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QUALIDADE DOS SERVIÇOS INTERNA E EXTERNA: REFLEXÕES DE EMPREGADOS E CLIENTES NO ESPELHO
INTERNAL VERSUS EXTERNAL SERVICE QUALITY: REFLECTIONS OF EMPLOYEES AND CUSTOMERS IN THE MIRROR
CALIDAD DEL SERVICIO INTERNO *VERSUS* EXTERNO: REFLEXIONES DE EMPLEADOS Y CLIENTES EN EL ESPEJO

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RESUMO

Introdução: Investigar a qualidade do serviço interno (percebido pelos funcionários) e as percepções externas (clientes) de qualidade no contexto da cadeia de lucro do serviço (SPC) constitui uma estratégia promotora da melhoria dos serviços.

Objetivo: Avaliar o impacto da qualidade do serviço interno sobre as percepções de qualidade dos alunos e testar o significado de um vínculo direto entre a qualidade do serviço interna e externa.

Métodos: Medimos a qualidade do serviço percebido usando o instrumento SERVPERF e a abordagem de modelos multinível com o HLM 7.01.

Resultados: Os resultados empíricos suportam uma ligação entre percepções de qualidade de serviço interno e externo. Mostramos que quando os funcionários (professores) percebem que os serviços da universidade são de alta qualidade, isso tem um efeito positivo spill-over sobre as percepções gerais dos estudantes acerca da qualidade dos serviços universitários.

As percepções da qualidade do serviço interno também estão positivamente relacionadas com a percepção dos alunos sobre confiabilidade, capacidade de resposta e garantia de qualidade.

Conclusões: As percepções da qualidade do serviço interno pelos membros da faculdade estão positivamente relacionadas com as percepções de qualidade dos alunos. A comparação dos níveis de qualidade de serviço interno e externo ajudará os gestores a definir prioridades para alocar recursos para melhorar a qualidade.

Palavras-chaves: Qualidade do serviço interno; Qualidade do serviço externo; cadeia de serviço.

ABSTRACT

Introduction: The purpose of this study to investigate internal service quality (as perceived by employees) and external (customer) perceptions of quality in the context of service profit chain (SPC).

Objective: The objective of the study is to evaluate the impact of internal service quality on students' perceptions of quality and to test the significance of a direct link between internal and external service quality.

Methods: We measured the perceived service quality using a SERVPERF instrument and the multilevel modeling approach with HLM 7.01.

Results: The empirical findings support a link between perceptions of internal and external service quality. We show that when employees (faculty) perceive university services as being of high quality, it has a positive spill-over effect on students' overall perceptions of the quality of university services. Perceptions of internal service quality are also positively related to students' perceptions of reliability, responsiveness and quality assurance.

Conclusions: The perceptions of internal service quality by faculty members are positively related to students' perceptions of quality. Comparing the levels of internal and external service quality will help managers define priorities for allocating resources to improve quality.

Keywords: Internal service quality; External service quality, Service-profit chain.

RESUMEN

Introducción: Investigar la percepción de la calidad del servicio interno (percibida por los empleados) y externo (cliente) en el contexto de la cadena de beneficios del servicio (SPC) constituye una estrategia promotora de la mejora de los servicios.

Objetivo: Evaluar el impacto de la calidad del servicio interno en las percepciones de calidad de los estudiantes y probar la importancia de un vínculo directo entre la calidad del servicio interno y externo.

Métodos: Medimos la calidad de servicio percibida utilizando un instrumento SERVPERF y recurriendo a la herramienta de los modelos multinivel con HLM 7.01.

Resultados: Los resultados empíricos apoyan un vínculo entre las percepciones de calidad del servicio interno y externo. Mostramos que cuando los empleados (profesores) perciben los servicios universitarios como de alta calidad, tienen un efecto positivo en la percepción general de los estudiantes sobre la calidad de los servicios universitarios. Las percepciones sobre la calidad del servicio interno también están positivamente relacionadas con las percepciones de fiabilidad, capacidad de respuesta y garantía de calidad de los estudiantes.

Conclusiones: Las percepciones de la calidad del servicio interno por parte de los profesores están positivamente relacionadas con las percepciones de calidad de los estudiantes. La comparación de los niveles de calidad del servicio interno y externo ayudará a los gestores a definir prioridades a la hora de asignar recursos para mejorar la calidad.

Palabras Clave: Calidad; Servicio interno; Servicio externo; Cadena de servicio-beneficio.

INTRODUCTION

In the last four decades, the context of services has dramatically changed as has the focus of academic and empirical research in the marketing and management of services. The role of customers and employees in services, their satisfaction, loyalty and perceptions of service, are one of the priorities in service research (e.g. Yee et al., 2009).

Some of the most intriguing topics in services refer specifically to customer-employee interactions, their roles in the service process and conceptualization of service quality, customer satisfaction and loyalty, confirming in most cases causality between service quality, satisfaction, loyalty and organizational performances (Gremler & Gwinner, 2000; Parasuraman, Zeithaml, & Berry, 1988).

The service-profit chain framework (SPC) (Heskett, Jones, Loveman, Sasser, & Schlesinger, 1994) is a theoretical framework developed in the mid-1990s that connects all mentioned concepts and provides comprehensive and plausible conceptual arguments for inter-relations and a link between internal (employee-based) and external (customer-based) concepts of services. Until recently, the SPC had very little empirical verification, and due to the model assumption, that demands a dyadic (provider-customer) approach it has been difficult to design and carry out a comprehensive study, so researchers have focused on one side of the dyad (either providers or customers). Lately, the SPC has been put under the spotlight (e.g. Hogreve, Iseke, Derfuss, & Eller, 2017) and in this recent meta-analytic review Hogreve et al. (2017, p. 2) note that research on this topic still offers "...fragmented, partially ambiguous knowledge".

It is against this background that our study aims to explore the link between employee and customer perceptions of service quality by assessing the level of quality perceived by employees and finding out how it relates to the level of quality perceived by the customer. In line with the SPC propositions (Hogreve et al., 2017), although customers are usually unable to assess the perceptions and thoughts of service employees, there is a possibility that employees' perceptions can affect the formation of the customers' perceptions. Originally the SPC did not envisage a direct link between internal (ISQ) and external service quality (ESQ), however, our study aims to isolate this ISQ-ESQ link to contribute to the understanding of employee-customer interactions.

We empirically test the link between employee and customer perceptions of service quality at a university, using students and faculty members in different departments and assess the effect of department-level employee perceptions of quality on students' perceptions. A university represents a good setting for examining employee-customer links as it offers a high-contact and high-involvement service where the faculty members and the students co-create the service experience and where contact between them is crucial for the service provision to be successful. A faculty often constitutes the equivalent of an institution in the eyes of the students as quality assessment is primarily directed towards them. On the other hand, a university is reliant on its faculties who act in a similar way as 'branded goods' for the university, creating and sustaining its reputation, so in such a setting we can discover whether there is a transition from employee perceptions of quality to customer perceptions of quality.

1. THEORETICAL FRAMEWORK

Traditionally, acquiring customers has been an objective of marketing strategies, but in highly competitive business environments organizations have been forced to increase the emphasis on the quality of the service (SQ) and customer retention. Although it depends on the service outcome and process, usually the most influential factor on customers' perceptions of external service quality (Grönroos, 1984; Parasuraman et al., 1988) is the service employees and their role in and contribution to the service process (Hooper et al., 2013). Additionally, in high-contact services, customers play an active role in the service process by contributing to quality, satisfaction and value (Bitner, Faranda, Hubbert, & Zeithaml, 1997). Service employees have a dual role – they are providers of services for external customers but they are also internal customers who buy internal services, provided by other individuals or departments in the company (Wilder, Collier & Barnes, 2014). Employees evaluate ISQ by using ESQ criteria, through the same or adapted models (Hallowell, Schlesinger, & Zornitsky, 1996; Heskett et al., 1994).

External and internal service quality are usually defined in the same way (André et al., 2017; Brooks, Lings, & Botschen, 1999; Kang, James, & Alexandris, 2002), based on performance-expectation of external service quality (Frost & Kumar, 2000) and on the exploration of comparability between dimensions of internal and external quality. Still, some researchers believe that ISQ is one of the most important concepts that is far less understood and utilized in contemporary business settings (Yee, Yeung, Cheng, & Lai, 2009).

ESQ is one of the most documented and researched fields in services and the inceptive article on the SERVQUAL model (Parasuraman et al., 1988) had approximately 27,000 citations in Google Scholar as of August 2017. The SERVQUAL model proposed five ESQ dimensions: tangibles, reliability, responsiveness, assurance and empathy, and operated using a performance-expectation paradigm with 22 specifically designed items. Among them and the numerous adaptations to various contexts and several further changes, is the most important one created by Cronin and Taylor (1994) who argued for dropping the expectation side of the SERVQUAL model and for focusing the research on the quality perceived by customers only. Empirical investigation confirmed the superiority of the performance-only model known as SERVPERF (Cronin & Taylor, 1994).

The second prominent model is developed by Grönroos (1984) and encompasses three main concepts that explain the process of creating an overall perception of service quality: (1) technical (output) quality, (2) functional (process) quality and (3) corporate image. Certainly, there are more external service quality concepts, such as importance-performance (IPA), HEDPERF and the Kano model, but they are not the focus of this study.

When it comes to the ISQ concept, it is usually transferred from the ESQ which was developed earlier and to a greater extent. Two approaches regarding the compatibility of external service quality dimensions with the internal service quality context are identified: (1) consideration of dimensions readily transferable in the internal setting, such as SERVQUAL (Brady & Cronin, 2001; Parasuraman et al., 1988) and (2) adaptation of ESQ models by dropping or adding dimensions. When it comes to the first approach, Kang, James and Alexandris (2002) found that SERVQUAL is appropriate for measuring internal service quality at universities, allowing for modification of items for the specific context of educational services. For the second approach, there were several instances of dropping/adding dimensions. In one example, Lings and Brooks (1998) added a proactive decision-making dimension, while Brooks et al. (1999) focused on attention to detail and leadership dimensions.

Caruana and Pitt (1997) designed the INTQUAL model for measuring internal service quality based on the SERVQUAL scale and added items based on qualitative research among the managers of a UK Company where they carried out the study. Eventually, Frost and Kumar (2001) developed the INTSERVQUAL model after identifying three gaps in ISQ evaluations, based on the original SERVQUAL and GAP models. They evaluated relationships among dimensions of the internal service quality perceived by front-line staff (internal customers) and support staff (internal suppliers).

The data envelope analysis is also categorized as the internal service quality model (Seth, Deshmukh, & Vrat, 2005) even though the authors compare quality based on studies in branches of banks instead of internal customers' perceptions of quality. The authors conducted the study to evaluate how effective bank branches are at changing inputs (staff, space, time) to attain service quality outputs; the research is also based on the disconfirmation logic. All the models are performance-expectation based models and require further studies on their applicability. Performance-based SQ models are still waiting to be tested and studied. This is another reason for the decision to apply the SERVPERF model to evaluate internal service quality.

Some authors argue that high ISQ, according to SPC, will create a supportive customer-oriented service culture confirming their commitment and ensuring the provision of excellent services (Groening, Mittal, & Zhang, 2016). Previous studies indicate that companies who invest in employees' abilities and care about them (Hogreve et al., 2017) can build a positive corporate reputation and ensure customers' perceptions of high quality services (Grönroos, 1984; Brady & Cronin, 2001). Although there is no consensus on the exact mechanism of the relationship, theoretical propositions unequivocally argue that ISQ affects the perception of external service quality, directly or indirectly (Hogreve et al., 2017).

Higher education services (HES) are professional services where employees, and academic staff (i.e. faculty) are important and major contributors to SQ, with a superior position of having knowledge and experience. Students as active participants and customers are the ultimate beneficiaries of the process so are important for the successful accomplishment of the university's goals. The faculty as an internal customer and the student as an external customer create networks of interactions in the university with the same goal – providing high quality external educational services (Barnes & Morris, 2000; Dabholkar & Abston, 2008; Hallowell et al., 1996).

In the context of higher education Moraru (2012) discusses the various interests of students and faculty members as the most important stakeholders in the university using the same dimensions of internal and external service quality (Tuan, 2012). Facing rapidly changing technological and competitive environments HEIs are changing the focus to improve service quality for both, internal and external customers (O'Mahony & Garavan, 2012). Strong interaction and active participation of faculty members and students in service processes leads to the assumption of a direct relationship between internal and external service quality which to the best of our knowledge, has not been researched earlier. In this study, we examine the impact of internal service quality on external service quality, expressing ISQ as the group's overall perception of service quality at department level, and the assessment of ESQ as the perception of external service quality of the students attending those departments. In line with the SPC propositions, the higher the ISQ at the department, the higher the ESQ of students will be; thus, we hypothesize:

H1: The University faculty's perceptions of quality at the department level positively influences that departments' students' perceptions of quality.

2. METHODS

To assess the effect of ISQ on ESQ, we carried out a survey in a higher educational setting, involving one university and its employees (faculty) and customers (students). The perceived service quality is measured using a SERVPERF instrument (Cronin & Taylor, 1994) involving five dimensions: tangibles, reliability, responsiveness, assurance and empathy. We conduct two surveys, one with students across different departments (Level 1) and one with the faculty members from those departments, the faculty survey is then aggregated at the level of the department (Level 2).

Both surveys were designed in a similar manner - SERVPERF instrument was adapted to assess students' perceptions of quality for a Level 1 survey (with students) as well as to assess faculty perceptions of quality for a Level 2 survey (with faculty members), measuring items using a seven-point Likert scale. As already noted, one university was selected as a prototype for testing this relationship and study was conducted in correspondence with the management of the university and all employees and students were involved in the study. The survey was on a voluntary basis and no incentive was offered for participation to students/faculty. The questionnaires' in hard copy were returned to a questionnaire box as a means of submission.

A total of 330 students (the whole population of universities' student at the given moment) were contacted during the spring semester of 2017. Final dataset (Level 1) involved 265 students (80% response rate) from seven different departments (7-86 students per department) of which 29% are in the first year of study, 34% in the second year of study, 22% in the third year of study, and the rest in their fourth year of study. Female students make up 53%, and the average age is 21 (mean = 20.60, S.D. = 2.24). Students attend departments of social, natural and technical science and all of them are enrolled at the university (a four-year bachelor program) from the very beginning of the study. Most of them are studying on technical and social science department while the least number of students attend film academy. They are coming from different cultural background and geographical locations. On average, students engaged in the survey have a family income of 2.500,00 EUR, which represent an upper-middle echelon income in the country.

A total of 60 employees (all employees of the university) were contacted and asked to fill in the survey during the spring semester of 2017. Final dataset (Level 2) is comprised of 40 faculty employees distributed between seven departments of the university which represents 67% of total faculty members. The length of employment ranged from one semester to 11 years, with the average length being four years (mean = 4.01, S.D. = 3.39). The faculty teaches from one to five courses each year, with a mean of three courses (mean = 2.97, S.D. = 1.29). Those teaching on the technical and economic departments are longer employed since the university started primarily as university for computer science, information studies and economy; faculties have different academic positions, from teaching assistants to professors, at each of researched departments. The age range of faculty members was from 20 years to 58 (mean = 35.55, S.D. = 7.70). The faculty published on average six journal papers, seven conference presentations, one domestic, and two international projects. Out of those interviewed in the faculty, 43% were female and 30% were employed elsewhere in addition to their work at the university. Finally all of them are planning to stay at the university.

3. RESULTS

The reliability and validity of the responses from students and the faculty was assessed using confirmatory factor analysis (CFA), using Lisrel 8.80. At both levels, 10 out of 22 quality items are retained (2 per dimension) after the analysis. The lowest factor loadings are, for students and the faculty respectively: $\lambda_{\text{students}} = 0.67$; $\lambda_{\text{faculty}} = 0.50$. The reliability indices are: highest correlation: $\rho_{\text{students}} = 0.48$; $\rho_{\text{faculty}} = 0.60$, lowest average variance extracted: $\text{AVE}_{\text{students}} = 0.51$; $\text{AVE}_{\text{faculty}} = 0.53$, and lowest composite reliability: $\text{CR}_{\text{students}} = 0.68$; $\text{CR}_{\text{faculty}} = 0.67$, and they are acceptable. The model fit for both measurement models is good (Students: $\chi^2 = 76.98$ ($p = 0.00$); $df = 25$; $\chi^2/df = 3.07$; RMSEA = 0.08; NNFI = 0.95; CFI = 0.97; SRMR = 0.04; GFI = 0.95; Faculty: $\chi^2 = 29.44$ ($p = 0.24$); $df = 25$; $\chi^2/df = 1.18$; RMSEA = 0.03; NNFI = 0.98; CFI = 0.99; SRMR = 0.07; GFI = 0.88). The resulting items are then aggregated at the level of a separate quality dimension (based on the mean) in both datasets. For the faculty dataset, all indices are further aggregated at the level of the department, so the department-level score for each perceived quality dimension is obtained.

To test the study's hypothesis, a multilevel modeling approach (Hox, 2010), with HLM 7.01 is used, which is an appropriate way to examine cross-level influences that are the focus of our study. An intercept-only model ran first and showed that the overall means of each dependent variable vary significantly from 0 (Hox, 2010). Since the antecedents of quality at the Level 1 are not included, it continues straight to the cross-level model. Results of the analysis are presented in Table 1.

What we observed from the results of analysis is that in most instances (four out of six models), there is a significant and positive effect of the overall perception of quality of the department's employees on the students' perceptions of quality. Namely, the internal perception of quality is a relevant indicator contributing to the explanation for perceived external quality in overall terms ($\gamma = 0.32$, $p < 0.05$), as well as when it comes to three individual quality dimensions: assurance ($\gamma = 0.53$, $p < 0.05$), reliability ($\gamma = 0.46$, $p < 0.05$), and responsiveness ($\gamma = 0.11$, $p < 0.05$). Tangibles and empathy remain dimensions for which internal service quality is not relevant as per the results of this study.

Table 1 - Multilevel Analysis Results

Dependent Variable	Model 1 Tangibles	Model 2 Reliability	Model 3 Responsiveness	Model 4 Assurance	Model 5 Empathy	Model 6 Overall Quality
Level 1 – fixed effects (γ)						
Intercept	5.54***	3.24***	4.07***	4.37***	2.49***	4.51***
Level 2 – fixed effects (γ)						
Control: Average Age	0.01 ^{ns}	0.05**	-0.07***	0.03 ^{ns}	0.07***	0.02**
Control: Department Productivity	-0.01 ^{ns}	0.01 ^{ns}	0.08***	-0.01 ^{ns}	0.04**	0.02 ^{ns}
Main Effect: Internal Service Quality	0.27 ^{ns}	0.46**	0.11**	0.53**	0.18 ^{ns}	0.32**

Notes: Coefficients are un-standardized; n (Level 1) = 265; n (Level 2) = 7; *** p<0.001, ** p<0.05; one-tailed significance test; multilevel model equation: $DV_{ij} = \gamma_{00} + \gamma_{01} \cdot AGE_{ij} + \gamma_{02} \cdot PROD_{ij} + \gamma_{03} \cdot QUAL_{ij} + u_{0j} + r_{ij}$; DV = dependent variable.

In the model, it is controlled for employees' age which is positively relevant for reliability, assurance and overall quality (older the employees in the department are – higher the students' perception of mentioned dimensions is) and negatively related to responsiveness (suggesting that departments with younger employees are perceived more responsive). Furthermore, it is controlled for department's productivity (in terms of publications and projects held by the members of department) and it is positively related to responsiveness and empathy perceptions of students. Finally, it is important to note that explanatory power of these models is low, with Pseudo R² ranging from 1% to 6% of explained variance. This suggests that external service quality is explained by other factors as well, besides the internal service quality.

CONCLUSIONS

The present study contributes to service literature by conceptualizing and empirically examining the direct link between the internal and external service quality in the higher education services setting. Unlike previous studies, which focused their attention either on internal or on external service quality and which assessed several potential mediators between them (Hogreve et al., 2017), this study establishes a direct cross-level link between internal service quality perception of employees, that is, faculty grouped in departments, and external service quality perception of customers, that is, students. We show that the higher the level of internal service quality at the department, higher the perceived assurance, reliability and responsiveness perception of students, which are shown to be the most important dimensions of service quality in previous research as well.

Surprisingly, when it comes to tangibles, employees' quality perception is not relevant for students' perceptions, which indicates that elements that are not related to faculty directly dominate for formation of students' tangibles perception. Perhaps this is due to the fact that faculty usually does not primarily focus on tangibles (i.e. equipment) during the service process, and that tangibles serve more as a medium for reaching the target. On the other hand, maybe the perceptions of tangibles differ so strongly between the two groups that there is no connection with that regard. The same is for empathy dimension for which is shown that faculty-related internal perception of service quality is not related to students' perceptions of understanding and sympathy provided by faculty. Clearly, at least in the case of this empirical study, employees were not able to transfer their perceptions of services (be them positive or negative) on students' perceptions of empathy dimension.

From the managerial perspective, we show that university management should work on improving the internal service quality, since it will have a spill-over or a mirror effect on customers. Matching the level of internal and external service quality may help managers identify "weak spots" and enables defining priorities for allocating resources for quality improvement. Therefore, caring for employees has dual benefits for the universities – in terms of improvement of the organizational culture and overall employee satisfaction and in terms of furthering the service-profit chain and retaining customers.

Confirming a direct link between internal and external service quality represents one of the studies' major implication for theory. It shows that service quality can indeed be mirrored from employees' perceptions to students' perceptions, since they are in a direct and positive relation. Consequently, managerial implication of this study is in showing that in universities, as well as in all high-contact services, management should focus on internal marketing, and internal service quality improvement. This will result not only in better work environment and potentially higher satisfaction of employees, but also in higher perception of quality by service customers – in the case of our study – by students.

LIMITATIONS AND FUTURE RESEARCH

This study is not without limitations. One of its main constraints is that it narrows down the service-profit chain to one focal relationship. Further studies in this area should consider this link embedded in a broader setting of service-profit chain relationships and assess whether direct or indirect effect of internal service quality on external service quality is more relevant. Additionally, further research should aim to identify why the mechanism of transfer from internal to external quality perceptions is not the same for every service dimension and what are the implications of such situation.

When it comes to the context specific research (university setting), the question that should be answered is what could be done by universities to utilize internal resources for improving service quality perceptions of students that are not affected by faculty (front-line employees). Furthermore, to test the generalizability of the findings of the study, it should be tested across different service industries.

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