The Applicability of the Public Sector Service Value Chain Theory in Public High School Institutions in the Pernambuco State

ABSTRACT

The purpose of this article is to present the results of the application of the Public Sector Service Value Chain theory. This is done by identifying the existing relation between the work engagement of public employees to their work, citizen satisfaction with public services received, and the resulting credibility of institutions, as well as the influential factors of these constructs, in three public schools in the Pernambuco state - two state schools and one federal school. The study methodology was characterized by a quantitative-qualitative approach, using the Utrecht Work engagement Scale (UWES) tools to evaluate work engagement; Servqual, to evaluate client satisfaction; and a customized model of data collection for evaluation of credibility. For the data analysis, we used Content Analysis for the qualitative data, and the Statistical Package for Social Sciences (SPSS) software for quantitative data analysis. As a result, the research indicated that the Public Sector Service Value Chain, as presented by the authors, was only verified in the state high schools and not in the federal high/technical school, which suggests the existence of other factors to evaluate the chain in this institution. However, when analyzing only the satisfaction and credibility relation, the study showed that, in the three schools, the higher the satisfaction, the higher the credibility.
Keywords: Public Sector Service Value Chain. Work engagement. Citizen Satisfaction. Credibility of Public Institution. Public Education.

1. INTRODUCTION

Apparently, worldwide there is a low level of credibility of public institutions and governments in general, mainly influenced by social and cultural factors. Among governmental institutions, those related to education gain a recognized relevance, since they represent a significant pillar for development of the country. In Brazil, particularly since the beginning of 2015, government credibility has been negatively affected by three main elements: corruption scandals, economy stagnation, and unsatisfactory level of population schooling.

In the case of education, the president of Brazil, on taking office for second time, in 2015, stated in her speech that she intended to build an “educating nation”, increasing schooling and ensuring wide access to education, which she described as the door to a prosperous future (BRAZIL, 2015).

Despite the fact that the desired results have not yet been fully achieved, the importance of education in Brazil can be confirmed by the expenditures in the area. Based on the data of the Education at a Glance 2014 report published by the Organization for Economic Cooperation and Development (OECD), education in Brazil received resources equivalent to 19% of all public expenditure in 2011. These figures are very meaningful if compared with the average of 34 countries in the organization, which was 15%. Comparing the amount invested in education with all the wealth generated in the country, the Brazilian expenditure represented 6.1% of the Gross Domestic Product (GDP), while the average of the OECD countries was 5.6% (OECD, 2014).

Nevertheless, the application of significant resources alone does not ensure the achievement of the set objectives. In order to increase the levels of government trust, public investments should be directed to improve the quality of the services offered to citizens, which, besides the social and cultural factors, can also influence the level of society trust in public institutions and their trust.

In this regard, there is evidence, in both the private and public sector, of the existence of a “service value chain,” where citizen satisfaction, motivated by the satisfaction and work engagement of public employees, may become an important component to improve the level of public institution trust.

The first global studies on the existence of a model, which includes a relation between client satisfaction and employee satisfaction, were conducted by Heskett et al. (1994), who, at that time, proposed the “service-profit chain,” applicable to the private sector. This theoretical model stated that the increase of revenues and profits of companies would be strongly influenced by their customer sa-
satisfaction and loyalty. In turn, customers would be more satisfied when they saw value in the services offered by organizations.

In this respect, higher value would be offered by companies whose employees were more satisfied, loyal and with a better performance. Finally, the reason that would lead to employee satisfaction would be the appropriate application of internal policies of people management.

It was understood that this chain was specific for the private sector, since it had as a final link obtaining financial results. However, a decade after the beginning of those studies, there was a proposal to adapt that model for application in the public sector. In this new chain, the final link was modified. It changed from company financial results to trust of public institutions. Yet, the intermediate blocks were maintained, in order to adapt the model to the public sector.

Thus, the Public Sector Service Value Chain was proposed by Heintzman and Marson (2005), which advised that the trust of these institutions would be influenced by the perception of the quality of the services offered and by the resulting citizen satisfaction due to the work engagement of employees to their work.

It should be noted that the two models are based on the link of three main blocks: people, citizens-clients, and results (trust or economic-financial results), as per the service orientation: public or private.

In spite of the relevance and interest in the topic “work engagement-satisfaction-trust” abroad, little attention has been given to the issue in the national scope. That is why the object of this study was the Public Sector Service Value Chain applied to the Brazilian reality, in the education area, attempting to fill the gap on the topic, since the available studies have concentrated on international experiences.

Thus, the dynamics of the operation in some national public institutions was studied, focusing on three constructs: work engagement, citizen-client satisfaction, and trust of public education institutions.

Therefore, this study evaluated the relation between the three mentioned variables, answering the following questions of the research: to what extent the Public Sector Service Value Chain theory, as presented by Heintzman and Marson, is applied to high schools in Pernambuco?

2. WORK ENGAGEMENT

The construct “work engagement”, also called employee work engagement, may be defined as a positive state of realization at work, characterized by three dimensions: vigor, dedication, and absorption (ALBRECHT et al., 2015; BAKKER; ALBRECHT; LEITER, 2011).

Work engagement is also considered the antithesis of the burnout state, characterized by low energy (exhaustion) and little identification with work (cynicism). Contrary to those who suffer from burnout, committed employees have vigor and are connected with their work, and, instead of considering work tasks as stressing, they try to see their professional activities as challenging (SCHAUFELI, 2012; PORTO-MARTINS; BASSO-MACHADO; BENEVIDES-PEREIRA, 2013).

The conditions required for work engagement may be classified into two groups: work resources and personal resources (or psychological capital). The first group consists of autonomy, social support of workmates and set of personal skills. The second one consists of personal efficacy, optimism, perseverance, and resilience. Thus, those environments rich in work resources encourage work engagement, particularly when demands are high. In the same way, personal resources help employees to deal with daily demands in organizational life (BAKKER; ALBRECHT; LEITER, 2011).

Along the same lines, Bakker (2011) proposed a work engagement model based on evidence, where personal and work resources, separately and jointly, are predictors of work engagement, having particularly great impact when work demands are high. In turn, work engagement influences performance. In addition, the model presents a possibility of feedback, when committed employees or servant with good performance create their own resources (Job Crafting), which feeds long-term work engagement, creating a positive spiral gain.

We address work engagement drivers in a broader manner in the work engagement strategic model, proposed by Albretcht et al. (2015). In this study, authors defend the idea that work engagement would be the result of work and personal resources. In turn, work resources would be influenced by the practices in the organization people management area, represented by selection, socialization, performance management, and training. On the other side, employee
or servant work engagement would bring individual results - such as attitudes (satisfaction with work, for example) and behaviors (individual performance) - and organizational results (organizational performance), which may lead to a competitive advantage when the focus of the approach is the private sector. Similarly, by adapting the presented proposal to the scope of this study, the mentioned individual and organizational performances, through the resulting organizational efficacy, may influence the quality of the service rendered and citizen satisfaction.

3. CITIZEN SATISFACTION WITH PUBLIC SERVICES RECEIVED

According to Morgeson III (2013), the level of satisfaction with a service may be captured from the result of the relation between prior expectation, the quality (or performance) perceptions after the experience, and the confirmation or disconfirmation (positive or negative) of these expectations, based on the perceptions regarding performance (Expectation and Disconfirmation Model – EDM). That is to say, that citizen-client satisfaction with public services can be measured through evaluation of the gap between perception and expectation.

The conception of this satisfaction model originated in the Oliver studies (1980) about the creation of client satisfaction with services and goods in the private sector. Currently, the MDE has also been used to examine processes that influence citizen satisfaction with public services (MORGEPSON III, 2013).

During the 80s, when there was an important improvement in survey tools in the economy and marketing areas, interest in client satisfaction surveys began growing, which also lead to an increase in the interest to evaluate the opinion of citizens and users of public services. The data obtained in those surveys were used to create benchmarks, service comparison and evaluation of the managerial and investment services (BOUCKAERT; VAN DE WALLE, 2003). This renewed attention about this topic gained strength in North America, mainly with the development of Servqual, a tool to measure service quality developed by Parasuraman, Zeithaml and Berry (1988).

The Servqual scale has 22 questions, used to evaluate services in five dimensions (tangibles, responsibility, responsiveness, assurance and empathy). Each question is used twice: once to capture the perceptions and the other to measure the expectations of the respondents, according to the mentioned EDM.

The information obtained through the application of the Servqual tool may help in planning the actions of public managers, geared at improving service performance. For example, high negative gaps (perception measurement results much lower than expectation measurement results), combined with high values of expectation may indicate priority areas...
for actions aimed at performance improvement. Similarly, high positive gaps (perception measurement results much higher than expectation measurement results), which means that expectations are not only being met but surpassed, may indicate that resources are being directed too much to certain areas, at the expense of others which present low performance. This analysis may be important for public services with limited budgets (WISNIEWSKI, 2001).

In addition, the results of citizen satisfaction measurement may also be the object of other complementary studies because they provide feedback for society. This enables a better integration between the government and the population, increasing transparency and accountability, influencing the credibility of the public institutions and of government in general, improving public service quality, facilitating benchmarking between public institutions and the dissemination of best practices, improving resource allocation, including financial resources, and monitoring and motivating public employees (MORGESON III, 2014).

4. PUBLIC INSTITUTION CREDIBILITY

According to the OECD (2013), “credibility” means to maintain a positive perception about the actions of an individual or an organization. If we take this definition to the public sector, credibility in a government or in public institutions may be defined as citizens trusting that the actions of these entities are appropriate.

Public institutions and governments without credibility would not capture the support of society for the realization of reforms, particularly when short-term sacrifices are needed to obtain gains in the long run. In this sense, credibility is an essential factor for success in the implementation of public policies (OECD, 2013).

Public institutions credibility is one of the topics most discussed by public sector experts. Many understand that government credibility is at low levels, which results in less civic work engagement and little democratic participation. Simultaneously, the reasons causing such situation and the factors to help increase credibility in public institutions have also been equally studied (HEINTZMAN; MARSON, 2005, 2009; COWELL et al., 2012; HARDING, 2013).

When searching for causes of these results, we note that government and institution credibility is a complex situation, with many factors involved. However, it seems there is no doubt that social and cultural factors have a relevant role in forming the perception of citizens in relation to trust in government and institutions, as observed by Heintzman and Marson (2005, 2009) in their studies about the Public Sector Service Value Chain.

5. PUBLIC SECTOR SERVICE VALUE CHAIN

Based on the evaluation of the challenges faced by public management, Heintzman and Marson (2005, 2009) concluded that citizen trust in public institutions, and government in general, at the end of the day should be the main purpose of public sector actions. In this regard, these authors proposed a model called “Public Sector Service Value Chain” in order to support the planning and realization of governmental actions for the improvement of credibility of public institutions.

The mentioned value chain may be summarized as follows: engaged public employees lead to citizens/clients satisfied with the service, which, in turn, leads to the increase of credibility of public institutions. The proposed model is simple and focuses on the relation among three blocks, which should receive priority attention of public managers: employees, services delivered and credibility of institutions. One of the merits of this chain is that it offers the opportunity to exercise a wider managerial action, involving
three blocks and their relations, as a whole, instead of isolated approaches, still very common, despite knowing that the success of the actions in a variable may depend on the success of the actions in another.

The idea for the development of this model, applicable to the public sector, appeared documented in studies started by Heskett et al. (1994), carried out in the private sector. The model developed for the private sector, called “service-profit chain,” identified the relations between employee and client satisfaction, and between client satisfaction and increased income and profit.

The Heskett chain revealed the existence of relations between profit/growth, client loyalty, client satisfaction, value generation in services and products, productivity and employee loyalty, employee satisfaction, and the quality of the company’s internal practices.

The study verified that both models are convergent with each other. Each of them has three interlinked blocks (people, services, and results). The differences are in the adaptations made to the model applicable to the public sector, such as the nature of the expected results. In the private sector, the expected results are growth and profit while, in the public sector, the results refer to credibility of institutions.

The Public Sector Service Value Chain may serve as a managerial tool for the improvement of Public Administration. Once the relations among the blocks are set, focusing on the leading aspects of each studied construct, combined actions may bring about an improvement in the system performance as a whole, which will result in an increase in the rates of credibility of public institutions.

6. RESEARCH METHODOLOGY

We chose a multiple case study with a mixed quantitative-qualitative approach. The survey was conducted in three Brazilian public education institutions, located in Pernambuco, two from the state high school network (School No 1 and School No 2), and one from the federal high/technical school network (School No 3).

The subjects of the survey were all the students present in the days it was conducted, from state high schools and from the agricultural, administration and food industry courses of the federal high/technical school, as well as the respective teachers and administrative employees, service providers for these students. The survey included 47 employees – 17 from School No 1; 14 from School No 2; and 16 from School No 3 – and 343 students – 100 from School No 1; 168 from School No 2; and 75 from School No 3.

Data collection was carried out by using three questionnaires. Each of them had closed questions
(about the quantitative approach) and open ones (about the qualitative approach). The first questionnaire, applied to a group of institution employees, attempted to verify the level of work engagement of public education institution employees, as well as identify factors influencing that work engagement level. For the closed questions, we used the Utrecht Work engagement Scale (UWES). The second questionnaire, completed by the institution students aimed to identify the level of citizen satisfaction with the services rendered by public education institutions, as well as verify the factors that influence this satisfaction level. Servqual was used for closed questions. The purpose of the third questionnaire, also applied to the students from the three schools, was to verify the level of trust that part of the society has in public education institutions, as well as identify the factors that influence the level of credibility of these institutions. The author developed last survey tool.

7. PROFILES OF THE SURVEYED EMPLOYEES AND STUDENTS

The social and demographic profiles of the 47-employee sample from the three selected schools were determined by five attributes: function exercised at the school (teacher or administrative employee); position (permanent or temporary); employment time at the school; gender; and age. In the three institutions studied, teachers corresponded to, at least, three quarters of the total of surveyed employees. In addition, most of the employees had permanent positions; only 15.4% held temporary positions. In relation to employment duration, in state schools (School No 1 and School No 2), more than 70% have been working at their institutions for ten years, at most, while in the federal school (School No 3), most have been working for over ten years (60%). Regarding genders, Schools 1 and 3 had more male professionals, while School No 2 had more female professionals. Finally, in relation to age, state schools had a higher concentration of employees between 31 and 50 years old, while, in the federal school, most of them were over 50.

The social and demographic profiles of the 343-student sample from the three schools selected were determined by three attributes; year or period in the course, gender, and age. As for the year/period in the course, both state schools presented an even distribution of students. Yet, in the federal school, there was a higher concentration of students in the first period. In relation to the gender and age attributes, there was a similarity of the percentages verified in Schools 1 and 2, which had a majority of male people surveyed and under 18. On the other hand, School No 3 presented a majority of female students over 18.
8. CONCLUSIONS AND REFLECTIONS

8.1 ABOUT WORK ENGAGEMENT

We observed that, among state entities, School No 1 largely exceeded School No 2 both in the global work engagement rate and the coefficient related to each one of the three dimensions: “vigor”, “dedication”, and “absorption”. If we compare the three surveyed institutions, however, School No 3 showed the highest rates regarding work engagement and all dimensions.

Comparison of work engagement levels to the social and demographic attributes of the respondent employees showed a tendency of increase in work engagement level as employment time at the school varies. On the other hand, we did not verify a defined tendency of variation of work engagement level as gender and age vary.

When analyzing the factors that influenced the work engagement level of employees in the schools, we verified that in School No 1, where people management practices appeared as a positive aspect, work resources were very much present. Yet in Schools 2 and 3, which presented deficiencies in people management practices, personal resources had a more important role in influencing the work engagement level. Thus, the data suggest that, within the scope of the surveyed institutions, where the support actions for employees are insufficient, personal resource, such as perseverance and resiliency, take on an important position as influencing factors of work engagement. On the other hand, when support actions are satisfactory, personal resources lose ground against work resources as positive influential element in the work engagement level.

We also perceived that student behavior could have an influence on the work engagement level of employees. This employee-student interaction, which can fall in the job-crafting concept, was identified in School No 2 as a negative influencing factor for the work engagement level, where personal resource levels were higher and work resources, lower. Based on this verification, it is possible to assume that teachers and administrative employees may need to increase the number of personal resources to keep the appropriate levels of work engagement, when activities are performed in a hostile environment due to the students.

8.2 ABOUT SATISFACTION WITH THE SERVICES RECEIVED

It was found that, in the three institutions, the satisfaction rates were at levels lower than zero, which reveals that the average expectation level was higher than the average perception level.

Nevertheless, we found a tendency of increase in the satisfaction level depending on variations of the year/period students are attending in the course. On the other hand, as in the case of work engagement of teachers and administrative employees, we did not see a defined tendency of variation in the level of work engagement according to gender and age vary.

It was also observed that the dimensions with the lowest satisfaction levels were “tangible aspects” and “credibility”. That is why these areas are characterized as those that need the greatest attention from public managers in these schools.

When examining the factors that influenced citizen satisfaction level with the services delivered, credibility, empathy and the results were highlighted as positive factors, which indicates that the elements related to the interaction between employees and students, as well as the results from education, have a main role in student satisfaction.

As for the negative influencing factors of satisfaction, the “tangible aspects” category was the most cited, representing the largest part of the ideas expressed by the survey subjects in their responses to the open question about satisfaction. This result was ratified in the quantitative survey, where this dimension appeared as one of the most important for the final composition of the satisfaction level results. The topic “security” was also registered. It had a meaningful number of references in the statements as a negative factor, and it appeared in the qualitative survey as an item needing attention (security at school).

8.3 ABOUT CREDIBILITY OF PUBLIC EDUCATION INSTITUTIONS

In terms of trust, School No 1 had a high average, higher than five (in a scale from zero to six), while the other two schools remained lower than that with an average lower than four.

When comparing the results of the levels of credibility to the social and demographic attributes
of the respondent students, there was no defined tendency of variation in the level of credibility as year/period, gender or age vary.

In relation to the factors that positively influence the credibility level of the schools, the most cited categories by the respondents were “reliability”, “responsiveness”, “empathy,” and “results”, elements similar to those identified in the satisfaction evaluation revealing a coincidence between the driving elements of credibility and satisfaction.

As for the factors that negatively influence credibility, respondents also gave the highest emphasis to the “tangible aspects” category, which concentrated the majority of the ideas expressed by the students on their responses to the open question about credibility. It is also worth noting that “security” and “empathy” had a meaningful number of statements. Comparing the credibility results to the satisfaction results, we observed that “tangible aspects” and “security” appear as the most important negative influencing factors of the two constructs.

The coincidence of positive and negative influencing factors of credibility and satisfaction suggests a strong relation among these constructs, which was confirmed in the verification among the chain blocks, presented in the item below.

8.4 ABOUT THE EXISTENCE OF THE FORESEEN RELATIONS IN THE PUBLIC SECTOR SERVICE VALUE CHAIN

When we analyze the results of both state secondary schools in this survey, the following relations were confirmed: the higher the work engagement level of the employees, the higher the satisfaction levels with the services received and the higher the credibility levels of the institutions. That is to say, apparently in the state secondary schools universe, the work engagement of teachers and administrative employees is positively related to student satisfaction and credibility of the institutions perceived by the students.

When we analyze the relation between satisfaction and credibility, in the scope of the three schools, the study showed that the higher the satisfaction, the higher the credibility. Additionally, the existence of the correlations between the constructs “credibility” and “satisfaction” was demonstrated, as well as between “credibility” and several items of the “satisfaction” dimensions of the Servqual tool.

However, for the data of School No 3, the relations foreseen in the theory between work engagement levels and satisfaction/credibility were not confirmed, because the federal school obtained the highest rates of work engagement and the lower satisfaction and credibility levels, compared to the two other schools.

Investigating the influencing factors of the levels of the three constructs regarding the three schools, there was no specific characteristic identified in the federal school that may explain the higher levels of work engagement and/or the lower satisfaction/credibility levels, in relation to the other two state schools. The possible causes of this situation, to be verified in subsequent surveys, may be related to the fact that the federal school students have experienced several interruptions in their classes due to the constant strikes of employees, besides eventual frustrations about not getting a job, which may have negatively affected the “satisfaction-credibility” combination.

Another possibility, which was not detected in the data obtained in this study either, may be the result of the existence of more developed institutional support for teachers in the federal school, against state network institutions, which may have positively influenced work engagement levels.

Finally, in face of the analysis carried out in this study, the conclusion is that the existence of relations between work engagement, citizen/student satisfaction, and credibility of the surveyed public state high school institutions may encourage the design of new strategies, thus ensuring public employee work engagement in order to increase student satisfaction levels and credibility of education entities. In this regard, public managers may define managerial actions focused on work engagement drivers, especially for people management, intended to improve service quality and consequently increasing citizen satisfaction and credibility of institutions, both elements of the Public Sector Service Value Chain.

On the other hand, existence of relations between work engagement, citizen/client satisfaction and credibility on the federal high school/technical institution was not confirmed. This may suggest that the satisfaction and credibility levels may be related to other factors, which may overlap in relevance, with work engagement or which could reduce its impact. This possibility would indicate that the relation between the three constructs, as proposed by
the Public Sector Service Value Chain theory, is more fragile than thought.

REFERENCES


