Person-Environment Fit (PE Fit): Evidence from Brazil
Jucelia Appio, Danielle Deimling De Carli, Bruno Henrique Rocha Fernandes, Nelson Natalino Frizon

Abstract—The purpose of this paper is to investigate if there are positive and significant correlations between the dimensions of Person-Environment Fit (Person-Job, Person-Organization, Person-Group and Person-Supervisor) at the “Best Companies to Work for” in Brazil in 2017. For that, a quantitative approach was used with a descriptive method being defined as a research sample the "150 Best Companies to Work for", according to data base collected in 2017 and provided by Fundação Instituto de Administração (FIA) of the University of São Paulo (USP). About the data analysis procedures, asymmetry and kurtosis, factorial analysis, Kaiser-Meyer-Olkin (KMO) tests, Bartlett sphericity and Cronbach’s alpha were used for the 69 research variables, and as a statistical technique for the purpose of analyzing the hypothesis, Pearson's correlation analysis was performed. As a main result, we highlight that there was a positive and significant correlation between the dimensions of Person-Environment Fit, corroborating the H1 hypothesis that there is a positive and significant correlation between Person-Job Fit, Person-Organization Fit, Person-Group Fit and Person-Supervisor Fit.

Keywords—Human resource management, person-environment fit, strategic people management, best companies to work for.

I. INTRODUCTION

After the decade of 1990, Brazilian companies have been forced to restructure, implying in an improvement of their strategies and of their management systems [3], [4]. In this context, attracting, training, appreciation and retaining talents have acquired special connotation, becoming a strategic challenge for people management [1].

The presence of investigations into the interpersonal relationship in organizations has been emphasized in the last years, positioning itself as a matter of great importance for the management of people [2]. However, few studies have attempted to synthesize the different forms of reaction between people and environments.

The Person-Environment Fit theory (PE FIT) infers that people’s individual characteristics can determine an individual’s ability to adapt to a certain organization and prescribe results. The PE FIT model aims to outline a structure capable of assessing and predicting, in which measures such as the characteristics of the employee, together with the characteristics of the work environment, can determine the satisfaction, health and psycho-emotional well-being of them [5].

Regarding to the subject P-E Fit, national publications are scarce, but they have being recurrent in the foreign literature. Towards efforts to include such an approach in the national scenario, we have the doctoral dissertations [6] and [9] in addition to the article by [10]. In this sense, this study seeks to explore whether there is a positive and a significant correlation between "Person-Job Fit", "Person-Organization Fit", "Person-Group Fit" and "Person-Supervisor Fit", at the "150 Best Companies to Work For" in Brazil, according to the database collected in 2017 and provided by the FIA, the USP.

II. PERSON-ENVIRONMENT FIT (P-E FIT)

PE FIT comes up from the theory of personality-work fit that proposes that individual characteristics can determine the individual’s adaptability in an organization and establish synergy within a work environment. From its original domain, the PE FIT model has been expanded to provide a framework capable of assessing and predicting in what measure employee characteristics along with the characteristics of the work environment can determine satisfaction, health, and well-psycho-emotional being [5].

Traditionally, the origins of the PE FIT approach were outlined by [11], who used science to solve social problems. As a lawyer and a progressive educator, Parsons designed her model to use in the form of psychological tests that sought to emphasize the importance of the person and environment variables in vocational choices.

In the 1930s, Donald G. Paterson, through the University of Minnesota, used a combination of interview records, aptitude and interests tests, as well as personality tests to diagnose as causes of occupational maladjustment of individuals for best fit their individual characteristics, experiences and potentialities. Paterson's data-driven application was used by [12] to define and maximize an individual's ability and the factors necessary for success in their environment [12].

Reference [7] elaborated the dynamic theory of personality, which understands that behavior is a result between the interaction of the individual and the environment. The idea is based on the consideration of the totality of coexisting facts, which the behaviorists had renounced. The field, in turn, represents the totality, of a dynamic character, since each one of its parts depends on an interrelation with the others and all integrate the psychological experience. Therefore, the behavior is a function or the result of the interaction between the person and the surrounding environment. When the perception of the individual about the environment is positive...
it tends to demonstrate a positive behavior, since objects, people or situations acquire for the individual a positive valence.

Reference [8] developed the theory linking both needs. The emphasis of this model was a typology that described different needs and organized them into categories, such as whether the conscious or unconscious needs, or psychogenic (physiological or psychological) and latent or manifest (hidden or overtly expressed). It referred to impulses that can benefit or harm the person based on whether these promote or inhibit the fulfillment of needs [13].

In 1968, Lawrence A. Pervin described performance and satisfaction as a function of a dynamic process of adjustment of individual factors. This approach improved the conceptualization of this correspondence by delineating a new inter-traction where the interaction with the environment occurred individually in different ways and according to the theoretically relevant paths of measurable characteristics [16]. In this same way, [14] summarized the issues associated with PE FIT in three main questions: 1) How do we value people? 2) How do we measure their environment? 3) How can we measure both in relation to the degree and quality of fit? Reference [15] proposed that the PE FIT required a degree of adequacy and correspondence, which they called complementary adjustment and supplementary adjustment.

Reference [15, p. 268] explained that complementary adjustment happens when there is a "match between an individual's talents and the corresponding needs of the environment." By complementary, they meant that "the characteristics of an individual serve to supplement or complement the characteristics of an environment" [15, p. 271]. This leads us to say that the best fit tends to happen when the needs of those who are involved in the process are similar, the competences of the individual are required to match environmental needs, and the opportunities or organizational resources offered meet the expectation of these ones, sharing the common assumption that people will have positive attitudes in the workplace when their needs are matched [6]. Next that, PE FIT has been summarized by [13] as follows: in essence, this adjustment incorporates the premise that individual-level attitudes, behaviors, and other outcomes result not from the person or the environment separately, but rather from the relationship between both [7], [8], [16]. In this understanding, [17] attributed that the behavior of the individuals would be related to the interaction of these with the environment, being attributed of two basic distinctions: the objective perceptions and the subjective perceptions.

Objective perception related to rational thought, attributing itself to facts and events, and subjective perception resulting from the experiences by it. The best fit between person and environment would result in physical and mental well-being, while their antagonism would create wear and stress [17].

In practical terms, the PE FIT model leads to identify the key points of the preventive intervention to improve the contact of the person's reality, the quality of life and in general well-being. To a large context, the perception form from an individual within the environment depends on his ability to discern perception and reality, and it could be equated with emotional intelligence [18].

The research of [11] on professional framing has grown to include a wide variety of conceptualizations of what means to fit and what aspects of the environment fits together. PE FIT is usually defined by some form of congruence or correspondence between the person and the environment. This game turns around two basic themes: meeting individual needs from the supplies provided in the environment and the demands of the environment to be supplied by the individual's abilities.

For the purposes of this work and in line with the domain of the PE FIT, four branches have been determined, being: Person-Organization (PO), Person-Work (PJ), Person-Group (PG) and Person-Supervisor (PS) [19].

A. Person-Organization Fit
The model proposed by [20] is considered as the most important aspect in the determination of the PE FIT, the congruence between the personal values of the members of an organization and the norms and values of that organization: the alignment between people and organizations, what it is called Person-Organization (PO) FIT. According to the author, PO FIT can be achieved through the selection process, where organizations must recruit people whose values correspond to theirs. In addition, Chatman proposed a socialization, a process by which an organization influences its members and develops its personal values to an alignment with organizational values [12]. PO FIT creates an organizational identity by establishing consistent values that permeate an organizational culture. Then, PE alignment balances functions at the organizational and individual levels [21].

The level of compatibility between the person and the organization is achieved through the combination of characteristics that are presented in the organization and in the person, whose degree of approximation can vary, being very close or even opposite. Supplemental alignment occurs when a person supplements or he has characteristics that are similar to those of other people in an environment. The complementary alignment, when the person adds to the organizational environment the skills or characteristics that were deprived of it [40].

Finally, according to the same author, the compatibility between people and organizations comes up when one of the parties acquire what the other needs, when they share similar or concomitant fundamental characteristics.

B. Person-Group Fit
Person-Group (PG) Fit or alignment between people and groups is defined as the compatibility between individuals and their work groups [40]. It occurs in a supplementary way when a person has similarity in values, psychological and behavioral characteristics with the other individuals of the environment. Alternatively, the complementary adjustment begins with a "weakness or need of the environment, if it is compensated by the strength of the individual, and vice versa" [15, p.271].
Although these two types of adjustments need to be distinct, perceptions of supplemental and complementary adjustment are often highly correlated [39]. Through the processes of attraction and selection, social interaction, normative influences and leadership processes, group members can have similar perceptions of shared group values and can adapt to the team to meet the demands [43]; resulting in collective perceptions of group-level adjustment.

Teams with better fit provide better performance. In general, it is believed that a strong sense of cohesion improves communication among group members, which in turn facilitates their participation to a greater degree and increases the acceptance of their goals, tasks and roles [41].

C. Person-Job Fit

Person-Job (PJ) Fit refers to the compatibility between an individual's characteristics (psychological and biological needs, goals, values, personality and abilities) and those of the work they will perform. It is a correspondence between an individual and requirements of a specific job [24]. Firms often seek this person-work adequacy in order to tailor the candidate's knowledge and skills to the requirements of specific job vacancies, and to analyze the ability of the candidate to perform his or her function immediately without the ephemeral need for training.

The concept of Person-Job Fit is the traditional basis for employee selection. The main concern in these processes is to find candidates who have the skills necessary to perform a particular job. Traditionally, the PJ FIT is determined by the demand analysis, which identifies the skills determinants in the tasks performed [22]. Evolving into scientific management, the PJ FIT determination process is increasingly suited to sophistication, using statistically valid data to determine its level of alignment.

Common PJ FIT operations include the needs perspective and demand-skills perspective [24]. However, the perspective of supplementary adjustment may not apply to the adjustment of PJ, because the environment in the supplementary model is described according to the characteristics of the people, not with the specificities of the job [23].

There is considerable evidence that a high level of PJ adequacy has several positive outcomes. The review of the PJ adequacy literature reported by [24] identified job satisfaction, low level of stress, motivation, performance, participation and retention as outcomes positively affected by PJ FIT. When PJ adequacy is assessed as the correspondence between what an employee wants and receives from the performance of a job, it is correlated with a better job satisfaction, fit and organizational commitment, and it reduces the intentions to give up. Additional benefits for task performance have been demonstrated when the PJ fit definition is expanded to include matching skills and their job demands [24].

There are two different methods that researchers commonly used to measure PJ Fit: adjustment of demands-skills and adjustment of needs-supplies. In order to satisfy the demands-skills, an individual must have the knowledge, skills and abilities needed to get the job done. On the other hand, if the needs, desires or preferences are met by the work performed, then there is a good adjustment of needs and supplies [25].

D. Person-Supervisor Fit

Finally, the Person-Supervisor (PS) Fit infers that there is a better performance when there is a positive alignment between the person and his supervisor. The theories of exchange between members and leaders consider that they establish different forms of relationships that differ in quality of social exchanges. The degree of relationship proximity between these agents leads to unequal forms of treatment between the superior and his subordinates. In cases where poor relationships are inferred, subordinates often perform unpopular tasks, often with no need for interaction with superiors, whereas in the opposite cases, there are better attributions, greater opportunities for autonomy and communication with leaders. More freedom, better work conditions and increased opportunities are some of the advantages observed when this type of fit happens [25].

In general terms, research on the relationship between supervisor and subordinates is centered on the exchange domain between employees and their leaders [26]. Reference [27] proposed that the exchange between them is a multidimensional construct and suggested that affection, loyalty and contribution were three dimensions that should be considered. This note is important to help to better understand the relationship between the development and maintenance of these relationships. Then, similarity or congruence with special emphasis on personality similarity, as well as congruence between values and goals should be considered.

Research Hypotheses

The developments around PE Fit share the following assumptions: people seek out and create environments that allow them to manifest their characteristics behaviorally; as people fit into their work environments, there are significant consequences, the best alignment associated with better results; the PE Fit is a reciprocal and continuous process by which people shape their environments and are shaped by them [28].

Although PE interaction models are articulated as dynamic interactions with the person and the environment influencing each other over the time, the tendency for PE alignment is a naturally occurring phenomenon that leads individuals to seek environments in which they fit and leading organizations to attract, hire, and retain people who fit into them. When the adjustment falls into mismatch, individuals are motivated to restore balance.

Based on the literature review of “Person-Environment Fit” the following research hypothesis is presented: H1 There is a positive and significant correlation between "Person-Job Fit", "Person-Organization Fit", "Person-Group Fit" and "Person-Supervisor Fit".

III. METHODOLOGY

Regarding the approach, this research is characterized as quantitative with the described method. In order to analyze the
correlation between the dimensions of PE Fit, the "150 Best Companies to Work" in Brazil was investigated. This is an annual survey administered by the Program of Studies in People Management (PROGEP) of the Foundation Institute of Administration (FIA), linked to the USP. This research takes place annually since 2006; the data considered is from 2017.

To participate, private companies, public institutions, non-profit organizations and cooperatives must have at least 100 employees with employment relationship and operate in the Brazilian and/or international market for at least three years. The companies that signed up were visited by a group of researchers to know in loco the real operation of the companies [29].

The Workplace Quality Index (IQAT), which represents the dimensions of PE Fit, is formed by results related to the perception of the employee in relation to the work environment. The experiences that people lived when working in companies allow the development of perceptions. The questionnaire has 69 indicators that involve data on organizational experiences. The variables are operationalized with a 5-point Likert scale, ranging from "totally disagree" to "totally agree".

The statistical data in the quantitative stage, were treated with SPSS® - Statistical Package for the Social Sciences, through descriptive analyzes, factorial analysis, KMO tests, Bartlett sphericity and Cronbach's Alpha for the PE Fit indicators.

The statistical technique used to verify the hypothesis was Pearson's correlation analysis of r, seeking to evaluate the relationship (positive or negative) between two variables. The strength or magnitude of the relationship (correlation coefficient) ranges from 0 (no relation) to 1 (+1 perfect positive relation, and -1 perfect negative relation) [30].

IV. RESULTS AND DISCUSSIONS OF THE DATA

Firstly, the descriptive analysis of the variables was carried out as a method that analyzes the frequency and dispersion of the collected data, so the variables (integral presentation) that presented the highest averages were: "I really am interested in the destination of the company where I work"; "The products and services of my company are very important for our society"; "I am proud to say to relatives and friends that I work in this company". On the other hand, the variables with lower averages were: "The company uses fair criteria for promotion and career growth"; "In this company, I can trust colleagues from other areas"; "In this company the bosses act according to what they say".

Regarding to the standard deviation of data, the variables with the highest rating were: "The company uses fair criteria for promotion and career growth"; "The amount I receive as a variable compensation or profit sharing is fair"; "My boss is consistent and uses the same weight and the same measure in his decisions". The variables with the lowest standard deviation were: "The products and services of my company are very important for our society"; "I'm really interested in the fate of the company where I work"; "I feel prepared to talk to friends and family when they ask me about the company".

Then, we analyzed the asymmetry and kurtosis of the 69 variables. In this context, suggests that it is asymmetrical for normal data, should be less than 1.0 (+1 / -1) and kurtosis should be less than 3.0 (+3 / -3). In this stage of analysis, the following variables were eliminated: V1; V5; V10; V14; V17; V20; V21; V22; V23; V25; V31; V32; V33; V34; V38; V40; V41; V42; V44; V50; V52; V53; V57, once they presented values of asymmetry and kurtosis above the parameters recommended by the literature, thus remaining 46 variables.

After that the 46 variables were submitted to KMO and Bartlett tests. Regarding to this analysis, the data showed good results: KMO = 0.987; Bartlett X2 = 44902928; df = 1035; and p <0.000.

After approval of the KMO and Bartlett tests, the data were submitted to factorial analysis. Firstly, the optimal number of factors was identified through the analysis of eigenvalues as suggested by [31], [30] and [33]. Four factors were presented with values of initial eigenvalues greater than 1 (explained variance = 62.451%), so these factors were accepted and confirmed in the analysis of eigenvalues that indicate which factors have latent roots or eigenvalues greater than 1 are considered significant [32].

As the factorial analysis seeks to realize the validity of the questions that compose the construct, through the correlation and grouping of variables, the most common method used is called Varimax.

To confirm the factors, Cronbach's alpha analysis was performed for the four factors. According to [31], [30] and [33], if the correlation between the indicator variables of each construct is high, the Cronbach's alpha is close to 1, values smaller than 0.6 indicate internal inconsistency. Factor 1 showed the Cronbach's alpha coefficient of 0.955. The factor 2 was then analyzed and the coefficient of 0.948 was obtained. Factor 3 obtained Cronbach's alpha coefficient of 0.904, finally factor 4, presented Cronbach's alpha of 0.823. All factors presented internal consistency and were denominated.

Thus, it can be emphasized that the variables framed in factor 1 are related to the characteristics of "Person-Supervisor Fit", those of factor 2 have aspects consistent with the "Person-Organization Fit", those listed in factor 3 with characteristics "Person-Group Fit" and the variables corresponding to factor 4 have aspects present in the" Person-Job Fit" dimension, and this is the way what they were designated.

Table I presents the results obtained in the correlation check between the search factors: "Person-Job Fit", "Person-Organization Fit", "Person-Group Fit" and "Person-Supervisor Fit".

Analyzing the results obtained, we can highlight that the H1 hypothesis: there is a positive and significant correlation between "Person-Job Fit", "Person-Organization Fit", "Person-Group Fit" and "Person-Supervisor Fit ". The analyze data was corroborated, as there was a significant correlation between the factors: "Person-Supervisor Fit" and “Person-Job Fit” presented correlation degree equal to, 0.557; "Person-Organization Fit" and "Person-Job Fit" resulted in a degree of correlation, 0.606; "Person-Group Fit" and "Person-Job Fit"
indicating a significant correlation of 0.542. Among the factors "Person-Group Fit" and "Person-Supervisor Fit" presented degree of correlation equal to 0.591; "Person-Group Fit" and "Person-Organization Fit" correlation of 0.554; and finally, "Person-Organization Fit" and "Person-Supervisor Fit", 0.631. In this way, it is verified that the correlations were positive and significant. It should be noted that the relationship was moderate in all cases where the values are between 0.4 and 0.6 [30].

It can be seen that the highest correlation of the present study was found between the "Person-Organization Fit" and "Person-Supervisor Fit" factors, since the degree of correlation was 0.631. The variables contained in PO Fit presented the following characteristics: procedures, work routines, information, training, methods, opportunity, communication channels, criteria for promotion, support by the company, valorization of work, among others. The aspects contained in the variables of PS Fit were: leadership, respect, participation, credibility, trust, attention to opinions, help, encouragement, coherence, clarity and contribution of the boss. In this context, [34] points out that this situation is due to the existing similarities, due to the fact that the supervisor can promote work behaviors that coincide with the values and goals of the organization, which in congruence results in a positive performance and reward to those involved.

V. CONCLUSION

Over the past years, people management has taken on an important strategic role, surpassing the traditional role, so people became the main protagonists in achieving results, whatever they may be, as they generate knowledge, innovation and organizational capacities [35].

In the present work, we studied the component dimensions of PE FIT, where the general objective was: to verify if there are positive and significant correlations between the dimensions of “Person-Environment Fit” (“Person-Job Fit”, “Person-Organization Fit”, “Person-Group Fit” and “Person-Supervisor Fit”) in the "150 Best Companies to Work for" in Brazil in 2017.

The hypothesis H1 - There is a positive and significant correlation between “Person-Job Fit”, “Person-Organization Fit”, “Person-Group Fit” and “Person-Supervisor Fit” was corroborated, since it got confirmation after rotation and analysis of data. It can be highlighted that these results are relevant to the organizations and individuals in question, once the present adjustments between person and environment called "Person-Environment Fit" have been of interest to employers and employees for decades, once they can predict positive results for individuals and organizations, thus providing a double benefit for both parts [36]. Nevertheless, interpersonal relationships consist of processes of mutuality, inherent in human interaction and there is of course in an organizational environment, exchanges of technical, theoretical and even sharing of experiences between people [37].

Especially for analysis of the Brazilian scenario, this form of research is very pertinent for the organizations and individuals in which it interacts, since this subject remains little explored and that it remains unknown about how the inputs are converted into advantageous outputs [42]. Moreover this lack of response has been even been called by several authors as "black box" [38].

It is understood that the answers to these literary gaps can contribute to the development of more effective policies and practices of people management. Therefore, research like this, seeks to contribute to the elucidation of these processes adding to the organizations to promote their results and contributing for a best work environment.

REFERENCES


