Forum: Practical Perspectives

Comparison of costs with car drivers in a federal university: public servants vs outsourced professionals

Luiza Barbosa Caldeira ¹
Pedro Zany Caldeira ¹

¹ Universidade Federal do Triângulo Mineiro, Uberaba / MG — Brazil

This research aimed to verify if outsourcing driving services is economically advantageous over the maintenance of car drivers in the condition of federal public servants. The analysis comprised a period of 5 years, from 2013 to 2017, with the two types of employment contracts (public servant and outsourced car driver), at the Universidade Federal do Triângulo Mineiro (UFTM). The case study was based on bibliographical and documentary research to compile the necessary data for the comparison. The results showed that outsourcing involves a reduction of annual costs and that the high costs related to car drivers that are public servants results from the benefits included in the servants’ remuneration package, according to Law 8112 (1990). The decision for outsource certain services, however, must also take into consideration the replacement of labor, quality of service, and pensions.

Keywords: costs; public servant; outsourcing; administration.

Comparação de custos com motoristas em universidade federal: servidores públicos vs terceirizados

Esta pesquisa teve por objetivo verificar se a terceirização de serviços é economicamente mais vantajosa do que a manutenção de servidores públicos federais no cargo de motorista. A análise compreendeu um período de 5 anos, de 2013 a 2017, com os 2 tipos de mão de obra, na Universidade Federal do Triângulo Mineiro (UFTM). O estudo de caso se baseou em pesquisa bibliográfica e documental para a compilação dos dados necessários para a comparação. Os resultados demonstraram que para o cargo de motorista, a terceirização envolve uma redução de custos anuais e que os altos custos verificados nas folhas de pagamento dos servidores decorrem, principalmente, dos adicionais e auxílios aos quais têm direito, de acordo com a Lei n. 8.112 (1990). Porém, quanto à decisão de terceirizar determinado serviço, deve-se considerar, ainda, a reposição de mão de obra, a qualidade do serviço e as aposentadorias.

Palavras-chave: custos; servidor público; terceirização; administração.

Comparación de costos con conductores en universidad federal: funcionarios públicos contra subcontratados

Esta investigación tuvo por objetivo verificar si la subcontratación de servicios es económicamente más ventajosa que el mantenimiento de funcionarios públicos nacionales para el cargo de conductor. El análisis comprendió un período de 5 años, de 2013 a 2017, con los 2 tipos de mano de obra, en la Universidad Federal do Triângulo Mineiro (UFTM). El estudio de caso se basó en investigación bibliográfica y documental para la compilación de los datos necesarios para la comparación. Los resultados demostraron que para el cargo de conductor, la subcontratación implica una reducción de costos anuales y que los altos costos verificados en las nóminas de los funcionarios resultan principalmente de los valores adicionales y ayudas a que tienen derecho, de acuerdo con la Ley n.o 8.112 (1990). Sin embargo, en cuanto a la decisión de subcontratar determinado servicio, se debe considerar, además, la reposición de mano de obra, la calidad del servicio y las jubilaciones.

Palabras clave: costos; funcionarios públicos; subcontratación; administración.
1. INTRODUCTION

The year 2017 was a milestone in the history of outsourcing in Brazil, due to the approval of Law no. 13,429 (2017), amending provisions on temporary work and also “regulates labor relations in the company providing services to third parties.”

The new law has brought about many discussions on the outsourcing, mainly on its release in the core activities of the borrower services.

With the possibility of outsourcing the core activities, one realized the need to ascertain whether outsourcing, up to now performed only in non-core activities, is indeed advantageous to the public administration.

For better comparison and further analysis of the information collected, it was analyzed the position of the driver at the Federal University of Triângulo Mineiro (UFTM) for coexisting drivers on CLT and statutory regimes, the latter governed by the Law no. 8,112 (1990).

One of the main reasons that has been considered for outsourcing is to reduce direct costs of effective labor, with the possibility to reallocate these resources for more important activities, in order to generate competitive advantages (Costa, 2017; Farrell, 2010; Stein, E. Zylberstajn, & H. Zylberstajn, 2017).

Complementary Law no. 101 (Fiscal Responsibility Law [LRF], 2000), which provides cost control, endorsed the need for public management is guided by conscious and optimal use of resources, always seeking to bring benefits to the population.

However, it is clear that the lack of studies focused on outsourcing in the public sector, from the point of view of costs, makes it difficult for the public administrator to reach his goals, since the allocation of public resources directly impacts the services offered to society.

The scarcity of studies on this issue was verified by research conducted in the SciELO base, because the search for “outsourcing” and “costs” generated 4 results; “Outsourcing” and “public administration” produced 13 results; “Server” and “public administration” produced 20 results; and finally, the search for “public servant” and “cost” generated 1 result. Among the information obtained, issues such as performance indicators, motivational factors and contracting models were included; however, no finding regarding the object proposed.

Thus, given the scarcity of comparative studies of the economic and financial impact on direct hiring of federal employees and outsourcing services, it was decided to carry out this comparison in a function that would more easily enable to collect concrete and comparable data of these two hiring formats. Apart from the function to study, in particular the driver, there was also the concern to collect data with a relatively wide time frame, five years in this case, in order to dilute any individual or episodic economic and financial costs and to realize the cost trends in each format analyzed.

Thus, this study compares costs between direct hiring of drivers and the outsourcing of this service. The following research question derives from this issue:

- Will outsourcing the driver service have lower costs than the direct hiring of servants to perform it in UFTM?

The aim of this study was to determine whether outsourcing services is economically more advantageous than the maintenance of federal civil servants in charge of driver by comparing the
average annual costs of outsourced work and the statutory public servant. The specific objectives were: a) list the costs of UFTM with the outsourcing of labor contracts (contract object: driver); b) analyze the labor histories of the servers with a driver function, in order to verify his monthly time actually worked; c) list the costs of UFTM with the payroll of the servants with a driver function; d) compare the costs of public servants with the outsourced ones.

The provision of outsourced services is considered a reality in the globalized world and has helped create jobs in several countries (National Confederation of Industry [CNI], 2016). Based on this information and several authors who mention the cost savings as a decisive factor for the outsourcing option, there is the hypothesis that the provision of outsourced services is more advantageous to the public administration in terms of costs, compared to the effective servant.

In view of the above, it was used the bibliographical and documentary research, checking materials published on the subject, legislation in effect, outsourcing contracts, reports on the remuneration and labor history of the servants.

After this introduction, the article is divided into four sections: a) theoretical background; b) methodology; c) analysis of the results and discussions; d) final considerations.

2. THEORETICAL BACKGROUND

At first, it is necessary to define the terms non-core activity and core activity. According to the Decree-Law No. 5452 (Consolidation of Labor Laws [CLT], 1943), art. 581, § 2, main activity (ie, core business) is that “characterize the product unit, operation or ultimate goal.” When verifying the lack of concept of non-core activity in legal texts, it is noticeable that the separation among the activities of certain organization is not always an easy task (Nunes et al., 2017). And so, with the combination of services related to non-core activity to the security services, maintenance and cleaning, in Precedent 331 of the TST, it is inferred that the term is related to the activities not inherent to the ultimate goal of the organization.

Outsourcing is understood as the process of transferring part of the activities of a particular organization to another (Stein et al., 2017).

Costa (2017) believes that one of the main reasons for outsourcing to be considered competitive advantage is the cost savings with the work, due to the exemption of the payment management of the effective servant.

Sako (2014) also points out that outsourcing has been considered a solution to the need for efficiency and cost reduction of public services provided by different governments.

However, Hodge (2000 as cited in Alonso, Clifton, & Dias-Fuentes, 2017) believes there is a lack of evidence to the logic that the cost savings in contracts will mean a reduction of overall costs of the government.

Alonso et al. (2017), when evaluating the effects of outsourcing in the public sector from 25 countries of the European Union, in the period from 1990 to 2011, realized that outsourcing services, in general, not helped to reduce government costs, as the example of the United Kingdom, that in this period outsourced about 50% of its final services, keeping the growth of government costs.

Thus, it is seen that there is no consensus on the benefits generated by outsourcing, and whether there really is cost reduction.
In Brazil, engaging third parties to perform certain services of the public administration is possible since 1967, but without the inclusion of the term outsourcing.

Due to lack of relevant legislation, since 1993, the Precedent 331 of the Superior Labor Court (TST) sought to guide the provision of outsourced services.

In response to the legislative gap, the former president Michel Temer signed the Law no. 13,429 (2017), which defines the relations of outsourced work. Complementing this law, it was promulgated the Law no. 13,467 (2017), in order to adapt the legislation to future working relationships.

As CLT (1943), as amended by Law no. 13,467 (2017), regulating the labor law, the Law no. 8,112 (1990) also provides for labor rights relevant to the server invested in civil office of the Union, autarchies or federal public foundations. Since the enactment of the legal provision mentioned above, rights and duties were established to civil servants, including the working relation.

It can be understood that they are covered by the two regimes, albeit in different ways: a) bank of hours; b) determining a workload; c) night-time; d) severance pay indemnity fund (a Brazilian labor security fund) (FGTS); e) transportation allowance; f) food assistance; g) licenses (maternity, paternity, wedding, death); h) union contribution; i) and wage rise.

The benefits covered only by the statutory regime are: a) licenses (training, family illness); b) leave (to another organ, stricto senso Post-Graduation); c) birth assistance; d) election granting; e) special time for handicapped; f) recesses; and g) optional days off.

On costs generated by the hand of effective labor force (civil servants), Law no. 8,112 (1990) also features in its art. 185, § 1, that “retirements and pensions shall be granted and maintained by agencies or entities to which the servants are linked, subjected to the provisions of arts. 189 and 224”.

Scharf, Borgert and Richartz (2011) believe it is imperative that the manager has information about costs, because taking a wrong decision by lack of data may jeopardize the stability of the organization.

Seeking to improve the efficiency and performance in the public administration, one saw the need to get real information on the costs arising from government actions (Rezende, Cunha & Bevilacqua, 2010). Xavier Queiroz, and Miranda (2013) complement that, with the coordination of human, material resources and assets, to the needs presented by the society, it is clear the need to search for efficiency, efficacy and effectiveness in the use of public resources.

3. METHODOLOGY

This research consisted of a case study, with comparative and quantitative approach. The study was conducted with the UFTM driver’s function, using detailed data for five consecutive years on economic and financial impacts of both servers and outsourced. For comparison, the information gathered was from 2013 to 2017, comprising two contracts for the provision of transport services. Due to the small institution server board with the driver function, information was collected from 4 servers who agreed to participate in the study. The analysis consisted of 10 and 13 outsourced service working places, due to additions and deletions in the contractual period.
Thus, the study had the necessary and sufficient information to clarify, as to this function and this institution, whether the outsourcing services, in fact, represents a reduction of economic and financial costs compared to hiring servers, as proposed by Costa (2017) and Sako (2014) or, conversely, the increase of these costs, such as reported by Alonso et al. (2017) in a study involving 25 countries of the European Union.

The information related to outsourcing contracts were obtained on application to the Administration Dean (PROAD) of UFTM.

After the consent of the participating servers, data from labor history and payrolls were asked to the Dean of Human Resources (PRORH) of UFTM.

Due to the difference of the amount of hours worked weekly (servant= 40 hours; outsourced= 44 hours), besides the fact that weekly working hours be distributed from Monday to Friday, it was stipulated that the working day of each outsourced is equal to 8 hours and 48 minutes, while each server has the equivalent of 8 hours.

In order to enable the cost comparison it was necessary to: a) determine the number of working days of the period analyzed; b) calculate the average cost per hour of the servant and the outsourced; and finally, c) calculate the average annual costs of the outsourced and the servant.

It was decided not to account for overtime and night shift premium, as the comparison would be based on “usual” hours of work (40 or 44 hours), whereas such situations are extraordinary.

It was also excluded the bonus for course or contest participation, because of the sporadic and optional values, given that the work in courses and contests is out of the working time and the scope of the work - the servant chooses to participate in the extra activity.

Also, costs regarding travel allowances were excluded, as the daily indemnity amounts paid to the outsourced are the same amounts paid to the servants, according to the Decree 6,907 (2009).

It was decided to account for the costs for the additional payment for length of service of the servants, even with the withdrawal of the benefit, since it is their right.

The servant costs that characterize the sample include: a) basic salary; b) food assistance; c) transportation allowance; d) vacation; e) the bonus (13 salary); f) bonus function; g) additional of educational management; h) permanence allowance; i) incentive for qualification; j) supplementary health insurance; k) preschool assistance; el) birth assistance. For calculations, one used the gross total remuneration.

Outsourcing costs include, according to cost spreadsheets and pricing (Normative Ruling no. 5, 2017.): A) basic salary of the category; b) benefits (food, transportation, life insurance and health insurance); c) uniform; d) social and labor charges; e) 13 wage bonus; f) vacation; g) maternity leave; h) provision for termination; i) replacement of absent employee; j) overhead costs; k) taxes; and l) profits.
4. ANALYSIS OF RESULTS AND DISCUSSIONS

Table 1 shows the annuals of each of the 4 servants in the period analyzed.

| Servant | Year     | 2013     | 2014     | 2015     | 2016     | 2017     |
|---------|----------|----------|----------|----------|----------|----------|
| A       | 2013     | 59479.37 | 63130.11 | 66886.52 | 73276.61 | 83921.51 |
|         | 2014     | 54875.94 | 61448.75 | 67095.89 | 70918.18 | 79101.10 |
|         | 2015     | 61231.29 | 67178.31 | 69213.28 | 90037.47 | 88106.18 |
|         | 2016     | 46193.13 | 50406.11 | 55930.57 | 64834.38 | 72542.59 |
| D       | 2017     | 221,779.73 | 243,163.28 | 259,126.26 | 299,066.64 | 323,671.38 |

Source: Elaborated by the authors.

It is observed that the cost with the servants are growing from year to year - and are higher than the inflation rate in the period (average growth of costs 10.99%, compared to the official rate of average inflation in the country of 7.32% , according to the Brazilian Institute of Geography and Statistics - IBGE).

Table 2 shows the annual costs of a service station - as there is no variation in the cost among the service stations.

| Year | Cost   |
|------|--------|
| 2013 | 38228.02 |
| 2014 | 40461.70 |
| 2015 | 43874.70 |
| 2016 | 48467.65 |
| 2017 | 52773.92 |

Source: Elaborated by the authors.

Regarding the costs of each outsourced position, it is observed they are growing in the period, with an average increase also below the average of the official rate of inflation in the country (in this case, 10.84%), but below the average growth rate of cost with the federal servants who perform the same work.
After data processing, it was found that the average annual cost of the servant (in the five years), according to Table 3, is R$59,210.63, while the average annual cost of the outsourced services office is R$42,803.67. Thus, it was found that, in the driver's function in UFTM, maintaining a server is R$16,406.96 more expensive than hiring outsourced services, resulting in 27.71% cost reduction. Moreover, the growth trend of costs is higher in the case of the service be performed by federal servants, compared to outsourcing the service.

**TABLE 3**

| Servant | Outsourced | Difference |
|---------|------------|------------|
| 59,210.63 | 42,803.67  | 16,406.96  |

*Source: Elaborated by the authors.*

Table 4 shows, for the year 2017, the average monthly cost of the outsourced service, the real servant (servants analyzed) and, also, the monthly cost of a hypothetical servant at the beginning and end of his career. The hypothetical server costs used for comparison were the minimum rights of the servant: a) basic salary; b) Christmas bonus; c) vacation; d) supplementary health insurance; e) food assistance; f) transportation allowance - and, for the servant in the end of career, the basic salary is accounted for all possible functional progressions.

**TABLE 4**

| Outsourced servant (real) | Servant (hypothetical) |
|---------------------------|------------------------|
| Begginning of career (P11) | End of career (P29) |
| 5,604.71 | 6,743.15 |
| 2,927.10 | 5,095.41 |

*Source: Elaborated by the authors.*

Through this comparison, it can be seen that, in theory, the servant (hypothetical) would be cheaper than outsourcing the service. However, this statement is not given as true, as the federal civil servants are entitled to several benefits, according to the Law no. 8,112 (1990), which resulted in the cost of the servant (real) higher than the servant (hypothetical).

In addition to the comparisons, this results analysis should be guided by the following premises: a) labor force replacement; b) indirect costs relating to the areas of human resources, supervision, payment and legal; c) the costs relating to retirees and pensioners; and d) quality of service.

The servant is entitled to different types of licenses and legal leaves; however, this occurs without the possibility of replacement in the period of absence. In contrast, there is provision of this replacement
for hiring outsourced services. In case there is no replacement, the value of the period is deducted in the due payment.

The lack of replacement may be indicated as one of the major reasons for the discrepancy among the costs compared, since there is a reduction in working days, with no loss of payment and, consequently, there is an increase in the cost of hours worked.

In order to check the reduction of days worked, the average number of days worked per year in the period was calculated (Table 5).

| Tables 5 | Average of Days Worked/Year |
|----------|-----------------------------|
| Servant  | Outsourced                  |
| 189      | 238                         |

Source: Elaborated by the authors.

It is found that, on average, the servant worked at about 49 days less than the outsourced each year (including holidays, optional days off, recesses and legal leaves), generating losses in terms of service to the institution.

| Tables 6 | Average Cost for Days Not Worked Servant/Year |
|----------|-----------------------------------------------|
| Days not worked | Day cost (R$) | Total cost (R$) |
| 49        | 313.75      | 15373.75       |

Source: Elaborated by the authors.

The cost of the servant working day (Table 6) was obtained by multiplying the average value of the servant hour time in quinquennium by the work hours/day of the servant (8 hours). Later, it was obtained the average annual cost of the servant’s payroll referring to days not worked.

In comparison, it could be considered and added to the calculations, as indirect costs of the servants, the amounts spent with the human resources staff, including payment sectors, training, Servant Healthcare Attention Center (NASS) and others. However, it was decided not to consider these costs, as it were found to be equivalent costs in outsourcing the inspection areas, payments, contracts and legal, and now they cannot be accounting, as the inspection area of the institution is still under structuring process.

It is understood that the cost with retirees and pensioners cannot be classified as indirect costs to the servant; however, according to the Law no. 8,112 (1990), art. 185, § 1, “the retirement and pensions will be granted and maintained by agencies or entities to which the servants are linked, subject to the provisions of arts. 189 and 224”, and, therefore, are accounted for in the budget of UFTM.
Thus, retirees and pensioners (servants) are still costs expended by the university, while there is no cost to the institution regarding the outsourced retirees and pensioners, since, in addition to not having any employment relationship, such situations shall be borne the National Institute of Social Security (INSS).

Still an important item to consider for making a decision on the option of outsourcing or not certain service, there is the quality of services, which, to the detriment of the overall objective of the study is the comparison of labor costs, it was not taken into consideration.

5. FINAL CONSIDERATIONS

The labor force outsourcing is also gaining momentum in the public sector. According to Valença and Barbosa (2002), opting for outsourcing is related to quality, competitiveness and productivity.

According to Sá, Bomtempo, and Quental (1997 as cited in Valença & Barbosa 2002), the gain of outsourcing strength refers the need for rationalization of resources, redefinition of operations and functioning with downsizing and structural flexibility of businesses.

However, what is seen so far, in seeking literature about outsourcing, is that authors around the world are still divided and present the uncertainty of cost reduction as one of its benefits to the public sector, while Brazilian authors point out such reduction for granted; however, still with no in-depth studies.

The cost comparison for the UFTM driver function showed that, with outsourcing, there was a reduction of costs of approximately 28% per function/position and the servant only becomes more expensive than outsourced services due to the benefits they acquired by law, and also the non-replacement in the case of licenses and leaves, with such non-replacement generating an average of R$15,373.75 loss to the public coffers. It is worth pointing out that these findings cannot be generalized to all positions and outsourced functions within the public federal administration.

It is understood that the labor force outsourcing of the driver's position/function, from the point of view of costs, is more advantageous for UFTM. It is believed that, for the functions analyzed in this study, it is advantageous to adopt the outsourcing of these services. However, so that the public power can choose to outsourcing or not certain service in a conscious way, decision making should not be based solely on data relating to service costs in a single federal autarchy.

Further studies are necessary to be developed on outsourcing in the Brazilian public sector, in order to provide more relevant information for the institutional or policy maker. Thus, the following proposals for future researches are presented: a) comparison of the quality of the servant service and outsourced through performance indicators; b) comparison of the costs of the outsourced and the servant, using another position/function and deepening in relation to indirect costs in the areas of human resources, supervision, payments and legal; and c) analysis of different types of outsourcing related to transport, such as fleet outsourcing.

Outsourcing services in the Brazilian public administration is here to stay, even because of the legal impossibility of direct hiring servants for some positions/functions at the federal level. Decision-makers, however, need to be aware of all the impacts of their decision to outsource services in terms of cost, quality, efficacy, efficiency and effectiveness.
REFERENCES

Alonso, J. M., Clifton, J., & Días-Fuentes, D. (2017). The impact of government outsourcing on public spending: evidence from European Union countries. *Journal of Policy Modeling*, 39(2), 333-348.

Confederação Nacional da Indústria. (2016). *Estudos de relações do trabalho*. Brasília, DF: Autor.

Costa, M. S. (2017). Terceirização no Brasil: velhos dilemas e a necessidade de uma ordem mais inclaciente. *Cadernos EBAPE.BR*, 15(1), 115-131.

Decreto n. 6.907, de 21 de julho de 2009. (2009). Altera dispositivos dos Decretos ns. 71.733, de 18 de janeiro de 1973, 825, de 28 de maio de 1993, 4.307, de 18 de julho de 2002, e 5.992, de 19 de dezembro de 2006, que dispõem sobre diários de servidores e de militares. Brasília, DF.

Decreto-Lei n. 5.452, de 1º de maio de 1943. (1943). Aprova a Consolidação das Leis do Trabalho. Brasília, DF.

Farrell, M. (2010, September 1). Developing a framework for measuring outsourcing performance. In *Proceedings of the LRN Conference*, Dublin, Ireland.

*Instrução Normativa n. 5, de 25 de maio de 2017*. (2017). Dispõe sobre as regras e diretrizes do procedimento de contratação de serviços sob o regime de execução indireta no âmbito da Administração Pública federal direta, autárquica e fundacional. Brasília, DF.

*Lei n. 8.112, de 11 de dezembro de 1990*. (1990). Dispõe sobre o regime jurídico dos servidores públicos civis da União, das autarquias e das fundações públicas federais. Brasília, DF.

*Lei n. 13.429, de 31 de março de 2017*. (2017). Altera dispositivos da Lei n. 6.019, de 3 de janeiro de 1974, que dispõe sobre o trabalho temporário nas empresas urbanas e dá outras providências; e dispõe sobre as relações de trabalho na empresa de prestação de serviços a terceiros. Brasília, DF.

*Lei n. 13.467, de 13 de julho de 2017*. (2017). Altera a Consolidação das Leis do Trabalho (CLT), aprovada pelo Decreto-Lei no 5.452, de 1º de maio de 1943, e as Leis ns. 6.019, de 3 de janeiro de 1974, 8.036, de 11 de maio de 1990, e 8.212, de 24 de julho de 1991, a fim de adequar a legislação às novas relações de trabalho. Brasília, DF.

*Lei Complementar n. 101, de 4 de maio de 2000*. (2000). Estabelece normas de finanças públicas voltadas para a responsabilidade na gestão fiscal e dá outras providências. Brasília, DF.

Nunes, V. S., Jr., Zochun, M., Zockun, C. Z., & Freire, A. L. (2017). *Enciclopédia Jurídica da PUCSP*, tomo II. São Paulo, SP, Pontifícia Universidade Católica de São Paulo.

Rezende, F., Cunha, A., & Bevilacqua, R. (2010). Informações de custos e qualidade do gasto público: lições da experiência internacional. *Revista de Administração Pública*, 44(4), 959-992.

Sako, M. (2014). *Technology strategy and management: the business of the State*. Communications of the ACM, 57(7), 28-30.

Scharf, L., Borgert, A., & Richartz, F. (2011). Análise estatística dos custos indiretos de produção: uma contribuição ao estudo do “custo exato”. *Revista de Contabilidade e Organizações*, 5(12), 136-156.

Stein, G., Zylberstajn, E., & Zylberstajn, H. (2017). Diferencial de salários de mão de obra terceirizada no Brasil. *Estudos Econômicos*, 47(3), 587-612.

Súmula n. 331 do Tribunal Superior do Trabalho. (2011). Contrato de prestação de serviços. Retrieved from http://www3.tst.jus.br/jurisprudencia/Sumulas_com_indice/Sumulas_Ind_301_350.html

Valença, M. C. A., & Barbosa, A. C. Q. (2002). A terceirização e seus impactos: um estudo em grandes organizações de Minas Gerais. *Revista de Administração Contemporânea*, 6(1), 163-185.

Xavier, A. E., Jr., Queiroz, D. B., & Miranda, K. F. (2013, novembro). Demonстраção do resultado econômico e eficiência no setor público: uma avaliação do resultado econômico do curso de ciências contábeis de uma universidade pública federal. In *Anais do 20º Congresso Brasileiro de Custos*, Uberlândia, MG.
Luiza Barbosa Caldeira

https://orcid.org/0000-0002-8191-8862
Master in public administration from the Federal University of Triangulo Mineiro (UFTM). E-mail: luizabarbosa.caldeira@hotmail.com

Pedro Zany Caldeira

https://orcid.org/0000-0002-4662-4682
Associate Professor of the Federal University of Triangulo Mineiro (UFTM); PhD in Information Management from Universidade Nova de Lisboa. E-mail: pedrozanycaldeira@gmail.com