

Human Resources and Organizations

## What is the social gain from competency management? The employees' perception at a Brazilian public university

*Qual é o ganho social na gestão por competências? a percepção dos funcionários de uma universidade pública brasileira*

*¿Qué beneficio social aporta la gestión por competencias? El punto de vista de funcionarios de una universidad pública brasileña*

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### Abstract

In the present global scenario of strong competitive edge, the Human factor had its relevance enhanced, presenting itself as a key element to enhance organizations' flexibility and performance. Since the 1990s, one of the most widespread and studied Human Resources practices has consisted of the Management Model by Competency, that innovated by changing the "position" reference to the "people" element. Therefore, this paper tries to investigate what are the elements that influence the employees' perception of social gain within an establishment that had taken on the competency management model. This is a quantitative work with survey methodology. The sample consists of 422 employees of a Brazilian public university that had implanted the competency model in 2011. The questionnaire, available in an online environment, used the dimensions developed by Sarsur (2007). The relationships between the actions on corporate education, wage move, career move, managerial positions held, workplace and seniority (independent variables) with the perception employees have of social gain (dependent variables) were analyzed through non parametric statistical techniques. The results indicate that the employees' perception of social competency gains in the model displays an essentially utilitarian nature. Namely, just the benefited employees demonstrated higher rankings of perception regarding the new proposal.

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*Keywords:* People management; Competency management; Corporate education; Performance evaluation; Social gain

### Resumo

No atual cenário mundial de forte competitividade, o fator humano aumentou sua importância e apresenta-se hoje como fator chave para aumentar a flexibilidade e a *performance* das organizações. Uma das práticas de Recursos Humanos mais difundidas e estudadas, a partir dos anos 1990, foi o modelo de gestão por competências, que inovou ao alterar o referencial "cargo" para o elemento "pessoas". Assim, neste artigo, pretendeu-se investigar quais são os fatores que influenciam a percepção de ganho social dos funcionários de uma organização que adotou o modelo de gestão de pessoas por competências. É um trabalho quantitativo com metodologia de levantamento (*survey*). A amostra é composta de 422 funcionários

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de uma universidade pública brasileira que implantou o modelo em 2011. O questionário disponibilizado em ambiente virtual utilizou as dimensões desenvolvidas por Sarsur (2007). Foram analisadas por meio de técnicas estatísticas não paramétricas as relações entre ações de educação corporativa, movimentação salarial, movimentação na carreira, ocupação de cargos de gestão, local de trabalho e tempo de serviço (variáveis independentes) com a percepção de ganho social dos funcionários (variáveis dependentes). Os resultados indicam que a percepção de ganhos sociais com o modelo por competências por parte dos funcionários possui caráter prioritariamente utilitarista, ou seja, apenas os servidores beneficiados apontaram *rankings* superiores de percepção em relação à nova proposta.

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*Palavras-chave:* Gestão de pessoas; Gestão por competências; Educação Corporativa; Avaliação de desempenho; Ganho social

## Resumen

En el actual escenario mundial de fuerte competitividad, se atribuye mayor importancia al factor humano, que se presenta como elemento clave para aumentar la flexibilidad y el desempeño de las organizaciones. Una de las prácticas de Recursos Humanos más difundidas y estudiadas a partir de los años noventa ha sido el modelo de gestión por competencias, que ha innovado al cambiar del referente “puesto” al elemento “personas”. En este artículo se pretende investigar qué factores influyen en la percepción de beneficio social por parte de los empleados de una organización que adopta el modelo de gestión de personas por competencias. Es un estudio cuantitativo con método *survey*. La muestra está compuesta por 422 funcionarios de una universidad pública brasileña que utiliza el modelo desde 2011. En la encuesta, disponible en forma virtual, se han utilizado las dimensiones desarrolladas por Sarsur (2007). Mediante técnicas estadísticas no paramétricas, se han analizado las relaciones entre acciones de educación corporativa, aumento salarial, movimiento en la carrera, ocupación de puestos de gestión, lugar de trabajo y antigüedad (variables independientes) con la percepción de beneficio social de los empleados (variables dependientes). Los resultados indican que la percepción de beneficios sociales del modelo por competencia por parte de los encuestados posee carácter sobre todo utilitarista, es decir, sólo los funcionarios beneficiados han indicado *rankings* superiores de percepción con relación a la nueva propuesta.

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*Palabras clave:* Gestión de personas; Gestión por competencias; Educación corporativa; Evaluación de desempeño; Beneficio social

## Introduction

The extreme strength and frequency of socio-economic, scientific and technological alterations in the global and national scenario in recent decades have thoroughly reshaped solid concepts. Consequently, such changes have become usual in organizational environments, since the outcome and survival of businesses today are directly related to their ability to identify and adapt to new trends (Wood, 2000).

In this context, the Human Resources field (HR) has gained representativeness for “[...] the transition from the industrial socioeconomic context to the post-industrial context causes People Management to be closely associated with Change Management issues [our translation]” (Vasconcelos, Mascarenhas & Vasconcelos, 2006, p. 18).

Since the 1990s, Competency Model for people management has become one of the most widespread and studied Human Resources practices. The design arises as an alternative to traditional people management models, based on the “position” element. Competency management models seek to encourage individual development to enhance knowledge, skills and attitudes applied to the professional context of each organization. The advantages of using the Competency concept as a pivotal axis of Human Resources practices are numerous. For instance, they include the increase in organizational flexibility, the alignment of the organization’s strategy with people management strategy, and the empowerment of managers toward HR decisions (Albuquerque & Oliveira, 2001; Appel & Bitencourt, 2008; Lawler III & Jenkins, 1992; Milkovich, Newman & Gerhart, 2013).

The fundamental reason for devising a new personnel management methodology relies upon the previous position-focused model – naturally inflexible – which hinders staff development and movement initiatives. Consequently, while the position-based system is often associated with bureaucratic structures and low mobility organizational settings, the Competency Management model seeks to enhance flexibility, providing managers with better chances to achieve their results (Albuquerque & Oliveira, 2001; Lima, Zambroni de Souza & Araújo, 2015).

The vast majority of the research on the competency concept is undertaken in the light of organizational outcomes. In this sense, several authors (Boyatzis, 1982; Dutra, 2001, 2004; Fleury & Fleury, 2001; Ruas, 2005; Zarifian, 2001) claim that the competency-based models for people management have higher chances of success in modern organizations inserted in competitive environments. The major drawback of such model is due to its natural difficulties of conceptualizing, assimilation and consequently consolidation (Albuquerque & Oliveira, 2001; Dutra, 2004).

One of the assumptions of such people management model asserts that “[...] “competencies should add economic value to the organization and social value to the individual [our translation]” (Fleury & Fleury, 2001, p. 187). However, Sarsur (2007) challenges that fact, given that social values might be perceived to a limited extent by the individuals in the organization, often being merely relegated to the level of speech.

Given the above and the importance the innovation promoted by switching the “position” referential to the “people” element, as proposed by the competency management model, this paper seeks to describe the factors that influence the perception the

employees have of social gain at an organization that has adopted the Competency Model for People Management.

In the present work, Social Gain is defined as “a set of aspects that foster the employee’s development as a human being in their broader dimension: personal, professional, citizen (politically and socially determined) [our translation]” (Sarsur, 2007, p. 11).

This study also used the categories proposed by Sarsur (2007) to measure the possible social gains with competency management. However, this paper contrasts from the cited author’s work due to two essential aspects. The former involves the objectives; the quoted author’s work examined the employees’ perception concerning the social gains of the competency model. On the other hand, this study sought to discover the factors affecting such perception. The second fundamental difference relates to the methods used; the cited author’s work displayed a qualitative and exploratory character, whereas this research adopted a quantitative-descriptive methodology (survey).

In pursuit of its overall objective, this study compared groups of employees of an organization that has applied the Competency Management Model, regarding their engagement into programs including Corporate Education, salary move, career move, the length of service at the institution, workplace, and managerial positions held. Fig. 1 demonstrates the general scheme of research

The institution of choice for this study refers to a Brazilian public university, endowed with autonomy in the educational, scientific, administrative and financial spheres. Since 2008, the institution has made various efforts to modernize its human resource practices. Among those actions a restructuring of career paths for its technicians and administrative staff stands out. As of April 2011, the former personnel management model based on the structure of positions was replaced by a competency-based system. Since then, there have been two career moves (with pay impact) in 2012 and 2013, making the organization eligible for the analysis of employee social gain.

The major theoretical implication of this paper consists of increasing the research base on competency management from the employees’ perspective, with emphasis on their perception of social gain concerning personnel management model.

The following work brings out the Competency Model: concepts, historical evolution, currents of thought, advantages, and limitations. Subsequently, the following are introduced: the methodological aspects, the public university studied, the techniques used, the analyses’ results, and the relevant discussions, followed by the research concluding remarks.

## The competency model

The People Management practices used in Brazil until the 1980s had their grounds in the position-based structure (Fleury & Fleury, 2001). That system mirrored Taylor’s Mechanistic Model and was introduced in the country in the 1930s. In the position-based structure, the employees of an organization associate their career progress to holding hierarchical positions of increasing responsibility and/or complexity (Pontes, 2013).

The position-based system has its main positive point objectivity; it is possible to establish performance standards suitable for each position and demand the respective employee under these indicators. The major negative point is the low flexibility; employees are “stuck” in their job, which reduces organizational agility and stimulates bureaucracy. Despite its limitations, the position-based system is still the most widely used by organizations, having been the subject of several improvements since its inception. However, even with all the latest adaptations, the position-based system cannot resolve certain problems that require a flexible structure, such as decentralizing wage decisions and encouraging individual development (Albuquerque & Oliveira, 2001; Dutra, 2016; Lawler III & Jenkins, 1992; Milkovich et al., 2013).

Thus, in the early 1970s, a model mainly characterized by the focus shift from “Position” to “people” started to take shape as an alternative to the then existing systems (McClelland, 1973). Thus, the competency concept arises, which, according to the predominantly North American branch, comprises the set of personal qualifications (knowledge, skills, and attitudes) that allow the individual to a higher work performance (Boyatzis, 1982; Spencer & Spencer, 1993). Later, authors such as Le Boterf (1994, 2003) and Zarifian (2001) used the competency concept in a more distinct fashion. For those scholars, the use of the personal qualifications repertoire would only add value to the institution when applied to organizational contexts. That is the predominantly French strand of thought.

In recent years, several authors have thought Competency as the sum of those two currents. Namely, “[...] the individual characteristics that can help them deliver more efficiently” (Fischer, Dutra, Nakata & Ruas, 2008, p. 35). The integration of such approaches produced in Brazil an increased use of the Competency concept, both in adapting systems for positions and structuring new instruments for people management (Carbone, Tonet, Silva Bruno & Brandão e Silva, 2016; Dutra, 2004, 2016).

Thus, the notion of competence appears associated with verbal phrases such as knowing, taking action, mobilizing resources, integrating multiple and complex knowledges, learning how to learn, learning how to engage, taking responsibility, and having strategic vision. On the side of the organization, competencies must add economic value to the organization and social value to the individual [our translation] (Fleury & Fleury, 2001, p. 187).

Carbone et al. (2016, p. 48) present a similar view. The authors define human competencies as “synergistic associations of knowledge, skills, and attitudes, demonstrated by performance within a particular organizational context, adding both entrepreneurial and social values [our translation]”. According to the authors, integrative conceptions as those seem to have greater acceptance among theme scholars consider the various work dimensions (cognitive, psychomotor and affective). Accordingly, the relationship between the organizational competencies and performance via previously defined strategies has also been observed. It is crucial to emphasize that both the definition Fleury and Fleury (2001) and the definition of Carbone

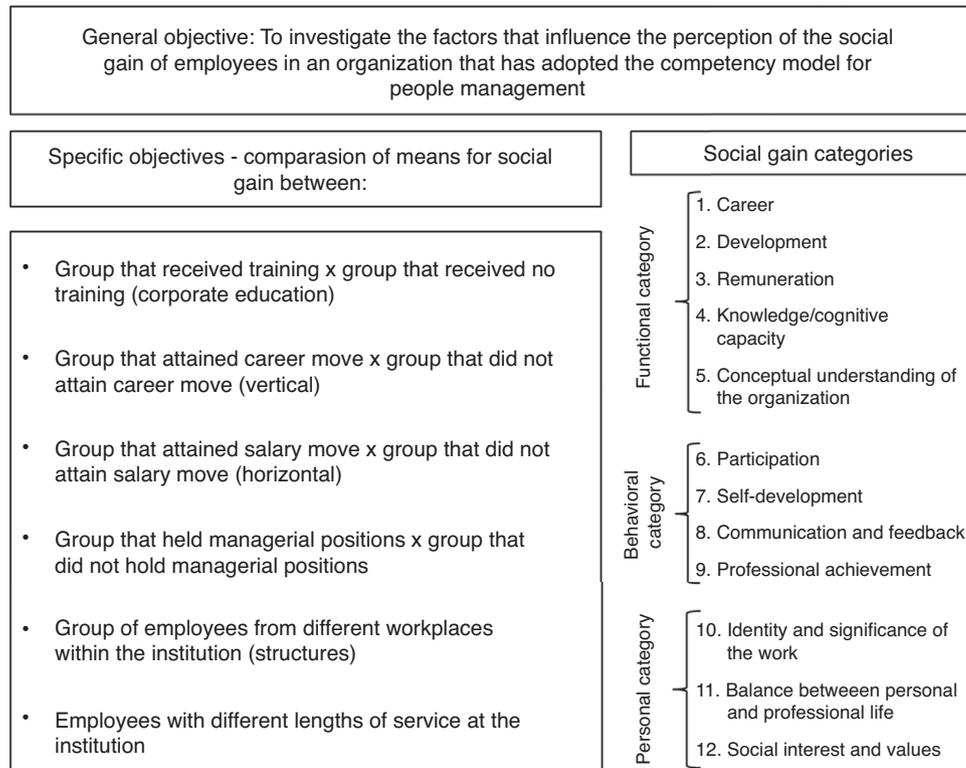


Fig. 1. General scheme of the research.

et al. (2016) point out that the model should add social values to the organization's employees.

Individual competencies derive from organizational skills (core competencies) capable of generating value to the organization's strategy. Thus, the Competency Management Model presents itself as a system that is less connected the regular and operational activities than the Position-Based Systems. The Competency Management Model is, therefore, more directed to the future of the entire organization, in line with its strategic objectives (Dutra, 2001, 2016; Lima et al., 2015; Markus, Cooper-Thomas & Allpress, 2005). Thus, the advantages of the Competency Model mentioned in the literature are quite numerous. Among those exponents include the increased organizational flexibility, optimal mechanisms for properly rewarding employees, the encouragement of personal development, the alignment of the organization's strategy with the people management strategy, and the empowerment of managers in HR decisions (Albuquerque & Oliveira, 2001; Appel & Bitencourt, 2008; Rejas-Muslera, Urquiza & Cepeda, 2012).

Despite the advantages mentioned, it is verified that the interest toward the Competency concept has not been growing. Moreover, it is observed that some of the central issues such as the process of identification and certification of competencies seem to have no solution. Also, a system capable of externally measuring the value of either a given skill or competence system still needs to be developed (Giancola, 2011). In fact, since the very theoretical design of the Competency Model hinders the establishment of performance indicators, the degree of subjectivity turns out to be inherent to such systems. The most common criticism about that model derives from that subjectivity. Those

issues include the conceptual complexity and, consequently, the relatively challenging implementation process within the organizations (Milkovich et al., 2013; Plothow & Hipólito, 2008). Other critics also claim that, for workers, the anticipated social gains in the Competency Model are eventually reduced due to market pressures (Sarsur, 2007), and that the model ends up valuing objective and subjective interests that exclusively pertain to the organizations (Ramos & Faria, 2012). Some authors also highlight the need to transform the entire corporate model by competency management, not only deploying a new management paradigm (Mello & Silva, 2013) as well as the importance of developing and encouraging collective and individual competencies consistent with the existing organizational culture (Zago & Retour, 2013).

Despite some reference authors in competency management point out that the model should create economic value for the organization and social value to the individual, the scientific production strongly emphasizes the analysis of economic gains; studies that seek to verify and deepen the understanding of the alleged social gain to employees are incipient.

In this sense, the doctoral dissertation by Amyra Moyzes Sarsur (2007), under the advisory of Prof. Dr. Maria Tereza Leme Fleury appears to be pioneering. The work has its foundation in the contribution of various scholars on the subject and proposes categories and subcategories for examining the social gain.

In the view of the author, personal development includes, in addition to individual aspects, the prospects for their insertion into society, where the individual can impact their social group. The categories built are split into functional, behavioral and

Table 1  
Categories for measuring social gain by competency management – Sarsur (2007).

Functional category	Behavioral category	Personal category
– Career	– Participation	– Identity and significance of the work
– Development	– Self-development	
– Remuneration	– Communication and feedback	– Balance between personal and professional life
– Knowledge/Cognitive capacity	– Professional achievement	
– Conceptual understanding of the Organization		– Social Interest and values

personal. Table 1 summarizes the construction of the categories and subcategories.

## Methodological aspects

### Participants

The study population consists of more than 17 thousand employees classified in the “Career of Technical and Administrative Server” at the University, according to its Statistical Yearbook 2014. Thus, it is critical to emphasize that although faculty also fall within the institution’s servers, the teaching career is position-based, so the category is not part of the research. The terms “employee” and “server” used in this paper refer exclusively to the technical and administrative segment of the university workforce.

The sample was selected by drawing lots (simple random sampling - probabilistic); 1800 employees of the institution received an e-mail invitation to the survey. Invitations yielded 469 completed questionnaires, i.e., the rate of participation of those summoned to the study were 26%.

### Instrument

In their research, Sarsur (2007) predominantly made use of interview methodology. The questionnaire script follows to the categories listed above. However, in this work, the interview script developed by the author was adapted, and subcategories underwent minor modifications in their nomenclatures to better fit into the concepts used in the organizational context at the University.

Despite the conceptual grouping performed by the author, we made the decision in this article to use the sub-categories in an independent manner toward the instrument and the analyses, due to the structure of the data, as will be shown further on. Thus, the subcategories originated the twelve dependent variables in this study. Questionnaires were made using a graphic 11-point scale (0–10), as the model of Fig. 1.

In addition to the questions regarding the social gains of the employees with the competency management, respondents were also asked to report data including work, the length of service at the institution, position level engagement in a managerial position, Career performance background, and participation history in corporate training initiatives offered by the organization. Improvements have been made

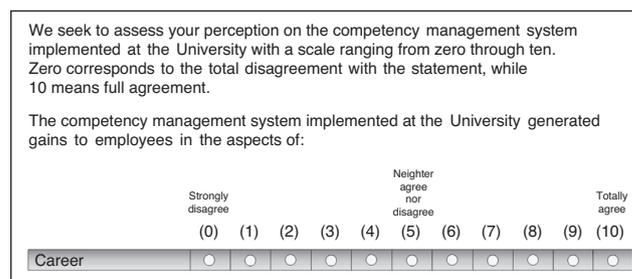


Fig. 2. Questionnaire model.

in the instrument during the questionnaire’s test phase (Fig. 2).

### Data collection procedures

Contact with the selected employees was established through the telephone directory system of the organization. That system features a contact form option without the disclosure of institutional e-mail server. The selected employees received a message containing a brief presentation of the study and included the link to the questionnaire in a virtual environment.

In the final days of the data collection, the volume of questionnaires identified a small number of respondents who declared either ongoing or previous attendance to long-term corporate education programs within the organization (less than 3%), which could adversely affect the analyses. However, such participation rate proves natural given that the Corporate University program at the institution had started its activities in August 2012.

Hence, there was a contact with the Corporate University, and the same questionnaire was applied through a different link directed to groups of students and alumni of the MBA course in Public Management. As a result, 59 additional questionnaires were obtained. The data were used solely for the analyses of the hypothesis of the difference in perception among employees who received and those who did not receive investments in corporate education.

Indeed, it is necessary to point out a limitation of the research during the data collection. The questionnaire for institutional e-mail resulted in a relatively low percentage of participation; the non-response rate was approximately 74%.

During the test phase, it was verified that many servers were on vacation, away for several reasons, or displaying outdated mail information in the institution’s databases. In those cases, the lack of participation appears to have a random character

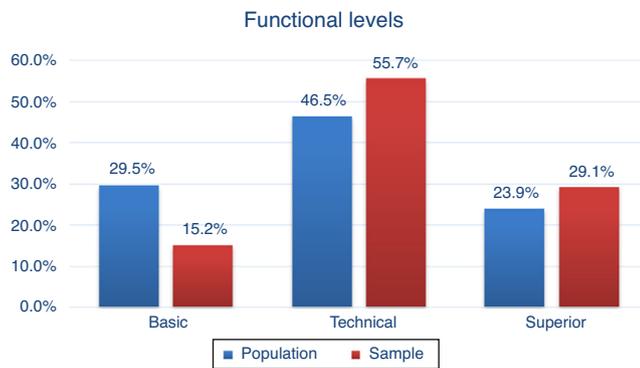


Chart 1. Distribution among functional levels: population and sample.

which, in principle, does not negatively influence the sample distribution.

However, many of the basic/elementary level employees of the institution engaged predominantly operational nature functions. In this sense, these servers do not have access, knowledge, or even the history of regular use of computers and the Internet. Since the survey was conducted through an online form, the sample representation of servers in that category was significantly lower than the figure found within the population (Chart 1).

#### Analysis procedures

Following the data collection, the preliminary verification stage was performed, and then the analysis was conducted. Initially, two questionnaires were eliminated due to the incorrect filling. Next, we opted for the exclusion of responses displaying a perception of social gains in a linear fashion; i.e., all the questionnaires having the same value in the visual scale for all twelve measurement categories of the social gain in the Competency Management Model were disregarded. The procedure is justified by the fact that, in responding that the social gain in all the different categories was equal, one can infer that the respondents lacked a conscious reflection on the negative and positive impacts of the implementation of the people management model for competencies in all its comprehensiveness.

Thus, a total of forty-five responses were also excluded from the analysis; that is, in all, forty-seven questionnaires were discarded out of the 469 collected forms (approximately 10%). Consequently, the primary research sample was reduced to 422 valid questionnaires.

Throughout the mean test, for all variables there has been an absence of normal distribution (Kolmogorov-Smirnov test. – sig = 0.000) causing researchers to choose to use non-parametric techniques. The analyses between the two groups of independent variables were made using the Mann–Whitney *U* test. The Kruskal–Wallis *H* test was used for testing the difference between *k* independent variables. The analyses (between pairs) to find out which groups had significant differences also followed the Kruskal–Wallis method, adjusted by the Bonferroni factor. All tests were performed in SPSS.

Some previous tests point out that some of the variables suffered the influence of the confounding bias exerted by the performance over the career. That is, a certain number of groups displayed mean differences, erroneously indicating any factor capable of influencing the perception of social gain with the Competency Model when, in fact, it was merely the difference between employees who have attained or not vertical progression. In such cases, whenever possible, the analyses were performed separately among employees contemplated and not contemplated with career movement (vertical).

In addition to career performance, control variables “level of education” and “job level” have been analyzed in order to identify any factors capable of influencing the dependent variables.

In the investigation phase on the effect of investments in corporate education as perceived by employees, three categories were outlined. The first group refers to servers that do not participate in any initiative of this nature. The second type includes employees who took part in up to eighty-hour courses. The third category comprises professionals who attend or attended in the MBA in Public Management, all offered by the corporate university of the institution.

The low number of MBA group representatives in the original sample prevented the realization of Kruskal–Wallis test in SPSS. Thus, to enable the use of statistical techniques, the questionnaires collected directly from the groups of students and MBA course alumni in Public Management were added to the original sample.

Among the fifty-nine questionnaires filled out by students and alumni of the MBA within the organization, four of which were discarded due to the improper filling. There were fifty-five remaining valid questionnaires, which were added to the 422 cases already. Consequently, there was change only in the analysis of Corporate Education the number of participants to 477. With the addition of the questionnaires, the number of servers that participate of the organization’s MBA was changed from nine to sixty-four. It is important to bear in mind that this procedure changed the sample structure, which ceased to be random to present characteristics of a convenience sample.

A Mann–Whitney test was performed to verify if the fifty-five new cases of MBA participants had rankings of social gain similar to the nine employees of the original sample. The results demonstrate that it is not possible to reject the claim that the means of the new group of students is equal to mean of the MBA participants in the original sample.

However, it was verified that fifty-five out of the sixty-four members of the group who attend or participated in the MBA attained at least one vertical movement (85.9%). That percentage could indicate that the perception of higher social gain, of the group linked to the MBA, mainly derives from the fact that its members have been contemplated in the career rather than a different view provided by Corporate Education initiatives.

Thus, seeking to neutralize the influence of the performance of his career, the analysis was performed using only the data of the employees who attained vertical movement. Consequently, the number of cases dropped to 259 servers, out of which fifty-five are MBA students, thirty-five are participating courses with a schedule of up to eighty hours and 169 employees who did not

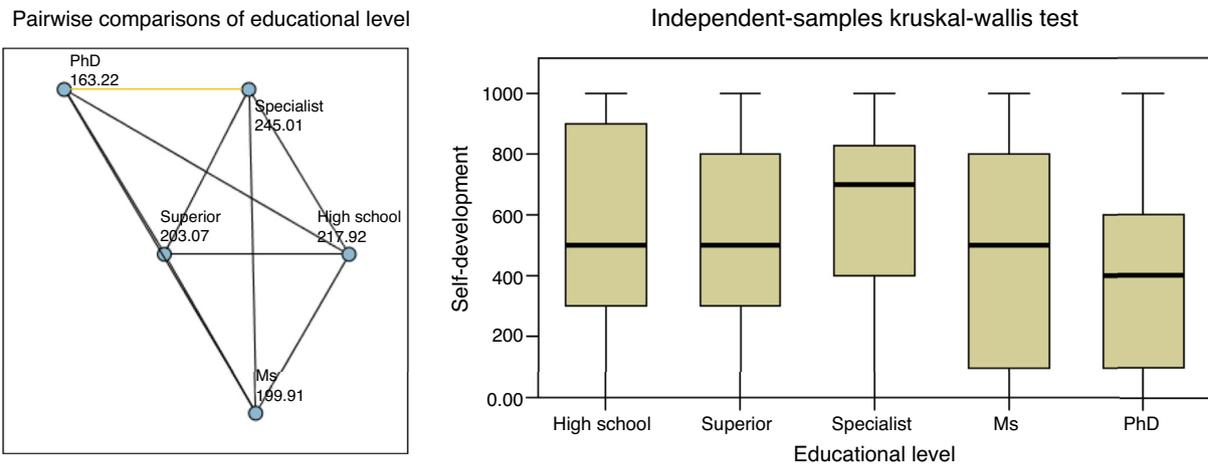


Fig. 3. Comparison between pairs – Educational Level – “Self-Development” variable.

participate in any corporate education program. The test was not performed between the non-contemplated since the number of cases in the MBA group again would be insufficient.

In the “salary move” variable testing, the number of cases does not match the total sample because employees who have achieved career move (vertical) were excluded from the test; this movement also produced wage increase.

### The university and the competency management model

The university under study refers to one of the most successful educational projects in the country. In addition to the abundance of courses available to the public with undergraduate, graduate and extension programs, the institution accounts for a significant share of the scientific production.

The institution enjoys academic, scientific, administrative and financial autonomy, which since 2008 has made many efforts to modernize its human resource practices. Among such measures, one can observe its technical and organizational workforce career restructuring.

As of April 2011, the existing position-based people management model was replaced by a competency-based system. The model is fully compatible with the theoretical proposal of Dutra (2001, 2004), based on the use of the concepts of organizational space, delivery, and complexity levels.

The competency-based career design grouped all the many formerly existing functions into only three categories, Basic level (elementary education required), Technical level (high school required) and Superior Level (higher education required), ranked by complexity levels.

Accordingly, the less complex tasks are to be performed by elementary education level employees, while more complex tasks require the higher education professionals. For each level of complexity, some access requirements to try to balance the capabilities and complexity of the work of each employee, according to the theoretical model.

In the first career move, held in 2012, 51% of employees got a pay rise; 75% obtained promotions (vertical progression) and 25% received a salary increase (horizontal progression). The

stage carried out in 2013 was still under audit phase, with no results displayed until the conclusion of the present study.

Finally, in August 2012, the Corporate University of the institution was established, aligned with the principles of Corporate Education, which is to develop the organization’s staff, the necessary competencies toward a successful institutional strategy.

Thus, it is noteworthy that the Competency concept as the pivotal axis of personnel management practices was applied to all the organization’s HR functions, except in recruitment practices, due to the public nature of the institution, which requires entry via civil service exam.

### Results and discussions

#### Tests of means

Initially, the mean differences between the control variables were verified.

#### Position level

In this work, we performed a test for equality of means among the basic, secondary and higher staff levels of the institution. Considering  $\alpha = 0.05$ , It was not possible to reject the null hypothesis of equality in any of the study variables, for either group, whether they had obtained progression or not. Thus, it was not possible to assert the existence of differences in the perception of social gains due to the employees’ position level.

#### Educational level

Servers with only basic level were not included in the mean analysis among the different educational levels since the sample received only one employee within that category. Although the Kruskal–Wallis test has identified a difference in the “career” and “self-development” variables for  $\alpha = 0.05$ , the Post Hoc analysis (Fig. 3) only displayed a significant difference regarding self-development. Such inequality is found more specifically among employees holding specialization and doctoral degrees, and wherein the second group presents significantly lower scores.

Table 2  
Mean test results: “Position Level” and “Educational Level” variables.

Independent variables	Position Level						Educational level				
	With vertical move			Without vertical move			High school	Superior	Specialist	Ms	PhD
	Elem.	Tech.	Sup.	Elem.	Tech.	Sup.					
Cases	22	116	73	42	119	50	108	154	74	55	30
Variables	<sup>a</sup> Kruskal Wallis			<sup>a</sup> Kruskal Wallis			<sup>a</sup> Kruskal Wallis				
1. Career	0.283			0.681			<b>0.038</b>				
2. Training	0.065			0.987			0.113				
3. Remuneration	0.248			0.173			0.073				
4. Knowledge acquisition	0.529			0.905			0.339				
5. Global understanding	0.731			0.938			0.138				
6. Engagement	0.680			0.735			0.159				
7. Self-development	0.191			0.937			<b>0.017</b>				
8. Communication	0.770			0.891			0.199				
9. Professional accomplishment	0.929			0.869			0.702				
10. Identity	0.454			0.659			0.154				
11. Balance	0.093			0.941			0.084				
12. Social interests	0.267			0.962			0.275				

<sup>a</sup> Kruskal Wallis Test Asymp. Sig.

Table 3  
Result of mean tests: “Workplace” (structures) and “Length of Service” variables.

Independent variables	Workplace (structures)					Length of service											
	A	B	C	D	E	With vertical move						Without vertical move					
						0–5	06–10	11–15	16–20	21–25	26+	0–5	06–10	11–15	16–20	21–25	26+
Cases	285	15	30	11	81	13	34	44	32	21	67	102	19	17	22	14	37
Variables	<sup>a</sup> Kruskal Wallis					<sup>a</sup> Kruskal Wallis						<sup>a</sup> Kruskal Wallis					
1. Career	0.566					0.919						0.299					
2. Training	0.694					0.952						0.229					
3. Remuneration	<b>0.020</b>					0.475						0.497					
4. Knowledge acquisition	0.251					0.991						0.027					
5. Global understanding	0.581					0.559						0.375					
6. Engagement	0.812					0.277						0.323					
7. Self-development	0.544					0.958						0.478					
8. Communication	0.071					0.210						0.731					
9. Professional accomplishment	0.340					0.714						0.603					
10. Identity	0.690					0.489						0.875					
11. Balance	0.222					0.709						0.590					
12. Social interests	0.260					0.160						0.188					

<sup>a</sup> Kruskal Wallis Test Asymp. Sig.

Nevertheless, it is believed that such difference can be verified according to specificities career plan of the institution. The weight of the doctorate in the classification process was relatively decreased compared to the previous model. In fact, that is the only situation identified in which the control variables may exert some level of influence on the relationship between the dependent and independent variables (Table 2).

Next, Kruskal–Wallis tests were conducted to attempt to identify differences between groups of independent variables “workplace,” “Length of service“, and “Corporate education“.

#### Workplace (structures)

The analysis of the independent variable “workplace” indicates a difference between the average of the variable “compensation” ( $H = 11.620$ ,  $p = 0.020$ ). The post hoc analysis

(Fig. 4) shows that the difference fundamentally occurs between the type “C” structures, with the highest Mean rank (281.98), and type “A” and “E” structures.

The sample data were verified from the perspective of vertical progression seeking to identify the possible causes of these differences; since, according to previous tests, that variable holds a greater relationship with the rankings of the respondents’ social gain (Table 3).

Accordingly Table 4, the sample’s employees working in type “C” structures obtained a higher percentage of vertical movement in comparison to the other groups (60%). Meanwhile, the servers at “A” and “E” workplaces reported the lowest rates of career progression, with 48.1% and 51.9% respectively.

Afterwards, it was not possible to perform the Kruskal–Wallis test between servers who were covered and non-covered by the

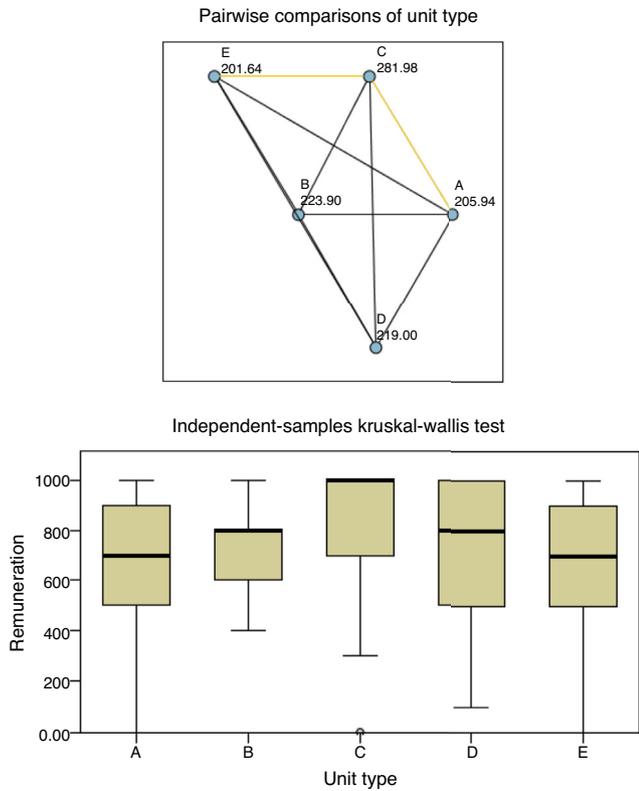


Fig. 4. Comparison between pairs – Unit type – ‘Remuneration’ variable.

Table 4  
Vertical movement by type of structure.

Unit type	Vertical move	
	No	Yes
A	51.9%	48.1%
B	46.7%	53.3%
C	40.0%	60.0%
D	45.5%	54.5%
E	48.1%	51.9%

career in separate. That should aim at neutralizing the influence of vertical movement between the variables for some groups having been left with an insufficient number of cases for analysis. However, it is possible to infer that the difference found between the rankings of the variable ‘remuneration’ refers to a confounding bias exercised by career performance; not by specific differences between the different organization working environments. Such conclusion is reinforced by the fact that only one of the twelve study variables showed significant differences between the groups analyzed to  $\alpha = 0.05$ .

*Length of service*

Next, the analysis of the independent variable ‘length of service’ in the institution was made. That variable is of high relevance; in many national public institutions, it is clear that the service time is often more valued for career progression, than merit and delivery of each employee within the organization.

A test for the equality of means was conducted separately between the distinctive service lengths in the institution. That is,

the test scope included the servers who achieved career movement as well as those who did not. The results of both groups were similar. Both among promoted, and for those who failed to progression was not possible to reject the null hypothesis of equality in any study variable, for  $\alpha = 0.05$ . Thus, it is not possible to say that there is a difference in perception of social gains due to different service times at the University.

*Corporate education (convenience sample)*

Accordingly, It was possible to reject the null hypothesis of equality for the variables ‘training’, ‘knowledge acquisition’, ‘global understanding’, ‘engagement’ and ‘self-development’, considering  $\alpha = 0.05$ . The post hoc analysis with Bonferroni correction shows that in all the variables mentioned above, the difference stands between the group of employees who attended the MBA and servants who did not take part in any program of Corporate Education. For the ‘knowledge acquisition’ variable, a difference between participants of courses with up to 80 h and the participants of the MBA was also verified.

The data indicate that corporate education initiatives, with a schedule of up to eighty hours, such as courses and workshops, are considered training and development programs, which involve knowledge of a more practical nature. In this sense, those programs poorly relate to the perception of Social Gain of the Competency Management Model. On the other hand, the group that has attended or participated in the MBA program (offered by the institution) presented social gains rankings significantly higher than the other employees regarding training, acquisition of knowledge, global understanding of the organization, commitment, and self-development. These variables fall into in the functional and behavioral categories, which, in fact, should be related to successful education programs.

Therefore, it is possible to draw two hypotheses able to explain the perception of difference in five out of the twelve categories of social gain addressed in this study. The first concerns the motivational aspect; few openings for the MBA program are offered, and participants are selected and funded by their home units. Thus, the perception of social gain would reflect the feeling of appreciation due to the leaders’ decision.

The second hypothesis considers that, given its predominantly strategic nature, long-term education program manages to increase the sensitivity and the understanding ability in more subjective and conceptual aspects successfully. Such features include the dynamics of the Competency Management Model is also coherent to conjecture that the two theories presented to coexist at different levels for each participant according to their individualities.

After that, the analyses of dichotomous nominal variables of the study were performed using the non-parametric Mann–Whitney test (Table 5).

*Managerial position*

The following variable tested consisted of ‘managerial position.’ The null hypothesis was that the mean of perception of social gain is equal for the group that holds a managerial position and the other, which does carry out managerial duties in the institution.

Table 5  
Mean test results: “Managerial Position” Variable, “Salary Move” and “Career Move”.

Independent variables	Managerial position				Salary move		Career move	
	With vertical move		Without vertical move		No	Yes	No	Yes
	No	Yes	No	Yes				
Cases	142	69	187	24	151	60	211	211
Variables	(1) Mann–Whitney		(1) Mann–Whitney		(1) Mann–Whitney		(1) Mann–Whitney	
1. Career	0.059		0.336		0.505		<b>0.000</b>	
2. Training	0.237		0.553		0.685		<b>0.000</b>	
3. Remuneration	0.172		0.314		0.726		<b>0.000</b>	
4. Knowledge acquisition	0.757		0.920		0.453		<b>0.000</b>	
5. Global understanding	0.288		0.883		0.065		<b>0.000</b>	
6. Engagement	0.819		0.950		<b>0.048</b>		<b>0.000</b>	
7. Self-development	0.837		0.310		0.155		<b>0.000</b>	
8. Communication	0.212		0.163		<b>0.017</b>		<b>0.000</b>	
9. Professional accomplishment	0.861		0.893		0.174		<b>0.000</b>	
10. Identity	0.279		0.957		<b>0.043</b>		<b>0.000</b>	
11. Balance	0.757		0.458		0.056		<b>0.000</b>	
12. Social interests	0.471		0.060		<b>0.037</b>		<b>0.000</b>	

Analyses were performed separately among individuals contemplated and not contemplated with career progression. Considering  $\alpha = 0.05$ , it is not possible to reject the null hypothesis in any of the twelve study variables. Thus, there is not enough evidence to dismiss the claim that the perception of social gain is equal for the group that holds and the group that does not occupy managerial positions in the organization. The data indicate some degree of similarity from the viewpoint of servers and managers, which are groups that typically have distinct characteristics, views, and behaviors in the organization.

#### Salary move (horizontal)

The null assumption is that the mean of perception of social gain is equal for the group that achieved and the group that did not attain salary move (not career move) after implementing the Competency Management Model. Again, the null hypothesis is described by  $H_0: \mu_1 = \mu_2$ . For  $\alpha = 0.05$ , it is possible to reject the null hypothesis in the variables “Engagement”, “Communication”, “Identity” and “Social Interests.”

Thus, employees who attained horizontal move are presented as a respondent profile that has been contemplated in career by competencies, with base salary increases ranging from 5% to 8% depending on the position level, but not obtaining role complexity movement (neither vertical move nor career move), a more desired situation for providing increases in the base salary of up to 36%.

On the one hand, it appears that in most categories, could not reject the hypothesis of equality and p values obtained for the other variables were not significant (no significant for  $\alpha = 0.01$ ). Thus, one can infer that despite the horizontal promoting pay increases to their recipients, these individuals perceived the social gains against the servers that received no wage increase as only partially higher. Seemingly, that type of movement turned out to be seen as a sort of “consolation prize” for employees who did not attain the vertical movement.

#### Career move (vertical)

For the analysis of the “career move” variable, the null hypothesis is that the mean of social gain perception is the same for the group that attained vertical movement and the group that did not achieve such move after implementing the Competency Management Model. The hypothesis of equality was rejected in a significant way in the twelve study variables; all of which with potentially rejecting a true null hypothesis less than 0.1%. Thus, there is enough evidence to dismiss the claim that the mean perception of social gain is the same for both groups, whether having achieved career move or not, for all variables.

The results showed that the “career move” variable is the one that displays a close relationship with the perception of respondents about social gain. Then, it was decided to include the other career framing possibilities available in the questionnaire in the examination. Chart 2 shows the average of each category of career framing for all measurement variables of social gain. As expected, the vertical movement group shows the highest means for all dependent variables. In contrast, the horizontal group and the group formed by employees who were unable to participate in the survey, for lack of requirements, took turns in second and third positions, consistently displaying near means.

For all categories, the lowest mean scores have been those singled out by the servers who had participated in the career process, but not attaining movement, and by the employees who did not voluntarily take part in the career. The latter shows the lowest average in ten out of the twelve variables to measure the social gain. Thus, among the two groups that did not take part in the career by competencies, the servers who did not yet hold the requirements, usually the length of service, presented intermediate means of perceived social gain, in a behavior similar to that displayed by the group that attained horizontal move.

In contrast, the group that did not voluntarily participated in the career possibly conducted an internal analysis bringing the conclusion that the chances of progression, with the criteria of

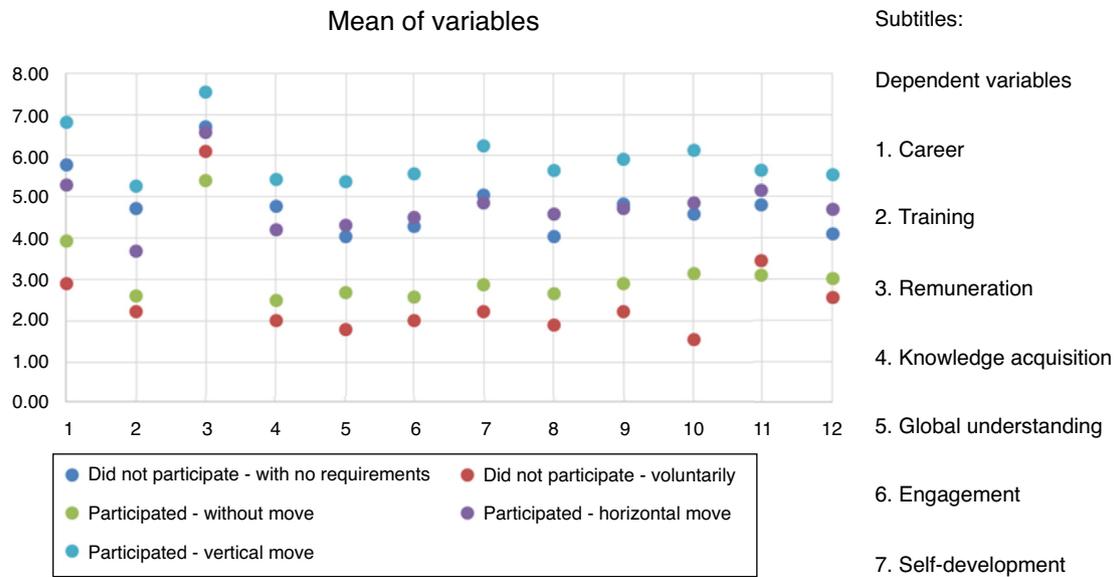


Chart 2. Dot plot: Mean of variables of social gain and career performance.

the new evaluation model for competence, were scanty. That view led them to choose not to join the process. That profile had the lowest perception scores among all groups, in most measurements variables of social gain. Such response resembles the behavior manifested by servers who participated in the career move process but not obtaining movement.

#### Summary table

According to the data, it was not possible to verify differences in the perception of social gain from the Competency Management Model on servers with different service times, different places of work, or between leaders and employees.

However, the group that achieved the vertical movement showed a significantly higher difference in all categories of the study. Moreover, the salary move (horizontal) showed differences regarding engagement, communication, identity and social interests. The long-term corporate education initiatives (MBA) showed higher perception means in the variables including “training”, “knowledge acquisition,” “global understanding of the organization”, “engagement”, and “self-development”.

The data indicate that the perception of social gains with the Competency Model, from the perspective of employees, has a primarily utilitarian character. That is, only the servers that have benefited from pay increases and Corporate Education investments indicated higher perception rankings on the new proposal.

Those results ultimately generate some relevant questionings, especially on the segment of employees not included in the career move by competencies. Despite numerous conceptual advantages of the model, its natural degree of subjectivity hinders the establishment of clear performance indicators, in contrast to position-based models.

For instance, evaluating a professional by the amount of calls per month is relatively easy. However, it is complex to determine whether that employee has the appropriate expertise

to potentially perform multiple tasks, not only the attributions of the position held. Similarly, it is easier for an employee to understand and, above all, accept, why a colleague who performs a similar role achieved salary increases while their earnings remain unchanged if the assessment criteria are clear and previously disclosed. That is a crucial aspect; the perception of injustice by employees can lead to several counterproductive and harmful behaviors toward the organization.

Another aspect that increases the complexity of the competency assessment processes is the fact that the value of the position is defined by its evaluation and market research, while instruments to set the value of a particular skill or competence in the market are still incipient thus creating potential problems of internal and external equity.

Finally, the initiatives of Corporate Education, especially the MBA program offered by the organization, was the only non-remunerative nature factor related to higher levels of perceived social gain (five out of the twelve categories addressed by the present study). It is worth mentioning that, despite the horizontal move progression, which also provides salary increases, the gains were limited to four categories. Consequently, such progression eventually posed as a “consolation prize” since the main objective was the vertical movement, providing more significant pay increases. [Table 6](#) summarizes the results obtained.

#### Conclusions and final remarks

The research data support the hypothesis of a negative perception of non-covered on the process employed. Accordingly, the lower rankings of social gain research (means close to 2 and 3) were found in employees who do not voluntarily participated in the process (probably for believing they would have little chance) and by taking part in the career and were not included, thus identifying a relevant degree of dissatisfaction.

Thus, even if the Competency management model is successful - efficiently producing a positive impact on the organization

Table 6  
Mean tests – results.

Variable	Technique used	Results/comments	Conclusions
Position level	Kruskal Wallis – Bonferroni correction	It was not possible to reject H0 in any of the study variables. Analyses conducted separately among employees who have attained and did not attain vertical movement.	The perception of social gain did not differ among the different position levels of the organization
Education Level	Kruskal Wallis – Bonferroni correction	H0 rejected in 1 out of 12 variables: self-development. Differences due to career specificities in the institution	The perception of social gain showed no difference among the different organizational educational levels
Workplace	Kruskal Wallis – Bonferroni correction	H0 rejected in 1 out of 12 variables remuneration. Difference due to influence of career performance	The perception of social gain showed no difference among the different workplaces at the organization
Length of service	Kruskal Wallis – Bonferroni correction	It was not possible to reject H0 in any of the study variables. Analyses conducted separately between employees who attained and did not attain vertical movement.	The perception of social gain did not differ among the different lengths of service in the organization
Corporate education	Kruskal Wallis – Bonferroni correction	It was possible to reject the hypothesis of equality in 5 out of 12 variables (training, knowledge acquisition, global understanding, engagement and self-development). Difference between the group that participated in the MBA and who did not participate in any CE program. Analysis conducted with a convenience sample.	The perception of social gain showed a difference between the groups that received and did not receive investments in Corporate Education in the organization in 5 out of the 12 study variables
Managerial position	Mann–Whitney	It was not possible to reject H0 in any of the study variables. Analyses conducted separately between employees who attained and did not attain vertical movement.	The perception of social gain showed no difference between the group that held and did not hold managerial positions in the organization
Salary move	Mann–Whitney	It was possible to reject the equality hypothesis in 1/3 of the variables (engagement, communication, identity and social interests). A trend in exclusive appreciation concerning the remuneration increase in the perception of social gain.	The perception of social gain showed a difference between the group that attained and did not attain salary move in the organization, in 1/3 of the study variables
Career move	Mann–Whitney	The equality hypothesis was rejected expressively in the 12 study variables; all with a probability of rejecting a true null hypothesis less than 0.1%.	The perception of social gain showed a difference between the group that attained and did not attain career move in the organization, in all study variables

through stimuli for personal self-development, as well as some desirable behaviors such as proactivity, initiative, and creativity – it is necessary to deduce from the equation the potential motivational and behavioral impairments due to the perception of injustice by the number of employees not included, which, as a rule, outnumber the contemplated or promoted professionals. The decline in popularity of competency management (Giancola, 2011) may indicate that the final balance to this equation is not always positive for the organization.

Despite efforts to provide a collection of random data, without the researchers' intervention, entry-level employees were under-represented in the sample. Consequently, such distribution appears as a limiting factor of the statistical inference process.

In conclusion, some suggestions for future research involve the investigation of other factors capable of influencing the perception of social gain from the Competency Management Model, in addition to studies aiming at the perception of non-contemplated servers toward the model.

### Conflicts of interest

The authors declare no conflicts of interest.

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