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Evaluation of the use of the Capes Portal of journals from the perspective of research users in administration and accounting based on the SERVQUAL scale

Evaluación del uso del Portal Capes de Periodicos en la percepción de usuarios en administración y contabilidad basado en la escala de SERVQUAL

Avaliação da utilização do Portal Capes de periódicos na ótica dos usuários pesquisadores em administração e contabilidade com base na escala SERVQUAL

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Abstract

Purpose: The objective of this research is to evaluate the use of the Capes Portal of Periodicals from the perspective of research users in administration and accounting, and to investigate the relationship between user satisfaction with the five dimensions of the SERVQUAL model of service evaluation.

Methodology: The scale was answered by 162 researchers in the areas of accounting and administration, who were contacted via e-mail available in the publications of Qualis A2 and

B1 journals in 2017. A multiple regression analysis model was used, having the level of satisfaction (ST) as a dependent variable of the model, and as independent variables, reliability (FC), responsiveness (PR), safety (SG), empathy (EP) and tangible aspects (TG), measured through the SERVQUAL scale used. The model was tested and validated for the problems of multicollinearity (Inflation Variance Test - VIF), heteroscedasticity (Breush Pagan) and functional form (Ramsey Reset).

Results: The predominant profile of researchers in accounting and administration are professors with doctorates in public universities, who use the portal of journals with high frequency, although they are not entirely satisfied with the service. A significant positive relationship was found between service satisfaction and the variables of tangibility, trust, security and empathy. Responsiveness was not found to be a significant variable.

Contributions of the study: It was observed that the referred platform has many advantages, but some characteristics still leave something to be desired, shown, for example, from the assessment of the tangibility that is directly related to the interface. And also the responsiveness, which is the dimension that assesses the receptivity and feedback of the entity that operates the portal, negatively impacting satisfaction, which can be explained by the lack of contact or relationship between the user and the team responsible for operations on the Capes Portal.

Keywords: Capes Portal of Periodicals. Service Evaluation. SERVQUAL model. Management Sciences.

Resumen

Objetivo: El objetivo de esta investigación es evaluar el uso del Portal Capes de Periódicos desde la perspectiva de los usuarios de investigación en administración y contabilidad, e investigar la relación entre la satisfacción del usuario con las cinco dimensiones del modelo de evaluación de servicios SERVQUAL.

Metodología: 162 investigadores respondieron a la escala en las áreas de contabilidad y administración, a quienes se contactó por correo electrónico disponible en las publicaciones de las revistas Qualis A2 y B1 en 2017. Se utilizó un modelo de análisis de regresión múltiple, teniendo el nivel de satisfacción (ST) como variable dependiente del modelo, y como variables independientes, confiabilidad (FC), capacidad de respuesta (PR), seguridad (SG), empatía (EP) y aspectos tangibles (TG), medidos a través de la escala SERVQUAL utilizada. El modelo fue probado y validado para los problemas de multicolinealidad (Prueba de variación de la inflación - VIF), heterocedasticidad (Breush Pagan) y forma funcional (Ramsey Reset).

Resultados: El perfil predominante de los investigadores en contabilidad y administración son los profesores con doctorado en universidades públicas, que utilizan el portal de revistas con alta frecuencia, aunque no están completamente satisfechos con el servicio. Se encontró una relación positiva significativa entre la satisfacción del servicio y las variables de tangibilidad, confianza, seguridad y empatía. No se encontró que la capacidad de respuesta fuera una variable significativa.

Contribuciones del estudio: se observó que la plataforma referida tiene muchas ventajas, pero todavía se deben desear algunas características, que se muestran, por ejemplo, a partir de la evaluación de la tangibilidad que está directamente relacionada con la interfaz. Y también la

capacidad de respuesta, que es la dimensión que evalúa la receptividad y la retroalimentación de la entidad que opera el portal, impactando negativamente en la satisfacción, lo que puede explicarse por la falta de contacto o relación entre el usuario y el equipo responsable de las operaciones en el Portal Capes.

Palabras clave: Portal Capes de Periódicos. Evaluación de servicios. Modelo SERVQUAL. Ciencias de la gestión.

Resumo

Objetivo: O objetivo desta pesquisa é avaliar a utilização do Portal Capes de Periódicos na ótica dos usuários pesquisadores em administração e contabilidade, e investigar a relação entre a satisfação do usuário com as cinco dimensões do modelo SERVQUAL de avaliação de serviços.

Metodologia: A escala foi respondida por 162 pesquisadores das áreas de contabilidade e administração, os quais foram contactados através de e-mail disponível nas publicações de periódicos Qualis A2 e B1 no ano de 2017. Foi utilizado um modelo análise de regressão múltipla tendo o nível de satisfação (ST) como variável dependente do modelo, e como variáveis independentes a confiabilidade (CF), responsividade (RP), segurança (SG), empatia (EP) e os aspectos tangíveis (TG), mensurados através da escala SERVQUAL utilizada. O modelo foi testado e validado quanto aos problemas de multicolinearidade (Teste Variância da Inflação – VIF), heterocedasticidade (Breush Pagan) e forma funcional (Ramsey Reset).

Resultados: O perfil predominante dos pesquisadores em contabilidade e administração são professores com doutorado em universidades públicas, que utilizam o portal de periódicos com alta frequência, embora não estejam totalmente satisfeitos com o serviço. Constatou-se uma relação positiva significativa entre a satisfação do serviço e as variáveis de tangibilidade, confiança, segurança e empatia. A responsividade não foi constatada como variável significativa.

Contribuições do estudo: Observou-se que a referida plataforma tem muitas vantagens, mas algumas características ainda deixam a desejar, mostrado, por exemplo, a partir da avaliação da tangibilidade que está diretamente relacionada à interface. E, também a responsividade que é a dimensão que avalia a receptividade e *feedback* da entidade que opera o portal, impactando negativamente na satisfação, o que pode ser explicado pela ausência de contato ou relação entre o usuário e a equipe responsável pelas operações no Portal Capes.

Palavras-chave: Portal Capes de Periódicos. Avaliação do Serviço. Modelo SERVQUAL. Ciências Gerenciais.

1 Introduction

The Portal of Journals is a public policy instrument created in 2000 and managed by the Coordination for the Improvement of Higher Education Personnel (Capes) to support access to

scientific knowledge. It is one of the largest collections in the world in this sector, contributing to the encouragement and advancement of Brazilian scientific production, which is why the need for maintenance and improvement of the Portal remains (Almeida, Guimarães & Alves, 2010).

To keep up with the growing worldwide production of research, a university will have to spend more each year on its libraries, given three factors (among others) that contributed to this: the growth in the number of journals, the increase in journal prices, and the increase in the prices of access to periodicals over the Internet. However, any portal the size of Portal Capes is very costly and there are trends, on a global scale, that threaten to reduce access opportunities, as well as the quality of libraries (Soares, 2004).

Although it is still a little discussed topic, some researches (Soares, 2004; Oddone & Meirelles, 2006; Meirelles & Machado, 2007; Cendon & Ribeiro, 2008; Almeida et al. 2010, Gomes, 2014; Silva & Cendón, 2016) have concerned with evaluating its functionality, performance and user satisfaction. In the research by Meirelles and Machado (2007), for example, the authors interviewed 23 researchers in the areas of communication and information science and found that, although the evaluation was satisfactory, the following problems were found: the system is not very interactive, being that the redesign of the layout would contribute to improving the system's readability and usability. At the time of the study, there was no bibliographic alert to inform about the list of available titles and new acquisitions, and the need to improve the FAQ and help tools.

Gomes (2014) also identified other problems in the Periodical Portal, such as: there are parts in the interface that discourage the user to explore and use its features, the portal provides resources that have little use or do not work, the system does not have a project suitable for advanced search and there is inconsistency and lack of standardization to communicate some functions. In this discussion about the Portal Capes interface, it is questioned whether this context could discourage its use, leading to incorrect or partial knowledge of the platform.

Despite some adversities mentioned previously, Borba and Murcia (2006) highlight that Portal Capes provides academic journals in practically all areas of accounting (and related areas), thus representing a rich source of information for Brazilian researchers. The administration and accounting are part of applied social sciences, whose area has presented a considerable amount of content among the scientific journals of Portal Capes (Ramalho, Silva & Rocha, 2020). In this paradox, the present research presents itself with the general objective of evaluating the use Capes Portal of Periodicals from the perspective of research users in administration and accounting.

It is intended to achieve the general objective of the study through the use of the SERVQUAL service rating scale, created to assess the customers' perception of service quality (Parasuraman, Zeithaml & Berry, 1988). Stands out, the SERVQUAL instrument is one of the most used to measure quality, being widely used in academia and in research on this topic (Miguel, Satolo, Ferreira & Calarge, 2011).

Publications about the Portal frequently mention the scarcity of research on it (Oddone & Meirelles, 2006; Cendón & Ribeiro, 2008). For this reason, the research is justified seeking to bring contributions from the evaluation of this important research tool to the field of management sciences. Since its creation in 2001 to 2019, there were a total of 1,566,562,037 accesses to content available in all areas on Portal Capes, and the area of Applied Social Sciences (which covers accounting and administration) corresponds to about 15% of accesses (Ramalho et al., 2020). In addition, no research using the SERVQUAL scale, which is widespread in international studies for service assessment, was identified.

This survey is divided into five sections, including this introduction. The theoretical framework is presented below, covering previous studies related to the SERVQUAL model and the evaluation of Portal Capes. Then the research methodology is presented to classify the study and define research procedures. Finally, the results are presented and analyzed, followed by the conclusions and list of references.

2 Literature Review

Scientific research activities have been benefited by the existing infrastructure for the use of information and communication technologies, which have been intensively incorporated into the various activities of the academic world, to increase the speed of research dissemination, the exchange of ideas, the collaboration between researchers, the development of research, the generation of knowledge and expansion of access to the various information resources created favoring the expansion of scientific communities (Gomes, Cendón & Prates, 2015).

Some studies (Soares, 2004; Oddone & Meirelles, 2006; Meirelles & Machado, 2007; Cendon & Ribeiro, 2008; Almeida et al. 2010, Gomes, 2014; Silva & Cendón, 2016) have been dedicated to evaluating the usability of the Portal Capes de Periodicals and the satisfaction of the platform from the perspective of the researchers, however, none was identified that used the SERVQUAL service evaluation scale.

In addition to the studies mentioned previously, the research by Costa and Ramalho (2011) stands out, who analyzed the usability of Portal Capes considering five attributes: ease of learning; efficiency of use; ease of memorization; low error rate; and subjective satisfaction. From these attributes, their levels were identified through their averages, relating them to the performance and satisfaction of users. In view of the qualification of the performance and satisfaction of users when using the Portal Capes, the good usability of the Portal Capes was identified, according to the adopted analysis parameters, under the final average of 3.6

Cendón, Souza and Ribeiro (2011) sought to verify the degree of success of Portal Capes users in the search for a specific journal and the reasons for the cases of failure. A questionnaire was used, which was answered by 930 professors from 17 universities, in the areas of Biological Sciences, Human Sciences and Linguistics, Languages and Arts. The survey results show that 70% of researchers, almost always or frequently, are successful when looking for a specific journal on the platform under study, and that for 76% of researchers, the main reason for not achieving success is the unavailability of the periodical on the Portal. Despite this, it was found that the reasons for failure in the search related to factors such as usability, difficulties with languages, lack of training and access difficulties were less mentioned by respondents.

In the research by Silva and Cendón (2016), the authors sought to verify whether the user community has access to and uses the Portal Capes e-book collection, however, most respondents (73%) reported that they do not use the collection. Portal Capes e-books, and only 27% of students and teachers know and use, in general, the Portal Capes e-books service.

Gomes (2014) also identified other problems in Portal Capes, such as: there are parts in the interface that discourage the user to explore and use its features, the portal provides resources that are of little use or do not work, the system does not have an adequate design for advanced search and there is inconsistency and lack of standardization to communicate some functions. Thus, the author concludes that the developers of these systems face the challenge of matching resources that meet users with different profiles and demands to increase their popularity and use, in addition to being flexible enough to allow users to adapt the information search process to their own needs.

2.1. Online service evaluation

Services are a non-material good and their main value is the user experience. They have five important characteristics: intangibility (they cannot be seen, tasted, felt, heard or smelled before being purchased or experienced); inseparability (they are produced and consumed at the same time); heterogeneity (they depend on who provides them and who receives them); perishability (cannot be stored) and lack of property (right to use or access, but never to possession, as they are intangible) (Barbosa & Benetti, 2010). Knowledge of aspects related to service quality has been relevant over time (Harrington & Aakehurst, 2000; Webb, 2000; Holmlund, 2001; Azevedo, Nodari, Salvagni & Veiga Neto, 2016) as it is understood as an engine of corporate marketing and financial performance (Buttle, 1996).

Some studies have been dedicated to evaluating online services, however, most are focused on e-commerce type services, and in this case, it is easier to discuss and understand the relationship between this evaluation and user satisfaction. Barrutia, Charterina and Gilsanz (2009) add that the assessment of the quality of online services is in early stages, which can be proven by the fact that some measures and scales proposed to assess it are not empirically validated, while others do not examine the complete customer experience.

For Ribbink, Van Riel, Liljander and Streukens (2004), in this type of service, loyalty is generally attributed to satisfaction with the quality of the service, and it is believed that trust in the electronic medium increases customer loyalty, but there is still few empirical checks. In a study carried out by Oliver (1999), it was verified that satisfaction with the quality of the service does not change into loyalty without the existence of other factors such as personal determination and social support; thus, without these factors, a consumer can remain satisfied, but not go beyond that state. Parasuraman et al. (1988) presented the existing differences between quality and satisfaction in relation to a service. They concluded that quality is a subjective concept and satisfaction is directly related to a specific transaction. According to the authors, satisfaction precedes quality and constant satisfaction with a service results in the customer's perception of quality.

The study by Kassim and Abdullah (2008) seeks to investigate the impact of individual dimensions of perceived service quality on customer satisfaction, trust and loyalty in e-commerce settings, obtaining as results that perceived service quality has positive direct effects on both customer satisfaction and at confidence. This research used the adaptation of the SERVQUAL scale by Parasuraman et al. (1988), created to assess customer perception of service quality in service and retail organizations.

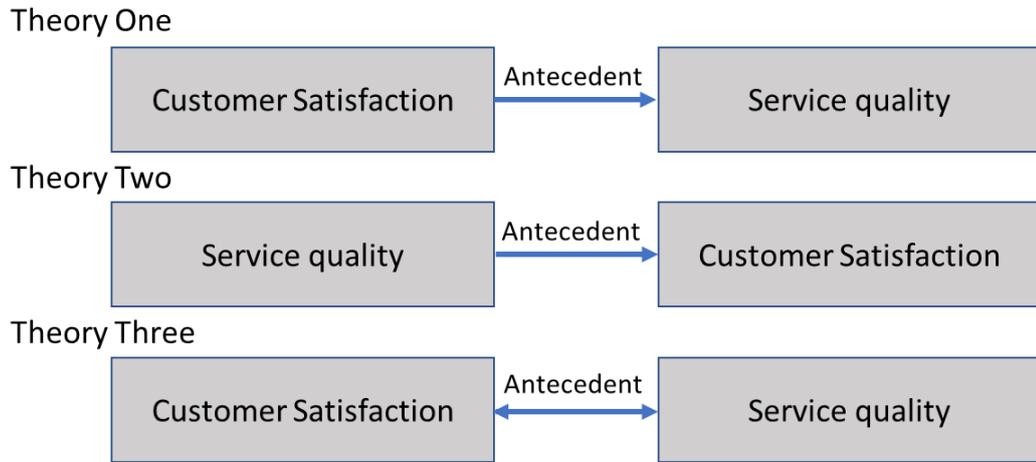


Figure 1 Theories about the relationship between service quality and satisfaction

Source: Kassim & Abdullah (2008).

Figure 1 presents the existing theories on the relationship between service quality and satisfaction, showing that in the first theoretical stream, customer satisfaction precedes service quality, in the second stream, service quality precedes customer satisfaction, and in the third stream, it is observed that both variables feedback on each other, that is, the better the quality, the greater the customer satisfaction, who, in turn, will have better feedback and better service quality.

The scale by Parasuraman et al. (1988), presents some determinants of service quality and, through their characteristics, have become the dimensions of service quality. The dimensions of quality in services were identified from ten elements that are perceived by customers and confronted with their expectations: accessibility indicates easy contact access; communication is about keeping customers informed about services in a speech they can understand; competency refers to the skills needed to provide the service; courtesy is directly linked to treating customers with respect; and credibility means being trustworthy and honest. Reliability, in turn, aims to fulfill what was promised, in the terms in which it was promised; on the other hand, helpfulness includes a demonstration of willingness to provide the service; security refers to the attempt to rid customers from dangers in the scopes: physical, financial and confidential; and the tangible aspects are represented by the physical evidence of the service (Parasuraman et al., 1988).

Later, Parasuraman et al. (1988) reduced the elements of satisfaction in services to five: keeping reliability, responsiveness, security, empathy and tangible aspects. Therefore, the SERVQUAL scale is divided into five dimensions that seek to analyze different characteristics of the service provided.

The study by Fitzsimmons and Fitzsimmons (2010) also presents the choice of these five elements presented by Parasuraman et al. (1988). The authors showed that customers use five dimensions to make judgments about the quality of services, as shown in Table 1, which are based on the comparison between the expected and the perceived service. According to these authors, the difference between expected and perceived service quality is a measure of service quality; satisfaction is negative or positive.

Table 1
Dimensions of service quality

Dimension	Description
Reliability	Ability to deliver the promised service with confidence and accuracy. The performance of a reliable service is a customer's expectation and means a service completed on time, without modifications and without errors.
Responsiveness	It is the disposition to assist customers and provide service promptly. Keeping the customer waiting, especially for hidden reasons, unnecessarily creates a negative perception of quality. If it occurs a service fails, the ability to recover quickly and professionally can create many positive perceptions of quality.
Safety	It is the knowledge and courtesy of employees as well as their ability to convey trust and confidentiality. The security dimension includes the following characteristics: competence to perform the service, courtesy and respect for the customer.
Empathy	Is to demonstrate interest, personalized attention to customers, Empathy includes the following characteristics: accessibility, sensitivity and effort to meet customer needs
Tangibility	It is the appearance of physical facilities, equipment, personnel and communication materials. The condition of the environment is tangible evidence of the care and attention to detail displayed by the service provider.

Source: adapted from Fitzsimmons and Fitzsimmons (2010).

The SERVQUAL scale by Parasuraman et al. (1988) was adapted by Kassim and Abdullah (2008) which also included three more analysis variables, as shown in Table 2:

Table 2
Comparison of the structure of the SERVQUAL Scale

Parasuraman <i>et al.</i> (1988)	Kassim e Abdullah (2008)	Description
Reliability	Ease of use	It can be understood as the reliability dimension of traditional SERVQUAL and is of particular importance for new users.
Tangibility	Website design and layout	This tangible dimension of SERVQUAL includes content, organization and site structure that are visually appealing, fascinating and pleasing to the eye.
Responsiveness	Reply	The response dimension can be understood as that of traditional SERVQUAL. This dimension was identified by customers as an element of high quality service.
Empathy	Customization	The personalization or personalization dimension can also be understood as the empathy dimension of traditional SERVQUAL. It reflects the degree to which information or a service is tailored to meet the needs of the individual visitor.
Safety	Guarantee	The dimension of the guarantee concerns the security and privacy perceived by the customer. In the service quality literature, trust can also be thought of as "trust in the service itself".

Source: adapted from Kassim and Abdullah (2008).

Thus, it is observed that both service evaluation models use the same theoretical foundation, although they have slightly different structures and are adapted to each analyzed reality.

The application of SERVQUAL is carried out in two stages: first, the customers' prior expectations are measured and, in the second stage, the measurement of the customers' perceptions about the performance of the service performed is carried out (Parasuraman et al., 1988).

According to Berry and Parasuraman (1995), customer expectations regarding services can be evaluated under two different levels: desired level and acceptable level. The first represents the service that the customer expects to receive, while the second shows what the customer considers the minimum acceptable. The interval that separates the desired level and the minimum acceptable establishes a tolerance zone that indicates the scope of service performance that the customer considers satisfactory. In this way, a performance below the tolerance zone causes disappointment to the customer, while, above, it positively surprises the customer. The tolerance zone can vary according to the client, the time the service is provided and the circumstances in which the services occur, owing to personal or external factors (Berry & Parasuraman, 1995)

3 Methodological Procedures

This section proposes to present the specifications related to the way of carrying out the study. Research is the means to get to science. Thus, this section deals with the methodology used in this research, involving the typology, collection and analysis of data, in order to achieve the objectives proposed for the work.

3.1. Search Typology

Scientific methodology comprises the set of steps in an orderly manner to be carried out in the investigation of a phenomenon. This research is classified in terms of objectives, procedures and approach to the problem according to Beuren (2008).

As for the objectives, the study is characterized by being descriptive. Descriptive research is a characteristic of the focus of the objectives of this work, which can be defined as "describing, narrating, classifying characteristics of a situation and establishing connections between the existing theoretical-conceptual basis or other work already carried out on the subject" (Charoux, 2006). To achieve the objective of this research, which is to evaluate the use of the Capes Portal of Periodicals from the perspective of research users in administration and accounting based on the SERVQUAL service evaluation scale, it is necessary to describe the profile of these researchers in relation to their title, professional performance, category of institution and other variables.

Regarding the research procedures, these refer to the way in which the study is conducted, with a focus on how the data is obtained (Beuren, 2008). This study uses bibliographic research and survey as procedures to achieve its goals. Bibliographic research, or secondary sources, encompasses the bibliography that has already been made public in relation to the subject of study. Its purpose is to put the researcher in direct contact with everything that has been described, said or filmed on a given subject (Marconi & Lakatos, 2008).

Still regarding the research procedures, a survey was used, characterized by the electronic approach, sending e-mails to the participants of the study. The research survey is characterized by:

...] by direct interrogation of people whose behavior one wants to know. Basically, it proceeds to request information from a significant group of people about the problem studied and then, through quantitative analysis, obtain the conclusions corresponding to the data collected (Gil, 1999, p. 70).

Regarding the approach to the problem, this research has a quantitative nature, standing out for having collected data and evidence that can be quantified, measured. To quantify the data collected, descriptive statistics was used and identified whether there were statistically significant differences between the groups identified by the analyzed variables. Data were presented through tables that helped to understand the behavior of the data collected in the context of the research.

3.2. Universe and Study Sample

The data collection instrument was sent to 750 researchers, whose email addresses were identified in publications made in 2017 in journals in the accounting and administration areas selected in the Qualis A2 and B1 extracts for the 2013 to 2016 quadrennium, as shown in Table 3.

Table 3

Selection of journals for sample of researchers

REVISTA	QUALIS (2013-2016)
VIEW & MAGAZINE ACCOUNTING	A2
ORGANIZATIONS & SOCIETY	A2
RAE. BUSINESS ADMINISTRATION MAGAZINE	A2
RAUSP. ADMINISTRATION MAGAZINE	A2
RCO - MAGAZINE OF ACCOUNTING AND ORGANIZATIONS	A2
MAGAZINE ACCOUNTING & FINANCE (ONLINE)	A2
CONTEMPORARY ACCOUNTING MAGAZINE (UFSC)	A2
UNIVERSO CONTÁBIL MAGAZINE	A2
ACCOUNTING, MANAGEMENT AND GOVERNANCE	B1
RAM. MACKENZIE ADMINISTRATION MAGAZINE	B1
REA UFSC ADMINISTRATION MAGAZINE	B1
READ. ELECTRONIC MAGAZINE OF ADMINISTRATION	B1

Source: Survey data (2018).

The final sample consisted of 162 respondents, totaling approximately 21.6% of the selected total. This type of sampling is non-probabilistic for convenience, that is, “[...] the elements of the population are selected according to their availability for the study” (Corrar & Theóphilo, 2004, p. 44). In other words, they were randomly selected based on the universe of researchers, however, the sample was composed of those who actually agreed to participate in the research by answering the data collection instrument.

3.3. Research Instruments

For the collection of research data, an electronic questionnaire structured with closed questions was used, sent to the research subjects. Martins and Theóphilo (2009, p. 93) indicate

that the questionnaire “[...] is an ordered and consistent set of questions about variables and situations that one wants to measure or describe”.

Closed questions contain categories or answer alternatives that have been delimited, that is, the possibilities of answers to individuals are presented and these must be limited to these. Can be dichotomous (two answer alternatives) or include several answer alternatives (Sampieri, Collado & Lúcio, 2006). In this research, numerical scales of agreement of 6 points were used to measure the sample mean of the dimensions presented in the SERVQUAL Model, namely: tangibility, reliability, responsiveness, empathy and security. Additionally, the variables satisfaction, intention and disclosure (word of mouth) were included, according to a study by Kassim and Abdullah (2008). In addition to the scale, the option “I don't know how to give an opinion” was included, in view of the perception of some researchers about the lack of responsiveness actions by the Capes Portal of Periodicals. For the collection of data that define the groups among themselves, the questions were multiple choice, according to the need for each item.

The questionnaires were sent via e-mail and applied directly to some of the respondents in printed paper format, using the tool provided by Google Docs, which has the advantages of lower cost and faster response time (Martins & Theophilo, 2009). In addition to its low cost and speed, the questionnaire also has the advantage of facilitating data tabulation, as the objectivity of closed questions allows this advantage.

3.4. Analysis and treatment of data

According to Vergara (2006), "the objectives are achieved with the collection, processing and later with the interpretation of data, in this way, one should not forget to make the correlation between objectives and ways to reach them". In this sense, the specific objectives are once again presented in order to present how they will be achieved for a better understanding of the reader.

a) Analyze the profile of researchers in administration based on social and professional characteristics based on the authors of Qualis/Capes publications in administration: In this objective, social and professional characteristics were analyzed, such as type of affiliated institution, degree, portal usage time and form of action through descriptive statistics and presented through tables, in order to know in more detail the profile of the studied sample.

b) To investigate the relationship between user satisfaction with the five dimensions which Parasuraman et al. (1988) consider them as elements of satisfaction in services: reliability (CF), responsiveness (RP), security (SG), empathy (EP) and tangible aspects (TG). He then proposed the use of multiple regression analysis between the variables having the level of satisfaction (ST) as the dependent variable of the model, measured using the SERVQUAL scale used:

$$ST = \beta_0 + \beta_1.CF + \beta_2.TG + \beta_3.RP + \beta_4.EP + \beta_5.SG + \varepsilon \text{ (Equation 1)}$$

The model was also tested and validated for problems of multicollinearity (Inflation Variance Test – VIF), heteroscedasticity (Breusch Pagan) and functional form (Ramsey Reset). Cronbach's Alpha Coefficient was also calculated, which indicates how much the items of a test refer to or measure the same thing. Alpha is obtained from a single application of the measuring instrument, producing values between 0 and 1 and reliability is assumed from 70% (Martins, 2006).

4 Results and Analysis

To analyze the profile of the sample and describe the social and professional characteristics, in Table 4 the data regarding this information are shown. It was observed that 50% of respondents are researchers in the area of administration, 46% are from the accounting area and the rest (3.1%) indicated more specific areas that could be more related to administration, such as psychology, marketing, sustainability and public administration.

It is also possible to observe that most respondents consider teaching (48.1%) as the main or only category related to the research. It is known that some professors may also be in the category of *Stricto Sensu* graduate students, therefore, it would be up to the respondent to choose the category in which it would make it more possible to work as a researcher. A significant portion of respondents opted for the category of researcher (17.9%), understanding that they would not be linked to the educational institution as a teacher or as a student, but develops activities related to research in another scope. Finally, doctoral (17.3%), master (14.8%) and undergraduate (1.9%) students were also part of the study sample.

Table 4
Respondents Profile

MAIN AREA OF ACTIVITY	AMOUNT	%	CATEGORY OF THE INSTITUTION OF ORIGIN	AMOUNT	%
Management	82	50,9%	Public university	111	68,9%
Accounting	74	46,0%	Private university	45	28,0%
Other related areas	5	3,1%	Public agency	3	1,9%
			Company	2	1,2%
MAIN FORM OF ACTIVITY	AMOUNT	%	TIME OF USE OF THE CAPES PORTAL	AMOUNT	%
Graduation student	3	1,9%	Up to 1 year	10	6,2%
Master's Degree student	24	14,8%	Between 1 and 3 years	28	17,3%
PhD student	28	17,3%	Between 3 and 5 years	28	17,3%
Teacher	78	48,1%	Between 5 and 7 years old	25	15,4%
Researcher	29	17,9%	For over 7 years	71	43,8%
MAIN ACADEMIC DEGREE	AMOUNT	%	FREQUENCY OF USE OF THE CAPES PORTAL	AMOUNT	%
Graduation student	1	0,6%	Weekly	38	23,5%
University graduate	14	8,6%	Monthly	77	47,5%
Specialization	11	6,8%	Semiannually	27	16,7%
Master's degree	50	30,9%	Annually	1	0,6%
Doctorate degree	86	53,1%	Rarely	19	11,7%

Source: *Research Results (2018).*

It is observed that 53.1% of respondents have a doctorate degree, showing that the sample represents researchers with experience in the academic field and in research, enabling a great contribution to this study. In second place, 30.9% researchers who have a master's degree as the highest degree, 6.8% as specialists and 8.6% as graduates and 0.6% as undergraduate students.

Table 4 also shows that most researchers are linked to a public university (68.9%), either as professors or students, 28% are from private universities, only 1.9% are from public agencies and 1.2 % companies. This result shows that the reality of Brazilian research is more focused on federal universities, but private universities are also important in this context.

Finally, regarding the description of the respondents, Table 4 also presents information on the period of use of the Capes Portal by researchers and the frequency of use of this platform. Thus, it is possible to observe that, in fact, researchers with a doctoral degree have a longer time using the portal, showing that of those who have been using the portal for more than 7 years, 90.14% are doctors and the rest are masters. Of the total respondents, it is observed that 76.5% have been using the portal for more than three years. Regarding the frequency of use, it is observed that the majority use the portal frequently to consult journal databases, with 71% using it weekly or monthly, and 11.7% rarely use it. Within this portion, it was not possible to find any pattern in the characteristics of these researchers to justify the low use of the portal, however, it is possible to make some assumptions, such as: use of alternatives other than the Capes Portal of Periodicals; master's and doctoral students who have already completed the course and are not currently conducting research; and, teachers who work only with teaching, but who have had more contact with the platform in previous periods.

Table 5 shows the results of descriptive statistics for each dimension and variable presented in the SERVQUAL Scale adapted from Kassim and Abdullah (2008). Thus, analyzing each dimension in aggregate, it is observed that, on an agreement scale from 1 to 6 (disregarding indications of 'I don't know how to give an opinion'), the general satisfaction of users (average 3.89) shows that Portal Capes of Periodicals still leaves something to be desired regarding the offer of search service for articles and periodicals. Despite this, the results show that, even so, the researchers intend to continue using the portal (average 4.28) and recommending it to third parties (average 4.55).

Regarding the dimensions of the SERVQUAL scale, the reliability that it is the execution of the service correctly and as promised had an overall average of 4.08, the tangibility is directly related to the interface and includes content, organization and structure of the site, obtained an overall average of 3.54, the responsiveness that is the dimension that assesses the receptivity and feedback of the entity that operates the Portal Capes had an overall average of 3.19, the empathy that measures the entity's ability to put itself in the customer's place, experiencing their feelings and needs, had overall average 3.97 and, finally, safety, which refers to the competence of employees and the accuracy of their actions, with an overall average of 4.57.

Thus, based on the scale data, Cronbach's Alpha calculated in the Stata 14.9 software, resulted in $\alpha=96.12\%$, showing that the applied scale has high reliability, allowing analyzes to be performed and bringing important contributions to the study.

Table 5
Descriptive Statistics of SERVQUAL Scale results

DIMENSION	ITEM	AVERAGE	STANDARD DEVIATION	MODE	MEDIAN	DOESN'T HAVE AN OPINION
RELIABILITY	It is easy to access the website Capes Portal of Periodicals.	4,48	1,38	5,00	5,00	0
	The Capes Periodicals Portal is user-friendly.	3,97	1,42	5,00	4,00	0
	Browsing the Capes Periodicals Portal is easy.	3,94	1,40	4,00	4,00	0
	I can find my way around the site with ease.	3,93	1,41	4,00	4,00	1
	Subtotal	4,08	1,42	5,00	4,00	1
TANGIBILITY	The information on the Capes Portal of Periodicals is displayed in order to draw the researcher's attention.	3,31	1,40	4,00	3,00	2
	The information on the Capes Portal of Periodicals is well organized.	3,82	1,32	4,00	4,00	1
	The information on the Capes Portal of Periodicals is easy to understand for the researcher to follow.	3,78	1,34	4,00	4,00	2
	The layout of Capes Portal of Periodicals is attractive.	3,25	1,45	4,00	3,00	1
	Subtotal	3,54	1,40	4,00	4,00	6
RESPONSIBILITY	It is easy to get in touch with the support of the Capes Portal of Periodicals.	3,22	1,50	3,00	3,00	81
	The team responsible for Capes Portal of Periodicals is interested in getting feedback.	3,08	1,41	3,00	3,00	86
	The team responsible for Capes Portal of Periodicals responds promptly to user inquiries.	3,26	1,34	3,00	3,00	90
	The team responsible for the Capes Portal of Periodicals promptly responds to user requests.	3,21	1,40	3,00	3,00	91
	Subtotal	3,19	1,41	3,00	3,00	348

Ana Carolina Vasconcelos Colares and Cássia de Oliveira Ferreira

EMPATHY	I feel that my personal needs have been met by consulting periodicals and searching the Capes Portal of Periodicals website	3,84	1,33	5,00	4,00	14
	I feel that Capes Portal of Periodicals has the same conduct and values that I have.	3,92	1,49	3,00	4,00	43
	Capes Portal of Periodicals provides me with information and results according to the criteria I determine.	4,12	1,39	5,00	4,00	5
	Capes Portal of Periodicals provides me with information on how to carry out the advanced search for research according to the criteria I determine.	3,99	1,41	5,00	4,00	6
	Subtotal	3,97	1,40	5,00	4,00	68
SAFETY	I feel secure about the Capes Portal of Periodicals platform.	4,53	1,41	6,00	5,00	3
	I feel secure in providing private information to Capes Portal of Periodicals.	4,57	1,49	6,00	5,00	19
	I believe that Capes Portal of Periodicals performs online transactions securely.	4,67	1,35	6,00	5,00	21
	The team responsible for Capes Portal of Periodicals is trustworthy.	4,48	1,35	6,00	5,00	66
	Subtotal	4,57	1,41	6,00	5,00	109
SATISFACTION	In general, I am satisfied with the services provided by Capes Portal of Periodicals.	4,17	1,35	5,00	4,00	0
	I am very happy with the services Capes Portal of Periodicals	3,78	1,38	5,00	4,00	1
	I'm happy with the team responsible for Capes Portal of Periodicals.	3,84	1,32	5,00	4,00	57
	Capes Portal of Periodicals website is pleasant.	3,76	1,50	5,00	4,00	3
	Subtotal	3,89	1,40	5,00	4,00	61
INTENTION	I intend to continue using the Capes Portal of Periodicals.	4,95	1,31	6,00	5,00	3
	I prefer Capes Portal of Periodicals than other journal databases.	3,59	1,63	5,00	4,00	5
	Subtotal	4,28	1,62	6,00	5,00	8
DISCUSSION	I would recommend Capes Portal of Periodicals to others.	4,55	1,52	6,00	5,00	4
	Subtotal	4,55	1,52	6,00	5,00	4

Ana Carolina Vasconcelos Colares and Cássia de Oliveira Ferreira

TOTAIS	3,98	1,47	5,00	4,00	601
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Source: *survey data (2018).*

To investigate the relationship between user satisfaction with the five dimensions tangibility, reliability and security, and the variables disclosure (word of mouth) and intention, according to the study by Kassim and Abdullah (2008), a Multiple Regression analysis was proposed, whose dependent variable would be user satisfaction, considering that the authors mention a positive relationship with the dimensions tangibility, trust, security and the variables intentions (of use) and dissemination of the platform (word of mouth). However, considering functional problems in the model, only the five dimensions of the SERVQUAL Model were considered as independent variables, according to the study by Parasuraman et al. (1988) who consider them as the five elements of satisfaction in services, as shown in Table 6:

Table 6
Regression Results

Variable	Coefficient	Standard Error	p> t
Constante	-0,4469	0,2411	0,0670***
Confiabilidade	0,3226	0,0755	0,000*
Tangibilidade	0,2206	0,0864	0,0120**
Responsividade	0,0172	0,0366	0,6400
Empatia	0,2990	0,0891	0,0010*
Segurança	0,2177	0,0709	0,0030*
R ²	0,7882		
R ² Ajust	0,7777		
Ramsey Reset	0,1282		
Estat VIF	2,48		
Breush-Pagan	0,7031		

Nota: *significant at 1%; ** significant at 5%; *** significant at 10%

Source: survey data (2018).

Based on the results presented in Table 6, it is possible to see that, with the exception of the responsiveness variable, all other dimensions addressed in the study were significant at 5%, indicating that the Portal Capes user feels more satisfied with the system, when he perceives security and trust in the platform, and visualize a pleasant environment that makes you want to keep using and recommending to others. It is also possible to note that some variables stand out, showing that the greater the reliability and empathy, shown by the ease of use and customization of the platform, the greater will be the satisfaction of users when using Portal Capes. The model was also tested and validated for problems of multicollinearity, heteroscedasticity and functional form, as shown in Table 6.

The dimension related to responsiveness was not significant in this study, however, this can be explained by the inclusion of the option 'I don't know how to give an opinion' in the applied questionnaire and the large selection of this item within this dimension. This option was included in the pre-tests performed, where participants questioned mainly because they had never contacted the team responsible for Portal Capes, not knowing how to give an opinion on its use. Despite the result presented, it is possible to easily identify the access to the "Contact Us" of Portal Capes, reaffirming that the result presented may be associated with not using this tool.

The results are in line with the study by Costa and Ramalho (2011), who found that, given the qualification of performance and user satisfaction when using Portal Capes, the good usability of Portal Capes was identified, according to the parameters of analysis adopted. As well as Cendón et al. (2011) that show that 70% of researchers, almost always or frequently, are successful when looking for a specific journal in the platform under study. However, it is worth noting that satisfaction precedes quality and constant satisfaction with a service results in the perception of quality by the user (Parasuraman et al., 1988), therefore, it is not possible

to verify the quality of the service using only the significant variables in the model, as these may be associated with certain successful transactions by users, but not necessarily with the full quality of the service.

On the other hand, although different assessment tools were used, this study is in line with the findings of Meirelles and Machado (2007) and Gomes (2014) who found elements that discourage the user to explore and use the functionalities of the Capes Portal.

5 Conclusions

The general objective of this research was to evaluate the use of the Capes Portal of Periodicals from the perspective of research users in administration and accounting based on the SERVQUAL service rating scale, however, although it already allows us to verify certain results, this study is still in a state of development.

Thus, it was observed that users showed that although the referred platform has advantages, some features still leave a little to be desired, shown, for example, by the tangibility assessment that is directly related to the interface and the responsiveness that is the dimension that evaluates the receptivity and feedback of the entity that operates Portal Capes, negatively impacting satisfaction. In addition, the results indicate that Portal Capes users feel more satisfied with the system, when they perceive security and trust in the platform, and visualize a pleasant environment that makes them want to continue using and recommending to others.

The predominant profile of researchers in accounting and administration are professors with a doctorate at a public university, who use the Capes Portal with high frequency, although they are not fully satisfied with the service. This result shows that the reality of Brazilian research is more focused on federal universities, but private universities are also important in this context.

It was also possible to see that researchers with a doctoral degree have a longer time using the portal. However, it was not possible to identify any pattern in the characteristics of the researchers to justify the low use of the Portal Capes, but it was possible to make some assumptions, such as the use of alternatives other than the Capes Portal of Periodicals, master's and doctoral students who already completed the course and are not conducting research at the moment and professors who work only with teaching, but who have had more contact with the platform in previous periods.

It was also found that user satisfaction with the service offered by Portal Capes is directly related to the ability to provide the promised service with confidence and accuracy, the security identified with regard to the existing competence to perform the service, the empathy observed in accessibility, sensitivity and effort to meet the needs of customers and the browsing environment in which it exhibits attention to detail displayed by the service provider. On the other hand, the responsiveness variable was not found to be significant as predicted in the model by Parasuraman et al. (1988), which can be explained by the lack of contact or relationship between the portal user and the team responsible for operations.

The adaptation of the service evaluation model is understood as a limitation of the research, as in e-commerce, there is a distinct environment of competition and service provision, and Portal Capes, in addition to being a "monopoly", the user institutions (largely public universities) do not have a budget for the acquisition of other research bases.

It is suggested for future research to expand the sample in order to capture more significantly the perception of users. In addition, it is recommended to analyze more qualitative issues that allow for a more in-depth explanation of the problems and limitations identified in

the studied platform and to make recommendations for improvement that could be captured by the systems designers Capes Portal of Periodicals. A study is also recommended to detect the difficulties of researchers beginning to use of the Capes Platform.

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