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Competency mapping: improvement needs of analysts from the area of expertise in accounting at the Federal Public Ministry

Mapeo de Competencias: necesidades de formación de analistas del área de pericia y especialidad en contabilidad en el Ministerio Público Federal

Mapeamento de competências: necessidades de aprimoramento de analistas periciais em contabilidade do Ministério Público Federal

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Abstract

Purpose: The study aims to analyze the skills of expert accounting analysts in the Brazilian Federal Public Ministry.

Methodology: The development of the research was carried out through descriptive statistics, with a quantitative approach. The technique was a survey, from a questionnaire with 37 questions, with a Likert scale. The instrument questions were raised about the importance, the competences and its impact on work performance.

Results: The results indicate that only four skills have satisfactory command of the respondents, and five skills need improvement: continuous training, fraud investigation techniques, writing, legal knowledge and think like a criminal. Behavioral skills were considered more important than the technical. Still, some important skills in the international context had low averages in the Brazilian context.

Contributions of the study: The study allows to know the skills of expert accounting analysts in the Brazilian Federal Public Ministry, considering the aspects of importance, domain and impact on work performance. The results can be applied for the development of training activities in the sample institution as well as to other institutions offering similar picture. The study can also be replicated as a diagnosis for other institutions and frameworks of accounting and forensic professionals, serving as a comparison parameter.

Keywords: Skills. Forensic Accounting. Forensic Accounting.

Resumen

Objetivo: El estudio tiene como objetivo analizar las competencias de los analistas del área pericial contable abarrotados en el Ministerio Público Federal (MPF), de forma a presentar por nivel de importancia aquellas que poseen mayor necesidad de perfeccionamiento.

Metodología: El desarrollo de la investigación ocurrió por medio de la tipología descriptiva, con abordaje cuantitativo. La técnica empleada fue investigación *survey*, a partir de un cuestionario estructurado con 37 cuestiones, aplicados a escala tipo Likert de siete puntos. En el instrumento se plantearon cuestiones sobre la importancia, el dominio de competencias y su impacto en el desempeño profesional.

Resultados: Los resultados indican que sólo cuatro competencias poseen dominio satisfactorio por parte de los encuestados, y que cinco competencias carecen mayor perfeccionamiento: capacitación continuada, técnicas de investigación de fraudes, redacción, conocimiento jurídico y pensar como malhechor. Las competencias de comportamiento se consideraron más importantes que las técnicas. Sin embargo, algunas competencias importantes en el contexto internacional tuvieron medias bajas en el contexto brasileño.

Contribuciones del Estudio: El estudio permite conocer las competencias de los analistas periciales del MPF bajo los aspectos de importancia, dominio e impacto en el desempeño profesional. Los resultados pueden ser empleados para el desarrollo de acciones de capacitación en la institución de la muestra así como para otras instituciones que disponen de cuadro semejante. El estudio también puede ser replicado como diagnóstico para otras instituciones y cuadros de profesionales de pericia contable y forense, sirviendo de parámetro de comparabilidad.

Palabras clave: Competencias. Experiencia contable. Contabilidad Forense.

Resumo

Objetivo: O estudo tem como objetivo analisar as competências dos analistas da área pericial contábil lotados no Ministério Público Federal (MPF), de forma a apresentar por nível de importância aquelas que possuem maior necessidade de aprimoramento.

Metodologia: O desenvolvimento da pesquisa ocorreu por meio da tipologia descritiva, com abordagem quantitativa. A técnica empregada foi pesquisa *survey*, a partir de um questionário estruturado com 37 questões, aplicados em escala tipo *Likert* de sete pontos. No instrumento foram apresentadas questões sobre a importância, o domínio de competências e seu impacto no desempenho profissional.

Resultados: Os resultados indicam que apenas quatro competências possuem domínio satisfatório por parte dos respondentes, e que cinco competências carecem maior aprimoramento: capacitação continuada, técnicas de investigação de fraudes, redação, conhecimento jurídico e pensar como malfeitor. As competências comportamentais foram consideradas mais importantes do que as técnicas. Ainda assim, algumas competências importantes no contexto internacional tiveram médias baixas no contexto brasileiro.

Contribuições do Estudo: O estudo permite conhecer as competências dos analistas periciais do MPF sob os aspectos de importância, domínio e impacto no desempenho profissional. Os resultados podem ser empregados para o desenvolvimento de ações de capacitação na instituição da amostra bem como para outras instituições que dispõem de quadro semelhante. O estudo também pode ser replicado como diagnóstico para outras instituições e quadros de profissionais de perícia contábil e forense, servindo de parâmetro de comparabilidade.

Palavras-chave: Competências. Perícia Contábil. Contabilidade Forense.

1. Introduction

Brazil is the country with the highest per capita processes, which demonstrates the complexity and challenge of the size that is set up and maintain an efficient judicial system, fair and fast, to meet the demand (CNJ, 2011). In this scenario, more and more is present - and necessary - the work of the accounting expert as an aid to justice.

Although they have the same recurrence of the crimes of the traditional criminal law (such as theft and murder), crimes in the highest levels of economic activity (such as embezzlement, corruption and improper conduct) are of less public dissemination and consequently appear less often in the media (Veras, 2006). In recent years, crimes of corruption now have more space in traditional media.

The Federal Public Ministry (MPF), an institution sample field of this study help to counter such violations and acts as holder of the prosecution. He may institute civil investigation, initiate police investigation, request investigation procedures or investigate, under the tutelage of Prosecutors, members of this body.

In a joint operation with prosecutors in MPF, analysts area of expertise specializing in accounting, duly registered, have as basic duties: carrying out expert examinations, inspections and examinations; the collection and analysis of documentary evidence; providing technical information in the form of reports, reports and reports, indicating technical reasons and the methods applied; and acting in administrative and judicial proceedings as an assistant coach (Brazil, 2013).

Given the diversity of prosecutor's actions and considering the breadth of cases of federal jurisdiction, intensifies the importance of research with a sample of professionals responsible for the production of expert evidence, using as the basis of his work scientific knowledge and innovations technology applied (Rodrigues Silva, & Truzzi, 2010).

These analysts need to possess certain skills to carry out their activities, including the intellectual, theoretical and practical knowledge, behavioral skills, and attitudes to the needs imposed by the work performed (Smith, 2014). That said, the aim with this research to answer the question: What are the skills that are most needed improvement by an area of expertise analyst and expertise in accounting of the Federal Prosecutor? Thus, this study aims to analyze the skills of analysts accounting expert area crowded in the Federal Public Ministry (MPF), in order to present those that have the greatest need for improvement by level of importance, domain and impact.

This study is justified in a practical and theoretical way, as the results can reveal a profile of the skills required for the performance of such duties analyst. The study allows to know the skills of expert analysts at MPF under the aspects of importance, domain and impact on work

performance. The results can be used for the development of training activities in the sample institution as well as to other institutions offering similar picture. Correcting deficiencies can provide significant performance improvements by analysts of the accounting expert area. This would accelerate and increase the quality of services provided. Consequently, could improve the quality of public service delivery.

This study does not seek to reveal the operating performance of these professionals, or add items to the literature relating to forensic accounting definitions and accounting expertise. However, applying the terms of the current literature in forensic accounting skills to the sample context. The study can also be replicated as a diagnosis for other institutions and frameworks of accounting and forensic professionals, serving as a comparison parameter.

2 Literature review

Analysts of the Federal Public Ministry (MPF) report directly to the Prosecutors. These professionals work in the first instance before the Federal Judge. When promoted to Regional Attorney of the Republic, they act on appeal before the Federal Court. And in the highest offices of this career, Under Attorney General of the Republic and the Attorney General of the Republic (appointed by the President), act before the Supreme Court of Justice (STJ) and the Supreme Federal Court (STF) [CF, 1988]. The activity of the MPF analyst may be required in any instance.

The MPF is active in causes in which the Constitution sees a federal interest. It can act as a fiscal court of law, civil and criminal. It can also act out of court, for recommendations and promotion agreements by terms of conduct adjustment (Brazil, 2017th). Thus, the MPF may act as prosecutor (Brazil, 1993), and inspection and unbiased.

In order to make the MPF a structured and organized body, in 2012 it began to be held in the modernization agency (Brazil, 2017b). The focus of this modernization was to streamline decision-making and enhance the management of people, materials and resources to the needs of institutional activities, joining the administrative and purposive areas (Brazil, 2017b).

This process of modernization is always seeking an alignment with the institutional strategic planning body that includes vision, mission and values. The guidelines seek to guide the actions of each member, from the perspective of society, internal processes, learning and knowledge (Brazil, 2017b). Regarding the learning and development of knowledge, you can see that are directly related to the search for the development of knowledge, skills and attitudes of members and servers, which is the basis of the concept of skills used in this research

2.1 Skills

The term competence comes from the Latin *competentia*, which means being able (Smith, 2012a). According to the author, this term has, in legal technique, dual application. The first concerns the suitability for which a person can exercise or enjoy a right. And the second is used in the sense of "power" in the sense that the person has legal authority to meet certain acts and deliberate about it.

However, the concept of competence that is explored in this study is in line with the management of people. Initially, McClelland (1973) examined the use of intelligence and aptitude tests in people selection process for positions in an organization, and initiated a debate among psychologists and American administrators on the definition of the term (Fleury & Fleury, 2001).

Subsequently, Boyatzis (1982) defined as a set of competence underlying characteristics of an individual that are related to a higher performance of their duties. Fleury and Fleury (2004) add that one of the senses of the term is the designation of qualifications for a person to perform a certain task. However, the concept is still approached in polysemic way among researchers (McLagan, 1997), being somewhat controversial (Ruas, 2005), because the various areas of knowledge in which the term is used (Shippmann et al., 2000).

It is noteworthy that there are meanings of the term competence without being totally wrong, and the variation is a function of your application. There is no consensus in the literature, but it is possible to establish points of convergence between the different approaches (Smith, 2014). Knowledge, skills and attitudes (CHA) are elements that make up the competence, representing, respectively, the cognitive, psychomotor and affective labor (Carbone, Brandão & Leite, 2009; Durand, 1998; Fleury & Fleury, 2001) in order to add value to people and organizations (Durand, 1998).

This triad of qualities had been exposed earlier, when they were entered in the organizational environment, redefining knowledge as "knowing what and why do"; relates ability to "know how to do"; and associates attitude "want to do" (Brandão, 2009). Magellan and Borges-Andrade (2001) defines knowledge as an organized set of information that, if applied, makes possible the proper performance of a work; skill is the ability to perform work activities appropriate to facilitate the realization of the inherent function tasks; and attitudes are predispositions and the individual's feelings about his work, his business, and organization where he belongs.

Leme (2005) and Reis (2003) classify skills into two major groups: technical and behavioral. The first comprises the qualities that a person needs to perform its role and is expressed by "C" letter (and because they know what to do) and "H" (how to do) CHA acronym. To Nordhaug (1998), technical skills are related to methods and techniques designed to conduct a specific activity. The second group, the behavioral skills, is related to the "A" (want to do) of that acronym. According Leme (2005), this group comprises the actions that a professional needs to demonstrate a competitive edge, impacting on its results. To Pierry (2006 p. 39), are emotional and affective skills, including "the ability to adapt to changes imposed by the organization and deal satisfactorily with the adversities found in the degree of complexity and responsibility changes in the proposed functions." They are interpersonal skills (Nordhaug, 1998). This kind of expertise is related to the ability to cope, effectively, with interpersonal relationships, which includes, in turn, give and receive feedback, with a capacity that is improved with training (Moscovia, 1981).

Behavioral skills become more valuable, it has greater importance in relation to the technical skills to achieve the organizational goals (Smith, 2014). In this sense, Reis (2003) states that recently the interviews for selection of employees are focusing more on the actions and results of the candidates than only in their knowledge and skills.

2.2 Accounting Expert Skills in the Brazilian Context

The word expert, from the Latin *peritus*, means expert, skillful and praised (Mossin, 2013). This professional understands and knows deeply accounting facts due to his knowledge and experience. So is the professional expert able to analyze, interpret and highlight problems, facts and meanings, with clarity and depth (Leitão Junior, Slomski, Peleias, & Mendonça, 2012; Santana, 1999).

Professional qualities inherent to that expert, you can list the theoretical and practical knowledge of accounting science, experience expertise, insight and interdisciplinary knowledge of science related to accounting, as the area of law (Gonçalves Machado, Machado, & Zanolla, 2014; Sá, 2011), written communication efficiency, provide investigative capacity (Gonçalves et al, 2014), impartiality, honesty, diligence and responsibility (Albert, 2012).

Specifically as to the forensic experts of the Federal Police's financial district, Silva (2014) examined the perception of such professionals on the skills needed to carry out their activities. By conducting a survey of 86 experts, the author got 41 different skills attributable to the professionals in this field, using a Likert scale of seven points.

As a result, Silva (2014) found that the ability to act honestly is one with the highest average value (6.72, considered high importance). Have the ability to constantly seek professional training in order to maximize the competent performance of their duties, had a mean of 5.76 (high importance). But the area was the jurisdiction with the lowest average value of the perceptions of 41 skills analyzed, with an average of 4.85 (average size). It was also found that behavioral skills are more relevant than technical skills, whereas these have, in most cases, higher average importance than behavioral skills.

Finally, the mastery of all the skills found is within an appropriate level. After all, the assignment with a lower average score was 4.85, and placed it as high domain in the adopted scale. Another result found by the author is that all skills reached higher importance than 5 (high importance).

2.3 Forensic Accountants Skills in the International Context

The forensic term corresponding to forensis, which means public. Its origin forum Latin, meaning forum, ie place where courts analyze the causes of certain action (Huatuco, 2007). Forensic technique has the goal of bringing to public attention (to the outside) or in the public square, the disclosure of data or facts that somehow led to any damage to third parties on behalf of others (Silva, 2012b).

Hegazy, Sangster, & Kotb (2017) applied a questionnaire with forensic accountants in the UK, in order to verify the most important skills for this profession, and came to a final sample of 56 validated questionnaires. The authors analyzed only technical skills, understood the letters "C" and "H" of the CHA triad without behavioral skills, represented by the letter "A". The results of this research were that are considered the most important technical skills: written communication, analytical skills, oral communication, fraud investigation skills and quality in the presentation of results.

In the United States, Davis, Farrell and Ogilby (2009) analyzed the characteristics and skills needed for the American forensic accountant. The authors applied a questionnaire with a sample of students, Attorneys and public counters and obtained respectively 50, 126 and 603 responses in each group for a total amount of 779 responses. The results show that analytical skills, ethics, responsibility, curiosity, insight, persistence and skepticism are the characteristics and skills considered most important to the sample analyzed.

Okoye and Jugu (2010) applied a questionnaire to accounting students, potential forensic accountants and potential users of forensic accounting services. Obeying Likert scale of five points, the authors obtained 200 completed questionnaires, and found that the critical thinking skills, solving unstructured problems, investigative flexibility, analytical skills and knowledge of the law are the most important to the sample analyzed.

3 Method

Of applied nature, this research has as its key feature, according to Gil (2008, p. 27), the "interest in the application, use and practical consequences of the knowledge [...] is less focused on the development of universal value theories for immediate application in a circumstantial reality".

As for addressing the problem, research has quantitative characteristics, as there is use of statistical tools for data processing (Raupp, & Beuren, 2006). That said, the results of this research are obtained in the form of percentage and algebraic, in order to highlight outstanding features.

Regarding the objectives, this research is descriptive, for analyzes and correlates events without handling them, analyzes frequency, checks the relationship and connection of phenomena, their nature and characteristics (Cervo, Bervian, & Silva, 2007). As for the procedures, it is classified as survey.

We conducted a pre-test with one of the MPF analysts who did not participate in the sample of this research. During the pre-test, it was found that had raised powers it which did not appear in the literature. Therefore, it includes your suggestions in the final questionnaire. After the pre-test, and the population of 44 analysts, 13 agreed to participate in this research, making thus a non-probabilistic sample.

Regarding data collection, we opted for the use of structured questionnaire with 37 closed questions, the answers follow the Likert scale of seven points. For each question, the respondent should give, note 1 to 7 for the importance and the field of their competence, according to Table 1.

Table 1

The Competence Likert Scale

Degree	How important is this competence?	What is your domain this competence?
1	Not important / irrelevant	I have domain / I do not have the competence
2	Very little importance	I have very little field of competence
3	little importance	I have little field of competence
4	average importance	I mean the field of competence
5	High importance	I have high field of competence (to own)
6	Very high importance	I have very high field of competence
7	Very important (essential)	I have full field of competence (I own it with excellence)

Source: Adapted from Silva (2014).

The form was based on the national and international literature, comprising mostly studies applied to accounting experts and federal criminal experts in the field 1 of the Federal Police (nationwide) and forensic accountants (United States, United Kingdom and Nigeria). The questions were constructed from the literal translation of the native instruments of foreign language by expert Letters. Then the translated items were grouped with the items of the instruments in Portuguese by one of the authors, due to the similarity of the items. Finally, the items were analyzed by two experts in research and professional practice in auditing and expertise. The list of issues is presented in Table 2, indicating the main duties of origin.

Table 2
Structured questionnaire

Q	Issues description
1-	Ability to function well under pressure (Davis, Farrell, & Ogilby, 2009)
2-	Ability to act selflessly / skepticism (Davis et al, 2009; Silva, 2014)
3	Ability to act with assertiveness / confidence (Davis et al, 2009; Silva, 2014)
4	Ability to act with education, discipline and loyalty (Silva, 2014)
5-	Ability to act honestly, ethically and professional attitude (Albert, 2012; Davis et al, 2009; Silva, 2014)
6	Ability to act impartially in order to assist the MPF in its tax law function (Albert, 2012; Silva, 2014)
7-	Ability to act with thoroughness and insight (Davies et al, 2009; Sá, 2011; Gonçalves et al 2014; Silva, 2014)
8	Ability to act with persistence, demonstrating interest and commitment to work (Davis et al, 2009; & Jogu Okoye, 2010; Silva, 2014)
9-	Ability to act with responsibility, diligence, discretion and maintain confidentiality (Davis et al, 2009; & Jogu Okoye, 2010; Albert, 2012; Silva, 2014)
10-	Ability to act proactively (Silva, 2014)
11-	Ability to adapt to change (Davis et al., 2009)
12-	Ability to work in teams / maintain good interpersonal relationships (Davis et al, 2009; Silva, 2014)
13-	Ability to be creative (Davies et al, 2009; & Jogu Okoye, 2010)
14-	Ability to act according to rules and regulations in force in the MPF (adapted from Silva, 2014)
15-	Ability to upgrade through actions aimed at continuous learning, constantly seeking professional training in order to maximize the competent performance of their duties (Silva, 2014)
16-	Ability to think like a "wrongdoer" (Hegazy, Sangster, & Kotb, 2017)
17-	Ability to act intuitively (Davis et al., 2009)
18-	Knowledge of law and legal system (Okoye & Jogu, 2010; Silva, 2014; Hegazy et al, 2017).
19-	Expertise in fraud investigation techniques (Okoye & Jogu, 2010; Hegazy et al, 2017)
20-	Computer skills using software and computer programs; and IT (Silva, 2014)
21-	Knowledge audit (Higazi et al., 2017)
22-	Knowledge in statistics and financial mathematics (pre-test)
23-	Knowledge of tax accounting and tax (pre-test)
24-	Expertise in public accounting (pre-test)
25-	Deductive analysis capabilities (Okoye & Jogu, 2010; Hegazy et al, 2017).
26-	Interview skills and testimony (Davis et al, 2009; Hegazy et al, 2017).
27-	Critical and strategic thinking capacity (Okoye & Jogu, 2010; Hegazy et al, 2017).
28-	Capabilities for solving unstructured problems (unprecedented case / "new") (Hegazy et al., 2017)
29-	Ability to express ideas based on technical expertise (Okoye & Jogu, 2010; Silva, 2014)
30-	Discussion capability (pre-test)
31-	Effective oral communication skills (Okoye & Jogu, 2010; Hegazy et al, 2017)
32-	Analytical and interpret information (Davis et al, 2009; & Jogu Okoye, 2010; Hegazy et al, 2017)
33-	Capacity planning and information management (Okoye & Jogu, 2010; Silva, 2014)
34-	Ability to be concise / accurate (Davis et al, 2009; Silva, 2014)
35-	Ability to be clear and objective to provide specific information in your area of expertise, facilitating the understanding for stakeholders (Davis et al, 2009; Silva, 2014)
36-	Ability to transform isolated data into useful information in a timely manner, analyzing the context of activity and its purpose (Smith, 2014)
37-	Ability to generate efficient results and quality, optimizing variables related to time, cost, and material resources, saving them and using them rationally (Silva, 2014)

Source: Adapted from Davis et al. (2009), Okoye and Jugu (2010), Sa (2011), Alberto (2012), Gonçalves et al. (2014), Smith (2014), Higazi et al. (2017) and pre-test.

For data analysis, we adopted the descriptive statistics, analysis with the average and standard deviation, and area of the importance assigned by the sample.

4 Data Analysis

This section presents the survey data, as well as their respective analysis. Table 3 shows the *ranking* skills, arranged from lowest to greatest importance, mean and standard deviation of weight and area.

Table 3

Ranking powers by the highest average importance and lower standard deviation value

Competence	Importance		Domain	
	Average	DV	Average	DV
Ability to act honestly, ethically and professional attitude *	7.00	0.00	7.00	0.00
Ability to act with responsibility, diligence, discretion and maintain confidentiality	6.92	0.28	6.77	0.44
Ability to act with education, discipline and loyalty	6.77	0.60	6.62	0.77
Ability to upgrade through actions aimed at continuous learning, constantly seeking professional training in order to maximize the competent performance of their duties **	6.62	0.65	5.31	1.55
Ability to generate efficient results and quality, optimizing variables related to time, cost, and material resources, saving them and using them rationally	6.62	0.65	5.85	0.80
Ability to transform isolated data into useful information in a timely manner, analyzing the context of activity and its purpose	6.54	0.66	5.62	0.77
Ability to be clear and objective to provide specific information in your area of expertise, facilitating the understanding for stakeholders	6.54	0.78	5.77	0.73
Ability to act according to rules and regulations in force in the MPF	6.54	0.97	6.31	1.03
Ability to act impartially	6.54	1.13	6.46	0.66
Knowledge of fraud investigation techniques **	6.46	0.66	4.62	1.56
Analytical and interpretation of information	6.31	0.75	5.69	0.75
Ability to express ideas based on technical expertise **	6.31	0.95	5.15	0.80
Ability to act with assertiveness and confidence	6.23	1.01	5.54	0.97
Reasoning ability	6.23	1.01	5.46	0.66
Ability to function well under pressure	6.08	0.95	5.77	1.09
Ability to be concise and accurate	6.08	1.04	5.38	0.65
Ability to act ability to act with persistence, demonstrating interest and commitment to work	6.08	1.12	5.46	0.97
Ability to act with thoroughness and insight	6.00	1.22	5.46	0.88
Knowledge of relevant legislation and the legal system **	6.00	1.35	4.92	0.76
Ability to solve unstructured problems / new cases	5.92	0.95	5.00	0.82
Expertise in public accounting	5.77	0.93	5.38	1.12
Capacity planning and information management	5.77	0.93	5.00	1.00
Deductive analysis capabilities	5.77	1.01	5.38	0.77
Ability to act with self-denial and skepticism	5.77	1.09	5.38	1.12
Ability to adapt to changes	5.77	1.09	5.62	0.77
Critical and strategic thinking skills	5.69	0.85	5.00	1.00
Audit knowledge	5.69	0.95	4.92	1.38
Ability to think like a "criminal" **	5.69	1.11	4.62	1.50
Ability to work in a team and maintain good interpersonal skills *	5.69	1.75	6.31	0.75
Ability to act proactively *	5.69	1.75	5.69	0.95
Ability to intuitively act	5.62	1.19	4.69	1.25
Computer skills using software and computer programs; and IT	5.54	1.56	4.92	0.95
Ability to be creative	5.46	1.27	5.00	1.22
Knowledge in financial mathematics and statistics	5.31	1.38	4.92	1.26
Expertise in tax accounting and tax	5.15	1.52	4.69	1.44

Ariel Prates, Jonatas Dutra Sallaberry, Leonardo Flach, Ivam Ricardo Peleias and Romina Batista de Souza de Lucena

Effective oral communication skills	4.77	1.69	4.31	1.44
Ability to interview and testimony	3.92	1.61	3.46	1.71

Source: Own elaboration.

As can be seen, the 37 powers on only three of them (*) domain by the sample is equal to or greater importance attached to it, 29 have power by 1 lower level and five have a difference greater than a level between these two questions (**). Of these five, four of them have "very high importance", which indicates a major need to train analysts especially in these areas. Of the five major powers, four are behavioral, emphasizing the posture and attitude of these professionals, similar to that found by Silva (2014).

The conduct of these reputable analysts, reinforced by acting in a supervisory body and promotes justice, is supported on the results, with the ability to act honestly, ethically and professional approach with importance and maximum fields (7.00); the ability to act with responsibility, diligence, discretion and maintain confidentiality (importance and dominance 6.92 and 6.77, respectively); and the ability to act with education, discipline and loyalty (average 6.77 and 6.62 for importance for domain).

The jurisdiction with the lowest level of importance is the "interview skills and testimony" is considered of high importance for forensic accountants in the United States and the United Kingdom. This result demonstrates a distinct action of the accounting expert analysts area MPF compared with forensic accountants from other countries. Further evidence of this is the low average area obtained by such analysts on competence demonstrating little need for interviewing people and testify in court.

Similar to this, the "effective oral communication skills" has importance and high domain (4.77 and 4.31, respectively), but significantly below the rest. This result, together with the "interview skills and witness" and the high standard deviation of the "ability to work in a team and maintain good interpersonal skills" indicate that such analysts work with low exchange oral information, limited to the exchange of the written information. This ability had the highest standard deviation (1.75) in respect of the importance, and the one with greatest importance that the area (6.31 and 5.69, respectively). This suggests that there are differences between the working methods of the analysts: some prefer to act alone, while others value the exchange of experience and the help of his colleagues. However, the high command,

By comparing the difference between the average levels of importance and domain, it is evident that most of the skills addressed has lower realm of the importance, denoting a skills development gap (see Table 4).

Table 4

Ranking powers by the difference between the average value and the average domain

COMPETENCE	Difference
Knowledge of fraud investigation techniques	1.85
Ability to upgrade through actions aimed at continuous learning, constantly seeking professional training in order to maximize the competent performance of their duties	1.31
Ability to express ideas based on technical expertise	1.15
Knowledge of relevant legislation and the legal system	1.08
Ability to think like a "wrongdoer"	1.07
Ability to transform isolated data into useful information in a timely manner, analyzing the context of activity and its purpose	0.92
Ability to solve unstructured problems / new cases	0.92
Ability to intuitively act	0.92

Ariel Prates, Jonatas Dutra Sallaberry, Leonardo Flach, Ivam Ricardo Peleias and Romina Batista de Souza de Lucena

Ability to generate efficient results and quality, optimizing variables related to time, cost, and material resources, saving them and using them rationally	0.77
Ability to be clear and objective to provide specific information in your area of expertise, facilitating the understanding for stakeholders	0.77
Reasoning ability	0.77
Capacity planning and information management	0.77
Audit knowledge	0.77
Ability to act with assertiveness and confidence	0.69
Critical and strategic thinking skills	0.69
Ability to be concise and accurate	0.69
Analytical and interpret information	0.62
Ability to act ability to act with persistence, demonstrating interest and commitment to work	0.62
Computer skills using software and computer programs; and IT	0.62
Ability to act with thoroughness and insight	0.54
Ability to be creative	0.46
Expertise in tax accounting and tax	0.46
Effective oral communication skills	0.46
Ability to interview and testimony	0.46
Expertise in public accounting	0.38
Deductive analysis capabilities	0.38
Ability to act with self-denial and skepticism	0.38
Knowledge in financial mathematics and statistics	0.38
Ability to function well under pressure	0.31
Ability to act according to rules and regulations in force in the MPF	0.23
Ability to act with responsibility, diligence, discretion and maintain confidentiality	0.15
Ability to act with education, discipline and loyalty	0.15
Ability to adapt to changes	0.15
Ability to act impartially	0.08
Ability to act proactively	0.00
Ability to act with honesty, with ethical and professional	0.00
Ability to work in a team and maintain good interpersonal skills	-0.62

Source: Own elaboration.

Thus, it appears that there is a need to improve the skills necessary for professional performance of the accounting expert analysts crowded area in the MPF. The exceptions would be for the capabilities of: act proactively; act honestly, ethically and professional attitude; work as a team and maintain good interpersonal skills.

The results indicate sincerity in the answers, given that most of the questions, the skills were considered more important than the respective domain. From another perspective, analysts admitted that there are several points of improvement, evidenced by the "ability to upgrade through actions aimed at continuous learning, constantly seeking professional training in order to maximize the competent performance of their duties" with importance assigned higher than the domain.

One of the ways of demonstrating the link between the importance and competence domain is using a scatter plot on a Cartesian plane with variables "importance" and "performance" (Hair et al., 2005). Thus, we adapted the graph to show the relationship value-domain, similar to the study by Silva (2014). In Figure 1, the horizontal axis of the graph refers to the average value and the vertical axis the average domain.

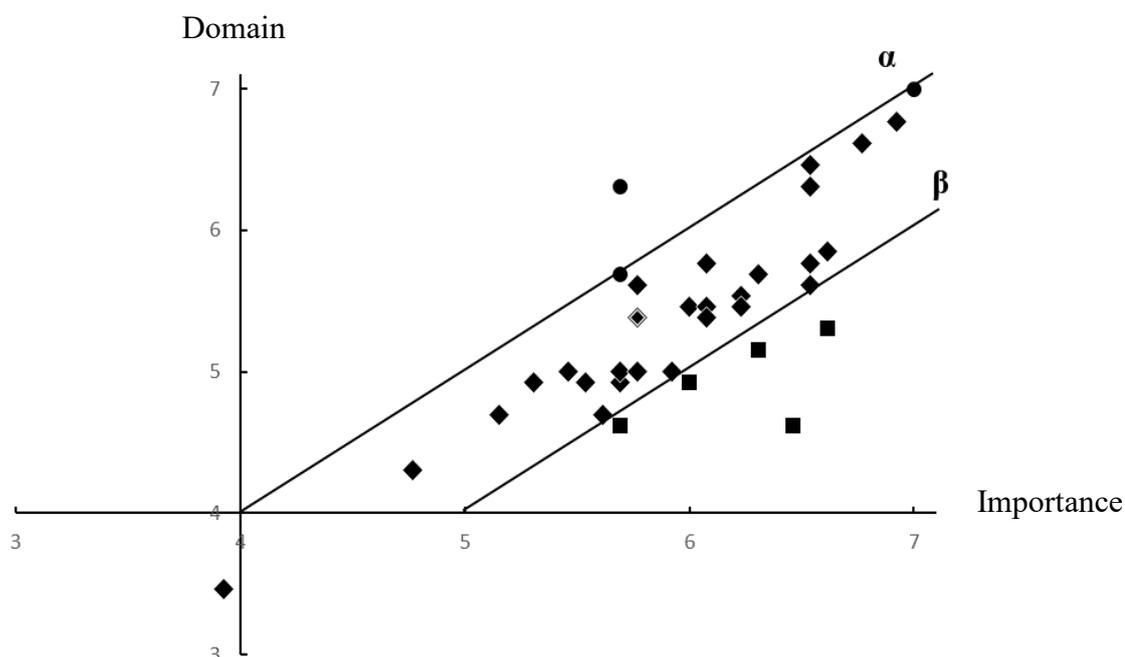


Figure 1 - Distribution of powers

Source: Own elaboration.

The field on or above the diagonal α represents the powers whose domain is, respectively, equal to or greater importance. In this situation, there are three powers (represented by circles). Below this diagonal and above the β diagonal are 29 powers the field with 0.01 to 1 level below the given value, represented by diamonds. Below the diagonal β are the five skills with domain at least 1.01 level below average importance verified, represented by squares.

Thus, the powers represented by these squares indicate where there is greater need for training, in view of the significant differences. While the study Silva (2014) with no powers above 0.44 differences (less than half level), in this study it is noticed that there is a greater need for professional improvement by the analysts of the sample, considering that skill 20 have a difference greater than 0.50, five of which are greater than 1.00 and considered highly important or more as shown in Table 5.

Table 5
Relationship skills

Competence	Importance	Difference (Importance - Domain)
Ability to upgrade through actions aimed at continuous learning, constantly seeking professional training in order to maximize the competent performance of their duties	6.62 (very high importance, tending to very important)	1.31
Knowledge of fraud investigation techniques	6.46 (very high importance)	1.85
Ability to express ideas based on technical expertise	6.31 (very high importance)	1.15
Knowledge of relevant legislation and the legal system	6.00 (very high importance)	1.08
Ability to think like a "wrongdoer"	5.69 (high importance, tending to very high importance)	1.07

Source: Own elaboration.

The results suggest that, when proposing a professional development model, these five are the main skills to be improved due to the large difference between the average levels of dominance and importance. In general, behavioral skills (represented by the letter A triad CHA) have greater importance and greater area compared to the techniques (letters H and C of that abbreviation), which is similar to those shown by Silva (2014). Another result is the realization that a number of inherent skills, both accounting experts of the forensic accountants are necessary and important for analysts area of expertise and specialty in accounting.

5 Final considerations

This research aimed to analyze the skills of analysts accounting expert area crowded in the Federal Public Ministry (MPF), in order to present a level of importance those with greatest need for improvement. Drawing on a structured questionnaire of 37 closed questions and operated by Likert scale of seven points, we applied this tool for 13 analysts that body in order to verify the importance and the domain that the sample attributed to the proposed competence.

From the results, it was found that behavioral skills have, in general, most important and largest area compared to the technical skills. It stands out as strengths the ability to act honestly, ethically and professional behavior, with maximum average (7.00) for the importance and respect; the ability to act with responsibility, diligence, discretion and maintain confidentiality with significance 6.92 and 6.77 domain; and the ability to act with education, discipline and loyalty, whose average emphasis was 6.77 and 6.62 average domain.

From another perspective, the technical skills have on average importance and lower domain. In this sense, there is the effective oral communication skills, with an average value of 4.77 and 4.31 domain; and the ability to interview and testimony, with 3.92 and 3.46, respectively. Considering that are skills derived from research on American and British forensic accountants, it is concluded that, given the importance of disparity to these aspects, the actions of these professionals are different when compared with Brazilian accounting expert analysts, which is due to regulatory frameworks of their actions and even the regional culture.

As positive points, we have three skills have power equal to or higher than the assigned importance: the capacity to act honestly, ethically and professional attitude; to work in teams and maintain good interpersonal skills; and act proactively. On the other hand, the other 34 skills deserve attention, in order to provide a better preparation to analysts, given that these five have large gap in the field presented in comparison to the importance attached.

On the disparity levels in these aspects, it is suggested to provide more training, courses and training with regard to fraud investigation techniques. Parallel to this, the "ability to upgrade through actions aimed at continuous learning, constantly seeking professional training in order to maximize the competent performance of their duties" also has negative relationship between importance and dominance. Thus, it is inferred that the accounting expert analysts area of the MPF should also seek to improve the training itself.

In general, the most important skills for such analysts are those related to professional conduct, related to honesty, responsibility and education, results similar to those found by Silva

(2014). So, clearly remains the suitable conduct of these professionals often related to the fact that they work in a body that aims to promote justice.

As a limitation, that it has less than half of the population agreed to participate in the study, which limits the possibility that the results obtained can be applied to people with lower error rate and improved reliability index. For future research, we suggest the application of a questionnaire in order to verify that the major difficulties faced by these professionals in their work performance, or time / frequency with which particular expertise is required. It is also suggested the replication of this research for professionals from other forensic units.

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