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**Organizational Culture, Organizational Support,  
and Positive Psychological Capital: Validation of a  
Theoretical Model**

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**ABSTRACT**

This article aims to check the correlation between organizational culture, organizational support, and positive psychological capital in employees from public and private organization and comprises a survey with 206 workers in the state of Rio Grande do Norte, Brazil, who answered a questionnaire containing the scale of organizational support, positive psychological capital at work, organizational culture, and social-demographic data. The scales presented reliable psychometric indexes besides an interdependency correlation among the constructs. ANOVA highlights that the interaction among the constructs was meaningful: organizational culture influences the high organizational support and the high positive psychological capital. Based on these results, the empirical hypothesis has been confirmed. Therefore, the study could be useful for managers who understand the organization-employee correlation as a factor of qualitative importance in healthy labor dynamics.

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**Keywords:**

Organizational Culture, Organizational Support, Positive Psychological Capital.

**Introduction**

The current context of social isolation served as a motivation to guide organizations on the pressures from the external environment, intending to adjust to the new technological and socio-organizational scenario of a world hyper connected by technology, thus triggering the elaboration of master plans in the information and communication technology (ICT) area. Therefore, the environment is challenging for organizations whose culture and people need to adapt to new institutional practices (Kwon et al., 2021).

Based on a new approach from the perspective of people management, this area must manage the maintenance of priority competencies that meet the objectives established by the company and an organizational atmosphere favorable to facing new challenges (Fleury & Fleury, 2004). Therefore, two types of activities can be generated in professional routines: the mandatory activities according to their

function and those carried out proactively, intended to collaborate with the organization and peers in the work environment. However, proper organizational support (OS) makes individuals safer.

The reciprocity of workers' behavior concerning the organization arises when they perceive that the organization offers OS; that is, the organization and its managers explicitly care about their workers (Estivaleta et al., 2016). Based on this reflection, a study by Formiga et al. (2020), highlighting the assessment of workers' general health, found a positive correlation between OS, positive psychological capital (PPC), and general health (GH) in a sample of nurses.

According to the authors, there was no significant result regarding the direct association between OS and the nurse's general health perception. However, the results were significant in the correlation between the nurse's general health and PPC. Thus, an attempt was made to develop a moderation model, inserting the PPC variable between OS and GH, confirming that nurses perceive they are healthy when PPC is developed. Therefore, based on these authors' findings, the research added the construct of organizational culture (OC) to the model, taken as justification to contemplate the influence of the micro-organizational level on the PPC variables, the medium level on the OS interactional variables, and the OC macro-organizational level.

Based on these remarks, the main interest was the relational study between OC, OS, and PPC in workers; this is intended to contribute to an evaluation system to understand the organization-worker correlation. This study includes the nature of ties, form, and type of organization in the world of work, referring to the different sensitivities of demands and offers of a social and human condition concerning the role of development, training, and implementation of contemporary human resources programs in (private or public) organizations associated with the formation of PPC in the worker (Bertoncello & Borges-Andrade, 2015).

From this perspective, the evaluation of the organization-work-management triad has gained greater attention in terms of analysis, understanding, and maintenance of variables that attribute subjectivity. Thus, the assessment of the health-illness binomial at work, the measurement of emotional events that interfere with creativity and organizational innovation, the expectation of organizational support, and the worker's mental health are examples capable of interfering with development and productivity, with an impact on the organization-work-individual correlation (Leite & Nogueira, 2017; Formiga et al., 2020; Paula et al., 2021).

According to Siqueira (2014), among the different variables that address the explanations and diagnoses related to management-organization-worker's health, researchers today have focused on the evaluation of OC and OS and their influences on organizational behavior, having received, in the last 10 years, attention concerning the quality of work in the organizational environment.

Related to the OC and OS constructs, social scientists have highlighted proposals for theoretical models that lead managers to evaluate better productive attitudes that include the predictability of protective factors for the balance and harmony of the work-health-efficiency correlation (Alves et al., 2014; Bertoncello & Borges-Andrade, 2015).

In the context of these analyses and based on their findings, Formiga et al. (2020) believe that it is possible to follow, either through the media or scientific production on the subject, changes in the world of work beyond economic and social aspects. There is a greater concern about individuals in the structure and maintenance of work, allowing the evaluation of different interpretation perspectives in various human and social science areas. Therefore, it has been considered that organizational culture (OC) has been one of the constructs contributing to explaining a better organizational structure and the worker's functionality.

### **Theoretical framework**

Organizational culture received greater focus in the 1980s due to the association between Japanese workers' discipline and the results achieved by companies in that country, considering that a significant load of culture would account for the success achieved. Thus, it was hypothesized that if managers

invested in the internalization of values chosen in the workers' thoughts, these workers' actions would leverage the organizations' results, taking them from the current state to the desired future state (Formiga et al., 2020).

A study by Azeem et al. (2021) empirically investigated the correlation between organizational culture, knowledge sharing, organizational innovation, and competitive advantage. Data were collected from 294 industrial managers using PLS-SEM, indicated for exploratory research when hypotheses must be examined. Findings showed that OC, knowledge sharing, and organizational innovation positively affect competitive advantage and, according to the authors, OC stimulates knowledge sharing and innovation activities among the workforce and links them to business processes level that can lead to the acquisition of advanced capabilities, highlighting that OC is cogent for the organization's operational success.

Yip et al. (2021) identified OC as an anxiety antecedent. They used the OC model of norms as a basis, such as OC through norm content, norm intensity, norm consensus, norm adjustment, and values that influence anxiety. They hypothesized that outcome-oriented norm content, low norm intensity, low norm consensus, and poor norm fit promoted anxiety. The authors' main finding was to identify anxiety as an important OC consequence, demonstrating how OC with an intense focus on results can unintentionally trigger higher anxiety levels, undermining the purpose of the results-oriented norm. Furthermore, they concluded that the magnitude of anxiety has constructive or destructive effects on performance.

Kashan et al. (2021) investigated organizations that fail to innovate due to the lack of a culture of organizational support, given that an innovation culture is necessary for the organization's future survival. Using a systematic literature review and 18 interviews with experts in the mining industry, the authors revealed 33 underlying cultural dimensions and specific organizational behaviors that encourage a culture of innovation, including trust, support for diversity, and support for proactiveness.

Thus, it can be said that the diversity of characteristics that make up organizations is the basis for the formation of an organization's internal and external policies mirrored by OC. Presented by Pettigrew (1996) and explored by Schein (2009), OC is seen as a phenomenon with distinct levels that can be thought of at the most complex level in terms of a set of values, beliefs, and attitudes capable of defining that a particular organization or individuals plan, direct, organize, and control actions, and that is manifested in structures, systems, symbols, myths, and reward patterns in organizational dynamics.

It is important to emphasize that, in contemporary terms, OC contributes so that individuals within organizations can feel part of the group, identify themselves, and realize whether they are developing according to the proposed norms, thus inhibiting the isolation in their work environment. Culture is a social result built over time and complex to be transformed, hence the importance of using multiple strategies for a group of similar actors, whether to strengthen or change the organizational mindset (Duarte et al., 2018).

Considering the importance of evaluating OC in organizations, Ferreira and Assmar (2008), taking varied literature on the subject as a guideline, both in the theoretical perspective and in the measure of the construct, developed an evaluation on OC that touched the evaluation process of the cultural elements existing in the organizational dynamics that have been evaluated so far. The authors' focused interest in this measure was the result of existing observations in OC studies, and that led them to seek to identify patterns or management styles involved by values that suggest the prediction of certain cultural practices.

Based on Hofstede (1991; 2015), Ferreira and Assmar (2008) evaluated that the OC practices and values were possibly interdependent since the practices assume a configuration based on the orientations of the values internalized by people, but knowing that organizational practices and values are sometimes opposed, because, in concrete terms, practice can be influenced based on a change or restructuring in the organizational process, while values cannot be changed in such an objective way, and positions can often be antagonistic between practices and values.

From the perspective of the phenomenon at issue, Ferreira and Assmar (2008), guided by the conception of Hofstede (1991; 2015), proposed a theoretical and empirical model that aimed to verify a measure capable of evaluating OC through organizational values with three sub-factors, namely: cooperative professionalism, employee satisfaction, and well-being, and promotion of interpersonal relationships and practices, also with three other sub-factors: external integration, reward and training, and promotion of interpersonal relationships. However, having all the socio-organizational credit in the culture presented, defined, and oriented in the organization may not occur in or influence an empty workspace. It can positively or negatively interfere with the most varied organizational constructs (Franco et al., 2020). However, it will focus only on organizational support and positive psychological capital.

Organizational support (OS) studies began in the 1980s, with the guidance and research of Eisenberg et al. (1986), emphasizing OS perception (OSP) supported by the premise that individuals personalize the organization to which they belong as an entity in which their actions are in constant interface with organizational actions (Formiga et al., 2020). Eisenberger et al. (1986) are seen as the researchers who initiated the theoretical and empirical perspectives on the OS construct.

The authors conceptualized OS by attributing it to the global beliefs that workers develop concerning the valuation that the organization offers them in return for the contributions from their work commitment, thus reinforcing the sense of protection for their general health and well-being. Thus, this attribution is associated with the idea of the worker having OS in the workspace, providing the opportunity to feel more pleasure, satisfaction, and happiness in the organizational dynamics and generating less stress and quality in the worker's physical, psychological, and social health (Paschoal et al., 2010).

Eisenberger et al. (1986) also developed a measure capable of evaluating OS concept and applicability in organizations, seeking to verify the professionals' perceptions, beliefs, and expectations about the actions of recognition and appreciation they identified in the work environment, besides analyzing the reflexes of these practices in the professional commitment and the construction of the affective bond between the worker and their company.

In recent times, there has been growing concern of organizations to build a personified image of care through a safe, pleasant, satisfactory work environment and with better conditions, thus developing a belief that the organization is concerned with the worker's life through OS that acts preventively to maintain their quality of life at work and with positive effects in other areas, outside the work environment (Siqueira & Padovan, 2008).

According to Oliveira-Castro et al. (1999), the OS concept was expanded based on Eisenberger et al. (1986), thus being considered as the perceptions elaborated by the employees about the intensity and quality that the area of human resources, the manager, and co-workers support them in the face of the internal and external challenges to the organization, seen either as retribution or advantages related to the efforts made in their work environment, explicitly manifested through the approval of suggestions, praise, material, or non-material awards, among others (Paschoal, 2008; Fleury et al., 2017).

Based on this concept, OS is a personal tool that is susceptible to empirical evaluation that overcomes uncertainties, from which they serve as a mental trigger for the worker to perceive 'how much', 'how', 'where', and the 'way' the organization personified in his mind values him. It also has a secondary target to influence productivity and organizational growth (Formiga et al., 2014).

In recent investigations, Qiu et al. (2020) carried out a study to identify the correlation between resilience, organizational support (OS), and fatigue and further explore whether OS could be a moderator in the correlation between resilience and fatigue in Chinese physicians. The results showed that OS could moderate the correlation between resilience and physical and mental fatigue.

Nogueira (2019) investigated the model in which the perception of organizational support and psychological capital explains well-being at work. In this study, the scales of well-being at work, perception of organizational support, and positive psychological capital were used in 227 workers. The

findings showed that optimism and self-efficacy/hope linked to PPC and OS worked as explanatory variables of well-being in the organization. However, resilience did not present significant correlations with well-being. Furthermore, only optimism was seen as an explanatory capacity concerning the effects of positivity, negativity, and fulfillment; nevertheless, PPC showed the greatest weight in predicting well-being.

Akgunduz et al. (2018) examined the effects of perceived OS and proactive personality on work meaning and employee creativity in hotels. They collected data through a survey with 274 hotel employees and used the structural equation model (SEM) to test the research hypotheses to find that both OS and proactive personality positively affect work meaning and employee creativity. While the mediating effect of work meaning on the correlation between proactive personality and employee creativity is fully supported, the mediating effect of work meaning on the correlation between OS and employee creativity was only partially supported.

Given the above, it can be seen that OS is considered an important construct in the organization-worker correlation, as it can manage expectations and symbolic exchanges between employer-employee interests and be positively related to work performance. On the other hand, it is associated in the opposite direction with risk factors for disorganization of the employer-employee dyad, such as organizational anomie, Burnout, absenteeism, and general worker's health, etc. (Vasquez-Menezes & Soratto, 2000; Paschoal, 2008; Fleury et al., 2017).

Thus, the importance of OC in any group system has its space of importance. Therefore, the question is 'where', 'how', and 'in what way' this construct will be able to work in an organization. The internal dynamics in management and support for its employees give evidence of this and form the workers' perception, assigning in a memory space the identification and understanding of the system and the organizational process, forming working bonds that allow building and maintaining a recursive system in the organization and its workers, associated with personal, social and work life (Crozatti, 1998, Alevato, 2005).

Besides the internal organizational environment resulting from new family and workforce formations, the need for studies on OS and its influence on organizational and work internality based on influences from the external environment arose. This emphasis was imposed due to the different roles assumed in domestic activities before the greater responsibility of women, but in contemporary times shared by all active members that make up families, who, together, seek to reconcile the various responsibilities assumed by mixing, in space and in time, personal activities with professionals (Campaniço, 2015).

In this context, OS programs become a reality in the corporate world. These programs assume a high degree of importance when they incorporate the vision of worker's health since organizations are concerned with diluting tensions to offer a pleasant, healthy, satisfactory, and protective work environment, perceptible by all who make up the organization, thus establishing a correlation of trust between the parties (Tachizawa & Mello, 2003).

Since OS is an important construct, what would its contribution to the worker-organization context be? In this reflection atmosphere, associated with the idea of happiness in organizations, the concept of positive psychology emerges from the perspective of this object of study.

Concerning the conviction that a person has regarding their ability to mobilize the motivation, cognitive resources, and courses of action necessary to perform a specific task in a given context successfully, we find Self-Efficacy. On the other hand, optimism concerns the attributional style in which positive events are attributed to personal, permanent, and universal causes, while negative events are interpreted based on external, temporary, and specific factors. Hope is revealed by a positive motivational state, resulting from the interaction between the degree to which the individual believes he can achieve a given goal and the ability to formulate effective plans to achieve those goals (Luthans & Avolio, 2003).

Another value sought in the recruitment and selection of organizations is resilience, seen as the ability to recover from conflicting and adverse situations, maintaining balance and responsibility. Therefore, motivated and satisfied individuals contribute to organizational success and positively influence their work teams (Paschoal et al., 2010), and all these behavioral values are seen as positive factors in theoretical and empirical assumptions (Luthans & Avolio, 2003).

By observing what has been presented about OS as a mechanism for valuing the employee, or PPC acting as a health protection mechanism, how much investment in the worker's emotional musculature is evidenced as a construct that behaves as a kind of "bank of positive emotions", which acts as an immune system of emotions ready to stabilize and rebalance the worker. Thus, we can see that good OS would probably generate good PPC for the worker or a better structuring and emotional balance of the worker in his work environment, respectively.

According to Fisher (2009), companies that care about their employees' well-being provide an organizational atmosphere that stimulates the feeling of satisfaction, leading workers to perform activities with greater commitment, quality, and creativity; that is, organizations' success can be in the individuals who integrate it and, the happier they are at work, the better the organizational dynamics and the work environment.

By making a metaphor with the current world of discussion based on biology, the individual 'attacked' by a stressor triggers PPC as an 'emotional immune system' to recover the state prior to the attack, using legal defense as he would against any emotional attack. This involves releasing parts of the 'positive emotion ban' that acts on this stressor's ability to multiply to stop its action and re-establish a balanced emotional state. The stronger this stressor, the more the 'bank of positive emotion' is used, and it is believed that one of the trainers of this bank is OC and OS.

From this perspective, the applicability of positive psychology in the corporate world emerged, amplified by the need for studies of positive organizational behavior (POB), having Fred Luthans (2002) as its precursor, emphasizing the study of psychological capabilities that have a direct influence on organizational performance, which indicators can monitor.

In organizations, indicators are criteria used in decision-making processes. According to Guimarães (1998), an indicator constitutes a measurable variable whose function is to reveal, using specific reference scales, a real stage of the organization's development concerning an established goal. However, the organizational system improvement is given by feedback; that is, the feedback of the entire organizational system and the exposure of positive indicators is considered a competitive strategy for developing individuals and their morale and positive organizational behavior.

This strategy justifies its effectiveness, considering the increasing satisfactory results within the organization, since the individuals' positive performance will be noticeable to managers, allowing the worker to strengthen their emotions, generating a set of experiences associated with positive psychological capital. Some characteristics presented to the individuals define the PPC study. These characteristics are noticeable in the professional training of individuals and are currently presented as behavioral skills sought in the organizations' selection processes. However, sometimes these skills come from individuals' experiences and routines and not just from formal intellectual training.

The individuals' positive psychological state is revealed when one perceives: 1) high confidence to expend the necessary effort to be successful in challenging tasks; 2) make positive attributions about the events that will happen in the present and the future; 3) manifest perseverance concerning the defined objectives, and, when necessary, show themselves capable of redirecting the means to achieve the ends; and 4) show the ability to recover from adversity (Luthans et al., 2007).

In a positive psychological capital (PPC) approach, Kim et al. (2019) tested various antecedents and outcomes of psychological capital and examined the role of this construct in psychological well-being and job satisfaction among sports employees. The results indicated that employees' meaningful work and a favorable organizational climate positively influenced psychological capital, leading to high job satisfaction and psychological well-being.

Woo et al. (2017) aimed to identify factors that affected the satisfaction of university students who select a specialization based on extrinsic factors rather than aptitude or interests due to lack of employment opportunities. The result showed that PPC and professional values positively correlated with specialization satisfaction. Significant predictors for specialization satisfaction included hope and optimism (as components of positive psychological capital), nursing service roles and nursing originality (as professional nursing values), and job aptitude/interests and value (as reasons for selecting a specialization).

From these reflections, this study aims to evaluate the correlation between OC, OS, and PPC and expects that these constructs are positively related to each other.

### **Methodology**

This research is a descriptive, exploratory, and correlational study with a quantitative approach involving employees from the State of Rio Grande do Norte-RN, Brazil. As inclusion criteria, being employed for more than one year and active in their work sector under the Consolidation of Labor Laws (CLT), or service provider, having more than 6 daily hours of work and age over 18 years old.

#### *Sample*

Two hundred and six employees in the state participated in the research. They work in various organizational sectors across the state in the administration area. The majority, 63%, was females, 52% were married, and 68% had a specialization. Regarding the length of service, we noticed that the respondents had an average of 11.41 years of service ( $sd = 9.44$ ).

The sample was evaluated using the G Power 3.1 statistical package (Faul et al., 2007). We considered a probability of 95% ( $p < 0.05$ ), a magnitude of the sample effect ( $r \geq 0.50$ ), and a hypothetical power standard ( $\pi \geq 0.80$ ) to verify sample quality and significance to carry out the research that revealed the 'n' highlighted sample, having their respective indicators  $t \geq 1.98$ ,  $\pi \geq 0.97$ , and  $p < 0.05$ , both sufficient for the accomplishment of the study at issue, and the performing statistical calculations related to the research objective.

Data collection occurred according to the respondents' time and physical space in their work sector or outside of it. Additionally, they were invited to participate voluntarily, anonymously, privately, and confidentially to answer the electronic questionnaire sent to e-mail, social networks, and mobile electronic messengers.

For the application of the instrument, the researcher was available by e-mail and cell phone throughout the instrument application, a condition intended to clarify doubts and possible misunderstandings of the instrument. An average time of 30 minutes was sufficient to complete the responses on the instrument.

#### *Ethical procedures and research administration*

Participants were asked to participate voluntarily, signing the Free and Informed Consent Term (FICT), based on resolution 466/12, and presenting the research benefits. The respondent would only have to sign their acceptance to participate electronically. This was individually applied to employees in the state of RN through an electronic form hosted on Google Docs.

#### *Data collection tools*

In the initial part of the tool, a sociodemographic questionnaire was presented to the respondent to obtain their professional link, gender, age, professional qualification, and length of service. The following parts were distributed in three scales, each referring to the constructs: OC with the Brazilian Instrument for Evaluation of Organizational Culture (IBACO), OS Perception Scale (OSPS), and PPC at Work Scale (PPCS).

Concerning OC evaluation, the IBACO Short Version was used: this instrument was developed and validated by Ferreira and Assmar (2008), which, according to them, maintains the psychometric quality of the original and complete instrument; this measure has two factors, namely: cultural values and practices, each with three sub factors. In this sense, competitive professionalism, cooperative professionalism, employee satisfaction, and well-being are linked to values, and External Integration, Reward and Training, and Promotion of Interpersonal Relationships are linked to practices.

According to the authors, in the consistency analysis, the selected factors and subfactors were significant,  $\geq 0.70$ . To be exact: cooperative professionalism was 0.87 (items 14, 17, 19, 21, and 22), competitive professionalism was 0.76 (items 23, 24, 25, 29, and 30), employee satisfaction and well-being was 0.88 (items 3, 6, 10, 12, and 18), external integration was 0.85 (item no. 2 – employees have a clear idea of the company's main objectives; 4 – the most important decisions are made through board consensus; 7 – managers have autonomy only to make routine decisions; 8 – either the new products or services are tested jointly by the company and its customers; 15 – the changes follow a strategic plan), reward and training was 0.80 (items 5, 11, 16, 26, and 28), interpersonal relationship was 0.71 (items 1, 9, 13, 20, and 27) (Ferreira & Assmar, 2008).

To measure the construct, the respondents should mark their answers by clicking on the check-box on a five-point scale that ranged from 1 – Not applicable at all, 2 – Little applies, 3 – It applies reasonably, 4 – Applies a lot, to 5 – Fully applies.

The OS Perception Scale (OSPS) was developed by Eisenberger *et al.* (1986) and adapted and validated for the Brazilian context by Siqueira (1995). This measure aims to assess how people who work in either public or private organizations perceive that the company is concerned with employee well-being. To measure the construct, respondents should mark their answers on a seven-point scale ranging from 1 = strongly disagree to 7 = strongly agree.

The scale consists of 9 items (OS1 = This company would ignore complaints from me; OS2 = This company does not consider my interests when making decisions that affect me; OS3 = It is possible to get help from this company when I have a problem; OS4 = This company cares about my well-being; OS5 = This company would be willing to expand its facilities to help me use my best skills in the performance of my work; OS6 = This company is ready to help me when I need a special favor; OS7 = This company cares about my job satisfaction; OS8 = This company cares more about its profits than me, and OS9 = This company tries to make my work as interesting as possible).

Regarding scale reliability, the study by Siqueira (1995) observed that this measure presented a Cronbach's alpha of 0.86, revealing an internal consistency in the construct measurement. Through confirmatory factor analysis in a sample of Brazilian workers in the study by Formiga, Fleury, and Souza (2014), the factor structure's consistency of the OSPS measure presented psychometric indicators that guaranteed the factor organization proposed by the OSPS author ( $\chi^2/df = 1.42$ , RMR = 0.02, GFI = 0.99, AGFI = 0.97, CFI = 0.99, TLI = 0.99, and RMSEA = 0.03).

The Positive Psychological Capital at Work Scale (PPCS) is an instrument developed by Luthans *et al.* (2007). We used the short form for 12 items in this study, developed by Viseu *et al.* (2012) for the Portuguese context. It comprises items that describe a positive psychological state for respondents to face and employ the efforts to succeed in challenging tasks. The individuals answered a six-point Likert scale. The degree of agreement with each item ranged from 1 – Strongly disagree to 6 – Strongly agree to measure the construct.

The scale consisted of 4 factors with a total of 12 items, 3 of which were related to self-efficacy (SE1 = I feel confident in representing my area of work in meetings with management; SE 2 = I feel confident in contributing to discussions about the strategy of my company/institution, and SE 3 = I feel confident in presenting information to a group of colleagues), 4 related to hope (HOPE 1 = If I feel that I am blocked at work, I think of ways to solve it; HOPE 2 = Right now, I think I am quite successful at work; HOPE 3 = I can think of ways to achieve my current work goals, and HOPE 4 = I am currently achieving the work goals I set for myself), 3 relating to resilience (RESILI 1 = I can only rely on myself

at work if I have to, RESILI 2 = I usually deal with stressful issues easily, and RESILI 3 = I can handle difficult times at work because I have been through difficulties before), and 2 related to optimism (OPT 1 = I always see the bright side of things about my work, and OPT 2 = I am optimistic about what will happen to me in the future about work) (Formiga et al., 2014).

The study developed by Formiga et al. (2014) for the Brazilian context through confirmatory factor analysis to validate this measure for the context with samples of workers from public and private organizations observed reliable psychometric indicators ( $\chi^2/df = 1.32$ , RMR = 0.05, GFI = 0.98, AGFI = 0.95, CFI = 0.99, TLI = 0.99, and RMSEA = 0.03), confirming the PPCS tetrafactor structure, previously proposed by Luthans, Youssef, and Avolio (2007), and Viseu et al. (2012) in Portugal.

### Data analysis

Regarding data analysis, the SPSSWIN statistical package, version 24.0, was used to tabulate the data and perform descriptive statistical analyzes (mean and standard deviation, median), Pearson's correlation, Student's t-test, and Cronbach's alpha.

The AMOS Graphics 24.0 software was used to verify the proposed theoretical model. Statistical indicators for the Structural Equations Model (SEM) were verified and considered according to the subjective adjustment adequacy. This statistical software presents psychometric indicators that better validate and improve the most robust predictive models. This condition allows being more judicious and rigorous in terms of statistical analysis. It also assesses the statistical indices that allow evaluating the quality of fit of the proposed model (Hair et al., 2005; Van De Vijver & Leung, 1997), such as  $\chi^2$  (chi-square).

The  $\chi^2$  (chi-square) tests the probability of the theoretical model fitting the data: the higher the  $\chi^2$  value, the worse the fit. However, it has been little used in the literature, and it is more common to consider its ratio concerning degrees of freedom ( $\chi^2/df$ ). In this case, values up to 3 indicate a good fit; The Goodness-of-Fit Index (GFI) and the Adjusted Goodness-of-Fit Index (AGFI) are analogous to the  $R^2$  in multiple regression. Therefore, they indicate the variance-covariance proportion in the data explained by the model. These indicators' values range from 0 to 1, with values between 0.80 and 0.90, or higher, indicating a satisfactory adjustment. The Root-Mean-Square Error of Approximation (RMSEA), with its 90% confidence interval (90% CI), is considered an indicator of "goodness" of fit; that is, high values indicate an unadjusted model. An ideal RMSEA value is assumed to be between 0.05 and 0.08, with values up to 0.10. The Comparative Fit Index (CFI) generally compares the estimated model to the null model, considering values closer to one as indicators of satisfactory adjustment. The Root-Mean-Square Error of Approximation (RMSEA), with its 90% confidence interval (90% CI), is considered an indicator of goodness of fit; high values indicate an unadjusted model. An ideal RMSEA value is assumed to be between 0.05 and 0.08, with values of up to 0.10.

### Results

Initially, statistical analyzes were carried out on the quality of the sample collected. Concerning the missing study data, the results showed they were below the percentage of 5%, both concerning the item's non-response and its duplication or repetition of the same number in the answer space.

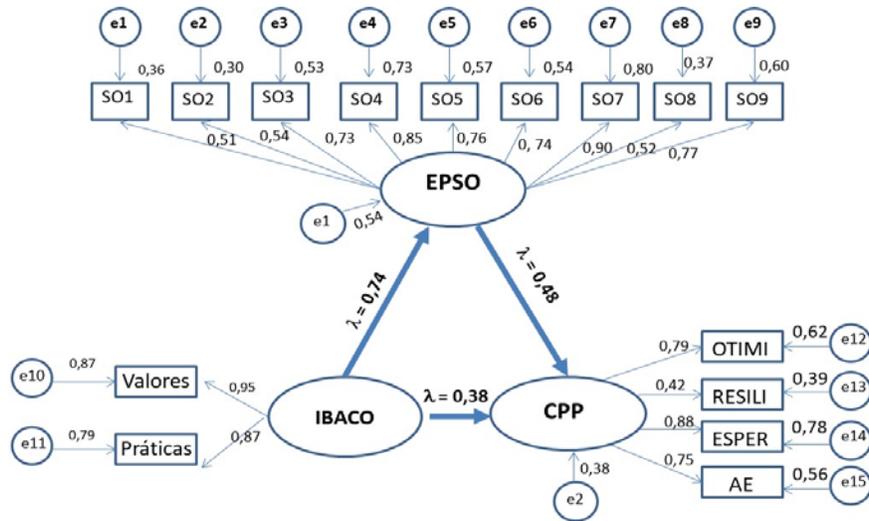
Another result was related to the multicollinearity between the variables. The correlations between them remained within the parameters by Tabachnick and Fidell (2018) [ $r \geq 0.90$ , ranging from 0.11 to 0.69], with no variables with a high degree of correlation, allowing the generation of models with low error. The presence of multivariate outliers in the sample was also verified using the Kolmogorov-Smirnov (KS) normality test, intended for the analysis of samples greater than 100 subjects; sample normality (KS = 1.45) was observed at a p-value < 0.29.

Based on the condition presented in Cronbach's alphas, we noticed that these measures show confidence in evaluating the problem-phenomenon related to the respondent's ability to show their

answers. Finally, we sought to meet this article’s main objective: to verify the correlation between OC, OS, and PPC in employees.

**Figure 1.**

*Graphic representation of the hypothesized theoretical model*



Considering a reflective measurement model with a recursive basis of structural equations, calculations were performed to verify the hypothesized model. After generating the analysis and making the necessary modifications to the error adjustments, the proposed model presented the following statistical ratio:  $\chi^2/df = 1.28$ , GFI = 0.93, AGFI = 0.91, CFI = 0.91, and RMSEA = 0.04 (0.01-0.05).

As seen in the proposed model above, the OC variable weight (IBACO) was strongly and positively associated with OS perception (OSPS) (= 0.74) and moderately and positively associated with PPC (= 0.38), with OS (OSPS) also moderately and positively associated with PPC (= 0.48) (Figure 1).

**Table 1.**

*Indicators of predictive estimates between model variables*

Variable	Correlation	Constructs	Estimate	s.d.	Reason Criterion	p-value
OSPS	<---	IBACO	0.059	0.006	9.932	0.001
PPC	<---	EPSO	2.352	0.303	7.762	0.001
CULTVALUE	<---	IBACO	1.000	---	---	---
CULTPRAC	<---	IBACO	0.901	0.058	15.418	0.001
HOPE	<---	PPC	1.000	---	---	---
SE	<---	PPC	0.796	0.073	10.902	0.001
RESIL	<---	PPC	0.280	0.055	5.106	0.001
OPT	<---	PPC	0.509	0.043	11.715	0.001
SORG9	<---	OSPS	1.000	---	---	---
SORG8	<---	OSPS	0.669	0.094	7.131	0.001
SORG7	<---	OSPS	1.251	0.096	13.038	0.001
SORG6	<---	OSPS	0.930	0.090	10.366	0.001
SORG5	<---	OSPS	0.967	0.082	11.808	0.001
SORG4	<---	OSPS	1.107	0.088	12.534	0.001
SORG3	<---	OSPS	0.902	0.087	10.340	0.001
SORG2	<---	OSPS	0.676	0.097	6.991	0.001
SORG1	<---	EPSO	0.604	0.088	6.886	0.001

Note: OSPS = Organizational Support; PPC = Positive Psychological Capital at Work; OPT = Optimism; RESIL = Resilience; HOPE = Hope; SE = Self-efficacy; IBACO = Organizational Culture

When observing the prediction estimates between variable associations, all were significant, with  $p < 0.001$ ; the correlation between the constructs was significant (Table 1). Therefore, confirming the hypothesized theoretical model showed reliable and significant psychometric indicators, supporting theoretical and empirical directions. A Manova was carried out to compare the average scores of the subjects' responses in the OC and OS constructs as a function of gender, educational level, and length of service.

Generating the analysis of variance calculation, based on the GLM method, we noticed that length of service, gender, and educational level, whether in the direct effect or interaction between the variables, were not significant. However, we noticed that OC influenced the high OS score and high PPC ( $F_{(1,135)} = 4.25$ ,  $OP = 0.53$ ,  $p < 0.001$ ), with the OP (Observed Power) indicator explaining 49% of the model at issue.

## Discussion

The objective of this investigation was to know the correlation between the employees' OC, OS, and PPC in organizations. The investigation was conceived from the perspective that OC would positively impact OS and PPC because it would act as an antecedent and influence the other two constructs through its values and practices.

Based on the results discussed on the previous section, the findings confirm the correlation initially idealized, and a direct and significant correlation was found between all the organizational culture and organizational support constructs ( $p < 0.001$ ). The findings also showed a correlation between them, but the strongest correlation concerned the influence of culture on organizational support. In a cause-effect correlation, the managers acting on culture would obtain important reflections on the OS feeling and, more moderately, on the PPC in their organization's employees.

With steps taken towards one construct only, the manager would be able to act on the other two, saving resources and organizational energy and achieving goals and results faster, anticipating the time for responses to their actions.

The acceptance of this thought worries more scientists about the importance of investigating more detailed OC aspects, such as its strengthening or change, given its power to intervene in the present and future work reality in an organization, especially at times of transformation, for example, in the transformation of an organization of preponderance of analog services to make its services 100% digital (Ferreira & Assmar, 2008; Fisher, 2009; Duarte *et al.* 2018).

This way, the investigation allowed us to examine the influence of organizational culture on organizational support and the formation of employees' positive psychological capital based on their considerations and perceptions.

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