

# Job Performance: Scenario of the Scientific Production between 2011 to 2015.

Natasha Fogaça, MSc., Mariana Carolina Barbosa Rego, MSc., Ladilucy Pereira Armond, Graduate, Juliana Moro Bueno Mendonça, MSc.

Faculty of Economics, Administration and Accounting, University of Brasília (UnB), Brazil  
email: natasha.adm@gmail.com

## Introduction

In the field of Organizational Psychology, individual job performance is a central concept (Sonnentag & Frese, 2002). Despite its fundamental importance in most decisions involving human resources, there is still no comprehensive theory of job performance (Campbell, 1990; Deadrick & Gardner, 2008). In the mid of 1970s, researches began the task of clarifying and broadening of performance concept (Campbell, 1990). Advances have focused mainly on the specification of predictors and processes associated with individual performance (Sonnentag & Frese, 2002). In order to understand developments on the literature of job performance, some questions should be considered: How is the recent scenario of research on job performance in the main Management and Psychology journals? How has job performance been studied? What are the unexplored themes? With a diverse body of empirical studies on job performance, it is time to analyze how organizational researchers understand job performance and what types of studies have been developed.

This review is particularly relevant given that a bibliometric analysis was employed. Bibliometrics, as an area of study of Information Science, has an important role in the analysis of the scientific production of an area of knowledge, as it portrays the behavior and development of the theme by pointing out theoretical and empirical gaps, quantifying the existing features in the studies (Pritchard, 1969; Tague-Sutcliffe, 1992). Therefore, the aim of this paper is to offer an overview of studies related to job performance, presenting the results of a bibliometric review of empirical studies engendered in main journals of management and psychology, according to the JCR index, in the period from 2011 to 2015, covering the past five years. The analysis conducted allowed the identification of gaps in the literature and the subsequent design of a research agenda.

In the first section, the theoretical framework on job performance is presented. Then, the procedures adopted at this study in relation to the guidelines, which informed the review of the scientific production, and methodological categorization of selected studies is shown. Thirdly, based on research results, the scenario of publications will be presented. Finally, and based on the results collected, a research agenda on the topic will be proposed. Final considerations, especially the limitations and contributions of this research, conclude the paper.

## Literature Review

Studies involving job performance have been frequent in international literature. The use of econometric indicators to measure job performance has appeared in a substantial part

of concentrated studies; however, some measures of job performance perception can be found in the literature. Such measures consider that the mental models that individuals build about their activity can favor their performance, influencing the planning processes and maximizing effectiveness (Sonnentag & Frese, 2002; Bendassoli, 2012).

Perhaps the main reason for the high interest on the concept of performance are the multiple perspectives of this construct (Bates, 1999). There is a consensus among the authors of this field that, whichever concept of performance is proposed, it is necessary to clarify if it refers to behavioral aspects or result/goal aspects (Campbell, 1990; Sonnentag & Frese, 2002). The behavioral aspect refers to what the individual does in the work situation, while the result aspect refers to the consequence or result of individual behavior. Importantly, performance results aspects depend on other factors beyond individual behavior and, usually, only the actions relevant to organizational goals are considered as performance (Sonnentag & Frese, 2002).

Thus, based on Sonnentag and Frese (2002), Coelho Jr. et al. (2010) and DeNisi (2000), performance is inferred as multidimensional concept and consists of individual, contextual (or situational) and control variables. There are some factors that affect performance, considering that not only the individual characteristics (e.g., motivation and satisfaction with the job) should be considered for purposes of performance measurement. Task characteristics (as degree of knowledge and expertise required of individual for the task) and working environment can influence performance in the individual level (Coelho Jr., 2009).

Sonnentag and Frese (2002) highlight that, when studied as a dependent variable, performance is commonly investigated through the prism of an individual approach to background variables. Lam and Schaubroek (1999) explain this habit may derive from the fact that organizations are concerned with improving the performance of individuals based on the recognition of their difficulties, rather than factors such as working environment and its influence on office design.

Therefore, according to Deadrick and Gardner (2008) and Bendassolli (2012), performance refers to intentional act of individuals resulting in action guided by results, with a conscious purpose or prior motivation. Thus, job performance may be influenced by factors such as social, cultural, demographic conditions and job conditions. Job performance can be influenced by several factors (organizational characteristics, work environment and worker characteristics) of different natures. For Campbell (1990), performance refers to the action itself and not just its consequence or result. Effective performance is one that achieves the desired result, properly employing the mechanisms provided by the organization to achieve the task (Manning & Barrette, 2005).

Individual job performance refers to behaviors, enacted by an employee, designed to meet organizational objectives. Individual performance also differs from group and organizational performance. While some studies demonstrate that certain types of individual performance can contribute to performance results in units of analysis beyond the individual level, such as for groups and for organizations (Parker & Turner, 2002).

Sonnentag and Frese (2002) state that performance is skills and expertise applied in the job context in an implementation of a duty or task, or the way an individual acts in terms of efficiency and performance, culminating in achieving organizational results. It refers to deliberate undertaking by the individual of an action that is guided by its outcome, i.e., an action that has a conscious purpose or prior motivation.

Job performance is essentially the behavior in the context of doing a task, but it is not always clear what behaviors are important performance components. Performance theories serve as valuable resources to guide this complexity. They provide a description of the critical components of performance that must be captured and considered to generate

corrective feedback. General individual performance theory has three determined factors: declarative knowledge, procedural knowledge and skill. Performance is determined by the level of skills that learner has (Salas, Rosen, Held & Weissmuller, 2009).

### Method

Consistent with the objectives of this research and in face of the list of existing journals in various databases, the ten journals with the greatest impact factor indexes (JCR) were chosen in the areas of Administration, Applied Psychology and Business, areas that traditionally publish on "job performance". Some journals appeared simultaneously in two or in three categories; therefore, the final list of accessible journals totaled 23. The selected journals are: Academy of Management Review (7.817), Academy of Management Annals (7.333), Journal of Management (6.862), Management Information Systems Quarterly (5.405), Academy of Management Journal (4.974), Personnel Psychology (4.54), Journal of Operations Management (4.478), Journal of Applied Psychology (4.367), Organization Science (3.807), Journal of Information Technology (3.789), Organizational Research Methods (3.525), International Review of Sport and Exercise Psychology (3.353), Journal of Organizational Behavior (3.262), Journal of Counseling Psychology (2.955), Organizational Behavior and Human Performance/Organizational Behavior and Human Decision Processes (2.897), Journal of Sport & Exercise Psychology (2.593), Journal of Occupational (and Organizational) Psychology (2.48), Family Business Review (4.243), Journal of Marketing (3.819), Journal of International Business Studies (3.594), Journal of the Academy of Marketing Science (3.41), Journal of Management Studies (3.277), Journal of Business Venturing (3.265).

The search was conducted in the titles, abstracts or keywords and it was used the following terms: "job performance", "individual performance", "work performance", "individual job performance". In total, 96 articles were selected. To proceed with the bibliometric review of the articles, we used the following categories of analysis: journal name, year of publication, type of article, the most published authors on the journals and time period investigated, measures used for job performance, and variables that relate to performance. For the papers classified as empirical studies, the following categories were also employed: research methods, data collection methods and data analysis methods.

### Results

In the search conducted in the journals selected for this article, we found that 11 different journals published papers on the theme researched, from 2011 to 2015. Of this total, one journal had 32.3% of all selected papers, with 31 papers published; four journals had between ten and twelve publications, representing 45.8% of the total production; and six journals had less than ten articles published, which represents 21.9% of the articles selected. The data demonstrates that the Journal of Applied Psychology concentrates one third of the total production and the highest number of articles published in 2015 from the selected papers, four studies. The list of the publishing journals is presented on Table 2.

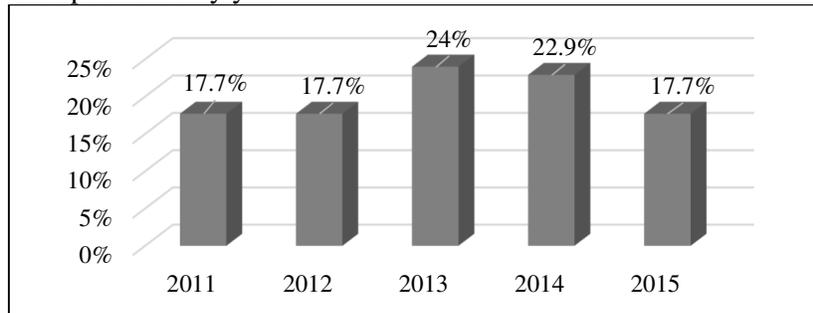
Table 2: Publishing journals

Journal	Freq.	%
Journal of Applied Psychology	31	32.3%
Personnel Psychology	12	12.5%
Journal of Organizational Behaviour	11	11.5%

Journal of Management	11	11.5%
Journal of Occupational and Organizational Psychology	10	10.4%
Organizational Behaviour and Human Decision Processes	8	8.3%
Journal of Management Studies	4	4.2%
Organization Science	4	4.2%
Journal of Academy of Marketing Science	3	3.1%
Journal of Operations Management	1	1.0%
Organizational Research Methods	1	1.0%

Regarding the analysis of these five years (2011-2015), it allowed us to observe how this field of study has been researched in recent years, the interest researchers have on this theme and the distribution of articles over the years. Graph 1 shows the distribution of papers published is steady over time, with an increase of articles in 2013 and 2014. These data show that, even though job performance is not a new field of study and has been researched over decades, there is still room for contributions and research questions that have not been answered yet.

Graph 1: Articles published by year



The 96 selected articles were published by 285 authors. Of this total, 252 were listed in only one paper, 27 were listed on two and 6 appeared on three or more papers. These top six publishing authors were: Fred O. Walumbwa, Samuel Aryee, Cynthia Lee, Filip Lievens, Ernest H. O'Boyle Jr. and Chad H. Van Iddekinge. These results show that a few authors are consistently publishing studies on job performance in recent years. Also, 4.2% of the articles were single authored, 22.9% had 2 authors, 34.4% had 3 authors, 22.9% had 4 authors, 9.4% had 5 authors, 5.2% had 6 authors and 1% had 8 authors. Table 3 provides a list with the six most published authors.

Table 3: Top publishing authors

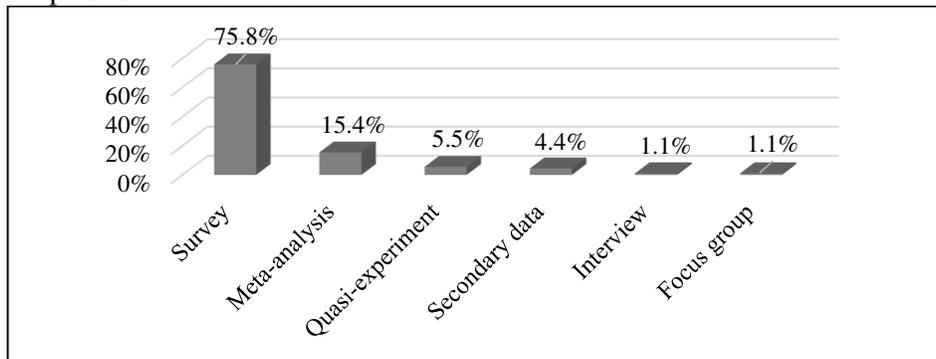
Author	Total appearances
Fred O. Walumbwa	5
Samuel Aryee	3
Cynthia Lee	3
Filip Lievens	3
Ernest H. O'Boyle Jr.	3
Chad H. Van Iddekinge	3

About the type of the articles, 94.8% of the 96 selected papers are empirical studies, 4.2% are theoretical studies and 1% is a literature review. It can be inferred from the data that researchers are focusing on empirical models and in testing and expansion of job

performance theories. In addition, there was only one literature review article on this theme, which points to a lack of reviews in the last five years and indicates an opportunity for the development of recent systematic literature reviews, such as bibliometric studies. Of the 91 empirical studies selected, 97.8% chose quantitative research methods, while 2.2% used mixed methods, that is, both quantitative and qualitative. None of the selected articles chose only qualitative research methods to develop a study related to job performance.

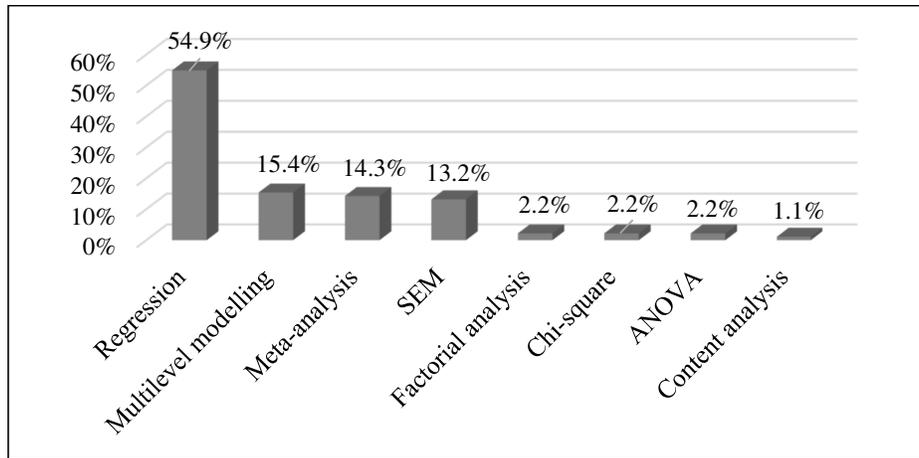
We also investigated the main research methods used for data collection. Most studies (69 articles, or 75.8% of the selected papers) chose surveys to collect the information necessary. Other methods, such as meta-analysis, quasi-experiments, secondary data were also used, but with lower frequency. Qualitative techniques of data acquisition, in this case interviews and focus groups, appeared one time each. Some studies also collected information with more than one method, such as survey and interview or quasi-experiment and meta-analysis. That is the reason why the sum of all the research methods used is over than 100%. Graph 2 shows the methods for data collection used by the researches published from 2011 to 2015 and selected by this study.

Graph 2: Data collection methods



Furthermore, this paper investigated main methods of data analysis used by the selected papers. Of the 91 empirical studies, 50 analysed the data with regression techniques, 14 used multilevel modelling, 13 chose meta-analysis and 12 used SEM (structural equation modelling) to analyse the data collected. Fewer studies used exploratory factorial analysis, chi-square, ANOVA and content analysis. These results confirm a preference for quantitative methods and models to investigate themes related to job performance. Graph 3 resumes the methods of data analysis used by the selected articles. The sum of the percentages is over 100% because some studies used more than one analysis technique.

Graph 3: Data analysis methods



In relation to the definition - both constitutive and operational - of performance, the results show a variety of concepts and measures. Out of the 96 papers analysed: (i) 14 presented a theoretical definition for performance; (ii) 74 employed empirical definitions; and (iii) 4 papers had no clear theoretical or empirical definition. There were also four papers to which this criteria did not apply.

Most empirical definitions were based on output measures, mainly organizational results found in reports and organizational performance evaluations, and 12 papers employed existing scales. Explicit theoretical definitions had little convergence among papers as well, but mostly they focused on behavioural aspects. Main themes identified were job/task performance and desired/perceived behaviours. Performance as the successful innovation implementation appeared in two theoretical definitions, and three performance measurement definitions. Chart 1 presents the main theoretical definitions found.

Chart 1: Summarized theoretical definitions

Theoretical definition	Authors
Job performance as employee behavior	Campbell, McCloy, Oppler, & Sager (1993)
Task performance as specific role-prescribed behaviors that contribute to the technical core of an organization.	Borman & Motowidlo (1993)
Performance as a measure of innovation generated by individuals, defined as successful contributions to organizational outcomes; new ideas implementation.	Criscuolo, P., Salter, A., and Ter Wal, A. L. J. (2014); Leung, K.; Huang, K.; Su, C.; Lu, L. (2011)
Task performance is a form of in-role performance and refers to the particular duties that employees are hired to perform. Contextual performance is a form of extra-role performance that is defined as activities that 'support the broader organizational, social, and psychological environment in which the technical core must function'.	Borman and Motowidlo (1993)
Employee performance as the effectiveness of employees' efforts in achieving organizational goals	Campbell (1990)
Task performance as behaviors recognized by formal rewards systems and are part of task requirements	Williams and Anderson (1991)

Regarding measuring methods, most empirical papers adopted objective measures – for example, product sales, GPA and test scores, revenue obtained -, 24% referred to subjective (behavioural) measures, and 5% had a mix of objective and subjective measures. Regarding data source, most objective measures came from the organization's performance

evaluation, while most common subjective data source was supervisor's performance evaluation of individuals, with three studies using both supervisors and self-report measures. These findings may indicate that authors tend to minimize possible self-report bias when evaluating individual performance, and that performance is, in many empirical studies, measured as production; even though the behavioural dimension is valued, it is not always the focus of empirical studies.

About research design, out of the 96 papers selected, 86 had performance as criteria variable; out of the 6 where performance was the predictor, researched criteria variables were retention (2 papers), work satisfaction (1 paper), victimization (1 paper), compensation (1 article) and self-efficiency (1 paper). About performance predictions, the variable feedback/exchange between leader-member was found in 9 articles, followed by organizational citizenship, trust and conscientiousness (5 papers each), bringing to attention a concern over what may be seen as misbehaviour in the mainstream perspective, and not as potential resistance process by the individual.

There is no clear trend identifiable on performance predictors; however, most researched variables are organizational citizenship, personality traits (especially the Five Factor model of personality, and recruitment processes based on personality), team related themes and task elements. The following variables appear on the selected papers: personality (10), satisfaction (6), empowerment (5), turnover (5), leadership (4), motivation (3), affect (2), informal leadership, coaching, organizational justice and absenteeism (once each variable). Five studies concentrated on performance based-remuneration, financial incentives and organizational policies. Organizational support elements, such as social support (1), job characteristics (1), human resource management flexibility and task context (1) were also used as predictor variables of job performance.

Individual competencies variables constitute another theme among the predicting variables, represented by the following: work commitment, psychological capital, mental power, adaptative performance, cognitive commitment (3 times each), organizational identity, affective commitment, emotional intelligence, team work, autonomy, learning and political ability (once each). Correlated variables are professional interest, vocational interests and intention to remain.

It is worth mentioning some variables which may be considered taboo but were also considered by some of the selected papers, such as stress (3), psychological tension (1), depression, work-family conflict (1), work insecurity (2) psychological suffering (1) familial misbehaviour (1), work insecurity (1), psychological distance (1) and help seeking (2). Figure 1 presents a brief summary of the relations investigated.

Figure 1: Performance predictors



The diversity of performance predictors and measures is the main trend; these two factors in common may be a result of the multiple predictors and their relations among variables and of the complexity of defining what is performance: (i) an objective individual/organizational output/goals met; (ii) a set of desired behaviours; or a mix of both. It is worth noticing that, while theoretical definitions emphasize behavioural dimensions, empirical definitions and measures are based mainly on organizational goals; therefore, an important research opportunity is the operationalization of the theoretical definitions, which may improve what factors constitute and influence individual performance.

Another important trend is the fact that, usually, definitions focus on the individual level, even though theoretical discussion points to differences in individual, team and organizational performance. This trend is reflected on the chosen data analysis strategy: out of 96 articles, 13 employed multilevel modelling. Therefore, an important empirical development may rest on multilevel research design, in order to apprehend the complex nature of performance on micro, meso and macro analysis level.

### Research agenda

The results of this study show that job performance is still mostly investigated as the dependent variable in the analysed papers, confirming the results of the meta-analysis conducted by Sonnentag e Frese (2002). Most studies also prefer quantitative research designs to qualitative measures, as presented in the results section of this article. This choice might imply the prevailing of economic aspects such as the contribution of the individuals to organizational goal achievement. Noteworthy is also the predilection for objective measurements over performance measures.

However, despite the concern of researchers in understanding performance as a means to achieve organizational goals, it was found that a significant number of studies was published in psychology oriented journals, given that in the list of 11 journals published on the subject, seven among the top ten indices in psychology category. This finding raises the following questions: Why a theme primarily geared to organizational results, essential for management of people and results, do not figure significantly in management journals? Is

there openness to this issue in these journals? It is important that the researchers focused on human resource management reflect on these issues and explore this opportunity.

The variables investigated in the selected papers were: personality (10), superior-employee feedback (9), job satisfaction (6), organizational citizenship (5), organizational trust (5), employee consciousness (5) – theme researched in the personality field of study, empowerment (5), turnover (5), leadership (4). Variables related to individual competencies are also recurrent. Nevertheless, there is also that the researchers chose to set performance under the perspective of the task or relating to employee behavior (see Chart 1); these findings minimize the attention given to the behavioral aspect of performance (Campbell, 1990; Sonnentag & Frese, 2002).

It is known that job performance can be influenced by context variables, such as social, cultural, demographic and workplace conditions (Coelho Jr. et al., 2010; DeNisi, 2000; Sonnentag & Frese, 2002). Nevertheless, the results of this study reveal that the researches are more focused in investigating workplace conditions and only few papers addressed in how other context variables, such as cultural conditions, impact the individual perception of variables like work pressure, job performance and job satisfaction.

The focus of job performance studies lies on individuals and their characteristics, highlighting individual performance, as pointed by Coelho Jr. (2009), Sonnentag and Frese (2002) and DeNisi (2000). Whereas the performance is a multidimensional construct, and even though the field is established, these results indicate that there is still much to be explored on the subject, focusing mainly on situational (or contextual) and performance regulation prospects, which translates into a call for more research. It is also important that future research addresses the concept of performance as result, for performance results also depend on other factors beyond the behavior of individual (Sonnentag & Frese, 2002), in line with the previous statements. Attention to the constitutive and operational aspects of performance can also contribute to generalization and the development of instruments that go beyond results achieved, but also investigate behavioural aspects.

In addition, this study shows a lack of researches of systematic literature reviews, only one published in the selected journals on the last five years. This number emphasizes a gap in this field of study, since there are many variables investigated in the same models as job performance and different instruments and surveys are used. Also, it is required a better reflection to contemplate what has been researched, how it has been researched, how the different variables are being considered and what themes are emerging in the current globalization and computerization context, in which many organizations change their work practices. It is emphasized that this study consists in an attempt to fill this gap.

Based on the results presented, for future research we recommend the development of studies that address trust, which is how the trust that the individual has in the organization and in his work team affect job performance, since solidarity and bonds between people are increasingly weakened. In addition, variables that had few appearances in the selected studies deserve further investigation, as organizational crisis, innovation orientation, creative activities, innovation support, curiosity, organizational loyalty, selflessness, friendship in work, work passion, ethnicity, gender and diversity in the workplace.

Finally, considering the employee's health, it is crucial to comprehend variables related to psychological suffering, depression at work (even extreme cases such as the commitment of suicide at work) and family-work conflicts associated with gender themes. In future studies, the researches should consider longitudinal designs, still rare in job performance papers, as well as mixed methods, qualitative and quantitative, because in recent studies the surveys prevail (75.8%). Qualitative studies are also welcome, since there were not found works of this nature this review. The same conclusion applies to exploratory

studies, for example, studies investigating variables or organizational factors that could relate to performance, promoting and inspiring further studies to test these relationships.

### Closing remarks

The bibliometric study intended to research the individual performance field in the last five years. Such interest rests on the fact that, although discussion has been rich and ample, there are few literature reviews. Therefore, understanding how performance has been portrayed is a key point on solving possible knowledge and research gaps.

The contributions presented are intended to researches, for it brings forth gaps and thematic and methodological possibilities, to organizations, for it shows recurrent empirical issues, and also for society, for it sheds light on important social issues such as work health, for example.

At last, it bears reminding that, even though the authors were able to raise a representative sample of papers on performance, it would be interesting to broaden the period considered in order to compare results over time. Another limitation is the non-investigation of the theories which serve as foundation for the selected papers.

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