Importance-frequency matrix: proposition of a tool to compare services in accounting organizations

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Abstract
This research presents a tool to compare services in accounting organizations to evaluate their competitiveness. The tool includes a roll of services, identifies both the importance and frequency, and allows a comparison between different companies considering mandatory and classification of services.

Keywords: accounting organizations, importance-frequency matrix, importance-performance matrix, services management

Introduction
In a complex and competitive economy services are essential, stating as a factor that contributes to connect economy sectors to end consumer. Services are essential and fundamental to any economy development, and they are part of a globalized world (Fitzsimmons and Fitzsimmons, 2005). Based on that, service sector stands out in developed countries economy, highlighting the increase of employment through labor and wealth creation. In Brazil, service sector has also increased its participation following the same trend of the globalized world (Corrêa and Caon, 2011).

Federal Accounting Council (CFC) released in 2015, January that the total active accounting organizations in Brazil were about 31,112. Of this total, 21,807 are companies, 6,211 are entrepreneurs, 1,978 are micro individual entrepreneurs (MIE), 1,116 are individual companies with limited liability (ICLL). In Brazil, there are 507,926 active professionals (accounting technicians and accountants). Of this total, 79,923 work in northeast region, which corresponds to 15.73% of Brazil's total. Rio Grande do Norte state counts with 6,097 active professionals (accounting technicians and accountants), corresponding to 1.20% of Brazil's total and 420 accounting organizations, corresponding to 1.35% of Brazil's total (CFC, 2014). In USA, American Institute of Certified Public Accountants (AICPA) reported, for 2014, there are over 400,000 active members registered in that with the Agency (AICPA, 2015).

Rodrigues and Lemos (2009) address the supply of new products and services encouraging accounting managers to seek and define strategies to operate in competitive
market. Accounting services portfolio is not limited to the implementation of traditional companies records, preparation of tax returns, bookkeeping, labor and tax, but expanded to advisory services, financial expertise, financial auditing, consulting, and to meet the customer needs.

Thus, an accounting organization is a company formed by accounting professionals, responsible for obtaining, preparation and disclosure of financial information, through services, which can be both to individual as for legal person (Figueiredo and Fabri, 2000).

Micro, small and medium companies need accounting advice. From that point on, many doubts on what services will be provided by professional accountants may appear (Umbelino, 2008).

From this context, this research aimed to present a comprehensive list of accounting services, their classification according to the services offer, as well as to provide a tool for assessing the competitiveness of accounting organizations.

Theoretical Framework

Service Offering

Grönroos (2009) argues that the services offer keeps a relationship with the perception of quality in providing service in the customer's view. The same author (2009) addresses the group of services is divided central service, capacitors services or facilitators and improvement or support services. Central service is the reason why the organization is on market. The capacitors or facilitators services are essential services for the use of the central service, they are additional. Improvement or support services help add value, aiming to differentiate.

Zeithaml and Bitner (2003) conceptualize the provision of services as the items in the provision of services geared to add value for customers. Services is composed of a package, which is composed by a basic product and additional elements. The basic product is related to the main and specific activity of the customer. The additional elements to increase the package, and bring services to differentiate them.

Nóbrega (2013) proposes the provision of service as central service, complimentary service and supplementary service. Central service is the reason for the search, the primary issue. Complimentary is the service without which there is no central service. Supplementary service is used to add, working as a plus.

To Teboul (1999), services offer is linked to the decisions facing offer formulation, and it is divided into basic and additional services. Basic services are the range of services offered to the customer, which aims to offer the customer a continuity from beginning to end. Additional services go further basic service highlight in a personalized way.

Lovelock and Wright (2001) address that the service offering is viewed as all items in a service delivery, directed to create value for its customers. In services, the basic product and additional services are displayed. The basic product is the central benefit offered to customers, to meet their unique needs, while the additional elements are seen as the additional benefits that add value and differentiation from basic service. Nóbrega, Santos and Barreto (2014), assessed lawyer's view about services offered and if these services impact on service quality and results of the organization. The survey results showed that
there is a wide range of services available to its customers, however, they are not viewed by the professionals themselves.

When preparing a service offer, one must decide the main items of the service that will be actually provided. The development of the service offer proposes a definition of the service, products and systems that the organization will devise and deliver. The preparation of the offer aims to maximize customer satisfaction in order to reduce costs and improve productivity and competitive advantage (Teboul, 1999). Based on this argument, this paper considers competitiveness directly associated to the services offer, that is, the greater the offer, more competitive will be considered an accounting organization.

### Accounting services

Once accounting organizations record and analyze accounting information and facts that occur with their clientele (Eckert, 2006), services can be performed through consulting, financial auditing, forensic accounting, economic and financial analysis, cost analysis, tax planning, among others. Within an accounting office itself, there are personal area services (labor), tax (bookkeeping), accounting and other services in the ancillary obligations (declarations) (Figueiredo and Fabri, 2000).

To Carvalho et al. (2011) the authors identified a range of services offered by the surveyed accounting organizations. In the study, a total of 18 services were related, including corporate income tax, payroll, admission / laying off personnel, accounting and tax records, employee records, income tax individual, formation and alteration of companies, accounting advice, consulting, balance sheet analysis, tax planning, account planning, asset control, cost accounting, business valuation, expertise and external audit.

Silva, Avila and Malachi (2012), when researching the matter, showed a total of 13 services offered by accounting organizations, including Income Corporate Tax, Bookkeeping, Bookkeeping Tax, Individual Income Tax, Consulting, Expertise, External audit, labor routines, tax Planning, budget planning, economic and financial analysis, advice, and others.

In Oliveira's research (2009), the results showed a total of 14 services offered by the accounting organizations studied, such as payroll, tax calculations, information for control of the financial situation, information for inventory control, information to control accounts payable information for control of accounts receivable, management accounting, costs, cash flow projection, budget, business plan, strategic planning, information / reports for control of the business, and other.

### Methodology

The research was carried out in four phases: a review in literature on the provision of services and accounting services. A survey of what services are offered by accounting organizations was made, using the literature and accounting organizations websites. From that, a list was identified with 72 accounting services usually offered by accounting organizations. After that, two questionnaires were developed both using Likert scale of 11 points, from 0 to 10. This scale allows a wide variability. The first questionnaire dealt with the degree of importance of each of the services. The second one treated on the provision of
each service, that is, if the searched accounting organization offers the service listed. Both questionnaires were answered by the managers of the surveyed accounting organizations. Data collection occurred with 25 financial organizations located in the city of Natal / RN - Brazil, capital city of a state, with a population of around 800,000 inhabitants and more than 600 financial organizations. Finally, the importance frequency matrix was developed in order to provide a tool for assessing the competitiveness of accounting organizations.

The database was treated to carry out the descriptive tables and application of statistical tests (ANOVA, Spearman test and Tukey) as well as to build Importance-frequency matrix.

Results and discussion

Accounting services and the classification of the services offer

Tables 1, 2, 3A and 3B show the complete list of accounting services as a first result of the research. The next step was to classify the listed services in three groups: central, complimentary and supplementary services.

<table>
<thead>
<tr>
<th>Central service</th>
<th>Central service</th>
</tr>
</thead>
<tbody>
<tr>
<td>66 - Processing and issuance verification balance sheets</td>
<td>67 - Preparation and issue of books: daily and reason</td>
</tr>
<tr>
<td>65 - Processing and issuance of financial statements</td>
<td>42 - Production and transmission of the declaration of economic and tax information of legal</td>
</tr>
<tr>
<td>67 - Preparation and issue of books: daily and reason</td>
<td>40 - Production and transmission of the declaration of federal tax debts and credits (DCTF)</td>
</tr>
<tr>
<td>42 - Production and transmission of the declaration of economic and tax information of legal</td>
<td>44 - Development and income tax return transmission withholding (DIR)</td>
</tr>
<tr>
<td>40 - Production and transmission of the declaration of federal tax debts and credits (DCTF)</td>
<td>45 - Production and transmission of the declaration of the national simple</td>
</tr>
<tr>
<td>44 - Development and income tax return transmission withholding (DIR)</td>
<td>43 - Preparation and transmission of information statement real estate activities (DIMOB)</td>
</tr>
<tr>
<td>45 - Production and transmission of the declaration of the national simple</td>
<td>47 - Issue of the book of calculation of taxable income (LALUR)</td>
</tr>
<tr>
<td>43 - Preparation and transmission of information statement real estate activities (DIMOB)</td>
<td>50 - Bookkeeping entries record book trips and determination of ICMS</td>
</tr>
<tr>
<td>47 - Issue of the book of calculation of taxable income (LALUR)</td>
<td>51 - Book inventory record book</td>
</tr>
<tr>
<td>50 - Bookkeeping entries record book trips and determination of ICMS</td>
<td>49 - Tax book bookkeeping on industrialized products (IPI)</td>
</tr>
<tr>
<td>51 - Book inventory record book</td>
<td>69 - Employee registration</td>
</tr>
<tr>
<td>49 - Tax book bookkeeping on industrialized products (IPI)</td>
<td>37 - Preparation of payroll and issuing paychecks</td>
</tr>
<tr>
<td>69 - Employee registration</td>
<td>22 - Calculation of contract terminations</td>
</tr>
<tr>
<td>37 - Preparation of payroll and issuing paychecks</td>
<td>54 - ITR - tax on rural property - preparation and delivery of internet statement</td>
</tr>
<tr>
<td>22 - Calculation of contract terminations</td>
<td>46 - Preparation and transmission of the public system of digital bookkeeping (SPED)</td>
</tr>
</tbody>
</table>

As confirmed the relations shows 72 services that can be offered by accounting organizations, as listed in Table 1. In this way, no research that relates the provision of services in accounting organizations was not found. In this sense, this research had wider results of that research by Carvalho et al. (2011), Silva, Avila and Malachi (2012), Oliveira (2009). The results showed that the services seen as more important are the core services and additional services. Thus, it is observed that the additional requirements may be an option for those accounting organizations that want to add value to the service and differentiate in competitive market.
### Table 2: Service Offer in accounting organizations - Complimentary services. Source: survey

<table>
<thead>
<tr>
<th>Complimentary services</th>
</tr>
</thead>
<tbody>
<tr>
<td>34 - Typing and analysis of documentation</td>
</tr>
<tr>
<td>30 - Reconciliation of accounting accounts</td>
</tr>
<tr>
<td>71 - Collection service and delivery of documentation</td>
</tr>
<tr>
<td>10 - Calculation and generation of corporate income tax tabs (cit) and social contribution on net income (CSL)</td>
</tr>
<tr>
<td>9 - Calculation and generation of tax guide on goods and services (ICMS)</td>
</tr>
<tr>
<td>8 - Calculation and generation contribution guide to social security financing (cofins) and social integration program (PIS)</td>
</tr>
<tr>
<td>72 - Integrated information system interstate operations with goods and services (SINTEGRA)</td>
</tr>
<tr>
<td>62 - Preparation of monthly information guide (GIM)</td>
</tr>
<tr>
<td>61 - Preparation of annual fiscal information</td>
</tr>
<tr>
<td>60 - Preparation of annual information guide (GI)</td>
</tr>
<tr>
<td>59 - Fill family wage records</td>
</tr>
<tr>
<td>32 - Control of records of employees</td>
</tr>
<tr>
<td>31 - Valley transportation option control</td>
</tr>
<tr>
<td>39 - Timesheet development</td>
</tr>
<tr>
<td>19 - Contribution calculation for the guarantee fund for employees (FGTS)</td>
</tr>
<tr>
<td>24 - Income tax calculation withholding (IRRF)</td>
</tr>
<tr>
<td>23 - Aid-rate calculation</td>
</tr>
<tr>
<td>21 - Calculation of monthly union</td>
</tr>
<tr>
<td>20 - Calculation of union dues</td>
</tr>
<tr>
<td>63 - Vacation receipt preparation</td>
</tr>
<tr>
<td>64 - Preparation and issue of the annual social information (RAIS)</td>
</tr>
<tr>
<td>35 - Make installment debts</td>
</tr>
<tr>
<td>68 - Provide no tax debts (CND) with public agencies</td>
</tr>
<tr>
<td>48 - Closure of undertakings</td>
</tr>
<tr>
<td>1 - Starting a business</td>
</tr>
<tr>
<td>28 - CAT - work accident report - prepared and when an employee has an accident at work and on the path since that is their usual path</td>
</tr>
<tr>
<td>29 - CIPA - internal commission for accident prevention</td>
</tr>
<tr>
<td>57 - PAT - workers' food program</td>
</tr>
</tbody>
</table>

The results indicated that some services offered are considered most important operational, is those services that are part of the monthly routine of accounting organizations. Some of these services are required by Brazilian law, while the least important services are considered specific depending on the segment of activity, form of taxation and sometimes are required. The least frequent services are considered specific depending on the segment of activity or form of taxation.

### Table 3a: Service Offer in accounting organizations - Supplementary services. Source: survey

<table>
<thead>
<tr>
<th>Supplementary services</th>
</tr>
</thead>
<tbody>
<tr>
<td>16 - Diary book authentication RN State board of trade (JUCERN)</td>
</tr>
<tr>
<td>25 - Calculation and analysis of management indicators</td>
</tr>
<tr>
<td>15 - Authentication tax purposes and tax books</td>
</tr>
<tr>
<td>38 - Preparation of DECORATE (supporting income statement of perception)</td>
</tr>
<tr>
<td>3 - Monitoring of administrative proceedings</td>
</tr>
<tr>
<td>13 - Compliance with tax audits the IRS, the State and the city</td>
</tr>
<tr>
<td>26 - Monthly calculation of social security contributions of social security (INSS)</td>
</tr>
<tr>
<td>4 - Monitoring of records in the labour inspection book</td>
</tr>
</tbody>
</table>
Table 4b: Service Offer in accounting organizations - Supplementary services. Source: survey

<table>
<thead>
<tr>
<th>Supplementary services</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 - Meeting the social security and labor inspections</td>
</tr>
<tr>
<td>33 - Conversions and consolidation of balance sheet and financial statements</td>
</tr>
<tr>
<td>7 - Presentations to business executives, performance and risk</td>
</tr>
<tr>
<td>2 - Monitoring of legislation at the Federal level, State and Municipal</td>
</tr>
<tr>
<td>58 - Tax Planning</td>
</tr>
<tr>
<td>14 - Service/orientation to guest doubt</td>
</tr>
<tr>
<td>70 - Representing clients before government agencies</td>
</tr>
<tr>
<td>52 - Study on the economic viability of the business, according to current legislation</td>
</tr>
<tr>
<td>53 - Mergers, splits and mergers</td>
</tr>
<tr>
<td>41 - Preparation and transmission of the declaration of income tax for individuals</td>
</tr>
<tr>
<td>55 - Book case rural activity for farmers - with planning and monthly forecast for payment of annual income tax</td>
</tr>
<tr>
<td>56 - Paper box for professionals (doctors, dentists, lawyers, engineers, etc ...) with forecast for income tax</td>
</tr>
<tr>
<td>27 - Carnet monthly lion to liberal and independent professionals, issuing payment forms of income tax at source</td>
</tr>
<tr>
<td>5 - ADA - environmental declaratory act - preparation and delivery of IBAMA declaration the Internet</td>
</tr>
<tr>
<td>17 - Rural property registration with the IRS and incra</td>
</tr>
<tr>
<td>18 - Professional registration liberals with the INSS, City Hall, etc.</td>
</tr>
<tr>
<td>6 - Permits, licenses, records in professional bodies</td>
</tr>
<tr>
<td>11 - Assistance in managing financial resources, structuring of family businesses and preservation of heritage</td>
</tr>
<tr>
<td>36 - Preparation of the declaration and guides issuance of micro individual entrepreneur</td>
</tr>
</tbody>
</table>

Importance-frequency matrix for accounting organizations

The importance frequency matrix was proposed based on the matrix importance-performance by Slack, Chambers and Johnston (2008). The importance-performance matrix is a tool with a view to assess the quality in relation to expectations and check the gap (Slack, 1994).

Through the tool, it is possible that the companies view the attributes that should be improved thinking in quality for customers. For the development of this matrix, the services are organized according to the performance and the importance given by the client (Negromonte Filho, 2014). In this sense, figure 1 draws a comparison between the matrix importance-performance and the importance frequency matrix.

In figure 1 is the comparison between the importance-performance matrix with the importance frequency matrix, it was shown the position of each service (questions) in the corresponding quadrant. The following figure 2 corresponding to importance frequency array of financial services. As noted by importance-frequency matrix, the results showed that all 72 services were positioned in 3 quadrants (2: Add to differentiate, 3: Maintain or include and 5: Possibly include).
<table>
<thead>
<tr>
<th>Z</th>
<th>Services</th>
<th>Importance-performance matrix features</th>
<th>Importance-performance matrix advice</th>
<th>Importance-frequency matrix features</th>
<th>Importance-frequency matrix advice</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>-</td>
<td>High importance, low performance</td>
<td>Definitely improve (DM)</td>
<td>Few offer what is important (high importance, low frequency)</td>
<td>Include to be differentiated (ID)</td>
</tr>
<tr>
<td>2</td>
<td>18,29, 43,47,49, 56</td>
<td>High Importance, medium performance</td>
<td>Improve (ME)</td>
<td>Some offer what is important (high importance, medium frequency)</td>
<td>Include to be differentiated (ID)</td>
</tr>
<tr>
<td>3</td>
<td>1,2,3,4,6,7,8,9,10,11, 12,13,14,15,16,19, 20,21,22,23,24,25,26,27,28,30,31,32,33,34,35,36,37,39,40,41,42,44,45,46,48,50,51,52,58,59,60,61,62,63,64,65,66,67,68,69,70,71,72</td>
<td>High importance, high performance</td>
<td>Maintain or improve (MM)</td>
<td>Some offer what is important (high importance, high frequency)</td>
<td>Maintain or include (MI)</td>
</tr>
<tr>
<td>4</td>
<td>-</td>
<td>Medium importance, low performance</td>
<td>Improve (ME)</td>
<td>Few offer what has importance median (median Importance, low frequency)</td>
<td>Possibly include (PI)</td>
</tr>
<tr>
<td>5</td>
<td>5,17,38, 53,54,55,57</td>
<td>Medium importance, medium performance</td>
<td>Maintain (MA)</td>
<td>Some offer what has importance median (median Importance, median frequency)</td>
<td>Possibly include (PI)</td>
</tr>
<tr>
<td>6</td>
<td>-</td>
<td>Medium importance, high performance</td>
<td>Maintain or Reduce (MR)</td>
<td>Many offer what has importance median (median Importance, high frequency)</td>
<td>Maintain or include (MI)</td>
</tr>
<tr>
<td>7</td>
<td>-</td>
<td>Low importance, low performance</td>
<td>Maintain (MA)</td>
<td>Few offer what is not important (low importance, low frequency)</td>
<td>Maintain or reduce (MR)</td>
</tr>
<tr>
<td>8</td>
<td>-</td>
<td>Low importance, medium performance</td>
<td>Maintain or Reduce (MR)</td>
<td>Some offer that has low importance (low importance, median frequency)</td>
<td>Maintain or reduce (MR)</td>
</tr>
<tr>
<td>9</td>
<td>-</td>
<td>Low importance, high performance</td>
<td>Maintain or reduce (MR)</td>
<td>Many offer that has low importance (low importance, high frequency)</td>
<td>Maintain or reduce (MR)</td>
</tr>
</tbody>
</table>

*Figure 1: Comparing the importance-performance matrix and the importance frequency matrix. Source: Adapted from Slack’s Matrix (1994)*
The services located on the 2nd quadrant are 4.17% plants, 1.39% and 2.78% complementary are additional. This means that the services positioned in this quadrant are mostly essential services, demand reason. In this quadrant are considered a high importance and a median frequency. Already in service located on the 3rd quadrant are 18.05% plants, 36.11% and 27.77% additional complementary. With this positioning the importance and frequency are high. In this sense the results for this quarter show that mostly the services are positioned to enable the central office without the additional services is usually not possible to use the central office. Services located on the 5th quadrant are 1.39% central, 1.39% and 6.95% additional complementary. For the location of these services the importance and frequency are average. Unlike other quadrants, the results for this quarter show that these services are used to add value or to differentiate, as emphasized (NÔBREGA, 2013).

Figure 2: Importance-frequency matrix of services offered

ID: Include to differentiate; MI: Maintain or include; PI: Possibly include; MR: Maintain or Reduce

Services placed in the 2nd quadrant totaled 6, or 8.33% of the total. Of these, 50% are central services, 16.67% are complementary services and 33.33% are additional services. All these services are considered binding specific, i.e. due to a hive of activity or form of taxation. Therefore, it is recommended to include differentiation (ID). The accounting organizations need to worry about these services in order to differentiate, as some offer what is considered important.
Since the services positioned in the 3rd quadrant totaling 59, or 81.95% of the total. Of these, 22.03% are central services, 44.07% are complementary services and 33.90% are additional services. Regarding the requirement under Brazilian law (state, municipal and Federal), 22.03% are required, 28.81% are not mandatory and 49.16% are required depending on the field of activity or the tax form. In this context these services are offered and considered important by many, it is recommended to keep or include.

Already on the 5th positioned services totaled 7 i.e., 9.72% of the total. Of these, 14.28% are central services, 14.28% are complementary services and 71.44% are additional services. With regard to the requirement, had no service in this quadrant considered mandatory, 85.72% and 14.28% specific binding not required. In this sense, these services offer and has some importance median, possibly it is recommended to include them.

**Conclusions**

This study aimed to present a comprehensive list of accounting services, their classification according to the provision of services and provide a tool for assessing the competitiveness of accounting organizations. This research identified 72 services that an accounting organization can offer to their customers. Therefore, the results showed that by importance-frequency array results showed that all 72 positioned services in 3 quadrants (2, 3 and 5). Services positioned in the 2nd quadrant are 8.33% of the total, with this, it is recommended that the accounting organization should include these services to differentiate. The services in the 3rd quadrant is 81.95% of the total, therefore, it is recommended to maintain or include such services. On the 5th quadrant are services that offer what some have median importance, possibly it is recommended to include these services totaling 9.72% of the total. Regarding the offer of 23.61% services are central services, 38.89% are complementary services and 37.50% are additional services. With regard to the requirement of services under Brazilian law, 56.95% are required specific services depending on the field of activity or tax form, 18.95% are required and 25% are not mandatory. We conclude therefore that like most services positioned in the 3rd quadrant is recommended to maintain or include these services, because of the importance and frequency are high.

As managerial implications, it can be said that, according to the research tool can help assess the competitiveness of the accounting organizations. You can also from the relationship of accounting services proposed by the study, be used to add, reduce or maintain a service. Another important aspect was that the related services were classified according to the provision of existing services in the literature. Thus, the accounting organizations can take advantage of this classification to add value to the client, seeking a comparative analysis of its offer with the competition.

A limitation of this study is due to be located and not having regional or national scope. For this reason, the results are considered to be specific. Therefore, in future studies it is suggested that the coverage is enlarged to be more general results. For future research, we suggest the inclusion of services strategy, in order to compare the offer with the strategy of accounting services organizations.
References


