence suggesting that employees who feel irreplaceable are less likely to have turnover intentions. The present study focused on quantitative job insecurity (e.g., job loss) as the latter reduces the effect of FI on employees' PO and voice. Consistent with the COR (Hobfoll, 1989), individuals high in job insecurity can experience a threat or real loss of resources (employment *per se* and associated benefits), being likely to feel strain symptoms and reduced sense of control, withdrawing from activities that further demand their resources. They will refrain from doing what is expected of them, but also from engaging in resource consuming extra-role behaviors (König et al., 2010), such as voice (Xia et al., 2020). Considering the abovementioned literature, we assume that job insecurity can have a reverse buffering effect, lessening the positive effect of FI on both promotive voice and PO. Therefore, the following hypotheses were created for the current research:

Hypothesis 5: Employees' quantitative job insecurity moderates the relationship between FI and their engagement in promotive voice behavior so that, the stronger their quantitative job insecurity is, the weaker becomes the association between their FI and voice.

Hypothesis 6: Employees' quantitative job insecurity moderates the relationship between FI and PO so that, the stronger their quantitative job insecurity is, the weaker becomes the association between their FI to and PO of their organization.

Organizational ambidexterity as moderator

Voice behavior can be affected not only by individual and/or social factors (e.g., PO and core self-evaluations) but also contextual organizational factors (e.g., leadership, climate) (Morrison, 2011, 2023). The increasing pace at which innovation occurs in organizations has drawn researchers' attention to antecedents of innovation, especially how organizations allocate their resources to strategies that best match their business context and activities (Kiss et al., 2020). Innovation can be incremental and exploitative, or discontinuous and exploratory (O'Reilly and Tushman, 2013). These depend, respectively, on whether innovation builds on existing knowledge and extends available products and services for ongoing customers (Benner and Tushman, 2003) or pursues new knowledge creation and develops new products and services for emerging customers or markets (Jansen et al., 2006).

Organizations can engage in both options, namely, organizational ambidexterity (March, 1991; Solís-Molina et al., 2018). When balanced, ambidexterity ensures both short- and long-term performance, survival and prosperity (Brix, 2019; O'Reilly and Tushman, 2013). The present research sought to incorporate this variable as a meaningful context for the link between FI, PO and voice, as this latter behavior can be valued whatever the type of innovation in stake.

Drawing on signaling theory (Connelly et al., 2011; Spence, 1978), we consider that organizational ambidexterity sends signals to employees on how voicing good suggestions is valued by the organization, and how safe the context is to express ideas and provide information regarding future improvements. By decreasing any concern that speaking up could be risky, organizational ambidexterity can strengthen the effects both FI and PO have on promotive voice behaviors. Crossan et al. (1999) posit that exploration and exploitation are the result of transitions taking place across different levels in organizations. At the team level, these processes include workers' interpreting their personal intuition about newly identified opportunities and integrating the insights gained from these opportunities into their organization as new or better ways of working (Brix, 2019). Members of functionally indispensable teams will presumably be more likely to engage in promotive voice behavior, especially when employees perceive organizational ambidexterity. Similarly, employees with high PO feel more accountable to protect and enhance their object of possession (Van Dyne and Pierce, 2004; Xiong et al., 2019) namely by engaging in voice behaviors, especially if they feel it is safe to do it. Workers in ambidextrous contexts believe their organizations are more open to improvement and

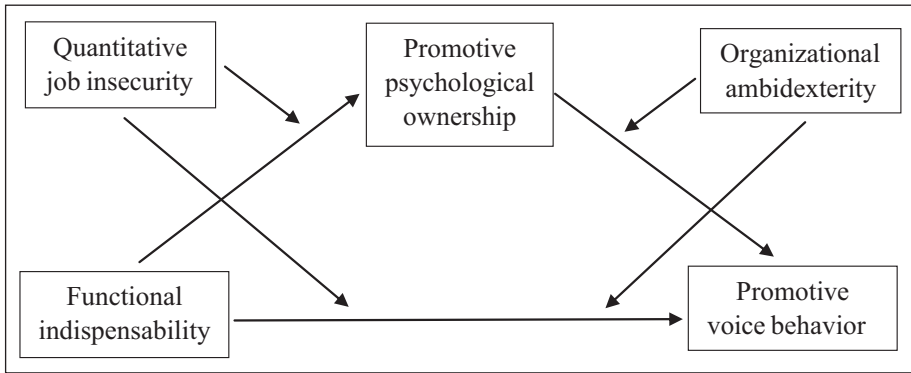


Figure 1. Theoretical model.

value employees who speak up (Morrison, 2011; Ruck et al., 2017). This is in line with contextual factors such as low organizational bureaucracy (Morrison, 2011) and ambidextrous leadership (Li et al., 2021) predicting voice.

The above findings were incorporated into two final hypotheses:

Hypothesis 7: Organizational ambidexterity moderates the relationship between FI and promotive voice behavior so that, the more pervasive organizational ambidexterity is, the stronger the association between FI and employees' engagement in voice behavior will be.

Hypothesis 8: Organizational ambidexterity moderates the relationship between PO and promotive voice behavior so that, the more pervasive organizational ambidexterity is, the stronger the association between employees' PO of their organization and engagement in voice behavior will be.

The complete theoretical model is shown in Figure 1.

Methods

Sample and procedures

To enable an empirical examination of the research model, a cross-sectional survey design study was developed, following both the ethical guidelines of the Declaration of Helsinki and the research team's university. The data were drawn from a sampling frame of Portuguese workers from different organizations to understand more fully how FI affects promotive voice behavior. The survey was made available online, and participants were recruited through both direct contact with organizations and dissemination of the survey on social and professional platforms. Thus, the data were collected using nonprobability sampling. Following the Helsinki Declaration principles, the survey started with an informed consent section in which the research goals were explained, and the data's anonymity and confidentiality were guaranteed.

The sample size comprised 820 participants, who were gender balanced (i.e., 52% were female) and mostly 25–29 years old (29%) and 30–34 years old (21.6%). The respondents' education level was generally high, with most respondents having earned a bachelor's (32.6%) or master's degree (37.3%). Regarding job tenure, 24.1% of the sample had been with their current organization for less than 1 year, while 37.6% had worked between 1 and 3 years for their organization. Slightly more than two-thirds had a permanent employment contract (68.6%).

In addition, a considerable number of participants held a leadership position within their organization (39.4%). Most participants worked in the private sector (90.6%) and in organizations with 250 employees or more (64.3%). The respondents worked in different business sectors including commerce and services (30.8%), manufacturing (13.8%), banking and insurance (10.9%), and information technologies (9.0%).

After data collection, the measures' psychometric characteristics, including convergent and discriminant validity were assessed using AMOS and SPSS. This latter software was also used for observing variables' descriptive statistics and intercorrelations. Hypotheses were tested through multiple regression analysis using PROCESS Macro for SPSS software (Hayes, 2017).

Measures

Unless otherwise specified, participants used a 7-point Likert scale (1 = 'Strongly disagree' to 7 = 'Strongly agree') to provide their answers (for reliability results, see Table 1). FI was measured by adapting the six items of the Functional and Identity Indispensability Scale developed by Guerra et al. (2016). The cited scale was originally developed to assess how indispensable minority group members' contributions are perceived to be to superordinate outcomes (e.g., immigrants' contributions to the host society's economy). The present study adapted these items to measure how indispensable employees perceive their team's contribution to be to their organization's outcomes (e.g., performance and financial strength). One item, for example, states, 'my organization's performance depends on my team's contributions'.

Promotive voice behavior was assessed with 10 items adapted from Maynes and Podsakoff's (2014) scale. Originally developed to measure workers' voice behavior based on their supervisors' evaluation, the current research adapted these items to collect data on employees' self-reported voice behavior (e.g., 'I often suggest changes in tasks or work projects to make them better').

Psychological ownership was measured with 12 items from the Psychological Ownership Questionnaire (Avey et al., 2009). The cited scale assesses four dimensions: self-efficacy, accountability, sense of belonging and self-identity. For example, 'I am confident I can make a positive difference in this organization' (i.e., self-efficacy). 'I would challenge anyone in my organization if I thought something was done wrong' (i.e., accountability). 'I feel I belong in this organization' (i.e., a sense of belonging). 'I feel being a member in this organization helps define who I am' (i.e., self-identity). The participants indicated their level of agreement with each item using a 6-point Likert scale (1 = 'Strongly disagree' to 6 = 'Strongly agree').

Table 1. Means (M), standard deviations (SD), Spearman's correlations, Cronbach's α , squared correlations, composite reliability (CRs) and average variance extracted values (AVE).

	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	CR	AVE
1. COVID-19 ^a	—	—														
2. Age ^b	5.42	1.78	-.02													
3. Gender ^c	—	—	-.09*	-.16**												
4. Tenure ^d	2.70	1.65	-.01	.47**	-.06											
5. Managerial position ^e	—	—	.03	.36**	-.14**	.29**										
6. Marker variable	4.44	1.37	-.04	-.04	-.03	.00	-.06									
7. Core self-evaluations	4.99	0.70	.07*	.11**	-.09**	.03	.16**	-.08*	(.86)	.12	.08	.03	.20	.15	.85	.33
8. Quantitative job insecurity	2.47	1.31	.08*	.01	.01	-.14**	-.05	.03	-.35**	(.90)	-.06	.00	.11	.05	.90	.70
9. Organizational ambidexterity	5.09	1.10	.17**	-.01	-.04	-.04	.06	.00	.27**	-.24**	(.92)	.00	.17	.06	.88	.79
10. Functional indispensability	5.17	1.25	-.10**	.11**	-.05	-.01	.13**	.05	.17**	-.05	.06	(.89)	.07	.06	.90	.59
11. Psychological ownership	4.49	0.80	.03	.19**	-.15**	.15**	.30**	-.03	.44**	-.34**	.41**	.26**	(.79)	.32	.84	.60
12. Promotive voice behaviors	5.63	0.85	.08*	.19**	-.07*	.10**	.30**	-.04	.39**	-.22**	.25**	.24**	.57**	(.93)	.68	.52

Notes. Spearman's correlations below the diagonal; squared correlations above the diagonal. * $p < .05$; ** $p < .01$.

^aCOVID-19 = coronavirus-19; 0 = before the pandemic, 1 = during the pandemic; ^bAge: from 1 = less than 18 years old to 12 = more than 65 years old; ^cGender: 0 = male, 1 = female; ^dTenure: from 1 = less than 1 year to 6 = more than 10 years; ^eManagerial position: 0 = no, 1 = yes.

Quantitative job insecurity was measured with a four-item scale designed by Vander Elst et al. (2014) (e.g., 'I think I might lose my job in the near future'). Organizational ambidexterity, in turn, was assessed with a 12-item scale developed by Jansen et al. (2006). These items assess two dimensions of organizational ambidexterity: exploratory innovation (e.g., 'We invent new products and services') and exploitative innovation (e.g., 'We regularly make small adaptations to existing products and services').

The survey also included some control variables that could be responsible for confounding effects. Core self-evaluations were assessed using a 12-item scale created by Judge et al. (2003) (e.g., 'I determine what will happen in my life'). This control variable was considered relevant because it has been shown to be a significant predictor of voice behavior (Avery, 2003).

Gender has also been shown to be a significant predictor of voice behavior (Morrison, 2011), so the data analysis included controlling for participants' gender (0 = male; 1 = female). Tenure has previously been shown to be another important predictor of voice behavior (LePine and Van Dyne, 1998). The present study thus controlled for respondents' tenure in their organization (1 = less than one year; 2 = between 1 and 3 years; 3 = between 3 and 5 years; 4 = between 5 and 7 years; 5 = between 7 and 10 years; and 6 = more than 10 years).

Because the data were collected between December 2019 and May 2020, the analysis included controlling for the coronavirus-19 (COVID-19) pandemic's possible effects on results. The participants were divided in two categories (0 = before the pandemic [32.6%]; 1 = during the pandemic [67.4%]) based on the date on which surveys were submitted and a cut-off date of the day on which a state of national emergency was declared.

Discriminant and convergent validity of measures

The study's cross-sectional design meant that common method variance (CMV) could potentially weaken the results' validity. Various analyses were conducted to ensure that CMV was not a threat. First, exploratory factor analysis without rotation was carried out, revealing that the first factor accounted for less than 50% of the total variance, which is the cut-off value suggested by the literature (Podsakoff et al., 2003). More specifically, this factor explained only 11.91% of variance out of a total of 67.83%.

Second, multiple confirmatory factor analyses were performed using AMOS software (see Table 2). The six-factor model fit the data well (e.g., root mean square error of approximation [RMSEA] = .05; Tucker–Lewis index [TLI] = .91; comparative fit index [CFI] = .92). In contrast, the single-factor model and four other alternative models presented unacceptable fit statistics (Hu and Bentler, 1999), indicating that the variables of interest capture different constructs.

Third, the marker variable technique was applied (Podsakoff et al., 2003) by measuring the participants' degree of agreement to the statement 'I prefer to work with more experienced people'. No significant relationship was expected between this variable and the remaining variables in the study. As can be seen in Table 1, the results show that no significant correlation exists between this marker variable and the variables of interest (all $p > .05$).

Table 2. Fit indices.

	χ^2 (df)	χ^2/df	RMSEA	TLI	CFI
Model 1: Six-factor model (FI + JI + CSE + VB + PO + OA)	4025.823 (1450)	2.759	.046	.912	.917
Model 2: Single-factor model (all merged)	20269.745 (1480)	13.939	.126	.352	.378
Model 3: Two-factor model (FI and OA merged + JI and CSE, VB and PO merged)	7202.308	4.893	.069	.740	.805
Model 4: Three-factor model (FI, JI and CSE merged + VB and PO merged + OA)	8354.977 (1471)	5.680	.766	.776	.076
Model 5: Four-factor model (CSE and VB merged + FI and JI merged + VB and PO merged + OA)	6617.613 (1467)	4.511	.065	.824	.833
Model 6: Four-factor model (FI, JI and CSE merged + VB + PO + OA)	8206.864 (1468)	5.591	.770	.781	.075

Notes. *df* = degrees of freedom; FI = Functional indispensability; JI = Job insecurity; CSE = Core self-evaluations; VB = Promotive voice behavior; PO = Psychological ownership; OA= Organizational ambidexterity.

Last, to ensure discriminant validity, average variance extracted (AVE) values were estimated and compared to the squared correlations between all pairs of variables. Fornell and Larcker (1981) suggest that the AVE values should be greater than the shared variance between variables (see Table 1). Overall, the results indicate that the six constructs show discriminant validity and that no serious CMV was present in the study.

Convergent validity was also confirmed as the composite reliability (CR) values are above the recommended cut-off point of .70 (Fornell and Larcker, 1981), except for voice behavior, which is slightly below the recommended value (.68). The AVE estimates are also above the accepted threshold of .50 (Fornell and Larcker, 1981). The one exception is core self-evaluations (AVE = .33). This lower value suggests that the variance captured by the underlying latent constructs is lower than the variance due to measurement error, which could be related to low loading values ranging between .44 and .67 (see Appendix A). Fornell and Larcker (1981: 46) assert that, based on CR alone, researchers 'may conclude that the convergent validity of the construct is adequate, even though more than 50% of the variance is due to error'. Therefore, core self-evaluations were still included in subsequent analyses.

Results

Descriptive statistics and correlations

The descriptive statistics generated using SPSS show overall high or mid-point levels for all the variables (see Table 1). In addition, the Spearman's coefficients reveal that the variables of interest are all significantly intercorrelated, with low to moderate correlation values (all $p < .05$). The exception is perceived FI, which is not significantly correlated with both job insecurity and organizational ambidexterity (both $p > .05$). Moreover, voice behavior is significantly correlated with the four control variables defined *a priori*

(all $p < .05$). Some socio-professional characteristics, namely, participants' age ($r_s = .19$; $p < .01$) and holding a managerial position ($r_s = .30$; $p < .01$), are significantly correlated with FI. These variables were thus set as covariates in subsequent analyses.

Hypothesis testing

PROCESS Macro for SPSS version 26 software (Hayes, 2017) was used to test the hypotheses (i.e., models 4 and 29). Table 3 presents the results of moderated mediation analyses.

The first hypothesis predicted that employees' perception of their team's FI to their organization would be positively related to their promotive voice behavior. FI's total effect on voice behavior is statistically significant (unstandardized coefficient [B] = .08; $p < .001$), confirming such relationship (Table 3). Hypothesis 1 was, thus, supported.

Hypothesis 2 expected a positive association between workers' perception of their team's FI and their PO. The results reveal that the relationship between the two variables is positive and statistically significant ($B = .11$; $p < .001$). Thus, Hypothesis 2 was also supported.

Hypothesis 3 predicted that employees' PO of their organization would be positively related to their engagement in voice behavior. The findings include that a significant positive relationship exists between these variables ($B = .46$; $p < .001$), thereby providing empirical support for Hypothesis 3.

Hypothesis 4, in turn, posited that workers' PO would mediate the relationship between their perceived FI and voice behavior. The results show that FI has a significant indirect effect on voice behavior via PO ($B = .05$; 95% confidence interval [.03, .07]), which supports the proposed hypothesis. As the direct effect of FI on voice behavior ($B = .03$; not statistically significant [*n.s.*]) is smaller than the total effect and no longer significant, the findings indicate that the mediation is complete.

Hypothesis 5 expected that job insecurity would moderate the relationship between employees' perceived FI and voice, so that the higher their job insecurity is, the weaker the association becomes between FI and voice. The variables were mean centered, revealing that job insecurity's direct ($B = -.01$; *n.s.*) and interaction effects ($B = -.01$; *n.s.*) are statistically non-significant. Accordingly, Hypothesis 5 received no empirical support.

Hypothesis 6 expected that job insecurity would moderate the relationship between employees' perceived FI to and PO of their organization, so that the higher their job insecurity is, the weaker the association becomes between perceived FI and PO. The findings revealed that job insecurity has a significant negative main effect on PO ($B = -.13$; $p < .001$) as well as a significant interaction with FI ($B = -.04$; $p < .01$). As shown in Figure 2, the higher job insecurity is, the weaker the association is between FI and PO ($B_{\text{Low job insecurity}} = .16$, $p < .001$; $B_{\text{Medium job insecurity}} = .11$, $p < .001$; $B_{\text{High job insecurity}} = .06$, $p < .05$). Members from teams with high FI will be less likely to develop PO as their concern with employment continuity increases. Hypothesis 6 was thus also supported.

Hypothesis 7 predicted that perceived organizational ambidexterity would moderate the relationship between perceived FI and voice behavior so that, the more pervasive

Table 3. Hypotheses testing results.

Variables	Psychological ownership B (SE)	Promotive voice behavior B (SE)
Total effect		
Constant		2.82 (.27)***
Functional indispensability (FI)		.08 (.02)***
COVID-19 ^a		.11 (.06)
Age ^b		.02 (.02)
Gender ^c		.00 (.05)
Tenure ^d		.01 (.02)
Managerial position ^e		.32 (.06)***
Core self-evaluations		.32 (.04)***
		$R^2 = .25$ ($F[9,793] = 30.15$, $p < .001$)
Direct effect		
Constant	-2.11 (.20)***	4.49 (.23)***
FI	.11 (.02)***	.04 (.02)
Quantitative job insecurity (JI)	-.13 (.02)***	-.01 (.02)
FI × JI	-.04 (.01)**	-.01 (.02)
Psychological ownership (PO)	-	.46 (.04)***
Organizational ambidexterity (OA)	-	.01 (.02)
FI × OA	-	.03 (.02)*
PO × OA	-	-.03 (.02)
COVID-19 ^a	.08 (.05)	.11 (.05)*
Age ^b	.01 (.02)	.02 (.02)
Gender ^c	-.10 (.05)*	-.05 (.05)
Tenure ^d	.03 (.02)*	-.01 (.02)
Managerial position ^e	.26 (.05)***	.22 (.05)***
Core self-evaluations	.37 (.04)***	.18 (.04)***
	$R^2 = .35$ ($F[9,793] = 47.70$; $p < .001$)	$R^2 = .37$ ($F[13,789] = 36.29$; $p < .001$) $B = .05$ (.01) [LLCI = .03; ULCI = .07]
Indirect effect		
<i>Conditional effects</i>		
Effects of FI on levels of JI		
-1 SD	.16 (.03)***	
M	.11 (.02)***	
+1 SD	.06 (.03)*	
Effects of FI on levels of OA		
-1 SD		.01 (.04)
M		.05 (.03)
+1 SD		.08 (.03)**

Notes. B = unstandardized coefficient; SE = standard error. * $p < .05$; ** $p < .01$; *** $p < .001$.

^aCOVID-19: 0 = before the pandemic, 1 = during the pandemic; ^bAge: 1 = from less than 18 years old to 12 = more than 65 years old; ^cGender: 0 = male, 1 = female; ^dTenure: 1 = from less than 1 year to 6 = more than 10 years; ^eManagerial position: 0 = no, 1 = yes. LLCI = lower confidence level; ULCI = upper confidence level; SD = standard deviation.

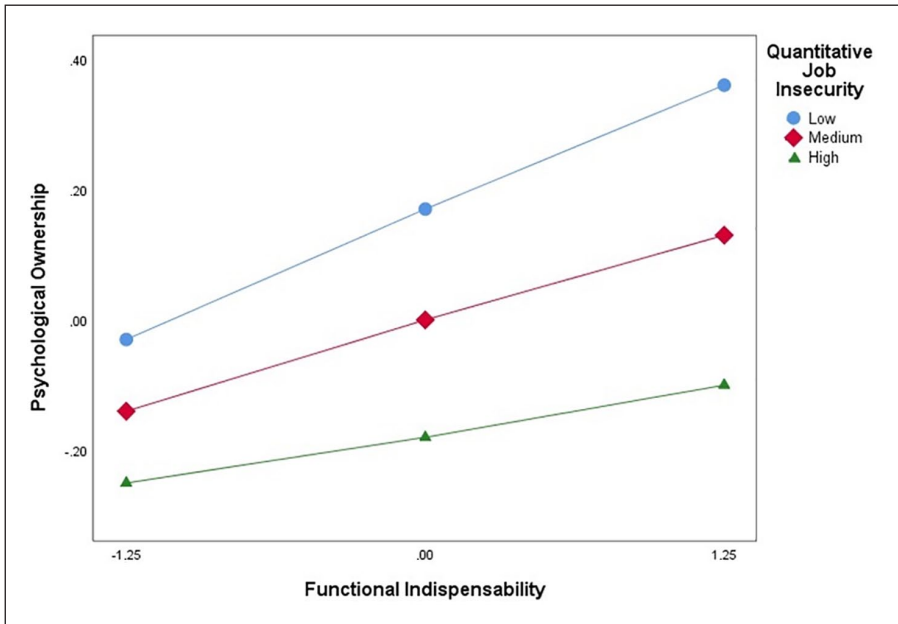


Figure 2. Quantitative job insecurity’s moderating effect on relationship between perceived FI and psychological ownership.

organizational ambidexterity is, the stronger the association becomes between FI and voice behavior. The results show that organizational ambidexterity significantly interacts with perceived FI to generate more voice behavior ($B = .03; p < .05$). As depicted in Figure 3, perceived low or medium levels of organizational ambidexterity have no effect on the association between FI and voice behavior, but, given quite pervasive organizational ambidexterity, the correlation between FI and voice behavior becomes stronger ($B_{\text{Low ambidexterity}} = .01, n.s.; B_{\text{Medium ambidexterity}} = .05, n.s.; B_{\text{High ambidexterity}} = .08, p < .01$). These effects are small but statistically significant, thereby providing empirical support for Hypothesis 7.

Finally, Hypothesis 8 proposed that perceived organizational ambidexterity would moderate the relationship between employees’ PO of their organization and voice behavior. In other words, the more pervasive the perceived organizational ambidexterity is, the stronger becomes the association between workers’ PO and voice behavior. As seen in Table 3, no significant interaction was found between the variables ($B = -.03; n.s.$). Hypothesis 8 was thus not supported by the present sample’s data.

Overall, the full model explains 37% of the unique variance of promotive voice behavior ($F[13,789] = 36.29; p < .001$). For the covariates’ effects on voice behavior, see Table 3.

Discussion

This study sought to explore the link between employees’ perceptions of their team’s FI and their promotive voice behavior while analyzing how potential mediating and

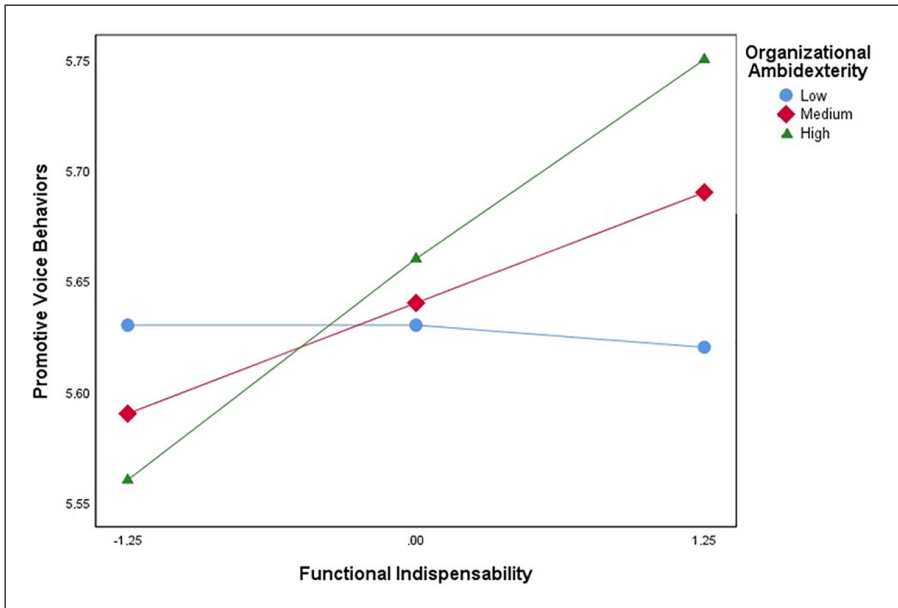


Figure 3. Perceived organizational ambidexterity's moderating effect on the relationship between perceived FI and promotive voice behavior.

moderating variables affect this relationship. More specifically, the possible mediating role PO plays in this relationship was examined, as well as the potential moderating effects of quantitative job insecurity and organizational ambidexterity. The findings contribute to a more comprehensive understanding of how and when perceived FI contributes to employees' promotive voice behavior – a topic that has been neglected in the literature.

The results support six of the eight hypotheses developed. The data suggest that workers' perception of their team's FI is positively associated with their tendency to engage in promotive voice behavior (i.e., Hypothesis 1). Members from more functionally indispensable teams may consider their voice behaviors of greater importance to achieve organizational success (Raub and Robert, 2013), to have a perception of higher subjective status within the organization (Bienefeld and Grote, 2014) or a more central position in their team's network (Venkataramani et al., 2016), all of these situations being conducive to higher voice. FI is also linked to increased PO (i.e., Hypothesis 2), which, in turn, is positively associated with voice behavior (i.e., Hypothesis 3). Literature suggests that PO is developed through workers' perceived control over work decisions, knowledge and investment in their job (Brown et al., 2014; Pierce et al., 2003; Xiong et al., 2019), factors that are promoted by teams' functional indispensability to the organizational outcomes. Moreover, PO pressures employees to protect and enhance the object of possession (Van Dyne and Pierce, 2004), namely by engaging in voice behaviors (Morrison, 2023; Ng and Feldman, 2015). In this context, it is not surprising that the relationship between FI and voice behavior is mediated by employees' PO of their organization (i.e., Hypothesis 4).

Consistent with COR theory, it was expected that employees with higher job insecurity would restrain extra-role behaviors (König et al., 2010; Xia et al., 2020) as a strategy to cope with stress and reduce resource and energy consumption, but also feel less PO given diminished sense of personal control over their work continuity. The findings revealed, however, that job insecurity does not affect FI's positive effect on voice behaviors (i.e., Hypothesis 5). It only weakens its relationship with PO (i.e., Hypothesis 6). These results suggest that workers' PO can depend, to some extent, on each individual's expectation of how long they will remain employed by that organization. Because employees' quantitative job insecurity reflects fear of potential job loss (Shoss, 2017), they may perceive the threat of – and anticipate – a break in their current employment relationship's continuity, which results in lower feelings of PO. However, the perception of the threat of employment discontinuity in our sample does not lessen FI's positive relationship with voice behaviors. Conversely, it might be the case that due to being uncertain about keeping their employment, individuals focus more on their work, increasing their team's FI effect on voice, in an attempt to increase their chance to keep their jobs. Regarding organizational ambidexterity's moderating role, based on signaling theory it was expected that this variable would lead employees to perceive voice as a valued behavior and the work context as a safe place to express it, reducing the risk of negative outcomes. As such, it was anticipated that it would strengthen the link between FI and voice (i.e., Hypothesis 7) as well as between PO and voice (i.e., Hypothesis 8). Findings suggest that, when organizational ambidexterity is perceived as pervasive, FI has a stronger positive effect on promotive voice behavior, supporting Hypothesis 7. However, ambidexterity has no impact on the association between PO and promotive voice behavior, so Hypothesis 8 was rejected. A possible explanation for this result is that the link between PO and voice behavior may be less susceptible to contextual factors' influence and more susceptible to other individual factors' effects. Nonetheless, contextual factors may still play a role (e.g., leaders' ambidexterity; Li et al., 2021). Until now, few researchers have sought to understand the link between PO and promotive voice behavior, and even less research has explored which contextual or individual factors influence this relationship. This question is thus further discussed later as a suggested future direction in research.

Notably, the results remain significant when the COVID-19 pandemic's effect on employee behavior was controlled for as the data were collected before and during the pandemic. This finding further reinforces the proposed model's relevance and stability.

Theoretical contributions

The present results make various theoretical contributions. First, this study is the first to test FI's significance as a predictor of employees' promotive voice behavior. The findings, therefore, not only extend the literature on the antecedents of promotive voice behavior but also add to the recent literature highlighting FI as a variable of interest in organizational settings (Rosa et al., 2020). Second, PO has recently attracted increased attention among researchers because this variable influences various outcomes for organizations and their members (Dawkins et al., 2017), yet few studies have sought to explore how feelings of ownership emerge in the workplace (Wang

et al., 2018). The current findings regarding FI set this variable as a relevant predictor of workers' feeling of possession regarding their organization because FI is akin to perceived control over work decisions, knowledge and investment in their job (e.g., Brown et al., 2014; Pierce et al., 2003). Job insecurity's moderating effect in the relationship between FI and PO is another significant theoretical contribution to the literature on the latter variable's antecedents. The finding suggests that FI's positive link with PO can be weaker when workers perceive their job continuity as threatened, in alignment with the COR perspective (Hobfoll, 1989). Third, Xiong et al. (2019) suggest that PO is associated with increases in employees' voice behavior in hospitality contexts. The present results provide evidence that this relationship also exists in other industries and organizational contexts, workers with stronger PO being more willing to provide suggestions on how to improve work-related issues. Additionally, PO seems to serve as a mediating mechanism by means of which organizations can foster voice, joining to previously identified ones such as organizational commitment and identification. Last, this study's findings extend the current understanding of organizational ambidexterity by suggesting that it fosters promotive voice behavior by signaling this as a valued and desirable type of contribution in the organizational setting. This effect appears to vary as ambidexterity interacts with FI but does not influence the link between PO and promotive voice behavior.

Practical implications

The results also have important implications for practitioners. First, if managers want to encourage their employees' promotive voice behavior, supervisors' efforts should be invested in developing and implementing HRM practices that increase employees' perceived FI in terms of achieving organizational outcomes. As all teams have a functional purpose in the organization, HR professionals can promote their functional indispensability to higher levels. Perceived team FI not only directly leads to more promotive voice behavior but also indirectly contributes via increased PO of the relevant organization. The latter constitutes a significant achievement because PO is related to other desirable outcomes besides voice behavior (e.g., organizational commitment, job satisfaction and less turnover intention; see Avey et al. [2009]).

Second, the present results suggest quantitative job insecurity is an important hindrance to PO. For practitioners, this finding could imply that, when organizations rely heavily on temporary contracts and flexible work arrangements as a strategy to reduce employment costs, they are risking negative outcomes (e.g., increased voluntary turnover and reduced work engagement; see Jiang and Lavaysse [2018]). These organizations may also be jeopardizing their overall performance by missing out on the positive outcomes when employees feel strong PO. Thus, practitioners can benefit from investing their effort and resources in reducing quantitative job insecurity by not only offering longer employment contracts but also exploring other HRM practices that reduce employees' job insecurity.

Last, the findings include that organizational ambidexterity strengthens the positive link between FI and promotive voice behavior. This result implies that practitioners could benefit from promoting their workforce's perceptions of ambidexterity if their

organization's goal is innovation and continuous improvement. However, if managers want to encourage employees to offer input through promotive voice behavior, increasing perceived organizational ambidexterity alone can actually cause workers with low perceived FI to speak up less frequently. In order for organizations to secure the most input from their employees, managers should both promote perceptions of more pervasive ambidexterity and seek to make their workers feel highly indispensable so that they will engage in promotive voice behavior more frequently.

Limitations and future directions in research

Despite these theoretical and practical contributions, the current findings should be interpreted with caution in view of the study's limitations. First, because the results rely on cross-sectional data, causal links between the variables could not be defined (e.g., FI and PO as antecedents of promotive voice behavior). Future research could focus on longitudinal studies to reach more valid conclusions about causality.

Second, cross-sectional data from a single source can lead to spurious covariance amongst variables. The analyses conducted provided some assurance that CMV is not a serious threat to the results' validity. Longitudinal research could, however, further reduce CMV's possible influence (Podsakoff et al., 2003).

In addition to future studies focused on overcoming these limitations, various possible paths could be of interest in further research. First, studies of FI have only recently included organizational settings (Rosa et al., 2020). Thus, future investigations could concentrate on FI's outcomes and antecedents to understand which factors managers must consider when developing HRM practices that promote their teams' perceptions of indispensability. In addition, FI is evidently a promising concept that researchers could examine further by, for instance, exploring employees' perceived social indispensability and ways that it is contingent on workers' perceptions of their team's FI to their organization.

The present results suggest that perceptions of high FI are associated with more frequent engagement in promotive voice behavior. From a managerial perspective, teams associated with stronger FI should be given access to more organizational resources than teams that are less indispensable to their organization's desired outcomes. However, employees' perceptions of FI may not always align with managers' perceptions of those teams' FI. All members of a highly indispensable team may also not perceive the same degree of indispensability. These misalignments could mean that certain members of highly indispensable teams will engage less frequently in promotive voice behavior and specific members of less indispensable teams will participate more in this behavior. Future research thus needs to address this issue by investigating whether team members' perceptions of FI align with other members' perceived indispensability and with their managers' perceptions, especially since the latter allocate organizational resources to maximize desired outcomes.

The current study relied on participants from several organizations, so the proposed model could not consider additional contextual factors that can influence the relationships between the selected variables. Some contextual factors to include in future research could be organizational culture and leadership style, which have been

linked to employees' voice behavior (Li et al., 2021; Liu et al., 2010). Studying these relationships under more controlled conditions may prove to be an important path for further studies.

Finally, the present research found job insecurity to have a direct negative effect on PO, as well as having a moderating role that weakens the link between FI and PO. As previously discussed, PO's development could depend on workers' expectation of a continued employment relationship with their organization, but the risk of involuntarily losing their job is only one of the circumstances under which their relationship can end. Researchers could, for example, explore an occupational future time perspective's (Weikamp and Göritz, 2016) and boundaryless career orientation's (Arthur and Rousseau, 1996) possible effects on PO. If confirmed, these links could help practitioners to develop HRM practices that target specific groups within their workforce to increase their PO.

Conclusions

Organizations currently rely more on teamwork than ever before (Kozlowski and Ilgen, 2006; Mathieu et al., 2014), and managers increasingly need more input from their employees (Bindl and Parker, 2010; Hsiung and Tsai, 2017). If employees do not speak up, they may hinder their organization's success, so HRM practices must encourage workers' promotive voice behavior (Hu and Jiang, 2018; Wang et al., 2019). The present proposed model contributes to the existing literature by exploring the antecedents and boundary conditions of this behavior and FI-related outcomes that ultimately benefit organizations.

The results outline one of the mechanisms through which employees can come to engage in promotive voice behavior and provide new insights into the factors that influence this mechanism (i.e., job insecurity and organizational ambidexterity). Managers need to consider these factors when allocating organizational resources to their teams and developing HRM practices to optimize desired outcomes such as innovation or performance. These findings can serve as the starting point for further research on FI, a relatively new concept in the literature on organizational behavior and HRM with significant implications for both academia and practitioners.


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Appendix A. Items' loadings (standardized estimates).

Measure	Loadings	Measure	Loadings
Organizational ambidexterity		Core self-evaluations	
OA3_3	.77	CSE2_6	.67
OA3_2	.73	CSE2_5	-.60
OA3_1	.86	CSE2_4	.51
OA2_5	.83	CSE2_3	-.47
OA2_4	.81	CSE2_2	.66
OA2_3	.78	CSE2_1	-.72
OA2_1	.65	CSE1_6	.44
OAI_5	.76	CSE1_5	-.47
OAI_4	.78	CSE1_4	.67
OAI_3	.84	CSE1_3	-.49
OAI_2	.78	CSE1_2	.59
OAI_1	.54	CSE1_1	-.55
Psychological ownership		Promotive voice behavior	
PO2_1	.76	VBI_1	.78
PO2_2	.87	VBI_3	.85
PO2_3	.81	VBI_2	.84
PO2_4	.82	VBI_4	.94
PO3_1	.87	VBI_5	.87
PO3_2	.81	VB2_1	.85
PO3_3	.89	VB2_2	.90
PO3_4	.84	VB2_3	.88
PO4_1	.86	VB2_4	.93
PO4_2	.83	VB2_5	.90
PO4_3	.74	Functional indispensability	
PO4_4	.72	FI_6	.74
Quantitative job insecurity		FI_5	.85
JII_4	.73	FI_4	.74
JII_2	-.77	FI_2	.74
JII_3	-.95	FI_3	.82
JII_1	-.89	FI_1	.73