PARAMETERS FOR DEFINING AND INSPECTING ADEQUATE PUBLIC ROAD TRANSPORT PASSENGER SERVICES IN BRAZIL: VERIFICATION OF THE JURIDICAL SCOPE AND BIDDING/CONTRACTS TO DATE

Authors:

Adolfo Luiz Souza de Sá – Accounting Court of the State of Pernambuco – Brazil
Anísio Brasileiro – Federal University of Pernambuco – Brazil
Joaquim Aragão – University of Brasília – Brazil

I. INTRODUCTION

The Brazilian Constitution of 1988 chose the collective transportation as public service, expressing how essential is a process of licitation for this service to be rendered, when it is executed under the regimen of concession/permission. It stood out, in special, "the obligation of proper maintenance of service".

Despite of this, the legislation due to the constitutional device, the Law 8,987/1995, which makes use on the regimen of concession/permission of the rendering of public services, embraces the most diverse public services, having treated the definition of proper service in a conceptual (and not objective) way, by satisfying "conditions of regularity, continuity, efficiency, security, updating, generality, courtesy in rendering it and the modicity of tariffs".
Parameters for defining and inspecting adequate public road transport passenger services in Brazil: verification of the juridical scope and bidding/contracts to date

Thus, it was up, indeed, to the convoking instrument of the licitation, (and to the respective contractual term) the determination of objective criteria for the definition of proper service, criteria that must be specific to the service to be rendered.

II. OBJECTIVE

The objective of this work is, therefore, to identify, a priori, in the Brazilian legal doctrine, which are the concepts of "proper service". After that, the verification of three Licitations/Contract Bids already accomplished, in the cities of Nova Friburgo, Belo Horizonte and Sao Paulo, for the rendering of services of road collective transportation of passengers, to identify which were the defined objective criteria for the gauging of the fulfillment of proper service and if such criteria observe the protection of the public interest of the user of the collective transportation.

III. PROPER SERVICE AND BRAZILIAN LEGISLATION

The Art.175 of the Federal Constitution, when defining that it is up to the Public Power the rendering of public services, providing its execution, either direct or under delegation, determined that the law will have to regulate the rights of the users, the tariff policy and the obligation to keep proper service.

The legislation pertinent to the concessions/permissions of public services was only promulgated in 1995, defining that "proper service" (§ 1º, Art.6º of Law 8,987/95) "is what satisfies the conditions of regularity, continuity, efficiency, security, updating, generality, courtesy in rendering it and the charge of low tariffs", as it was said before. However, the law only expressed what must be considered as "the present time" (§ 2º: "modernity of the techniques, the equipment and the installations and its conservation, as well as the improvement and expansion of the service"). It lacks, therefore, that the concepts are complemented in derived norms, in the rules of the edict and consequently, in the contract.

The word "proper" does not possess an autonomous sense, having subjective meanings. However, the service must be rendered in order to satisfy the full attendance of the users’ necessities, which are established in objective and not personal reasons to each usuary. Obviously the legal meaning is not limited to the common direction, being essential that the peculiarities of the fact situation are considered, to investigate by means of juridical proper criteria (BLANCHET, 1995). A service that does not observe the defined technical conditions which motivated its own institution cannot be considered proper. (JUSTEN FILHO, 2003).

It is necessary to adduce, briefly, what the doctrine considers as proper service:

- **regularity**: it estimates the observance to the rules, legal and not legal, and to the regular offer of quantity and quality of the service (BLANCHET, 1995). That is, it means maintenance of qualitative standards and quantitative uniforms (JUSTEN FILHO, 2003).
Parameters for defining and inspecting adequate public road transport passenger services in Brazil: verification of the juridical scope and bidding/contracts to date

- **continuity**: permanent offering of the service (MUKAI, 1998), not being possible the interruption of the service by initiative of the concessionaire, unless in hypotheses foreseen in law/contract (DI PIETRO, 1999). It is the absence of interruption, according to the nature of the developed activity and to the interest to be taken care of (JUSTEN FILHO, 2003).

- **security**: maintenance of the physical security of the user and the collective (BLANCHET, 1995), for the adoption of known techniques and all the possible steps to reduce the risk of damages to the physical/emotional integrity of users and non-users. Obviously, only the precautions that do not make impracticable the rendering of the proper service must be demandable (JUSTEN FILHO, 2003).

- **efficiency**: satisfactory service, in quality and quantity (MUKAI, 1998), occurring at the opportune moment (BLANCHET, 1995). JUSTEN FILHO (2003) considers that the characteristics of regularity, continuity, security and present time come directly from the efficiency concept.

- **generality**: equal service for all (MUKAI, 1998). JUSTEN FILHO (2003) adds that the concept is referring to the universalization of the offer of the service, providing its enjoyment for all the potential users, not forgetting that it may have technical-operational restrictions that come to cause a quantitative limitation. The generality is reached when the service is offered to the biggest possible number of users, preserving, over all, the isonomy (for the non-election of privileges). A service that is not destined to be offered to an indeterminated number of users cannot even be characterized as public.

- **courtesy in rendering it**: good service to the user (MUKAI, 1998), including the easy access of the user to criticize and to suggest alterations (BLANCHET, 1995). It means respect to the human dignity and civilized attendance (JUSTEN FILHO, 2003).

- **updating**: JUSTEN FILHO (2003) makes an approach which is decurrent of the efficiency concept, when he stands out that the updating of the service is intrinsically related to the cost-benefit of the necessity of substitution of techniques, equipment and training of staff. Or either, it is essential to evaluate if the economic reflexes necessary to promote the updating of the service are compensated by effective benefits to the user, without occuring tariff rise that causes exclusion of the enjoyment of the service on the considerable part of the users. He also presents that a service can be efficient, within certain limits, even if it is not modern/up-to-date, not forgetting to emphasize that the maintenance of techniques, before continuous innovations of the technology, will tend to produce inefficiency of the system.

- **modicity of the tariffs**: Modicity can be defined as reasonable prices, to the reach of the users (MUKAI, 1998), compatible with their financial conditions (FARIA, 2000), in order not to burden them excessively (BANDEIRA DE MELLO, 2003). JUSTEN FILHO (2003) points out that modicity corresponds to the lesser tariff in face of the cost and to the lesser cost in face of the conformity of the service.
Parameters for defining and inspecting adequate public road transport passenger services in Brazil: verification of the juridical scope and bidding/contracts to date

The tariff policy is basic element for the effective right of generalized accessibility, made difficult, a priori, by the antagonism in having adjusted service, with reasonable tariff and in having profitable and attractive activity for investors (ARAGÃO et alli, 2002). The search of this balance goes through the two antithetical ideas, properly cited by the French authors GEORGE VEDEL and PIERRE DELVOLVÉ (1983, apud DI PIETRO, 1999), constituting the theory of the contract of delegation: on one hand, the public service must function under general interest and under the authority of the public administration (in consequence, the indispensability of regulation); on the other hand, a capitalist company, objectifying to get the biggest possible advantage of the contract bid, aiming at the profit (in consequence, the contractual nature of the concession and the right to the economic-financial balance).

The guarantee to the initial economic-financial balance of the contract cannot inhibit instruments of incentive to the efficiency and the competitiveness (ARAGÃO et alli, 2002). Definition of tariffs in licitation for the lesser tariff and mechanisms of readjust/review that contemplate profits for productivity must be used aiming at it the tariff modicity. The certain is that the search for adjusted service, in special the modicity of the tariff, must be conciliated with the economic-financial balance of the contract (SOUTO, 1999), in the setting of the economic-financial equation of the enterprise, including, being determinative in the definition of the concession/permission stated period. The intention is the elimination of the clientelist practice of benefitting groups in detriment of the users who effectively pay the tariffs, with the increase of the tariff as for the reduction of payers (ARAGÃO, 1996).

The construction of "models" for project, licitation and contract bid of public services has as main objective to search the best service at the lesser possible price, not forgetting to inquire if the tariff is reasonable for those who need to use the public service which is delegated to the private initiative (SÁ & BRASILEIRO, 2003).

The analyzed Brazilian legislation concerning to the concessions/permissions of public services embraces public services of well distinct characteristics, leaving for the States and the Cities the edition of specific legislations for their concessions/permissions, possibly including peculiarities of each public service to be delegated to the private initiative. However, the assembly of the licitation procedures, that includes the "model" of the contract action to be accomplished, with its parameters and criteria for the control of the conformity of the service, must complement the particularities inherent to each public service, having a decisive and important role in the success of the delegation.

The edict and the contract will have to make the discipline contained in the applicable legislation concrete, what does not mean autonomy to superpose it. The set of technical rules concerning to the performance and the adequacy of the service rendered is considered as integrant part of the legal regimen. That is, the technical-scientific knowledge produces technical rules that allow to define if the service rendered (or to be rendered) is (or will be) adjusted, in the face of the peculiarities of each service, in each place. Thus, it is difficult to establish uniform standards, that apply to all the public services, in all the places, indistinctly. Public renderings of services of same nature can vary in function of the social and physical surroundings (JUSTEN FILHO, 2003).
IV. PROPER SERVICE IN ACCOMPLISHED LICITATIONS

The documents pertinent to three licitations of three Brazilian cities with quite different characteristics were analyzed:

IV.2. City of Belo Horizonte, in the State of Minas Gerais;

IV.1. The City of Nova Friburgo, in the state of Rio de Janeiro

The city of Nova Friburgo, with 933 km² of area, is 137 km far from the city of Rio de Janeiro, capital of the State of Rio de Janeiro. It posseses 173,418 inhabitants, with tax of urbanization of 87.6% and Index of Human Development of 0.770 (data of 2000).

For the present analysis, the documents pertinent to the "Proclamation of Licitation for Permission of the Service of Collective Transportation by Bus - Competition nº 001/2004", when 02 lots had been bid on.

To follow, some excerpts taken from edicts, and that indicate objectivity, are exposed:

- Adequacy of all the fleet of buses for vehicles with proper specifications for the urban transportation of passengers in conditions of safety, comfort, easiness of embarkment and disembark, minimum levels of ambient pollution, as established in annexes, which define specifications of the vehicles.
- Level of minimum tolerated service in the rush hour and in the stretch of maximum occupation: number of standing passengers equal or lesser to 80% of the seated capacity. The occurrence of superior occupation in 02% of the trips in the month will determine the reprogramming of the timetable, the alteration of the specification of the fleet or its redimensioning, if necessary. The measurement will be made by inference, from the indexes of renewal and gratuitousness which will be esteemed for the line by time band.
- Fulfillment of schedule equal or superior to 98% of the timetable specified in the month.

Requirements to be fulfilled for each concessionaire had been defined:

- the availability of at least 02 small vehicles suitable for the transportation of disabled people and/or people with special necessities in accordance with the current law.
- before the beginning of the operation, the permissionaire will have to implement steps for following the specifications relative to the vehicles, to the contract action and the training of the staff and the physical installations.
- the permissionaire will have to communicate the availability of the fleet, so that the necessary technical inspection of the fleet and of the depot facilities is scheduled.
- with the approval of the fleet, these will receive the authorization for traffic, and they will not be able to be used in any other activity anymore, different from the object of this permission, without the previous authorization of the power concessor.
In a general way, the terms of the legislation had been ratified, being rare the defined objective parameters for the gauging of the fulfillment (or not) of the adequacy conditions.

IV.2. City of Belo Horizonte, in the State of Minas Gerais.

Belo Horizonte is one of the most important Brazilian metropolitan regions, being the capital of the State of Minas Gerais. The city, with Index of Human Development of 0.601, possesses a population of 2,238,526 inhabitants, distributed in 330.90 km², for a metropolitan area of 9,459.10 km², totalizing 4,357,942 inhabitants (data of 2000).

For the present analysis, the documents pertinent to the "Proclamation of Public bid Nº 003/1997" had been verified, when 83 lots had been bid on, embracing a total of 2,386 standard-vehicles.

The technical specifications had been detailed, including the requirement of minimum specifications concerning to the depot facilities in function of the number of vehicles (defining, for example, minimum areas of parking, offices, warehouse, workshops, washings and relation of equipment).

For the vehicles, they specified, beyond the capacity of passengers, the seats, the doors, the engine power, the position of the engine, the suspension, the place and the form of the discharge pipe, the type of back panel, among other items. Besides, 6 years was defined as the maximum average age. For effect of remuneration and depreciation, the offer of lots with average age over or equal to 3 years and under or equal to 6 years was admitted. New vehicles were considered as being 3 years. For the articulated vehicles a useful life of 12 years was considered, not being computed in the calculation of the average life.

After the verification of the total cost of each line and the total cost of each company, the calculation of the remuneration attributes weight of 98% to the total cost, 1% for productivity and 1% for the operational performance. The remuneration of productivity passenger/km is made for each line, on the basis of the variation of the quarterly IPK (Index of Passengers per Kilometer) and the monthly one of the line, in relation to the variation of the quarterly IPK and the monthly one of the system. For the operational performance is selected an index that considers filings/notifications, trips interrupted because of mechanical imperfection, vehicles disapproved in the inspection, fulfillment of the specified trips and claims of the users.

The operational regulation reproduces the legal definition for the proper rendering of the service, standing out that it considers service all the vehicles, equipment, facilities and activities inherent to its production. It reaffirms the regulation that constitutes rights of the users:
- receiving an adequate service;
- being carried safely, in the lines, itineraries and schedules settled and in a speed compatible with the law;
- Being treated with politeness;
Parameters for defining and inspecting adequate public road transport passenger services in Brazil: verification of the juridical scope and bidding/contracts to date

- Receiving information concerning to the service, inclusively for the defense of his/her individual or collective interests;
- Having access to any line of the service;
- Receiving integral and correctly the change.

As far for the modicity of the tariff, a control of the cost and of the form of remuneration was defined, as well as a tariff clearing house, having as basic objective to assure the economic-financial balance, providing the application of prices of tickets unified per area, corridor or type of service.

Besides, a "program of specification technique" was defined. It was divided in four parts, with the following description of "requirements" to be fulfilled:

a. "program of quality"
   - knowledge on the customer and the market;
   - relationship with the customer and measurement of his/her satisfaction;
   - management of information;
   - management of processes;
   - results obtained concerning to the quality of the services;

b. "program of training for drivers, collectors and dispatchers"
   - knowledge of citizenship, concepts of management for the quality, interpersonal relations versus intrapersonal relations, quality in the customer service, first aid, knowledge of the city, basic knowledge of collective transportation and the regulation of transportation;
   - specific module on defensive direction for drivers;
   - specific module on development of supervisors and regulation and functioning of the tariff clearing house for the dispatchers;

c. "program of management training and development and personal relations at work for the administrative staff"
   - knowledge of citizenship, interpersonal concepts of management for the quality, interpersonal relations versus intrapersonal relations, quality in the customer service, basic knowledge of collective transportation and basic knowledge of computer science;
   - specific module on development of supervisors for the managers and bosses of traffic;

d. "program of update for the maintenance staff", embracing mechanics (engine, gear box, transmission, suspension, brakes, steering), dent repair, painting, hood, electrical system, tire fitting, lubrication and cleaning/polish. In taking into consideration the condition of pioneerism of the licitation, one has to conclude that important parameters for the gauging of the fulfillment (or not) of the adequate conditions had been defined.


São Paulo is the most important Brazilian metropolitan region, being the capital of the State of São Paulo. The city, with Index of Human Development of 0,804, possesses a population
Parameters for defining and inspecting adequate public road transport passenger services in Brazil: verification of the juridical scope and bidding/contracts to date of 10,434,252 inhabitants, distributed in 1,509 km², with 900 km² urbanized, for a metropolitan area of approximately 7,000 km², totalizing 17,834,664 inhabitants in 39 cities (data of 2000), constituting the 4th world-wide urban agglomeration.

For the present analysis, the documents pertinent to the "Proclamation of Competition Nº 001/2004" had been verified, referring to a proposed fleet of 708 vehicles, integrant of area 04, one of the 8 areas in which the city was divided. The proclamation and annexes had defined the necessary specifications for the vehicles, the depot facilities and the functioning of the rendering of the service.

For the vehicles, the maximum average age of 5 years was defined, not being able to contain vehicles with age superior to 10 years. Moreover, during the first 12 months of operation vehicles with age superior to 05 years will not be accepted, in result of the utilization of the existing public fleet. For the acquisition of vehicles, these will have to be necessarily new.

In up to 6 months, after the service order, the definition is that the concessionaire will have to make available at least one vehicle, per line, that is adapted for the access of disabled people. Still in the same stated period, the concessionaire will have to supply 34 adapted vehicles for the special service to disabled people.

The obligatoriness of the concessionaire to get quality certification was established, making it clear that the plan for attainment of the certification will have to be presented in the maximum stated period of 12 months, after the contract action, for the certification to occur in the maximum stated period of 24 months, counted from the approval of the plan on. The concessionaire will be able to explore activities which generate additional sources of revenue (e.g.: advertising), since they had been previously authorized by the Administration, and do not compromise the primary activity, object of this concession, aiming at the tariff modicity.

The extension of the contract’s stated period will only be possible (for up to 5 years, for an initial stated period of 10 years) if the concessionaire presents a satisfactory standard of performance in the rendering of the service along the contractual period, duly gauged in periodic evaluations by the power concessor, which will have to take in consideration the opinion of the user, as well as physical and operational variables.

The edict allowed the concessionaire to consider, for previous approval of the regulating agency, alterations in the lines or conditions of rendering of the services, since there is consultation to the involved ones and that the population, in general, and the users are informed of any modification in the lines or in the form of rendering the services with minimum antecedence of 10 days. For any alteration, criteria will be kept, such as:
-500 meters for embracing area of each bus stop;
-5 standing passengers per “useful” square meter of floor space, as limit for the basic tax of occupation;
-maximum intervals of departure of 15 minutes for structural lines and 20 minutes for the central and local lines.
Parameters for defining and inspecting adequate public road transport passenger services in Brazil: verification of the juridical scope and bidding/contracts to date page9

The implantation of "Operation and Control Centers" was defined, functioning in already existing terminals of integration. It was also foreseen that the concessionaire will have to implant its own operation central office. For both implantations, the stated period is of 6 months after service order. For a stated period of 9 months of operation, the introduction of improvements in the net of traffic lights of the road associated with the bus corridors was foreseen. The objective of this intervention was to consolidate the preference to the collective transportation, by reprogramming the traffic light cycles, in order to prioritize the buses.

Beside the investments in fleet and equipment of control and signalling, the concessionaire will still have to invest in the physical infrastructure of the system, that includes the adaptation of the existing terminals, with the double objective of adjusting its facilities to the future operational conditions and improving the conditions of comfort and security for users and operators of the system.

For the commercialization of the electronic tickets, the users’ satisfaction survey was defined, classified in: excellent, good, fair, poor and bad, possible of generating sanction applications, to the judgement of the inspection.

One detailed annex dealt with the definition of the operational indicators and the procedures of evaluation of the services to be rendered, also having it as objective of gauging of the productivity of the system. It was stood out that the process will have to be dynamic, being able to be modified when new necessities are presented. The evaluation process was quite embracing, not only limiting to the determination of operational indicators to be monitored, but also trying to add, in the process of technical-operational evaluation, elements of the management of the concessionaire, such as: management of human and material resources, processes of maintenance, image of the services in the vision of the user, operation conditions of the fleet and internal infrastructure of the depot facilities.

The mentioned annex fixed the methodology of calculation of the quality indicators of the rendered services and defined the basic values of reference, which will have to be reviewed in the end of the first year of the concession, and/or at any time, the criterion of the Administration. In the case of the non fulfillment of the values of reference to be attributed to the indicators, settled in an adequate moment together with the concessionaire, penalties will be applied, in agreement with the sanction instruments to be regulated.

From the definition of operational and administrative categories that must be monitored by the concessionaire and the public power, the indicators of the service quality had been specified to be measured. The categories are:

1. “Management of Operational Services”
A good operation assures regularity, continuity, security and speed of the service of transportation offered, having a positive or a negative impact on the indicators of comfort and quality perceived by the users. In this category the indicators of the quality of the service rendered during a determined operational period.

2. “Human Resources”
The way as the company considers its workers, as it deals with the questions of its human resources favors the establishment of a bond of respect and commitment, between employee and employer, where the professional performance contributes for the quality of the service of transportation offered to the users. In this category items to be measured in order to compose a picture of references for the analysis of the performance of the concessionaire on the management of its employees had been specified.

3. “Users”
The specific objective of this category was to identify the indexes of approval and disapproval of the users, by means of evaluation of attributes related to the public transportation services rendered by the concessionaire.

4. “Maintenance processes”
The activity of maintenance is essential to assure the availability of the fleet with regularity, continuity, comfort, security and respect to the environment, guaranteeing the full customer service. The inspection of the maintenance is a set of actions effected by the concessor/regulator power in the facilities, in the equipment and in the methods and functions of the concessionaire. It was defined that the inspection could be exercised: -in an independent way by the Public Administration; -combined with the concessionaire; -by a mixing commission formed by representatives of the Administration, the concessionaire and the users; or, by credential entities or organisms for such.

5. “Technical-Administrative Processes”
It was aimed at verifying the concessionaire’s enterprise financial health, organizational and administrative structures. The Administration will have to effect periodic verifications of the processes that embody the organization, the planning and the production of the trips carried through in the system. This verification will be linked to the results of the quality indicators that will be below the established reference values.

Thus, indicators to be selected in each category had been defined, as regularity of this measurement and specified values of reference, indicating, still, the instruments of measurement and forms of calculation to be used by the Administration in the analyses of the operational results. These are the indicators, per categories:

1. “Management of the Operational Services” (07 indicators)
1.1. Fulfillment of trip (departure and arrival); Daily Appropriation: (nº of accomplished trips) divided by (nº of programmed trips); Value of reference: 97%.
1.2. Average interval between departures; Daily Appropriation: (sum of the real intervals) divided by (nº of accomplished trips); Not defined value of reference (for posterior definition).
1.3. Passenger per Complaint
Daily appropriation: (nº of carried passengers) divided by (nº of complaints);
Not defined value of reference (for posterior establishment of comparisons between the average of the system and of each concessionaire)
1.4. Demand of passengers
Parameters for defining and inspecting adequate public road transport passenger services in Brazil: verification of the juridical scope and bidding/contracts to date

Daily Appropriation, per periods: (nº of carried passengers per period); Not defined value of reference.

1.5. Fulfillment of Fleet
Daily Appropriation: (nº of vehicles in operation) divided by (nº of vehicles hired);
Value of reference: 100%.

1.6. Index of Carrying Capacity of Passangers
Daily Appropriation, per stretch and per period: (nº of standing passangers) divided by (available area for standing passengers);
Not defined value of reference (for posterior establishment in function of the line, the strech, and the vehicle used).

1.7. Fulfillment of the stated routes
Daily Appropriation: (programmed route) multiplied by (accomplished route);
Value of reference: 100%.
Observation: it was not explicit how the accomplished route will be surveyed.

2. “Human Resources” (17 indicators)
For these indicators, four classes had been established:

   Class A: information collected and supplied by the concessionaire, analyzed by the Administration. They are related to the planning of the services;
   Class B: information collected and supplied by the concessionaire, also collected and analyzed by the Administration. They correspond to the performance indexes that, if not fulfilled, cause the applications of sanctions;
   Class C: information collected and supplied by the concessionaire, analyzed by the Administration, that may be audited occasionally. They correspond to the fulfillment of the legal requirements;
   Class D: information collected and supplied by the concessionaire, analyzed by the Administration. They are related to the management of internal resources of the concessionaire.

The indicators are:

2.1. Fulfillment of collective agreement, class D, monthly appropriation of the nº of items serviced.
2.2. Fulfilment of security legislation and occupational medicine, class C, monthly appropriation of the nº of legal requirements fulfilled.
2.3. Fulfilment of qualification legislation and recycling of the employees, class C, monthly appropriation of the nº of legal requirements fulfilled.
2.4. Training and participation in program of requalification of the operators, class C, monthly appropriation of the nº of trained employees.
2.5. Satisfaction of the users as for the quality of the service of the operators, class A, monthly and annual appropriation of percentage of complaints, claims and compliments of the users.
2.6. Application of policy of human resources, class D, monthly appropriation of the nº of indicators collected, analyzed and followed.
2.7. Use of man power, class A, monthly appropriation: -of the total nº of employees per vehicle; -of the nº of operative employees per vehicle.
2.8. “Turn over”, class D, monthly appropriation of the nº of dismissals divided by the average nº of unemployeds, in percentage.

2.9. Tax of frequency of employment-related accidents, class C, monthly appropriation of the nº of accidents of one determined type divided by the total nº of accidents, in percentage.

2.10. Index of employment-related accidents, class C, monthly appropriation of the nº of accidents divided by the nº of employees, in percentage.

2.11. Index of employment-related accidents, per type, class C, monthly appropriation of the nº of accidents, by type of accidents, divided by the nº of employees, in percentage.

2.12. Absenteeism, class D, monthly appropriation of the nº of absences divided by the average nº of employees multiplied by the number of working days, in percentage. For the nº of absences, we do not consider: - the removal due to illness or employment-related accident from the 16th day of removal on; - maternity license; - vacation.

2.13. Medical removals, class D, monthly appropriation of the nº of cases of illnesses per type, that had caused removal, divided by the total nº of cases, in percentage.

2.14. Overtime, class D, monthly appropriation, in percentage: - of the nº of overtime worked divided by the nº of normal hours; - of the nº of overtime worked divided by the nº of total hours; - of the paid value of overtime worked divided by the paid value of normal hours; - of the paid value of carried through overtime divided by the paid value of total hours.

2.15. Man-hour in training, class D, annual appropriation of the nº of hours of training divided by the average nº of employees (appropriation made by a professional group and by maintenance teams, administration, operators and commands).

2.16. Expenses with benefit, class D, monthly appropriation, in percentage, of the total of the expenses with benefits divided by the total of expenses with the payroll.

2.17. Satisfaction of the users, class D, annual evaluation in a survey with the employees related to the working conditions.

3. “Users”

The objective was to get the vision of the user of the rendered service, by using 04 procedures: opinion survey; survey on the conditions of the trip for the planning of the net; implantation of communication channels; verification of occurrences of security with users.

3.1. Opinion Surveys

Surveys with a sample of users will have to be effected, gotten by using an appropriate statistic methodology, where they express their opinions on the quality of the rendered service. So, the objective is to evaluate the quality of the service, according to the point of view of who uses the transport. They will be carried through by the Administration.

The evaluation will be quantified using a scale of answers presented to the people being surveyed (very good, good, fair, bad, very bad). The results will be expressed percentually, serving as a complementary indicator to the most objective operational performance indexes.

The attributes of service quality will be:
Parameters for defining and inspecting adequate public road transport passenger services in Brazil: verification of the juridical scope and bidding/contracts to date

- availability of the transportation/accessibility;
- comfort (carrying capacity of passengers, available equipment in the interior of the vehicle);
- rapidity;
- safety (operational and public);
- conservation of the vehicle (cleanness, general state of conservation of the vehicle);
- service of the operators;
- performance of the operator;
- reliability/regularity of the transportation;
- availability of the information;
- tariff;
- conditions of the integration (Waiting time between a conduction and another, conditions of the transference equipment, cleanness, capacity of passengers, information, integrated tariff);
- general evaluation;

Since they deal about the implantation of a new system, the quantitative surveys will be preceded of a qualitative survey, in which it will search to identify the criteria that the proper users use to judge the quality of the service of transportation offered, that not always coincide with the technical parameters of performance which are used by the operating companies and by the management agencies. The survey of evaluation of the services also intends to detect the degree of importance attributed for the users to each aspect of the service in the formation of the general image of the service, in order to allow the improvement of those aspects that most influence the public opinion.

Finally, the evaluation index will be obtained by means of the difference between the addition of the weighed percentages of answers with positive evaluation (very good-VG and good-G) and the addition of the weighed percentages of answers with negative evaluation (bad-B and very bad-VB), as formula below (the percentage of neutral/fair evaluation is disdained):

$$\text{Index of Likert} (\%) = \{ (2 \ VG + G) - (2 \ VB + B) \} : \{ (2 \ VG + G) + (2 \ VB + B) \}$$

3.2 Surveys on the conditions of the trip for the planning of the net
The characteristics of the trips origin/destination taken by the population in the collective transports will be known by means of secondary data, obtained, for example, in surveys O/D of the Subway and in operational surveys. It is not about the user expressing his or her opinion on the service but about informing how effectively was the condition of the trip. These will have to be collected: -total time of the trip; -time of access to the first conduction; -nº and type of transferences; - waiting time between a trip and another.

3.3 Communication Channels
They are the open ways of contact so that the population expresses its claims, requests and suggestions about the rendered service. All the communication channels will have to receive the requests from the population and to direct them to the competent areas and to the concessionaires for the appropriate steps. After that, they will give a feedback of the answers to the user. The communications will be classified, will receive a standardized statistical treatment between all the channels and will compose monthly and annual reports, allowing in
such a way a general vision on the service quality, its positive and negative aspects, and also
the identification of located problems (in lines, operators etc). Besides, based on this
information, the Administration will inform to each concessionaire the problems indicated by
the population, requesting the improvement of the service. The indicator to be collected by
the set of the channels is of 100 thousand carried passengers per total number of claims.

The Administration will make available the following communication channels:
• Telephone exchange: for information on the service of transport and service of requests and
claims on the service;
• Suggestion Box: channel that will congregate all the written manifestations of the
population;
• Internet: channel open on the page of the Public Power;
• Groups of Region Service in the sub city halls, composed of representatives of the City
Department of Transportation;
• City Council of Transport and Transit, composed of representatives of the civil society
without bond with the transport agencies.

The concessionaires will make available their own channels of relationship with the users
(information and claims), giving adequate treatment to the communications that come from
these channels, inquiring the facts stated by the users and correcting the deficiencies. For
that, the concessionaires will apply standardized statistical treatment to the communications
of the users, adducing periodic reports, in order to locate problems and to solve them quickly.

3.4 Users’ Safety Incidents
Amongst the many conditions of the service quality, the physical integrity of the users during
the trip is one of the most primordial elements and its breaking constitutes extremely serious
fact. Thus, beside the other indicators, 2 indicators relating to the condition of the user’s
safety had been considered:
- Index of victims of bus accidents: 100 thousand carried passengers divided by the nº
of victims of accidents;
- Index of public safety incidents: 100 thousand carried passengers divided by the nº
of victims of public safety incidents.

4. “Maintenance and Inspection Processes”
To complement the procedures of evaluation of the service quality, indexes of operational
performance of the vehicles which render the service, had been defined, as well as the
maintenance of the fleet of vehicles, conditions of the depot facilities and physical-
administrative general structure of the maintenance park.

The concessionaires will have to present plans of preventive maintenance for the vehicles of
the fleet, contemplating at the very least the lines of direction and pertinent manuals of the
manufacturers of the vehicles, legislation, norms and regulations, per vehicle model. The
plans will have to be analyzed by the Administration and will contemplate the obligatory
established exchange, per operated kilometer, of the items related to the safety and levels of
emissions of the vehicles, such as: shock absorbers, brake valves, brake ratchets, compressor,
steering box, steering lever shaft, fuel pump and injectors, clutch system, filters, oils, additives etc.

After 06 months of the signature of the contract, all the maintenance activities will have to be described in technical procedures and will have to be allowed free access of the Administration to such procedures, during the accomplishment of the technical auditorships. Reports containing results and general indexes of maintenance will have to be elaborated and directed to the Administration, when requested. It will be up to the concessionaire to make available and to keep minimum infrastructure for accomplishment of the inspections in the dependences of the depot. Beyond the plans of preventive maintenance of the fleet, the concessionaire will have to keep updated diverse indicators of quality and evaluation of services (such as: reliability of the fleet; conservation and cleanliness of the vehicle; emission of pollutants; fleet inspection), exhaustingly specified / detailed in the edict conditions (not reproduced here).

5. “Technical-Administrative Processes”

It was foreseen that the Administration will effect periodic verifications of the processes that embrace the organization and the production of the trips carried through in the system. The analyses will be accomplished by sample, without previous acknowledgment to the concessionaire. They will involve gauging of diverse documents, technical reports, programs, processes, tools etc.

It was established that a method of composition of the index of general quality of the collective transportation Services (IQTC) will be defined. The several pointed indicators will have to be compared with the settled values, which represent the quality reference standard that the concessionaire will establish for the service. The values of each indicator will be transformed into a grade from 0 to 100, in function of their variation in relation to the reference standard, expressed by means of values previously pointed.

The IQTC will have to be calculated by means of balancing of the grade of each indicator, by relative weights that reflect the importance of each attribute with moderation. This process will be left to the judgement of the Administration, who will have present it to the concessionaire in the stated period of 30 days from the beginning of the operation of the system. The IQTC will work as a parameter for the establishment of a "ranking" among the concessionaires, where the productivity results will have to cause alterations in the global revenue generated by each concessionaire.

It must be stood out, finally, that the licitation in screen is integrant part of the profound study of management of the municipal public transportation, with the presence of interconnection of its several ways, not separated of its metropolitan characteristics.

V. CONCLUSION

Proper service must be understood as an indetermined legal concept, being importat for the concessor power to need it in each concrete situation, for the establishment of objective
Parameters for defining and inspecting adequate public road transport passenger services in Brazil: verification of the juridical scope and bidding/contracts to date

parameters, indexes or other instruments of quality evaluation and measurement of the quantity of rendered service, parameters that are function of the nature and the circumstances of their rendering, under appropriate technical-scientifical rules, not existing another form of controlling the performance of the renderer of the service.

The defining technical studies of the analyzed licitations had had the concern of the definition of parameters for the gauging of the adequateness of the public services to be rendered. This work did not intend to identify what was not achieved face to the legal definitions, nor to weave comparisons between the parameters, also for the difference of structure to be demanded for each city, in result of the complexity of the public service to be hired.

Despite, in fine, one cannot forget that the due follow-up of the execution of the concession contracts is what will allow the verification of the existence of accurate/correct election of adequateness parameters and if there will be necessary the inclusion of others or the alteration/exclusion of those already contractually defined.

BIBLIOGRAPHICAL REFERENCES


ARAGÃO, Joaquim José Guilherme de, BRASILEIRO, Anísio, LIMA NETO, Oswaldo Cavalcanti et alli (2002). “Construindo modelos de relações institucionais e reguladoras no transporte público urbano”. Revista dos Transportes Públicos, Ano 24, 1º trimestre, São Paulo, Brasil, ANTP.


