ABSTRACT

This paper explores the influence that organizational support and social support has on the turnover intentions of information technology (IT) professionals. Through quantitative approach, the research applied the Perceived Organizational Support and Turnover Intention scales. The data were submitted to descriptive statistical analysis and bivariate correlations, with the findings indicating that the perception of support has a significant and negative correlation with turnover intention. The more positive the perception of support, the less professionals want to leave the organization. The data also reveal that Performance Management, Compensation and Development Policies, Management and Leadership Style and Social Support have a negative influence on turnover intention. In contrast, Workload has a positive influence. Despite turnover intention being a phenomenon of multiple causes, the conclusion is that organizational and social supports and its dimensions are important influencing factors on decisions regarding professional evasion. As contributions, this study brings to light critical factors to reduce the turnover of workers in the information technology area, one of the most demanded professionals in the world job market today.

Keywords: Organizational Support. Social Support. Turnover Intention. IT Professionals.
RESUMO

Este artigo investiga a influência que os suportes organizacionais e sociais têm nas intenções de rotatividade de profissionais de tecnologia da informação (TI). Por meio de abordagem quantitativa, a pesquisa adotou as escalas Suporte Organizacional Percebido e Intenção de Rotatividade. Os dados foram submetidos à análise estatística descritiva e correlações bivariadas, sendo que os achados indicaram que a percepção de apoio tem correlação significativa e negativa com a intenção de rotatividade. Quanto mais positiva for a percepção de apoio, menos os profissionais desejam sair da organização. Os dados revelam que Gestão de Desempenho, Políticas de Remuneração e Desenvolvimento, Estilo de Liderança e Apoio Social influenciam negativamente a intenção de rotatividade. Por outro lado, a carga de trabalho tem uma influência positiva. Apesar da intenção de rotatividade ser um fenômeno de múltiplas causas, conclui-se que os suportes organizacional e social e suas dimensões são importantes fatores influenciadores nas decisões de evasão profissional. Como contribuições, este estudo traz à tona fatores críticos para a redução da rotatividade de trabalhadores da área de tecnologia da informação, um dos profissionais mais demandados no mercado de trabalho mundial na atualidade.

Palavras-Chave: Suporte Organizacional. Suporte social. Intenção de rotatividade. Profissionais de TI.

1 INTRODUCTION

Although staff turnover can enable “oxygenation” of the company and the removal of underperforming professionals (VANDENBERG, 1999), it can also result in a series of negative counterparts, such as an increase in direct costs associated with the dismissal of personnel, and in indirect costs, such as the loss of talent, know-how, cultural adherence, investments in training/development and even productivity (FERREIRA; FREIRE, 2001; CAMPOS; MALIK, 2008; CAVAZOTTE; OLIVEIRA; MIRANDA, 2010).

Other negative effects of professionals leaving companies are presented in the literature, such as the high costs resulting from recruitment, selection and integration of new employees, the drop in productivity, the breakdown of teams (STEIL; PENHA; BONILLA, 2016; BORONI; CARVALHO NETO; MOTA-SANTOS, 2020), as well as risks of damaging the organization's image when there is a framework of high turnover rates (RECKTENWALD et al., 2017).

In areas in which the labor market is booming, high turnover can result in even more serious problems. Such is the case with IT professionals, an employee category that is growing fast, particularly considering the ongoing transition to the fourth industrial revolution, or Revolution 4.0. Commonly used for referring to the adoption of digital technologies and the incorporation of increasingly intelligent machines, with the potential for radical transformations in the ways in which products and services are produced, the term Revolution 4.0 was initially used in 2011 during the international industrial fair in Hannover (Germany) (SCHWAB, 2016; ROSS, 2017; LEE et al., 2018).

Regardless of the name, this notion has been characterized by a series of technological and innovative developments that are centered on the incorporation of information and communication technologies (ICTs), resulting from an intense process of digitalization and high demand for systems integration. Revolution 4.0 is also notable for introducing 3D and 4D printing devices and the resources of the Internet of Things (IoT) for connecting machines, and
interconnecting equipment, systems, and people, both internally and with suppliers, distributors, and customers (SCHWAB, 2016).

Revolution 4.0 points to radical implications for individual-work-organization relations (FREY; OSBORNE, 2017; SUSSKIND; SUSSKIND, 2017). At the level of organizations, research by Deloitte (2018) on the impacts of the 4.0 revolution points out that, in the perception of Brazilian and international managers, the transformation goes far beyond the technological dimension. It also involves a change in the market scenario and the business regulatory environment; change in the business model of organizations, professional profiles and required leadership styles (SANT’ANNA et al., 2022).

As for the skills required in Revolution 4.0, the presence of companies such as Google, Amazon, Apple and Facebook point to the challenges associated with the scarcity of digital skills in central countries. The situation is particularly “critical” in the dynamic centers of the digital economy, such as Silicon Valley, where there is already evidence of well-established companies and start-ups having difficulties when it comes to meeting the growing demand for professionals in the areas of computing and its derivations, like nanotechnology and biotechnology (SANT’ANNA; FERREIRA; COELHO DOS SANTOS, 2020).

In Brazil, data from Observatório Softex (2013) a long time ago pointed to the expansion in demand for IT professionals, given the needs of the new virtual and networked digital corporations. By 2022, it is estimated that there will be a need for a further 408,000 of such professionals, just in Brazil alone. Other research produced in Brazil estimates that technology companies demand 797,000 talents from 2021 to 2025 (BRASSCOM, 2022). However, with the number of graduates falling short of demand, the projection is for a deficit annual growth of 106 thousand talents and 530 thousand in five years. These numbers reflect the accelerated growth of the information technology sector and the increasing appreciation of digital skills, making clear the need for professional training to also be expanded at the same pace.

In this context, understanding the agents that cause turnover is a strategic imperative for organizations in the sector. In academic literature, several aspects of this work have been pointed out as possible causes of this phenomenon, among them the perception of injustice; work overload; low commitment; divergence between professionals, the culture and organizational strategy; inadequate training; dissatisfaction related to remuneration, organizational policies, managers and the activities performed (COHEN; GOLAN, 2007; MEDEIROS et al., 2010; SIQUEIRA et al., 2013; ROMÁN-CALDERÓN; BATTISTELLI, VARGAS-SAENZ, 2014).

Turnover has also been related to the social support and organizational support constructs (OLIVEIRA-CASTRO; PILATI; BORGES-ANDRADE, 1999): the former refers to the contributions that an individual receives from someone else or from organizations (RODRIGUEZ; COHEN, 1998); while the latter refers to the overall beliefs of employees that their organization is concerned with their well-being and values their contributions (EISENBERGER et al. 1986). Siqueira and Gomide Jr. (2004) believe that when employees notice that organizations are not concerned with rewarding individual contributions, conflicts, pessimism, and setbacks may emerge that can result in the intention to resign.

At the same time, authors such as Silva, Cappellozza and Costa (2014) and Calderón, Battistelli and Saez (2014) point to the existence of a relationship between organizational support and professionals resigning. It is important to note, however, that studies to investigate the influence of the perception of support on turnover intentions, especially with information technology professionals, are still scarce in academic literature and in Brazil, in particular.

This study has sought to investigate the influence of the perception of organizational and social support on the turnover intentions of professionals from the IT area. In terms of justification for the study, in addition to the aspects listed above is the importance of adopting an approach that focuses on the intention of employees to leave the organization, and not on
turnover itself. This approach is the most indicated since it allows organizations to adopt preventive actions in relation to the turnover of their professionals.

2 THEORETICAL BACKGROUND
2.1 Turnover and turnover intentions

The concept of turnover is associated with the ratio between the number of employees who leave the organization in a certain period of time and the number of employees who enter, that is, it concerns the entry and exit of people in the company (SIQUEIRA et al., 2013; BERIA et al., 2017; SEIDL, BORGES-ANDRADE; NEIVA, 2019). In addition to this concept of turnover that takes the organization as a starting point, there are studies that focus on individual behavior, considering turnover as a synonym for voluntary dismissal, planned by the employee (SEIDL, BORGES-ANDRADE; NEIVA, 2019).

High rates of turnover can cause numerous losses for companies. In addition to the direct costs, employees who leave takes with them the employer’s investments in adaptation and development (STEIL; PENHA; BONILLA, 2016; BORÔNI; CARVALHO NETO; MOTA-SANTOS, 2020). Campos and Malik (2008) point out that the costs of replacing professionals are even higher when tasks require constant learning and training, as is the case with IT personnel. Ferreira and Freire (2001) also point out that turnover can lead to losses in productivity and even of the organization’s historicity and identity, when older employees leave. Recktenwald et al. (2017) add that termination affects both the employee who leaves and the one who stays. Therefore, turnover is a fundamental concern in the areas of people management, notably those operating in cutting-edge technology, innovation, and creation sectors.

Research carried out by Hay Group at the end of 2014 with Human Resource managers from 906 organizations indicates that for 33% of these executives the retention of talent is the main strategic priority of the area, second only to leader development, which is a priority for 40% of them. Also, according to the survey, 74% of these HR professionals consider retention to be especially important, 22% to be quite important, with only 4% indicating it is not at all important (HAY GROUP, 2015). Similarly, data from Observatório Softex, a study and research unit of the Association for the Promotion of Excellence in Brazilian Software, show that turnover in IT areas is a critical factor for the future development of the sector in the country:

Scarcity contributes to the emergence of fierce competition for technology professionals. In the absence of the desired professional, companies seek to attract talented people who have been hired and trained by others, by offering them additional compensation (OBSERVATÓRIO SOFTEX, 2013, p. 112).

For Steers and Mowday (1981), the professional turnover commonly occurs at stages that involve expectations and personal values that are shared with the organization; affective responses; intention to leave the organization; and new job opportunities associated with changes in professional status and economic and market conditions. Conceptually, Tett and Meyer (1993, p. 262) define the intention to leave as “[…] the conscious and deliberate wish to leave the organization”. With this same understanding, Cohen and Golan (2007) believe that analysis of the turnover intention corroborates advantages when compared to those that are centered on behavior as a dependent variable. Siqueira et al. (2014), in turn, define turnover intention as a psychological phenomenon that refers to the (subjective) probability of individuals leaving the organization in the near future.

In the light of this, studies have been carried out to develop predictive models that offer a coherent explanation of the background of an employee’s decision to leave the organization.
For Ferreira and Freire (2001), for example, turnover may only be the tip of the iceberg, in other words, only the visible part of distorted Human Resource practices. Turnover is an effect of internal variables and others that are external to the organization. Siqueira et al. (2013) suggest that, to a great extent, turnover results from a lack of reconciliation between organizational actors in strategic planning and those who create people management policies.

According to Vandenberg (1999), one of the main causes of turnover lies in the professional’s dissatisfaction with the work environment and with their colleagues. Cohen and Golan (2007) conclude that previous absenteeism has a strong effect on absenteeism at a later date. The results also indicate that job satisfaction is a strong predictor of absenteeism, while forms of commitment are related to turnover intention. Therefore, increasing satisfaction and commitment seems to be a good strategy for reducing absenteeism and turnover. Siqueira et al. (2014) suggest that organizations should seek to raise the satisfaction level of their professionals to increase their degree of affective commitment. To achieve this goal, the authors indicate that enriching activity content is extremely important.

Silva, Cappellozza and Costa (2014) stress, however, that organizations attribute different degrees of attention and concern to turnover. Those that offer greater support to the needs of individuals and go beyond their legal obligations tend, however, to have lower rates of turnover intention. According to a study that was conducted by the authors, the perception of organizational support, and particularly of affective commitment, has a significant impact on turnover intention. On the other hand, they indicate that demographic factors, such as length of time working, gender and age, have no significant correlations with the intention to leave the organization.

Calderón, Battistelli and Saez (2014) point out that the leader-led relationship has an indirect negative effect on turnover intention. This relationship seems to be mediated by the perceived organizational support. They also find that commitment to work tends to be mediated by the effect of the leader-led relationship.

A recent study points out that the degree of turnover can be positively affected by the dimension of organizational support (SILVA; MENDONÇA, 2019). Study developed by Guerra, Mattos and Corrêa (2020) points out that the promotion of actions that generate more connection between the employees and the institution can avoid high personnel turnover rates. The link between the individual and the organization can perhaps be strengthened with social and organizational supports, discussed in the next section.

2.2 Social and organizational support

In general, while social support is more related to relational aspects, that is, the individual's feeling of belonging to the team's or organization's relational networks, organizational support is related to organizational conditions, in terms of performance management, workload, material support for performance and advancement, promotion and salaries (OLIVEIRA-CASTRO; PILATI; BORGES-ANDRADE, 1999; PASCHOAL; TORRES; PORTO, 2010).

Despite these differences, social support and organizational support are two related concepts. Some authors, for example, consider that social support is one of the dimensions within organizational support (PINHEIRO, 2002; TAMAYO et al., 2000; TAMAYO; TRÓCCOLI, 2002). Pinheiro (2002), for example, based on the organizational support dimensions presented by Oliveira-Castro, Pilati and Borges-Andrade (1999) propose the inclusion of two more factors in the analysis of organizational support: the individual's relationship with leadership and other social actors. These aspects are linked to the dimension of social support.
Tamayo et al. (2000) developed a “Perceived Organizational Support Scale” including social support as one of the dimensions of this scale. The authors conceptualize social support as the individuals' perception of the existence and availability of social support and the quality of interpersonal relationships with superiors and colleagues. Tamayo et al. (2000) also includes other dimensions besides social support: performance management; leadership management styles; work overload; material support; promotion and salaries (TAMAYO et al., 2000; TAMAYO; TRÓCCOLI, 2002).

Deepening the concept, the perception of organizational support refers to “[…] refers to employees’ perceptions that the organization values their contributions and cares about their well-being” (EISENBERGER; RHOADES SHANOCK; WEN, 2020, p. 102). Oliveira-Castro, Pilati and Borges-Andrade (1999) point out that these perceptions are based on the frequency, intensity and sincerity of the praise and the material and social rewards the employees receive for their efforts. Also, when the professional perceives they are receiving favorable support, they will be more affectionately involved with the organization, which tends to result them making a greater effort to achieve the organization’s goals and objectives.

Eisenberger et al. (1986) emphasize that professionals tend to attribute characteristics to the organization that are like human ones. They tend to personify the organization and develop a general belief about its commitment to them. Oliveira-Castro, Pilati and Borges-Andrade (1999, p. 32) also claim that expectations of reciprocity exist between employees and employers. The organization has legal, moral, and financial obligations to its professionals, while it is expected, on the other hand, that the employee will show commitment and performance (ESTIVALETE; ANDRADE, 2012). It is an exchange relationship between the individual and the organization, which must be balanced in order to be lasting.

Therefore, organizational support can be considered the degree to which organizational actions are or are not perceived as a way of rewarding and valuing workers' efforts (PASCHOAL, 2008). On the one hand, individuals offer dedication, work force and skills and, on the other hand, the organization offers reward and appreciation to workers.

Social support, in turn, was defined by Cobb (1976) as the information that allows a person to recognize they are loved and esteemed and belong to a social network. This type of information performs the function of fulfilling the individual’s social and protection needs, as well as the need for refuge from the adverse consequences that are related to crisis or stress situations. Paschoal, Torres and Porto (2010), in turn, conceptualize social support as the social and relational support provided by the boss and colleagues to individuals in the work environment, which influence the sense of well-being and emotions experienced in the daily life of the organization. Similarly, for Rodriguez and Cohen, (1998), social support can be understood as the help, support or assistance that someone receives from their social networks.

Academic literature presents studies that relate the perception of organizational support and social support with health of individuals at work (TAMAYO; TRÓCCOLI, 2002; OLIVEIRA; TRISTÃO; NEIVA, 2006). Tamayo et al. (2002), for example, the result of social support on stress reactions at work can be either beneficial or harmful. When social support is well developed in the organization, it has a protective effect, resulting in low levels of stress at work. But low levels of social support in the organization are positively correlated with occupational stress. Tamayo and Tróccoli (2002) found that the perception of organizational support and the domains associated with performance management, work overload, social support, professional advancement and compensation, are significant predictors of psychological exhaustion.

In addition to acting as a preventive factor in stress at work, adequate perceptions of support can influence the perception of well-being. In a study by Sant’Anna, Paschoal e Gosendo (2012), they verified the perception of social support as the main predictor of well-being at work. Their study also concluded that the more positive the perception of social
support, the higher the indices of positive commitment/affection and achievement of the worker, and the less negative affection. Such findings are consistent with those of Paschoal, Torres and Porto (2010), which also seek to assess the impact of organizational and social support on well-being at work. The results also indicate direct impacts on well-being, with the Performance Management domain appearing as the main predictor of positive commitment/affection.

Rhoades and Eisenberger (2002) and Eisenberger, Rhoades Shanock and Wen (2020) had indicated that the Justice, Supervisor’s Support, Rewards and Favorable Working Conditions variables were significantly associated with the perception of organizational support, while organizational support is related to Job Satisfaction, Affective Commitment, Performance, and lower rates of turnover. Rhoades, Eisenberger and Armeli (2001) suggest that favorable work experiences, such as rewards, justice, and supervisory support, contribute to the overall perception of support. Perception of organizational support is also indicated as a mediator of relationships between work experiences that are favorable to affective commitment.

A recent study revealed that there is a strong relationship between the level of organizational support offered at universities and the commitment of teachers. Through the correlation analysis between the constructs, it was found that the commitment increases as the support granted increases (MARZALL et al., 2020).

2.3 Research Hypotheses

Based on the literature review carried out, a set of hypotheses was prepared. The purpose of these hypotheses is to consider the influence of the perceptions of organizational/social support on turnover intention:

H01: Performance management is a category of organizational support that has a negative influence on turnover intentions.

In Hypothesis 1, the Performance Management dimension refers to the workers’ perception of organizational practices employed in: setting goals; recognizing new ideas; organizational efforts to update its professionals about new technologies and work processes; recognizing difficulties; and performing tasks (BORGES-ANDRADE; PILATI, 2001). Paschoal, Torres and Porto (2010) and Sant’Anna et al. (2012) point out that performance management is an important antecedent of well-being and the main predictor of positive commitment/affection and achievement at work. It is also the most powerful support factor for explaining attitudinal impairment (about 21.3% of the explanation for the variance). Performance management alone explains approximately 1/5th of the variation in the measure of attitudinal commitment (BORGES-ANDRADE; PILATI, 2001).

H02: Work overload has a positive influence on turnover intention.

According to Oliveira-Castro, Pilati and Borges-Andrade (1999), work overload refers to work demands and work overload due to high production demands, and according to Pereira and Carvalho (2012), overload is significantly related to turnover intention. A study conducted by these authors observed that the higher the workload, the greater the employee’s turnover intention, while among the support dimensions, work overload has the highest correlation means with the professional’s intention to leave the organization. Tamayo and Troccoli (2002) point to work overload as a strong predictor of physical and emotional exhaustion, which are
related to voluntary turnover at work. Nodari, Dal-Bó and Camargo (2010) also observe that the greater the volume of overtime, the higher the turnover rates.

**H03: The perception of material support has a negative influence on turnover intention.**

Material support refers to the availability, adequacy, sufficiency, and quality of the material and financial resources provided by the organization so that the employee can perform their duties well and safely (OLIVEIRA-CASTRO; PILATI; BORGES-ANDRADE, 1999). Pereira and Carvalho (2012) point to an inverse and significant correlation between material support at work and turnover intention. The more individuals realize that the availability, adequacy and quality of material and financial resources are satisfactory, the less their intention to leave the organization.

**H04: The compensation and development policy has a negative influence on turnover intention.**

Organizational practices related to the processes of advancement, promotion and compensation are similarly related to factors for attracting and retaining professionals (OLIVEIRA-CASTRO; PILATI; BORGES-ANDRADE, 1999). According to Walster and Walster (1975), the perception of injustice in compensation tends to result in the development of professional strategies for dealing with the resulting tension. One of these strategies is to interrupt the work relationship through absenteeism or turnover. On the other hand, when “[...] they perceive justice in the compensation they receive, they’re satisfied with the work and emotionally committed to the company, they tend to reduce their intention to leave it” (SIQUEIRA; FERREIRA, 2005, p. 60).

**H05: Management style has a negative influence on turnover.**

Management and Leadership Styles are also correlated with the professionals’ perception regarding their wish to remain in the organization. Puusa and Tolvanen (2006) suggest that managers, as the mediators of work relationships, are commonly recognized as being an extension of the organization. Eisenberger et al. (2002), the behavior of superiors in the hierarchy tends to contribute both positively and negatively to the voluntary departure of their subordinates, even considering the strong feelings of obligation that professionals have for the organization (EISENBERGER; RHOADES SHANOCK; WEN, 2020). Calderón, Battistelli and Saez (2014) corroborate that a good relationship with the superior also has a negative impact on the intentions of leaving the company.

**H06: The social support of the group has a negative influence on turnover intention.**

The perceptions of individuals regarding the availability of social support and the quality of interpersonal relationships with the boss and colleagues are related. Tamayo et al. (2000), for example, point out that social support is an important factor in the employee’s relationship with the organization. In a study on the role of social support in the turnover intention of new teachers, Pomaki et al. (2010) found that there is a direct negative relationship between social support and turnover intention.

**3 METHOD**

The research that supports the results of this article can be characterized as having a quantitative approach and is descriptive in character. Descriptive research is the most
appropriate when the objective is to study group characteristics and identify or prove the existence of relationships between variables (VERGARA, 2014).

As for the research universe, the population consists of IT professionals from the metropolitan region of Belo Horizonte (Brazil), from which a non-probabilistic sample was extracted. An electronic questionnaire was utilized as the research instrument provided by the online platform Survey. The data collection period took place from October 2020 to November 2020. The study population comprised IT professionals who were members of the Association of Information Technology Companies of Minas Gerais (Assespro-MG). The process resulted in 155 complete and valid questionnaires. Regarding the exploratory data analysis, as the questionnaires were applied on a digital platform, with the obligation of complete data filling, no missing data or outliers were recorded.

The questionnaire applied in the research comprised two scales: The Perceived Organizational Support scale (TAMAYO et al., 2000) and the Rotation Intention scale (SIQUEIRA et al., 1997). The first scale was selected because it is an instrument validated in the Brazilian context and is a suitable tool to measure individuals' perception of organizational support (TAMAYO et al., 2000; TAMAYO; TRÓCCOLI, 2002). The second scale is widely used in national studies to measure turnover intention (PASCHOAL, 2008). Although these scales investigate different constructs that involve different domains, Paschoal (2008) points out that both can be considered as being the employee’s perception of work characteristics, of social relations and of their working conditions.

The Perceived Organizational Support Scale, which was validated in Brazil by Tamayo et al. (2000), is composed of the factors: i) performance management (individuals' perception of organizational policies and practices that regulate the work process in the company as a whole); ii) leadership style (individuals' perception of the ways used by superiors to incorporate organizational policies and practices in their sector/team); iii) social support at work (individuals' perception of the existence and availability of social support and the quality of interpersonal relationships with management and colleagues); iv) work overload (individuals' perception of excessive work demands defined for the group of employees); v) material support (individuals' perception of the availability of material and financial resources provided by the organization); vi) promotion and wages (individuals’ perception of promotion practices and career advancement) (OLIVEIRA-CASTRO; PILATI; BORGES-ANDRADE, 1999; TAMAYO et al., 2000).

The Perceived Organizational Support scale was adapted for purposes of this study. Of the 42 items that go to make up the original scale, 38 were used. It should be noted that four items were excluded due to their inadequacy to the reality of the researched universe. The scale uses likert-type measurement, with five points: 1 (never); 2 (rarely); 3 (sometimes), 4 (often) and 5 (always).

The second scale – Turnover Intention - was developed by Siqueira et al. (1997), and consists of three items: i) you think about leaving the organization where you work; ii) you plan to leave the organization where you work; iii) you want to leave the organization where you work). The scale also uses likert-type measurement, with five points: 1 (never); 2 (rarely); 3 (sometimes), 4 (often) and 5 (always).

It is worth noting that both scales were previously validated in studies conducted in Brazil, where the dimensionality and reliability of the scales were verified (PASCHOAL, 2008; TAMAYO; TRÓCCOLI, 2002; TAMAYO et al., 2000; OLIVEIRA-CASTRO; PILATI; BORGES-ANDRADE, 1999; SIQUEIRA et al., 1997).

4 RESULTS

The findings point to a slightly positive perception of organizational support, with the general support score remaining above the midpoint on the scale, indicating a moderate
perception of the concern of organizations with the well-being of their professionals and appreciation of their contributions.

Table 1 - Percentage distribution of information about work in the sample according to the generation to which it belongs

<table>
<thead>
<tr>
<th>PSO Scale domain</th>
<th>General</th>
<th>DP</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organizational support</td>
<td>3.17</td>
<td>0.45</td>
<td>0.82</td>
</tr>
<tr>
<td>Organizational performance management</td>
<td>3.33</td>
<td>0.77</td>
<td>0.72</td>
</tr>
<tr>
<td>Work overload</td>
<td>3.11</td>
<td>0.75</td>
<td>0.37</td>
</tr>
<tr>
<td>Perception of material support</td>
<td>2.98</td>
<td>0.21</td>
<td>0.91</td>
</tr>
<tr>
<td>Compensation &amp; Development policy</td>
<td>3.05</td>
<td>0.64</td>
<td>0.25</td>
</tr>
<tr>
<td>Social support</td>
<td>3.05</td>
<td>0.58</td>
<td>0.38</td>
</tr>
<tr>
<td>Style of the bosses</td>
<td>2.82</td>
<td>0.57</td>
<td>0.45</td>
</tr>
<tr>
<td>Social support at work</td>
<td>3.29</td>
<td>0.65</td>
<td>0.37</td>
</tr>
<tr>
<td>General score of the Scale</td>
<td>3.13</td>
<td>0.36</td>
<td>0.75</td>
</tr>
</tbody>
</table>

Note: Data refers only to the analysis of organizational and social support factors vis-à-vis general score.

Source: Research data.

Regarding social support, the data obtained indicate slightly positive perceptions. The perception of social support coming from a hierarchical superior is less than for the support offered by colleagues. It also worth observing that the studies that were reviewed also point to similar findings. Table 2 shows a comparison of the means found for each domain.

Table 2 - Scale score means for perceived organizational support

<table>
<thead>
<tr>
<th>Studies/Domains</th>
<th>This study</th>
<th>Pachaoal, 2008</th>
<th>Carvalho, 2012</th>
<th>Tamayo &amp; Tróccoli, 2002</th>
<th>Oliveira, Tristão &amp; Neiva, 2006</th>
<th>Sant’Anna, Pachaoal &amp; Gosendo, 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance management</td>
<td>3.33</td>
<td>3.21</td>
<td>3.46</td>
<td>3.21</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Work overload</td>
<td>3.11</td>
<td>2.51</td>
<td>3.52</td>
<td>2.84</td>
<td>2.63</td>
<td>NA</td>
</tr>
<tr>
<td>Material support</td>
<td>2.98</td>
<td>4.09</td>
<td>3.2</td>
<td>3.59</td>
<td>2.76</td>
<td>NA</td>
</tr>
<tr>
<td>Compensation &amp; Development policy</td>
<td>3.05</td>
<td>3.39</td>
<td>3.1</td>
<td>2.61</td>
<td>3</td>
<td>2.95</td>
</tr>
<tr>
<td>Management &amp; Leadership Style</td>
<td>2.82</td>
<td>3.64</td>
<td>3.21</td>
<td>3.3</td>
<td>3.18</td>
<td>NA</td>
</tr>
<tr>
<td>Social support at work</td>
<td>3.29</td>
<td>3.64</td>
<td>3.52</td>
<td>3.43</td>
<td>3.15</td>
<td>NA</td>
</tr>
</tbody>
</table>

Source: Research data.

Notes: NA: Not applicable; the domain was not assessed in this study.

It should be noted that despite the public being diverse, none of the data in Table 2 relate to professionals working in the Information Technology areas.

A domain-by-domain analysis of the Perceived Organizational Support scale shows that only material support in Paschoal (2008) has a mean that is higher than 4 points. In the other domains, the means are unsatisfactory, notably work overload, which obtained the lowest score, with results between 2.51 and 3.52. These results demonstrate, moreover, that IT professionals, the target of this study, are dissatisfied rather than satisfied with the social support they receive.

As for performance management, the data in this study reveal an average score of 3.33. This result indicates that the respondents have a moderate perception about new ideas being appreciated by the organizations to which they are attached. Organizations are perceived as
being more concerned with variables such as achieving goals, performance management and employee training as their response to the expansion of new technologies.

Although this result is not as high as in the other studies reviewed, it has the second highest average in this domain. This can perhaps be explained considering that appropriate performance management may be more evident in organizations that operate in more competitive sectors, such as technology (BORGES-ANDRADE; PILATI, 2001).

In relation to the Social Support domain, the findings taken from the academic literature that was reviewed - and in this study - point to moderate perceptions regarding the availability of social support and the quality of interpersonal relationships between colleagues.

Regarding the findings associated with the Material Support domain, different scores are recorded in the reviewed literature, ranging from 2.76 to 4.09. In this study, the findings from the IT professionals who were surveyed suggest a dissatisfaction with the material and financial resources available. In the case of these professionals, this domain has the second worst average when compared to the other domains and the studies that were reviewed, indicating that the IT professionals in this study do not perceive material support as being adequate in the organizations in which they work.

An explanation for this finding may possibly be that IT tends to be commonly seen as a cost for those companies in which it is not their core business. In this scenario, investments in infrastructure and equipment rarely keep up with the pace of growth. Therefore, the material support provided to workers tends to be less than expected for satisfactorily developing activities.

Another domain that gives results that are below the midpoint of the scale is management and leadership style. In the studies reviewed, perception of this domain is moderate, with an average between 3.18 and 3.30. In this study, however, the average obtained is 2.82, the worst result both in relation to the other domains that were investigated, and the results obtained by the research that was reviewed. Respondents rarely, or just occasionally perceive the way in which their hierarchical superiors apply organizational policies and practices as being appropriate.

According to Paschoal (2008), social support agents can be both managers and colleagues. This author believes that such instances can also be perceived in a similar way, and, in such cases, they tend to be grouped together in a single dimension. For the purposes of this study, however, there are significant differences between the social support agents. While the general perception of social support at work has an average of 3.29, the Management and Leadership Styles domain has an average of 2.82 with IT professionals. This difference suggests that the main source of social support comes from colleagues, not from managers.

These findings thus denote the importance of organizations being more attentive to the perception of their employees with regard their leaders. After all, a low perception of managerial support can result in losses for organizations, notably to the extent that leadership is a key factor of the global perception of social support, since it is a core source of positive and negative emotions in relation to work (SANT’ANNA; PASCHOAL; GOSENDO, 2012).

It is not uncommon in the IT sector for professionals to take on large volumes of overtime, or to work excessively hard to hand over a task or project. Some even spend the night working to deliver urgent demands (MANGIA, 2013). In this sense, the Work Overload domain has a value above the midpoint of the scale, at 3.11 (the higher the value, the greater the overload). Even though the average is not high, it suggests an absence of support. This was also the second highest average when compared with the other studies.

Compensation and development policy has an average score of 3.05, the second highest compared to the other studies that were reviewed. This finding points to the fact that the respondents have a moderate perception of how organizations manage their compensation, promotion and career advancement processes.
4.1 Perceived organizational support vs. turnover intention

The data obtained suggest that the more organizations recompense the efforts of their professionals, the lower the turnover intention (SILVA; CAPPELLOZZA; COSTA, 2014). In short, these findings point to a significant and negative - albeit weak - correlation between these two constructs.

Table 3 - Correlation between the perceived organizational support scales and turnover intention

<table>
<thead>
<tr>
<th>PSO Scale</th>
<th>Turnover intention</th>
</tr>
</thead>
<tbody>
<tr>
<td>R</td>
<td>.28</td>
</tr>
<tr>
<td>P</td>
<td>.00</td>
</tr>
<tr>
<td>R</td>
<td>-.55**</td>
</tr>
<tr>
<td>P</td>
<td>.00</td>
</tr>
<tr>
<td>R</td>
<td>.49**</td>
</tr>
<tr>
<td>P</td>
<td>.00</td>
</tr>
<tr>
<td>R</td>
<td>-.18</td>
</tr>
<tr>
<td>P</td>
<td>.02</td>
</tr>
<tr>
<td>R</td>
<td>-.51**</td>
</tr>
<tr>
<td>P</td>
<td>.00</td>
</tr>
<tr>
<td>R</td>
<td>-.44</td>
</tr>
<tr>
<td>P</td>
<td>.00</td>
</tr>
<tr>
<td>R</td>
<td>-.44**</td>
</tr>
<tr>
<td>P</td>
<td>.00</td>
</tr>
<tr>
<td>R</td>
<td>-.39**</td>
</tr>
<tr>
<td>P</td>
<td>.00</td>
</tr>
</tbody>
</table>

Source: Research data.

Notes: **. The correlation is significant at the 0.01 level (2 extremities). r: Pearson Correlation. p: Level of statistical significance.

The Table 3 also allow for verification of proposed Hypotheses 1, 3, 4, 5 and 6. In other words, Performance Management, Material Support, Compensation & Development Policies, Management & Leadership Style, and Social Support at Work have a negative correlation with turnover intention. In this sense, Hypothesis 2 can also be verified: Work overload correlates positively with turnover intention.

Table 4 gives a comparison between the findings of this study and those of de Pereira & Carvalho (2012), who also specifically analyzes the influence of the perception of organizational support on turnover intention with other professional groups.

Table 4 - Influence of the perception of organizational support on turnover intention

<table>
<thead>
<tr>
<th>Domains</th>
<th>This study</th>
<th>Perreira &amp; Carvalho, 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance management</td>
<td>-0.055</td>
<td>-0.44</td>
</tr>
<tr>
<td>Work overload</td>
<td>0.49</td>
<td>0.36</td>
</tr>
<tr>
<td>Material support</td>
<td>0.18</td>
<td>-0.42</td>
</tr>
<tr>
<td>Compensation &amp; Development</td>
<td>-0.51</td>
<td>NA</td>
</tr>
<tr>
<td>Leadership style</td>
<td>-0.44</td>
<td>-0.40</td>
</tr>
<tr>
<td>Social support at work</td>
<td>-0.39</td>
<td>-0.20</td>
</tr>
</tbody>
</table>

Source: Research data.

Using the data from Tables 3 and 4, it is possible to confirm the first hypothesis of this study, insofar as the data indicate a negative, strong and significant correlation between
turnover intention and performance management. In other words, the data indicate that the lower the averages of this domain, the greater the turnover intention.

This result is in line with other studies in the reviewed literature (PASCHOAL; TORRES; PORTO, 2010; SANT’ANNA; PASCHOAL; GOSENDO, 2012). In all of them, there is a negative correlation between performance management and turnover intention. The most significant correlation, however, was the one found in this study, which demonstrates that for the IT professionals who were surveyed, good performance management is seen as an important factor for remaining in the organization.

Similar findings were observed for the Compensation & Development Policy domain. Thus, the hypothesis that the lower the averages in these domains, the greater the turnover intention, was also confirmed. Regarding the academic literature, the results were also similar; all of them had significant correlations.

The hypothesis that the lower the material support, the greater the turnover intention, was also proved, although the correlation was the lowest when compared to other factors. Regarding the academic literature, the correlations found vary between 0.08 and -0.42, indicating that the perception of material support varies depending on the organization.

As for the Work Overload domain, there is a direct, strong, and significant correlation. Therefore, the hypothesis that the higher the average of this domain, the greater the turnover intention, could also be confirmed. In relation to the academic literature, it is worth noting, however, the greater correlation between work overload and turnover intention.

Forster et al. (2010) point out that the nature of the work of IT professionals simultaneously involves excessive hours of work, quality, and speed. Therefore, these professionals perceive excessive work demands from the organizations in which they work. It is not uncommon for these professionals to complain about their excessive workload and demands to remain continuously connected, even on weekends. Nodari, Dal-Bó and Camargo (2010) also warn about the correlation between length of time employees stay at work after normal working hours and employee turnover. The authors suggest that employee attrition rates tend to be proportional to the number of hours overtime they work.

As for social support at work, the hypothesis could also be confirmed; in other words, the lower the adequacy of this domain, the greater the turnover intention of professionals. This result is in line with the findings of Pomaki et al. (2010), who also point to a direct negative relationship between social support and turnover intention.

Turnover tends to be reduced when leaders inspire and transcend their own interests in favor of the results of the organization and its teams. In line with this author, the data obtained from our study allowed us to verify the hypothesis that the lower the adequacy perception of the IT professional about the management and leadership style of his/her superiors, the greater the turnover intention.

Table 5 summarizes the findings of the hypothesis tests.

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>H01: Performance management is a category of organizational support that has a negative influence on turnover intentions</td>
<td>✓</td>
</tr>
<tr>
<td>H02: Work overload has a positive influence on turnover intention</td>
<td>✓</td>
</tr>
<tr>
<td>H03: The perception of material support has a negative influence on turnover intention</td>
<td>✓</td>
</tr>
<tr>
<td>H04: The compensation and development policy has a negative influence on turnover intention</td>
<td>✓</td>
</tr>
<tr>
<td>H05: Management style has a negative influence on turnover</td>
<td>✓</td>
</tr>
<tr>
<td>H06: The social support of the group has a negative influence on turnover intention</td>
<td>✓</td>
</tr>
</tbody>
</table>

Source: Research data.
6 CONCLUSION

Returning to the central objective of this article, the findings show a significant and negative correlation, albeit weak, between organizational/social support and turnover intention of information technology (IT) professionals. These findings corroborate previous studies that were conducted by authors such as Rhoades, Eisenberger and Armei (2001), Silva, Cappellozza and Costa (2014), Pereira and Carvalho (2012), with other professional groups.

It is important to emphasize that turnover is a phenomenon with multiple causes, which can originate from the different elements that go to make up work dynamics. This study argues that perception of support is one of these factors. Furthermore, performance management is a category of organizational support that has a negative influence on turnover intention (H1); workload has a positive influence on turnover intention (H2); the perception of material support has a negative influence on turnover intention (H3); compensation and development policy has a negative influence on turnover intention (H4); the management style of the bosses has a negative influence on turnover intention (H5); and the social support of the group has a negative influence on turnover intention (H6), which also corroborates the findings of previous research conducted by Pereira and Carvalho (2012); Tamayo and Troccoli (2002); Nodari, Dal-Bó and Camargo (2010); Siqueira and Gomide Jr. (2008), with other professional groups.

Given the findings obtained, this study has contributed to a greater understanding of the factors that influence the decision of IT professionals to leave an organization, especially regarding the influence of organizational/social support.

Although this study achieved its proposed objectives and offered contributions to organizational/social support and turnover intention studies in the IT area, it is important to stress that the political, economic, sanitary crisis that Brazil was experiencing at the time of the research may have had an impact on the professionals’ responses, mainly in relation to their turnover intentions. The adoption of a mixed approach (qualitative and quantitative) in future research can also offer data that complement the results that have been published in the literature of the area to date.

Despite the limitations, mention must be made of the use of data collection instruments that have been developed and widely validated in national surveys, allowing comparisons to be made between the results, which enriches the analyses that have been presented. This study has also contributed to studies of IT professionals and areas. It is important to stress that studies that shed light on the reality experienced by these professionals are still rare.

This importance is intensifying as transformations and trends around the digital economy or Revolution 4.0, which have been catalyzed by the COVID-19 pandemic, indicate a significant increase in functions and occupations in the IT area. This has implications for vocational training, the gender profile of emerging occupations and the impacts on well-being factors at work and with work are relevant. The expansion in cognitive demands, the virtualization of tasks, the elimination of barriers between personal/professional life and the conversion of employees into entrepreneurs who are becoming more the “owners” of their own careers and themselves responsible for workability factors are just some of the symptoms of the new individual-work-organization relationships.

Despite the potential for greater mobilization of human subjectivity vis-à-vis the introduction of new technologies, the trends point to the prevalence of impoverished content, which is associated with excessive workloads. Bullying and psychological harassment - also known as mobbing - are also being increasingly reported as new stressful sources related to work, thus bringing to the fore the relevance of new management and leadership styles, as well as the need for new professional/social support devices. Concomitantly, unemployment, particularly long-term unemployment, will tend to intensify impacts on mental health.
REFERENCES


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