

Employer Branding: When the Organization Appears as One Person

ABSTRACT

IT workers are fundamental to almost all organizations. Yet, the successful retention of IT workers is difficult, since the job market is full of opportunities for this type of workers. The objective of the present study was to test which are the best predictors of turnover intention among IT workers from a big Portuguese IT company. This cross-sectional study measured the perceptions of 211 IT workers. The tested predictors were job satisfaction, openness towards organizational changes, supervisor support and employer branding. Overall, the results of the latent structural model ($\chi^2(1,154) = 2,287.709; p < 0.001; \chi^2/df = 1.982; n = 211; CFI = 0.981; NFI = 0.963; TLI = 0.980; SRMR = 0.082; RMSEA = 0.068; P(RMSEA \leq 0.05) < 0.001; 90\% CI [0.064; 0.072]$) revealed that the best predictors of the turnover intention were the perceived supervisor support ($\beta = -0.215; p = .002$) and the job satisfaction ($\beta = -0.597; p < .001$). The employer branding ($\beta = -0.045; p = .578$) and the openness toward organizational change ($\beta = 0.003; p = 0.960$) did not present statistically significant paths. The results show the importance of global satisfaction with the work and the fundamental role that the supervisor plays in keeping the IT workers without intentions of quitting from the company.

Keywords: turnover; employer branding; IT workers.

Introduction

Strategic human resource management involves the improvement of processes that enable the acquisition, development, and retention of high-performance employees, who have skills that allow them to deal effectively with change and current instability in the world of work. The recruitment and retention of information technology (IT) specialists continues to concern both organizations and researchers (Moquin, K. Riemenschneider, & L. Wakefield, 2019; Oehlhorn, Maier, & Weitzel, 2020). Despite several studies on turnover in IT companies and recommendations to organizations on how to retain their employees, the overall turnover trend of IT professionals remains high. The need for more research on IT turnover has been requested by many, but much of the literature continues to conduct similar studies using the same constructs (Lo, 2015). Academics, management, and IT professionals have researched the factors affecting employee turnover and behavior in order to better understand these issues. According to the meta-analytical review of the IT literature (Joseph, Ng, Koh, & Ang, 2007) the research developed on turnover is based on three classes of individual attributes: a) demographic data, b) human capital, and c) motivation.

Regarding work-related factors, three categories are presented: a) characteristics of work, b) expected behavior in function, and c) function stress. Joseph et al. (2007) identified some limitations in the literature: 1) low volume of research on turnover in IT firms; and, 2) the need to contextualize turnover in IT firms (market and firms). Oehlhorn et al. (Oehlhorn et al., 2020) group the factors that lead to job abandonment in IT in three main categories: individual factors, at the work level, and at the organization level. Examples of that are perception of work alternatives (Joseph et al., 2007; Moore, Hester, & Yager, 2016), job satisfaction, personality (Eckhardt, Laumer, Maier, & Weitzel, 2016), and motivation to work (Thatcher, Liu, Stepina, Goodman, &

Treadway, 2006), and also the psychological contract is one of the factors recently studied (Moquin et al., 2019). This recent study highlighted the way four factors contribute to the breach of the psychological contract: perceived supervisor support, emotional dissonance, exhaustion, and salary. It should be noted that autonomy moderated the relationship between the breach of the psychological contract and turnover.

H1. The perceived supervisor support has a negative relation with the turnover intention.

Openness towards organizational change can be decisive to the successful implementation of new policies, processes, and structures in the workplace. Wanberg and Banas (2000) found that employee optimism, perceived control, information received about changes and self-efficacy for coping with changes were related to higher levels of change acceptance. Openness towards organizational change also depends on both individual variables (e.g., self-esteem, optimism, perceived control) and context-specific variables (e.g., information, participation, change self-efficacy, social support, personal impact). Further, Lenberg et al. (2017) report that workers' feelings of participation in the change process, the knowledge about the intended changes outcomes, and their understating of the need for organizational change can all impact on the attitudes towards said change. Occupational stressors, particularly poor work relationships, were negatively related with the attitudes towards change. In addition, highly stressed workers are prone to lower commitment and higher reluctance to accept change (Vakola & Nikolaou, 2005). Openness to change also decreases when professionals' previous experiences with organizational change were negative and trust in management was low (Devos, Buelens, & Bouckenooghe, 2007).

H2. The openness toward organizational change has a positive relationship with the turnover intention.

Job satisfaction can be influenced by several factors, both at the individual (mainly one's values, but also personality and mental health) and the organizational level (work, payment, promotions, peers/colleagues, supervisor, top leadership and benefits/policies) (Locke, 1976). More job satisfaction is positively related to greater organizational commitment (Sirgy, Efraty, Siegel, & Lee, 2001). In the opposite direction, more stress in the workplace is related to less job satisfaction (van Saane, Sluiter, Verbeek, & Frings-Dresen, 2003). Lack of job satisfaction on the other hand leads to turnover (Irvine & Evans, 1995; Lance, 1991), reduced health and life happiness, it can cause reduced performance and be caused by it (Locke, 1976).

H3. Job satisfaction has a negative relationship with the turnover intention.

The concept of employer branding (EB) germinated with the organizations' need to attract and retain human resources. Given that human capital is the most important vector of contemporary organizations (Malik & Khera, 2014), and that the attractiveness of an organization is an important factor in recruiting and retaining employees (Edwards, 2010), EB emerges as a tool which assists organizations to develop communication strategies, replicating the principles of marketing to human resource management (Alniaçık, Alniaçık, Erat, & Akçin, 2014) in order to counter these challenges of attraction and retention.

Barney (1991), stresses that organizations are able to create competitive advantage when they implement a set of resources and practices that are difficult (or even impossible) to be replicated by their competitors. The notion of EB was initially introduced by Ambler and Barrow (1996) in order to explain the factors that can have

relationship with the attraction of the best employees in job search. According to Branham (2001) and Thorne (2004), this is the package of psychological, economic and functional benefits provided to employees by the employer in order to position the company in the minds of potential candidates as a great place to work. Backhaus and Tikoo (2004) define the concept of employer branding as the effort that an organization makes to promote, both inside and outside the organization, a clear vision of what makes it different and desirable as an employer. Thus, it can be considered as a strategy that intends to positively manage the perceptions and recognition of the different players (collaborators, potential collaborators, and stakeholders). The employer brand can be defined as the sum of the efforts that an organization uses to communicate to current and potential employees that it is a desirable workplace (Ewing, Pitt, de Bussy, & Berthon, 2002; Minchington, 2010). Being a expected protective variable of turnover intentions (Mandhanya & Shah, 2010).

H4. Employer branding has a negative relationship with the turnover intention.

Altogether, turnover intention should present negative relationships with employer branding, supervisor support, and job satisfaction, and a positive relationship with openness toward organizational change (Figure 1).

Insert Figure 1 about here

Methods

Procedures

The survey was designed to be completed in 12 minutes. It was deployed using the a online using a web platform. The electronic informed consent was presented first and must had been accepted by the participant to proceed further in the questionnaire. All the participants were informed that they could leave the study at any time, and that they would be given an automatic report about their answers, and its comparison to the overview of responses.

Participants

To estimate the adequate sample size of the tested latent variable structural model with 11 latent variables (one of them being second-order) and 50 manifest variables (categorical indicators) and as such 1154 degrees of freedom (Rigdon, 1994) it was assumed that the population RMSEA should be not higher than .06 ($H_0: \varepsilon \geq .06$). Rejecting this hypothesis will lead to the conclusion that the model fit is better than .06 the recommended cutoff for a good fit (Hu & Bentler, 1999). Additionally, the true population RMSEA was considered to be $\varepsilon = .045$, this together with $\alpha = .05$; $\beta = .20$ (i.e. power = .80) resulted in a required sample size of $n = 81$ (Kelley & Lai, 2018).

The sample included IT workers who work in a big IT company based in Portugal. A pilot study was conducted with 15 workers with the intent to evaluate the platform used and items' compressibility. One invitation was sent to all potential participants in the same day, and two reminders during next two weeks. The company has around 400 IT workers, 279 of them answered to the survey, with a total of 211 complete answers. This cross-sectional study analyzed had a 5% trimmed mean time of

participation of 220 seconds. The age mean was 37.12 ($SD = 7.59$) years old, 64.86% male, and the mean tenure was 3.51 ($SD = 4.88$) years.

Measures

Online self-report psychometric instruments were used, the all the measures were adequately inspected in terms of validity evidence based on the internal structure (American Educational Research Association, American Psychological Association, & National Council on Measurement in Education, 2014) as the best practice advise to do so (Heggstad et al., 2019). All the instruments were used with its Portuguese adaptation.

Employer Branding Scale (EBS)

To measure the employer branding the Employer Branding Scale was used scale developed by Ito, Brotheridge, and McFarland (2013) was used. It comprises second-order latent factor with 20 items which address the subjects' perceptions of what the organization offers them. It was adapted for Portuguese using the adequate *Standards* (American Educational Research Association et al., 2014). The 20 items are divided into five dimensions, namely, satisfaction with pay, refers to the degree of importance attributed by the individual in relation to the average wage, and to the comparison between the homologous workers in the same organization and in other organizations (3 items). The dimension of flexibility aims to perceive the degree of importance attributed by the individual in relation to the time allocated to other activities besides work, and the flexibility provided by the organization regarding the working schedule (3 items). The security dimension refers to the perceptions of maintaining the actual job in the organization, saving plans, policies of laying off and keeping employees (3 items). The developmental opportunities factor (4 items) pertains to the degree of importance attributed by the individual in relation to the tasks performed, the work techniques used

that imply creativity in the development of the work tasks, and in producing innovative and high-quality products/services. The promotion factor (2 items) measures the perceptions of career development opportunists and speed of progression within the organization. Finally, the dimension people factors (5 items), represents the individuals' views regarding the emphasis placed by the organization on concern for people, achievement, honesty, and fairness. Additionally, seven items regarding technology factors were added. Those items assess the perception of the IT worker regarding the organization technological capabilities. Research showed that IT workers give value to access to new technology as a way to improve their professional skills (Nayak & Suhan, 2017) which is a tendency of the information age (Dabirian, Berthon, & Kietzmann, 2019)

All the items are scored on a 5-point ordinal scale (1- "Not important", 2 - "Somewhat unimportant", 3 - "Neutral", 4 - "Somewhat important", 5 - "Very important"). Some examples of items are: "Overall pay level."; "Work hours that fit my lifestyle."; "Pension/RRSP savings plan."; "Opportunities to use important skills and abilities."; "Number of opportunities for advancement", and "The emphasis placed on concern for people".

Openness Toward Organizational Change Scale (OTOCS)

The OTOCS is a psychometric instrument proposed by Miller, Johnson, and Grau (1994). This is a self-report measure composed by five items (two of them are reversed) which should be answered on a five-point Likert-type scale anchors, ranging from 5 - "To a very great extent" to 1 - "To a very little extent". It is intended to measure individuals' willingness to support organizational change and positive affect toward change (openness toward organizational change). Examples of item is: "I would consider myself to be "open" to the changes the work teams will bring to my work

role”. The validity evidence based on the internal structure found in the original study (Miller et al., 1994) was good in terms of reliability ($\alpha = .80$; $CR = .80$), and in terms of dimensionality, the evidence of convergent validity was nearly acceptable ($AVE = .45$). Besides this, the original study, was found to have validity evidence based on the relation with other variables, such as: organizational identification, role ambiguity, and quality information. In another study (Park, Song, Lim, & Kim, 2014) that used a longer version of this scale (8 items; including 3 items that were dropped in the original study), the validity evidence based on the internal structure in terms of the reliability was good ($\alpha = .90$).

Short Index of Job Satisfaction (SIJS)

The SIJS by Judge, Bono and Locke (2000) is a self-report psychometric instrument with five items (two reversely scored). which has been proposed as a reduced version of the original Index of Job Satisfaction (Brayfield & Rothe, 1951) which has 18 items. Subjects are asked to respond to each item by checking a five-point scale ranging from 1 - “Very untrue” to 5 - “Very true”, two of the five items are reversed. In terms of validity evidence based on the internal structure the reliability of the scores displayed good internal consistency estimates ($\alpha = .89$) in the original reduced version study (Judge et al., 2000). The Portuguese adaptation was used (Sinval & Marôco, 2020) which presented measurement invariance among sexes, and countries (Portugal and Brazil). Example of items are: “I feel fairly satisfied with my present job” and “Each day at work seems like it will never end” (reversed).

Perceived Supervisor Support Scale (PSSS)

The perception of the supervisor support was assessed with the measure proposed by Eisenberger and colleagues (2002). It consists of eight items (two reversely scored) which are scored using a seven-point ordinal scale from 1 – “Strongly disagree”

to 7 – “Strongly agree”. Example of items are: “The supervisor strongly considers my goals and values” and “If given the opportunity, the supervisor would take advantage of me” (reversed).

Intention to Quit Scale (IQS)

The turnover intention was measured with Intention to Quit Scale (Wayne, Shore, & Liden, 1997). The IQS contains five indicators (one reverse scored) which manifest a single latent variable. Items should be answered using a seven-point ordinal scale from 1 – “Strongly disagree” to 7 – “Strongly agree”. Example of items are: “I am actively looking for a job outside this organization”, “I think I will be working at this organization five years from now" (reverse-scored). It was shown good reliability evidence in terms of internal consistency (Wayne et al., 1997).

Data analysis

The data analysis was conducted using the R programming language (R Core Team, 2020) through the graphical user interface, *RStudio* (RStudio Team, 2020). The *skimr* package (McNamara, Arino de la Rubia, Zhu, Ellis, & Quinn, 2018) was used to obtain some of the descriptive statistics (mean, standard-deviation, minimum value, 25th percentile, median, 75th percentile, maximum value) and the histogram for each of the instruments’ items. Some other descriptive statistics were calculated: the coefficient of variation (CV) through the *sjstats* package (Lüdecke, 2019), the standard error of the mean (SEM) through the *plotrix* package (Lemon, 2006), and the mode (most frequent value) through the *modeest* package (Poncet, 2019). The skewness using the “sample” method, and the kurtosis using the “sample excess” method were calculated using the *PerformanceAnalytics* package (Peterson & Carl, 2020). Severe univariate normality

violations were considered for absolute values of $|sk| > 3$ and $|ku| > 7$ (Finney & DiStefano, 2013; Marôco, 2014).

The confirmatory factor analysis (CFA) was used to assess if the collected data confirmed the expected dimensionality of the used instruments. To conduct the CFA the *lavaan* package (Rosseel, 2012) was selected using the weighted least squares means and variances (WLSMV) estimation method (Muthén, 1983). The *TLI* (Tucker Lewis Index), the *SRMR* (Standardized Root Mean Square Residual), the *RMSEA* (Root Mean Square Error of Approximation), *NFI* (Normed Fit Index), χ^2/df (ratio chi-square and degrees of freedom), and *CFI* (Comparative Fit Index) were used as goodness-of-fit indices. The fit of the models were considered good if $\chi^2/df < 5$, values of *SRMR* and *RMSEA* < 0.08 , values of *CFI*, *NFI* and *TLI* > 0.95 . The AVE (Average Variance Extracted) was estimated accordingly with Fornell and Larcker (1981) and Marôco (2014). Higher values are indicative of better convergent evidence in terms of internal structure (Fornell & Larcker, 1981). The reliability of the scores were assessed based on the estimates of internal consistency. The ω (Bollen, 1980; Raykov, 2001) and α (Cronbach, 1951) based on the polychoric correlation matrices were calculated for first-order factors. For second-order factors, the variance of the first-order factors explained by the second-order factor (ω_{L2}), the proportion of variance explained by second-order factor after partialing the uniqueness of the first-order factor ($\omega_{partial L1}$), the proportion of the second-order factor explaining the total score (ω_{L1}) were calculated. All the internal consistency estimates were obtained through the *semTools* package (Jorgensen, Pornprasertmanit, Schoemann, & Rosseel, 2019).

The *MBESS* package (Kelley, 2019) was used to produce the sample size estimation for the expected latent variable structural model. This model was analyzed using the structural equation modeling method using the *lavaan* package (Rosseel,

2012) implemented through a two-step (Marôco, 2014). The 95% confidence intervals were provided for all paths. The same criteria established in the evaluation of the measurement models (i.e., CFA) were used to assess the goodness-of-fit of the latent variable structural model. For all statistical tests, the $\alpha = 0.05$ was used.

Results

Measurement Model

All the instruments were inspected in terms of validity evidence based on the internal structure. The distributional properties of items were analyzed. This was followed by an examination of the dimensionality together with an estimation of the reliability of the scores in terms of internal consistency both for first- and second-order factors (for the EBS).

As it can be observed on Table 1, all items presented absolute skewness and absolute kurtosis values which were not indicative of severe univariate normality violations (Finney & DiStefano, 2013; Marôco, 2014). Only four items did not present the full range of possible answers, one item from the EBS (Item 6) and three items from the PSSS (Item 2, Item 4, and Item 5).

Insert Table 1 about here

The original dimensionality was verified using a CFA to evaluate the fit of the data to the original structure of each instrument. None of the instruments had items removed from its original structure.

EBS

The EBS second-order model presented an acceptable fit to the data ($\chi^2(316) = 1,161.893$; $p < 0.001$; $\chi^2/df = 3.677$; $n = 215$; $CFI = 0.969$; $NFI = 0.958$; $TLI = 0.965$; $SRMR = 0.094$; $RMSEA = 0.112$; $P(RMSEA \leq 0.05) < 0.001$; 90% CI]0.105; 0.119[). Two residuals' correlation among items of the same factor were added ($p < .001$). Regarding the second-order latent factor, the internal consistency estimates were good ($\omega_{L1} = 0.848$; $\omega_{L2} = 0.906$; $\omega_{partial L1} = 0.952$).

OTOCS

The OTOCS showed an acceptable fit to the data ($\chi^2(3) = 9.461$; $p = 0.024$; $\chi^2/df = 3.154$; $n = 224$; $CFI = 0.994$; $NFI = 0.991$; $TLI = 0.980$; $SRMR = 0.043$; $RMSEA = 0.098$; $P(RMSEA \leq 0.05) = 0.100$; 90% CI]0.032; 0.172[). The reliability evidence in terms of internal consistency of the single latent variable was good for the α estimate ($\alpha = 0.794$) however the ω estimate was below expected ($\omega = 0.649$). Two residuals' correlations paths were added ($p < .001$).

SIJS

The SIJS revealed a very good fit to the data ($\chi^2(5) = 9.978$; $p = 0.076$; $\chi^2/df = 1.996$; $n = 223$; $CFI = 0.999$; $NFI = 0.998$; $TLI = 0.998$; $SRMR = 0.038$; $RMSEA = 0.067$; $P(RMSEA \leq 0.05) = 0.267$; 90% CI]0.000; 0.128[). The internal consistency estimates were good both in terms of the α estimator ($\alpha = 0.901$) and in terms of the ω estimator ($\omega = 0.869$).

PSSS

The PSSS presented a very good fit to the data ($\chi^2(19) = 28.929$; $p = 0.067$; $\chi^2/df = 1.523$; $n = 233$; $CFI = 0.999$; $NFI = 0.998$; $TLI = 0.999$; $SRMR = 0.039$; $RMSEA = 0.047$; $P(RMSEA \leq 0.05) = 0.511$; 90% CI]0.000; 0.080[). One correlation path

between residuals was added ($p < 0.001$). The internal consistency estimates were very good ($\alpha = 0.925$; $\omega = 0.896$).

IQS

The IQS showed a very good fit to the data ($\chi^2(5) = 8.029$; $p = 0.155$; $\chi^2/df = 1.606$; $n = 220$; $CFI = 1.000$; $NFI = 0.999$; $TLI = 0.999$; $SRMR = 0.034$; $RMSEA = 0.053$; $P(RMSEA \leq 0.05) = 0.402$; 90% CI]0.000; 0.117[). The reliability of the scores in terms of internal consistency estimates presented very good values ($\alpha = 0.903$; $\omega = 0.885$).

Structural Model

The latent variable structural model (Figure 2) presented a good fit to the data ($\chi^2(1,154) = 2,287.709$; $p < 0.001$; $\chi^2/df = 1.982$; $n = 211$; $CFI = 0.981$; $NFI = 0.963$; $TLI = 0.980$; $SRMR = 0.082$; $RMSEA = 0.068$; $P(RMSEA \leq 0.05) < 0.001$; 90% CI]0.064; 0.072[). The direct effects of job satisfaction ($\beta_{JS \rightarrow IQ} = -0.597$; $p < 0.001$), and supervisor support ($\beta_{SS \rightarrow IQ} = -0.215$; $p = 0.002$) on intention to quit were statistically significant both presenting negative paths. The job satisfaction presented a large negative effect size, while the supervisor support presented a negative moderate one. However, the direct effects of employer branding ($\beta_{EB \rightarrow IQ} = -0.045$; $p = 0.578$) and openness toward organizational change ($\beta_{OTOC \rightarrow IQ} = 0.003$; $p = 0.960$) did not present a statistically significant path with very small effect sizes. The unstandardized estimates, standard-error and 90% confidence interval for the paths are presented in Table 2.

Insert Figure 2 about here

Insert Table 2 about here

Discussion

The findings of this study showed a rather surprisingly finding that the employer branding did not present a significant path with turnover intention. Contrary to the expected the path presented a very small effect size (negative). Other authors found that EB and turnover intention are negatively significantly related (Kashyap & Verma, 2018) (Yadav, Kumar, & Mishra, 2020). Higher perceived value in employer brand reduced the levels of turnover intention. Interestingly Ahmad and Daud (2016) found a similar result, where only one EB dimension (among five) had a significant relationship with turnover intentions. The EB focuses on several issues, such as understanding employees' preferences when they are part of the organization and how those preferences can change as they build their careers (Ito et al., 2013). Despite the apparent importance of the EB findings must be constantly monitored. In the present paper EB was approached as second-order latent factor, it might be interesting further studies with a decomposition of the first-order factors, since not all EB dimensions seem to have significant relationships with turnover intentions (Ahmad & Daud, 2016).

The present study highlighted the importance of the global job satisfaction in the reduction of turnover intentions. The results showed a strong negative path, which might indicate that turnover intentions are linked to various job aspects. This finding stresses the importance of a multidimensional approach to the turnover issue among IT workers. And to the need to constantly auscultate the levels of job satisfaction among workers. Another variable that presented a significant path was the supervisor support. In this study IT workers presented a negative relationship between perceived supervisor support and turnover intentions. Such results might indicate that a higher perception of support from the supervisor produces a stronger connection between the organization and the IT worker. The supervisor plays a fundamental role, being a closer representant

of the organization higher hierarchy, can protect and generate positive attitudes toward the organization in the IT worker.

Statements such as, “...organizations must create a healthy discomfort with the status quo” (Ulrich, 1998: 127), fail to appreciate the reservations of employees when plans for reorganizations, downsizing, or new operations are announced. They are no doubt mindful of unintended, less than stellar outcomes from organizational change efforts (Anderson & Anderson, 2001). Our results did not show neither a positive relationship between openness toward organizational change and turnover intention neither a negative one. If by one side, an unhappy worker might be open to changes, by other side an unhappy worker might not want to change their current job setting, but rather change a more deep change, turnover from the current organization. This conflicting effect might be responsible for the nearly neutral effect of openness toward change in turnover intentions among TI workers.

The turnover leads to the increase in the cost of hiring and training of new employees, consequently reducing the profitability of any company. The current study assessed IT workers from a single organization, the specificities of such company might play an important role in the observed results, and thus generalizations should be cautioned. However, due to the moderate sample size, which allowed to test a full structural latent variable model, the results seem to point to the importance of the job satisfaction and supervisor support for the IT workers.

The presented study used a cross-sectional design, and it is a correlation study which do not allow to establish causality interpretations as longitudinal and experimental studies would do. However, the presented model allows a deeper understanding of the IT workers turnover intentions. Future studies should compare the

perceptions of employer branding and turnover intention in different time points, preferably since the beginning of the employment contract, in order to understand the evolution of the relationships between variables.

References

- Ahmad, N. A., & Daud, S. 2016. Engaging people with employer branding. *Procedia Economics and Finance*, 35: 690–698.
- Alnıaçık, E., Alnıaçık, Ü., Erat, S., & Akçin, K. 2014. Attracting talented employees to the company: Do we need different employer branding strategies in different cultures? *Procedia - Social and Behavioral Sciences*, 150: 336–344.
- Ambler, T., & Barrow, S. 1996. The employer brand. *Journal of Brand Management*, 4(3): 185–206.
- American Educational Research Association, American Psychological Association, & National Council on Measurement in Education. 2014. *Standards for Educational and Psychological Testing*. Washington, DC, USA: American Psychological Association.
- Anderson, D., & Anderson, L. S. A. 2001. *Beyond change management: Advanced strategies for today's transformational leaders*. San Francisco, CA, USA: Jossey-Bass & Pfeiffer.
- Backhaus, K. B., & Tikoo, S. 2004. Conceptualizing and researching employer branding. *Career Development International*, 9(5): 501–517.
- Barney, J. 1991. Firm resources and sustained competitive advantage. *Journal of Management*, 17(1): 99–120.

- Bollen, K. A. 1980. Issues in the comparative measurement of political democracy. *American Sociological Review*, 45(3): 370–380.
- Branham, L. 2001. *Keeping the people who keep you in business: 24 ways to hang on to your most valuable talent*. New York, NY, USA: AMACOM/American Management Association.
- Brayfield, A. H., & Rothe, H. F. 1951. An index of job satisfaction. *Journal of Applied Psychology*, 35(5): 307–311.
- Cronbach, L. J. 1951. Coefficient alpha and the internal structure of tests. *Psychometrika*, 16(3): 297–334.
- Dabirian, A., Berthon, P., & Kietzmann, J. 2019. Enticing the IT crowd: Employer branding in the information economy. *Journal of Business & Industrial Marketing*, 34(7): 1403–1409.
- Devos, G., Buelens, M., & Bouckennooghe, D. 2007. Contribution of content, context, and process to understanding openness to organizational change: Two experimental simulation studies. *Journal of Social Psychology*, 147(6): 607–629.
- Eckhardt, A., Laumer, S., Maier, C., & Weitzel, T. 2016. The effect of personality on IT personnel's job-related attitudes: Establishing a dispositional model of turnover intention across IT job types. *Journal of Information Technology*, 31(1): 48–66.
- Edwards, M. R. 2010. An integrative review of employer branding and OB theory. *Personnel Review*, 39(1): 5–23.
- Eisenberger, R., Stinglhamber, F., Vandenberghe, C., Sucharski, I. L., & Rhoades, L. 2002. Perceived supervisor support: Contributions to perceived organizational support and employee retention. *Journal of Applied Psychology*, 87(3): 565–573.

- Ewing, M. T., Pitt, L. F., de Bussy, N. M., & Berthon, P. 2002. Employment branding in the knowledge economy. *International Journal of Advertising*, 21(1): 3–22.
- Finney, S. J., & DiStefano, C. 2013. Non-normal and categorical data in structural equation modeling. In G. R. Hancock & R. O. Mueller (Eds.), *Structural equation modeling: A second course* (2nd ed.): 439–492. Charlotte, NC, USA: Information Age Publishing.
- Fornell, C., & Larcker, D. F. 1981. Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18: 39–50.
- Heggestad, E. D., Scheaf, D. J., Banks, G. C., Monroe Hausfeld, M., Tonidandel, S., et al. 2019. Scale adaptation in organizational science research: A review and best-practice recommendations. *Journal of Management*, 45(6): 2596–2627.
- Hu, L., & Bentler, P. M. 1999. Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, 6(1): 1–55.
- Irvine, D. M., & Evans, M. G. 1995. Job satisfaction and turnover among nurses. *Nursing Research*, 44(4): 246–253.
- Ito, J. K., Brotheridge, C. M., & McFarland, K. 2013. Examining how preferences for employer branding attributes differ from entry to exit and how they relate to commitment, satisfaction, and retention. *Career Development International*, 18(7): 732–752.
- Jorgensen, T. D., Pornprasertmanit, S., Schoemann, A. M., & Rosseel, Y. 2019. *semTools: Useful tools for structural equation modeling (R package version 0.5-*

1.933) [Computer software]. <https://cran.r-project.org/package=semTools>.

Joseph, Ng, Koh, & Ang. 2007. Turnover of information technology professionals: A narrative review, meta-analytic structural equation modeling, and model development. *MIS Quarterly*, 31(3): 547–577.

Judge, T. A., Bono, J. E., & Locke, E. A. 2000. Personality and job satisfaction: The mediating role of job characteristics. *Journal of Applied Psychology*, 85(2): 237–249.

Kashyap, V., & Verma, N. 2018. Linking dimensions of employer branding and turnover intentions. *International Journal of Organizational Analysis*, 26(2): 282–295.

Kelley, K. 2019. **MBESS: The MBESS R package (R package version 4.6.0)** [Computer software]. <https://cran.r-project.org/package=MBESS>.

Kelley, K., & Lai, K. 2018. Sample size planning for confirmatory factor models: Power and accuracy for effects of interest. In P. Irwing, T. Booth, & D. Hughes (Eds.), *The Wiley handbook of psychometric testing: A multidisciplinary reference on survey, scale and test development*: 113–138. Hoboken, NJ, USA: John Wiley & Sons.

Lance, C. E. 1991. Evaluation of a structural model relating job satisfaction, organizational commitment, and precursors to voluntary turnover. *Multivariate Behavioral Research*, 26(1): 137–162.

Lemon, J. 2006. Plotrix: a package in the red light district of R. *R-News*, 6(4): 8–12.

Lenberg, P., Wallgren Tengberg, L. G., & Feldt, R. 2017. An initial analysis of software engineers' attitudes towards organizational change. *Empirical Software*

Engineering, 22(4): 2179–2205.

Lo, J. 2015. The information technology workforce: A review and assessment of voluntary turnover research. *Information Systems Frontiers*, 17(2): 387–411.

Locke, E. A. 1976. The nature and causes of job satisfaction. In M. D. Dunnette (Ed.), *Handbook of industrial and organizational psychology*, vol. 1: 1297–1343. Chicago, IL, USA: Rand McNally.

Lüdecke, D. 2019. *sjstats: Statistical functions for regression models (R package version 0.17.3) [Computer software]*. <https://doi.org/10.5281/zenodo.1284472>.

Malik, S., & Khera, S. N. 2014. New generation – great expectations: Exploring the work attributes of gen y. *Global Journal of Finance and Management*, 6(5): 433–438.

Mandhanya, Y., & Shah, M. 2010. Employer branding - A tool for talent management. *Global Management Review*, 4(2): 43–48.

Marôco, J. 2014. *Análise de equações estruturais: Fundamentos teóricos, software & aplicações* (2nd ed.). Pêro Pinheiro, Portugal: ReportNumber. <http://www.reportnumber.pt/aee>.

McNamara, A., Arino de la Rubia, E., Zhu, H., Ellis, S., & Quinn, M. 2018. *skimr: Compact and flexible summaries of data (R package version 1.0.3) [Computer software]*. <https://cran.r-project.org/package=skimr>.

Miller, V. D., Johnson, J. R., & Grau, J. 1994. Antecedents to willingness to participate in a planned organizational change. *Journal of Applied Communication Research*, 22(1): 59–80.

Minchington, B. 2010. *Employer brand leadership: A global perspective*. Torrensville,

Australia: Collective Learning Australia.

- Moore, J. E., Hester, A. J., & Yager, S. E. 2016. Paving the higher road: The role of voice in the retention of IT workers. *ACM SIGMIS Database: The DATABASE for Advances in Information Systems*, 47(1): 8–28.
- Moquin, R., K. Riemenschneider, C., & L. Wakefield, R. 2019. Psychological contract and turnover intention in the information technology profession. *Information Systems Management*, 36(2): 111–125.
- Muthén, B. O. 1983. Latent variable structural equation modeling with categorical data. *Journal of Econometrics*, 22(1–2): 43–65.
- Nayak, S., & Suhan. 2017. Antecedents to employer branding: A strategic focus on the information technology (IT) sector in India. *Polish Journal of Management Studies*, 15(2): 143–151.
- Oehlhorn, C. E., Maier, C., & Weitzel, T. 2020. Turnover and turnaway of IT workers: A person-environment fit perspective. *Proceedings of the 2020 on Computers and People Research Conference*, 103–104. New York, NY, USA: ACM.
- Park, C. H., Song, J. H., Lim, D. H., & Kim, J. W. 2014. The influences of openness to change, knowledge sharing intention and knowledge creation practice on employees' creativity in the Korean public sector context. *Human Resource Development International*, 17(2): 203–221.
- Peterson, B. G., & Carl, P. 2020. *PerformanceAnalytics: Econometric tools for performance and risk analysis (R package version 2.0.4) [Computer software]*.
<https://cran.r-project.org/package=PerformanceAnalytics>.
- Poncet, P. 2019. *modeest: Mode estimation (R package version 2.4.0) [Computer*

software]. <https://cran.r-project.org/package=modeest>.

R Core Team. 2020. *R: A language and environment for statistical computing (version 4.0.3) [Computer software]*. Vienna, Austria: R Foundation for Statistical Computing. <https://www.r-project.org/>.

Raykov, T. 2001. Estimation of congeneric scale reliability using covariance structure analysis with nonlinear constraints. *The British Journal of Mathematical and Statistical Psychology*, 54: 315–323.

Rigdon, E. E. 1994. Calculating degrees of freedom for a structural equation model. *Structural Equation Modeling: A Multidisciplinary Journal*, 1(3): 274–278.

Rosseel, Y. 2012. lavaan: An R package for structural equation modeling. *Journal of Statistical Software*, 48(2): 1–21.

RStudio Team. 2020. *RStudio: Integrated development for R (version 1.4.1081) [Computer software]*. Boston, MA, USA: RStudio, Inc. <http://www.rstudio.com/>.

Sinval, J., & Marôco, J. 2020. Short Index of Job Satisfaction: Validity evidence from Portugal and Brazil. (S. A. Useche, Ed.) *PLoS ONE*, 15(4): 1–21.

Sirgy, M. J., Efraty, D., Siegel, P., & Lee, D.-J. 2001. A new measure of quality of work life (QWL) based on need satisfaction and spillover theories. *Social Indicators Research*, 55(3): 241–302.

Thatcher, J. B., Liu, Y., Stepina, L. P., Goodman, J. M., & Treadway, D. C. 2006. IT worker turnover: An empirical examination of intrinsic motivation. *ACM SIGMIS Database*, 37(2–3): 133.

Thorne, K. 2004. One-stop guide: Employer branding. *Personnel Today*, 30: 66–75.

- Ulrich, D. 1998. A new mandate for human resources. *Harvard Business Review*, 76(1): 124–134.
- Vakola, M., & Nikolaou, I. 2005. Attitudes towards organizational change: What is the role of employees' stress and commitment? *Employee Relations*, 27(2): 160–174.
- van Saane, N., Sluiter, J. K., Verbeek, J. H. A. M., & Frings-Dresen, M. H. W. 2003. Reliability and validity of instruments measuring job satisfaction--A systematic review. *Occupational Medicine*, 53(3): 191–200.
- Wanberg, C. R., & Banas, J. T. 2000. Predictors and outcomes of openness to changes in a reorganizing workplace. *Journal of Applied Psychology*, 85(1): 132–142.
- Wayne, S. J., Shore, L. M., & Liden, R. C. 1997. Perceived organizational support and leader-member exchange: A social exchange perspective. *Academy of Management Journal*, 40(1): 82–111.
- Yadav, L. K., Kumar, A., & Mishra, S. 2020. Can Organizations Leverage Employer Branding to Gain Employee Engagement and Reduce Turnover Intention? An Empirical Study with Organizational Trust as a Mediator. *Vision: The Journal of Business Perspective*, 24(4): 496–505.

TABLE 1

Psychometric instruments items' descriptive statistics

Item	N _{missing}	M	SD	Min	P ₂₅	Mdn	P ₇₅	Max	Histogram	SEM	CV	Mode	sk	ku
Short Index of Job Satisfaction														
Item 1	56	3.94	0.94	1	3	4	5	5		0.06	0.24	4	-0.75	0.39
Item 2	56	3.79	0.93	1	3	4	4	5		0.06	0.25	4	-0.66	0.41
Item 3	56	3.85	1.07	1	3	4	5	5		0.07	0.28	4	-0.80	0.06
Item 4	56	3.75	0.99	1	3	4	4	5		0.07	0.26	4	-0.56	0.04
Item 5	56	4.45	0.83	1	4	5	5	5		0.06	0.19	5	-1.59	2.42
Openness Towards Organizational Change Scale														
Item 1	55	3.75	1.08	1	3	4	4	5		0.07	0.29	4	-0.90	0.41
Item 2	55	3.74	1.11	1	3	4	5	5		0.07	0.30	5	-0.53	-0.55
Item 3	55	2.95	1.16	1	2	3	4	5		0.08	0.39	3	-0.05	-0.64
Item 4	55	3.83	1.07	1	3	4	5	5		0.07	0.28	5	-0.67	-0.22
Item 5	55	3.60	0.99	1	3	4	4	5		0.07	0.27	3	-0.49	0.19
Intention to Quit Scale														
Item 1	59	3.35	1.69	1	2	3	4	7		0.11	0.50	4	0.37	-0.69
Item 2	59	1.93	1.29	1	1	1	2	7		0.09	0.67	1	1.68	2.75
Item 3	59	2.06	1.50	1	1	1	2	7		0.10	0.73	1	1.63	2.05
Item 4	59	2.08	1.46	1	1	2	2	7		0.10	0.70	1	1.59	1.95
Item 5	59	3.82	1.69	1	3	4	5	7		0.11	0.44	4	0.05	-0.61
Perceived Supervisor Support Scale														
Item 1	45	5.43	1.49	1	5	6	7	7		0.10	0.27	7	-0.87	0.12
Item 2	45	5.87	1.34	2	5	6	7	7		0.09	0.23	7	-1.20	0.69
Item 3	46	5.62	1.38	1	5	6	7	7		0.09	0.25	7	-1.02	0.61
Item 4	45	5.71	1.21	2	5	6	7	7		0.08	0.21	7	-0.76	0.00
Item 5	45	5.41	1.34	2	4	6	7	7		0.09	0.25	6	-0.57	-0.45
Item 6	45	3.79	1.39	1	5	6	7	7		0.09	0.24	7	-1.36	1.52
Item 7	45	3.62	1.57	1	5	6	7	7		0.10	0.28	7	-1.13	0.41
Item 8	45	5.32	1.56	1	4	6	7	7		0.10	0.29	7	-0.94	0.36
Employer Branding Scale														
Item 1	64	4.14	0.77	1	4	4	5	5		0.05	0.19	4	-1.01	1.94
Item 2	64	3.82	0.95	1	3	4	4	5		0.06	0.25	4	-0.72	0.38
Item 3	64	3.93	0.86	1	3	4	5	5		0.06	0.22	4	-0.76	0.82
Item 4	64	4.27	0.74	1	4	4	5	5		0.05	0.17	4	-1.13	2.05
Item 5	64	4.19	0.76	1	4	4	5	5		0.05	0.18	4	-1.10	2.27
Item 6	64	4.38	0.67	2	4	4	5	5		0.05	0.15	4	-1.00	1.31
Item 7	64	4.22	0.82	1	4	4	5	5		0.06	0.20	4	-1.05	1.03
Item 8	64	3.92	0.88	1	3	4	5	5		0.06	0.22	4	-0.55	-0.11
Item 9	64	3.53	1.09	1	3	4	4	5		0.07	0.31	4	-0.42	-0.41
Item 10	64	3.88	0.73	1	3	4	4	5		0.05	0.19	4	-0.53	0.80
Item 11	64	4.26	0.76	1	4	4	5	5		0.05	0.18	4	-1.37	3.11
Item 12	64	4.29	0.74	1	4	4	5	5		0.05	0.17	4	-1.16	2.17
Item 13	64	4.07	0.88	1	4	4	5	5		0.06	0.22	4	-1.05	1.29
Item 14	64	4.41	0.80	1	4	5	5	5		0.05	0.18	5	-1.67	3.34
Item 15	64	3.73	0.93	1	3	4	4	5		0.06	0.25	4	-0.56	0.13
Item 16	64	4.21	0.81	1	4	4	5	5		0.06	0.19	4	-1.20	1.95
Item 17	64	4.04	0.83	1	4	4	5	5		0.06	0.21	4	-0.87	1.02
Item 18	64	4.50	0.70	1	4	5	5	5		0.05	0.16	5	-1.55	3.07
Item 19	64	4.46	0.71	1	4	5	5	5		0.05	0.16	5	-1.50	3.09
Item 20	64	4.06	0.95	1	4	4	5	5		0.06	0.23	5	-1.01	0.92
Item 21	64	3.88	0.91	1	3	4	5	5		0.06	0.23	4	-0.74	0.39
Item 22	64	3.69	0.97	1	3	4	4	5		0.07	0.26	4	-0.52	-0.15
Item 23	64	3.22	0.98	1	3	3	4	5		0.07	0.31	3	-0.08	-0.03

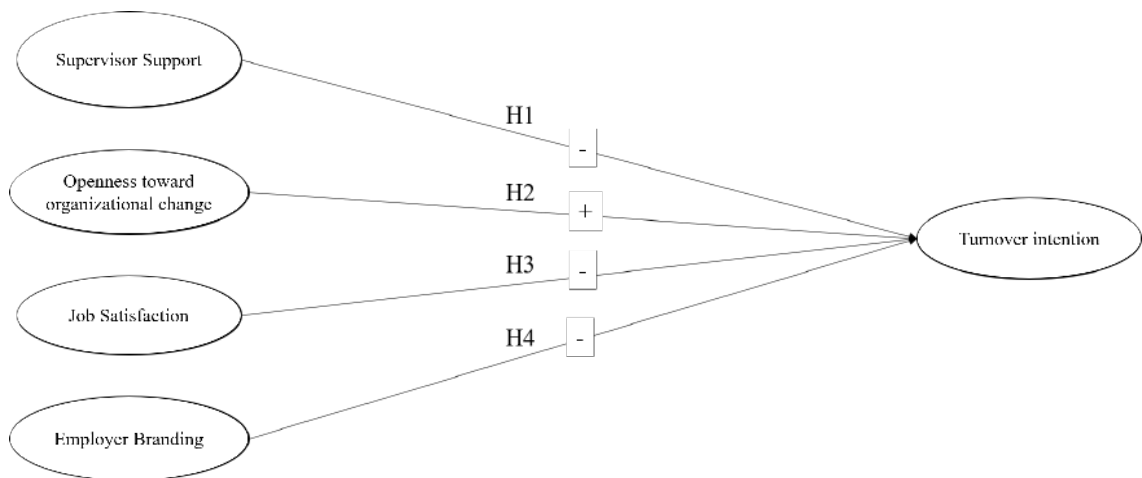
Item 24	64	3.45	0.97	1	3	4	4	5		0.07	0.28	4	-0.50	0.22
Item 25	64	3.27	0.97	1	3	3	4	5		0.07	0.30	3	-0.27	0.17
Item 26	64	3.32	0.96	1	3	3	4	5		0.07	0.29	3	-0.40	0.23
Item 27	64	3.31	1.01	1	3	3	4	5		0.07	0.31	3	-0.51	0.02

TABLE 2
Structural model latent paths

Path	B	SE	Z	β	p	90% CI
EB -> TI	-0.081	0.146	-0.557	-0.045	0.578]-0.367; 0.205[
JS -> TI	-0.494	0.058	-8.581	-0.597	< 0.001]-0.607; -0.381[
OTOC -> TI	0.003	0.063	0.050	0.003	0.96]-0.120; 0.126[
SS -> TI	-0.169	0.054	-3.109	-0.215	0.002]-0.275; -0.062[

FIGURE 1

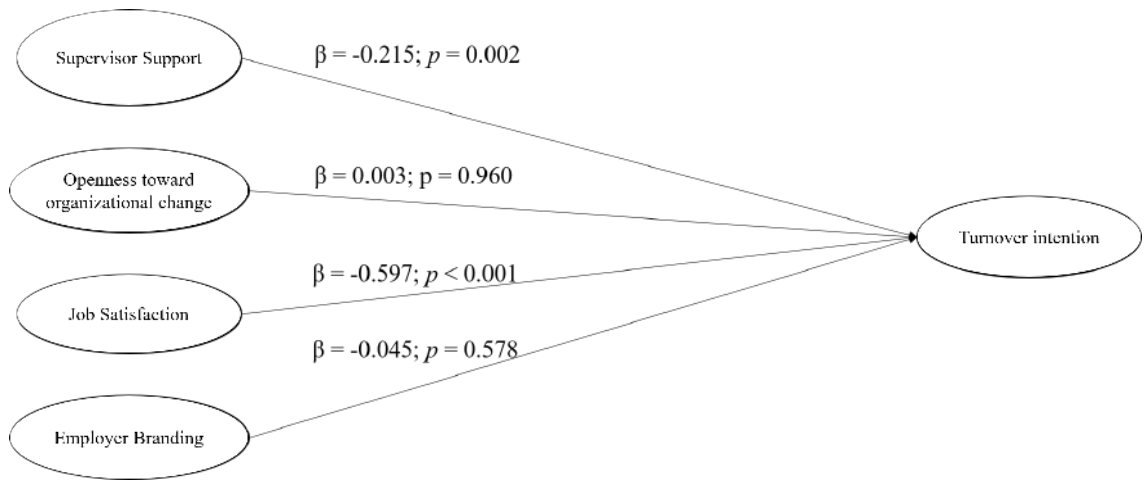
Conceptual model.



Plus symbol (+) represent positive expected paths and minus symbol (-) represent negative expected paths. It is expected that job satisfaction (H1), employer branding (H2), supervisor support (H3) and openness toward organizational change (H4).

FIGURE 2

Structural model



Only latent variables are shown. The model presented a good fit to the data ($\chi^2(1,154) = 2,287.709; p < 0.001; \chi^2/df = 1.982; n = 211; CFI = 0.981; NFI = 0.963; TLI = 0.980; SRMR = 0.082; RMSEA = 0.068; P(RMSEA \leq 0.05) < 0.001; 90\% CI]0.064; 0.072[$).